

DEVELOPING DEPENDENCE, ENCOUNTERING RESISTANCE:  
THE HISTORICAL ETHNOECOLOGY OF FARMING IN THE MISSOURI OZARKS

by

BRIAN CHRISTOPHER CAMPBELL

(Under the Direction of Robert Rhoades)

ABSTRACT

Agriculture in the United States has undergone dramatic changes throughout the twentieth century, from a traditional non-mechanized lifeway to a modern industrial business. While many researchers, farmers, and the general public assume the shift was an inevitable process of increasing economic efficiency, this research applies a combination of ethnoecology, ideology, and rationalization theory to investigate perceptual transformation as a concomitant of agricultural modernization. Contemporary agriculture in the Missouri Ozarks includes traditional and modern elements and provides a representative case study to examine the relationship between farmers' perceptions and practices and the socioeconomic variables that explain resistance to agricultural modernization. The 'technocratic rationalization' process inherent in modernization is explored in a Missouri farming region, the Ozark Mineral Area (OMA). The perceptions of just over 50 OMA farmers were assessed through two years of participant observation, semi-structured interviews, surveys, and formal ethnoecological interviews. Agricultural practices were documented through participant observation, crop and technology inventories, and participatory field plots. Technocratic rationalization in the study area is examined through the aforementioned methods and extensive historical research and

agricultural media content analysis. Ethnicity and religion emerge as explanatory variables for resistance to modernization and retention of traditional practices. This research elucidates the 'developed' roots of the agricultural development paradigm and its effects on farmers' perceptions and practices. It puts forth suggestions for future agricultural policy and research.

Index Words: Agrarianism, Agricultural Anthropology, Agriculture, Agroecology, Anthropology, Ethnicity, Dependence, Ethnoecology, Farming, Historical Ecology, Ideology, Modernization, Ozarks, Perception, Rationalization, Religion, Resistance, Social Movements, Technocratic Rationalization, United States of America

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## DEDICATION

I dedicate this research to my wife Amy, my son Jonah, my supportive parents, and to the  
inspiring strong farmers of the Ozark Mineral Area.

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Numerous individuals deserve acknowledgement for supporting this project. My wife Amy supported me throughout the entire research and writing process. She endured sleepless nights caring for our son so that I could have fresh eyes in the morning to continue writing. She deserves formal recognition for her caring assistance. The farmers of the Ozark Mineral Area are a courageous and stubbornly independent people whom I admire very much. I want to acknowledge their contributions to this project; without their participation, insights, and persistence this project would not be possible. They gave freely of their time, allowing an outsider to accompany them on their agricultural tasks, and repeatedly answered seemingly nonsensical questions. I acknowledge the Fredericktown School District for their support of my research while I was employed there.

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## INTRODUCTION

During my pilot study for this research I contacted a local organic farming group and another conservation group in the Ozarks and I got the impression that they were mobilized and active. They were excited about their causes, mad that Monsanto was polluting and exploiting ‘right in our own backyard.’ I anticipated conservationists and farmers working together to fight their oppressors - the agribusiness conglomerates forcing herbicides, pesticides, and hormones upon them and squeezing them out of farming, and the exploitative industries; the mining industry polluting their land and water with lead and the logging companies denuding their forests and allowing valuable topsoil to wash away. My original dissertation prospectus (Campbell 2002) summed it up like this:

In the Ozarks, social movements have sprung up to defend smallholder agriculture and to fight the current trend of rural community dissolution. A local farmer movement disseminates information and generates their own discourses that counter those of the government and large, powerful seed and chemical companies. With Monsanto in their ‘own backyard’ they are well aware of the repercussions of large-scale industrial agriculture, ranging from rural community dissolution to environmental and human health deterioration (Thu and Durrenberger 1998). These events dovetail with anthropology of environmentalism theorists that propose that there exists an environmentalism of the poor that emerges out of conflicts over natural resources and rural livelihoods (Guha and Alier 1997, Parajuli 1998). As Guha and Alier (1997) explain, ‘environmentalism of the poor’ originates ‘...in social conflicts over access to and control over natural resources: conflicts between peasants and industry..., or between rural and urban populations over water and energy ....or by the advance of the generalised market system.’ These scenarios are playing themselves out in the Ozarks region of Missouri, because as large-scale mining operations, waste dumps, and large-scale agribusiness all contribute to environmental degradation, local peoples become more aware and mobilized to resist outside interventions.

I had been conducting ethnoecological research in the rural highlands above Cochabamba, Bolivia the previous year, in a field site with a relatively similar history of extractive industrial interventions. During my fieldwork the peasants descended the mountain in a concerted effort



and marched on Cochabamba. They were defending their land, communities, and knowledge against exogenous interests attempting to privatize their water supply and educational institutions. Such an experience leaves an indelible mark on one's theoretical mind. My pilot study ethnographic research limited to contacts with the organic agriculture movement led me to somewhat premature conclusions about the general Ozark farming population. Yet, the absence of such organized agrarian activism and the clandestine nature of the intergenerational farmers in the area reveal much more. Why is there no organized defense of the farming population in the region? Why are farmers hesitant to discuss traditional farming and relatively reserved about the demise of their occupation? While these were not the original questions guiding my research, they must be answered in order to understand the present agricultural situation and to adequately answer my primary research questions.

In answering such questions, we inevitably run across various institutions, organizations, and individuals that played diverse roles in the dissemination of ideology that perpetuated and/or created inequalities. Belief in an ideology is an individually harmless act. Although one's belief and dissemination of an ideology may have negative repercussions, such acts are not necessarily malicious (Althusser 1970). More often than not, the dissemination of an ideology occurs because people believe wholeheartedly that through its dissemination much good will come about (Bernays 1947, Wolf 1982). The agricultural modernization process described throughout this dissertation was, by and large, conducted with benevolent intent. While the orchestration of such a process occurred through propagandistic means, the coordinators acted within what they perceived to be legal avenues, whether they were ethically appropriate or not. The United States was founded and flourished upon secular capitalist pursuits and has never legally required that

one adhere to a rigid system of equitability ethics. That such processes have taken place should come as no surprise; their elucidation serves not as an indictment, but as a scientific endeavor.

U.S. agricultural historians usually portray commercial agriculture as preeminent. In doing so, many farmers are neglected in treatments of “American” agricultural history (Chibnik 1987). By and large, agricultural history studies of the twentieth century United States characterize and present farmers solely as a profit-seeking, business-oriented bunch (Cochrane 1979). It required special examination and searching to encounter objective studies that addressed differences between large land-holders, sharecroppers, tenant farmers, and poor subsistence farmers; they were usually lumped together as if homogenous (McCune 1943:4). These studies assume that agricultural policy affects only those farmers who are land-holding profit-seekers and imply that only business-oriented farmers are real U.S. farmers (McCune 1943:4). Such histories categorize farmers who farm for subsistence in the United States not as farmers, but as peasants, unworthy of treatment or acknowledgement. These failures by agricultural policy historians reflect the ideology examined within this study, an ideology that denies life-goals and beliefs outside of capitalist accumulation (Cauley 1935). Such inherent tendencies preclude the acceptance of any statements as objective ‘fact,’ and have obligated me to investigate the affiliations of each author.

This study is broad, in theory and scope, and ambitious, perhaps in the extreme. There will be obvious shortcomings and interpretive mistakes. These are my sole responsibility. But, I accept them and believe that this is a necessary and timely project. It represents a step forward in awareness and promotion of agricultural diversity. The explicit critique of the confluence of science and bureaucratization and its effects reveals a disturbing tendency by those in positions of power to denounce subjective interpretations as irrational and fundamentally wrong. This

document may be cast into that lot, but it stands as a testament and dedication to smallholder farmers the world over who choose family, home, and hard work over idleness and wealth.

## Chapter 1

### HISTORICAL, THEORETICAL, AND METHODOLOGICAL FRAMEWORK

Those who labor in the earth are the chosen people of God, if ever He had a chosen people, whose breasts He has made His peculiar deposit for substantial and genuine virtue. It is the focus in which he keeps alive that sacred fire, which otherwise might escape from the face of the earth. Corruption of morals in the mass of cultivators is a phenomenon of which no age nor nation has furnished an example. It is the mark set on those, who, not looking up to heaven, to their own soil and industry, as does the husbandman, for their subsistence, depend for it on casualties and caprice of customers.

Dependence begets subservience and venality, suffocates the germ of virtue, and prepares fit tools for the designs of ambition. This, the natural progress and consequence of the arts, has sometimes perhaps been retarded by accidental circumstances; but, generally speaking, the proportion which the aggregate of the other classes of citizens bears in any State to that of its husbandmen, is the proportion of its unsound to its healthy parts, and is a good enough barometer whereby to measure its degree of corruption.

-- Thomas Jefferson (1801) *Notes on the State of Virginia*

No one knows who will live in this cage in the future,  
or whether at the end of this tremendous development entirely new prophets will arise,  
or there will be a great rebirth of old ideas and ideals,  
or,  
if neither,  
mechanized petrification,  
embellished with a sort of convulsive self-importance.

For of the last stage of this cultural development,  
it might well be truly said:  
'Specialists without spirit, sensualists without heart;  
this nullity imagines that it has attained a level of civilization never before achieved'

- Max Weber (1905) *The Spirit of Capitalism and the Iron Cage*

Farmers have been harnessing their craft for thousands of years. They have been digging soil, planting seeds, harvesting crops, astutely selecting and saving seeds with beneficial qualities for the next planting, coercing animals to do their bidding, breeding them with reproductive characteristics in mind, recycling waste materials; all the while amassing more awareness of how to more efficiently utilize their landscape, their home, their ‘environment’ (Altieri 1995). They have passed this accumulated knowledge on to the next generation so that they may cultivate even more efficiently, in an even more intimate relationship with their land. This description of farming is not an essentialism of some traditional past – it is the way farmers survived. Yet, with the application of industrialization to farming, in a mere fifty-year span, a generation or two of farmers, this process ended for most farmers in the United States.

In 1801, when Thomas Jefferson established the agrarian myth, identifying farmers as ‘the chosen people of God,’ the vast majority of the United States population made their full-time living from agriculture. Now, two centuries later, less than two percent of the U.S. population engages in farming. During the first half of the 20<sup>th</sup> century, farming underwent an unprecedented transformation; from a non-mechanized, traditional method of producing food, to a completely mechanized, industrial business dependent on non-renewable resources (Barlett 1989, 1993, Hurt 2002). Where independence and self-sufficiency characterized the farmers who settled the frontier, agriculture experts now define U.S. farmers by their dependence on technology, science, and government subsidies (Barlett 1989, Hurt 2002). U.S. farmers stepped onto a ‘scientific and technological treadmill’ early in the twentieth century and the only means for getting off has been a complete abandonment of farming as a livelihood (Hurt 2002:51).

## **Agricultural History**

This agricultural story of the United States is more arduous and complicated than a facile dependence. It begins with wagons heading west, a new frontier (land that already belonged to other people, but was virgin nonetheless). Poor families moved west looking for their 'American dream'; a good piece of farmland where crops and children could be raised. By 1900, Western lands had owners, the frontiers were closed, and the farms were fenced. A fraction of the poor frontier families established roots in the West, but for many the dream was not realized. Much of the unirrigated Western land could not produce, could not withstand the windstorms and drought. When a farm family had a bad year and lost their crops, they had to borrow money from the bank to feed their family, and when a subsequent drought occurred and they could not pay on their loan, they were foreclosed upon. The bank then sold the farmland to a 'capitalist' or businessman 'farmer' who invested in irrigation equipment and continued to amass farms in a similar way (Holland 1970). The businessman 'farmer' was frequently that same banker. In many cases, the businessman-'farmer'-banker told the real farmer to stay on as his tenant farmer because he did not like, nor know how, nor want to farm (McCune 1943, Schlesinger 1939, Conrad 1965). Many of these banker-'farmers' lived in the city and were familiar with the nascent industrialization sweeping the country (Martin 1873).

The businessmen convinced the government that the railroads would be good for the country and the government gave them money and land to hasten and facilitate the construction of the railroads (Martin 1873, Scott 1985). Businessman-'farmer'-banker-railroad owners then purchased granaries and packaging and canning factories to streamline the product to market process and increase their profits. A significant number of small farmers still existed at the turn of the 20<sup>th</sup> century. Therefore, businessman-railroad-owner-'farmers' still had to pay a decent

price to small farmers for their goods. But, if the price of farm products fell drastically, small farmers who still owned their farms would be in financial trouble and would have to get loans from bankers. They would have to put their farms up as collateral. Then, when the small farmers could not pay off the loans, the businessman-‘farmers’ could obtain their farms very cheaply. If the small farmers managed to stay afloat, prices were so low that they could not invest in any irrigation or other harvesting technology. The businessman-banker-‘farmers’, however, had access to capital and could therefore invest in any technological advances available (Conrad 1965, Holland 1970). This process, in a nutshell, brings us into early twentieth century United States agriculture; when, following the Populist defeat, small farmers retreated back into a despondent, unorganized submission and businessman-‘farmer’-bankers drew up their game plan to ensure that a grassroots farmer movement never occurred again (McConnell 1959).

Present-day inhabitants of rural U.S. communities whose ancestors tilled the soil for a living do not understand why the economic system precludes their participation in an agricultural livelihood. They are not given the entire story of the unscrupulous accumulation of farms in their American History classes in school. They are also not told about the responses of their ancestors. They are not told of the widespread anger among small farmers that resulted in uprisings throughout the country and a social movement that threatened to overthrow the businessman-‘farmer’-banker-railroad owners (Salouotos and Hicks 1951, Mooney and Majka 1995). They are also not told of the response of the businessman-banker-railroad owners. The response was a systematic, discursive attack; their ancestors, the small farmers who wanted to stop being exploited, were labeled radical communist-Bolsheviks who were attempting to take over the country and destroy it (Saluotos and Hicks 1951, Field 1998, Kriger 1998). They are especially not told about the subsequent, follow-up actions of the businessman bankers, to ensure

that the farmers did not rise up again. U.S. businessmen set out to erase this story, to rationalize their actions, to convince all small farmers to think like them, to convert them into businessman farmers.

### **Research Problem**

The strategy implemented by wealthy landholders in the United States may not have been completely intentional. It may have merely existed as an inherent tendency within the industrialization process (Weber 1905, McConnell 1959). Yet, through the application of industrialization to farming and the concomitant bureaucratization, the majority of the United States population became rationalized, convinced that science and technology should be the primary and sole guide to agriculture (Weber 1905, Habermas 1986). This strategy is inherently contradictory because, as Franklin Roosevelt pointed out in the 1930's and many other agricultural scholars have corroborated subsequently, farmers were stepping onto a treadmill from which the only escape route was the abandonment of their lifeway (Schlesinger 1939, Holland 1970, Cochrane 1979, Jordan 1998, Barlett 1989, Hurt 2002). Why would farmers engage in practices that result in their dependency and almost inevitable bankruptcy, in addition to environmental and personal health deterioration<sup>1</sup>?

John W. Bennett (1982:112) outlines the elusiveness of this agricultural question in his comprehensive agricultural anthropology study, *Of Time and the Enterprise: North American Family Farm Management in a Context of Resource Marginality*;

The issue has generated a mountain of books, papers, hearings, punditry, and manifestos over the past quarter century, but this massive outpouring of advice and doomsaying has not succeeded in altering the basic economic and demographic processes involved in the transformation of the family farm. Nor has this material clarified the definition of the phenomenon; in fact, the 'family farm' is as much ideological imagery as it is socioeconomic fact, it is a symbol of all that is traditionally sound and moral (or unsound and archaic) in

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<sup>1</sup> Studies have documented the physical danger and health risks that industrialized agriculture poses to the farmers and workers and the environmental damage caused by agrichemicals (Barlett 1989).



North American rural society. One suspects that the avoidance of sober factual analysis is in part a desire to evade the fundamental issues, which concern the capitalistic economy of agriculture and the constant demand for increase in scale in order to meet escalating costs-which continually render outmoded smaller enterprises operated by kinship groups.

In this work, Bennett introduces the multifaceted nature of the farming crisis in North America, highlighting socio-economic, political, ideological/cognitive, and ecological factors as contributors to the perception and perpetuation of the problem. What stands out in the quote is the fact that despite innumerable academic investigations of the question, pundits and researchers continue to come up empty. While Bennett (1982:112) points to the ‘avoidance of sober factual analysis’ in capitalist economic terms as an explanation for the misunderstanding, I redirect the analysis to his acknowledgement of the popular perception of the farm; “...as much ideological imagery as it is socioeconomic fact, ... a symbol of all that is traditionally sound and moral (or unsound and archaic) in North American rural society.” We must come to understand why an ‘agrarian myth’ continues; why does the farming and general public simultaneously perceive the family farm as benevolently bucolic and irrationally backwards? It is this ideological component that has heretofore been neglected as the fundamental obfuscatory factor in the North American farming question (Dove 1999, Nazarea 1999).

The agrarian myth is rooted in Jefferson’s stated connection between morality, democracy, and the ‘tillers of the soil’, which explains the ‘benevolent’ perception of the family farm. When the United States was formed, the majority of the population farmed and the political and social organization of the country was an agrarian democracy (McConnell 1959). At that time, the agrarian myth was, for all theoretical purposes, a reality. This romantic, historical notion has lingered throughout the nation’s history, despite its growing irrelevance as these ‘tillers’ were replaced by machines and agribusiness. The ‘backwards’ perception emerges from the rationalization of the aforementioned process in which banker-businessman-‘farmers’

fleeced small farmers, impoverished them, and stole their livelihoods. The contemporary agricultural myth proposes that small farmers have been squeezed out of farming, not because of unscrupulous tactics, but because they are inefficient compared with large-scale industrial agriculture (Ostrolenk 1932, Vogeler 1981). Agribusiness perpetuates the original agrarian myth because it serves to obfuscate the negative social effects of industrialization and the contemporary agricultural reality in the United States, that family farms no longer provide the country with its food (Hobbs 1980, Vogeler 1981, Worster 1984). The contradiction that emerges is that the contemporary United States public subscribes to an illusion; their continued belief in the former agrarian myth allows the latter agricultural myth to justify the eradication of the agrarian backbone of their society (Jefferson 1801, Lukacs 1971, Scott 1985).

Although the vast majority of the U.S. farming population has converted to a belief in the rationality of businessman farmers, in a few regions within the United States, farmers resisted industrialization and continue to engage in traditional practices. The Ozark highlands region of Missouri and Arkansas is one of those regions. Unlike the majority of the agricultural sectors of the country, the Ozark highlands maintains small, diversified farms with free range hogs, chickens, and cattle and some farmers still plant subsistence crops for their families and animals.

The Ozark region is described as karst topography; limestone hills that are easily eroded and create a diverse landscape, consisting of wooded hills, floodplains, rock outcroppings, and some pasture/prairie land. This landscape as a whole, due to its diversity, does not adhere to industrial agricultural models very easily, which definitely explains part of the resistance (Scott 1998). As Nazarea (1998:36) points out for the ‘underdeveloped’ regions of the world;

The much-praised and much-maligned Green Revolution of the 1960s and 1970s, for example, primarily affected farmers in lowland, for the most part irrigated, areas of the developing world. In more marginal environments, where new technology and inputs were not readily available, farmers still retained their traditional technologies and

varieties (Dempsey 1992). Being predominantly subsistence-oriented, farmers in these marginal areas were also relatively insulated from market demands and price fluctuations.

While the Ozarks' geographic diversity helps account for the avoidance of modernized farming practices, there are examples of industrial agriculture throughout the Ozark region. If the industrial model is not applicable in the area, why is it there at all? While we could guess that the topographic and edaphic diversity leads to modern techniques in lowland, flat areas and traditional approaches in highland, wooded areas, it is not the case. The on-the-ground agricultural reality is that within similar agroecological zones, we see quite different agricultural approaches, i.e. industrial modes in hills and traditional practices in flatlands. The Ozarks, similar to the rest of the United States, experienced a significant farming decline and transformation. Yet, unlike most of the agricultural regions of the country, farmers engage in both, diversified-traditional, and modern-industrial agricultural approaches. What explains the diversity of approaches and resistance to whole-scale industrialization? The contemporary agricultural heterogeneity and unique persistence of traditional farming practices, in addition to the substantial decline in the overall number of full-time farmers over the last fifty years, demarcate the research problem that this study addresses.

### **Theoretical Context**

Robert Rhoades broke new ground in anthropology when he pulled the applied social sciences out of the rationalizing muck of modernity and established farmers' knowledge as epistemologically legitimate and equal to that of scientists (Rhoades 1984, 1990). Rhoades (1989) delineated the process that Richards (1996) refers to as "repertoire enhancement"; how farmers test, tinker with, and 'adapt' introduced ideas into their own farming systems. Rhoades conducted this research in conjunction with agricultural and biological scientists on an agricultural extension team in the Andes and found that although scientists expected farmers to

simply adopt their advice and introductions and replace traditional practices with new ones, farmers astutely incorporated new, useful ideas into their repertoire, while maintaining traditional practices and varieties. Furthermore, he found that farmers do not share scientists' conceptual distinctions between 'improved' (modern) and 'native' (traditional) varieties of crops.

The utility of this agricultural anthropology primer is two-fold. First, scientists' belief that their knowledge is superior to that of Andean farmers represents the fundamental ethnoecological problem this research addresses. Secondly, the farmer practice of repertoire enhancement serves as theoretical guidance for this study, as an inductive approach to problem-solving. Why did scientists anticipate a sudden abandonment of traditional, time-tested varieties and practices upon the introduction of a few exogenous scientific ideas? To answer this question, we must look to the United States, where the agricultural extension phenomenon and extension agents' perceived supremacy originated. As Rhoades (1984:6) demonstrates, farmers and scientists maintain fundamentally distinct perceptions of the world. While scientists believe in the epistemological supremacy of science, traditional farmers' knowledge systems are varied and embedded in more subjective sociocultural logic and ecological contexts (Nazarea 1998).

The complexity and breadth of the research problem demands that I explore and glean from various theoretical traditions and paradigms because strict academic conventions and disciplines have typically pigeonholed researchers (Friedrich 1989). My theory must engage diverse subjects; industrialized society and the United States, which have been neglected by anthropology; traditional knowledge and agriculture, which sociology has avoided; and history, which social scientists have commonly browbeat as 'unscientific' (Diamond 1999). My findings indicate a need for diversity, interdisciplinarity, cooperation, and openness to all ideas to overcome Weber's (1905) 'iron cage of modernity' (Nazarea 1998).

The academic literature dealing with North American agriculture, as indicated in Bennett's (1982) quote above, is lengthy. Yet, comparatively little research has been conducted by anthropologists<sup>2</sup>. The space has been almost exclusively occupied by rural sociology and agricultural economics. If anthropologists are serious about the desire "...to illuminate the ties between social conditions and environmental quality; to challenge the inequities that structure the human environmental equation; and, through the production, dissemination, and use of information, to affect substantive change", they had better reassess their field sites (Johnston 2001:132). Anthropology has much to offer domestic research by way of method, theory, and holistic approach and if we want to analyze the origins and means of the perpetuation of inequality, we may have to recast our gaze back toward our 'developed' homes. Research critiquing development projects and modernization in 'developing' countries has continued to mount, yet very little research brings the focus back to the roots of such projects and processes (Hobbs 1980, DeWalt 1988, Marglin and Marglin 1990). Worster (1986:46-7) critiques the academic discipline of environmental history in a similar way, citing Henry David Thoreau, who "... told his elders, 'There are a thousand hacking at the branches of evil to one who is striking at the root.:' The branches are class, race, and gender discrimination, industrial hubris, and colonialism(, but) the root is the human drive to dominate the earth." Anthropologists themselves have been attacked for their participation in development projects. Escobar (1991:658) leads the offensive; "...development anthropologists reinforce ethnocentric and dominating models of development. Moreover, these practitioners disturbingly recycle, in the name of cultural sensitivity and local knowledge, conventional views of modernization, social change, and the Third World." Some anthropologists are guilty of these charges, but the

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<sup>2</sup> The salient exceptions to the rule can practically be counted on one hand: Barlett (1986, 1989, 1993), Chibnik (1987), Goldschmidt (1947), Salamon (1987), Stull et al. (1995), and Thu and Durrenberger (1998).

question remains why social scientists unquestioningly engage in international projects without fully understanding the historicity of these interventions (Bennett 1996). This research proposes to examine the roots and effects of agricultural development interventions in the United States, before ‘development’ as a concept, trajectory, and discourse fully emerged.

### **Cognition / Perception: Ethnoecology and Ecological Psychology**

From its inception, this project has drawn from ethnoecological research that examines the cognitive underpinnings of sustainable resource management and demonstrates the variability of environmental perceptions in relation to position, history, and culture (Richards 1996, Dove 1999, Nazarea 1998, 1999, Peña 1999, Rhoades and Harlan 1999). Ingold’s, (2000) *The Perception of the Environment: Essays in Dwelling, Livelihood, and Skill*, which proposes a combination of ecological psychology and phenomenology, has served as a starting point. Ecological psychology postulates that an organism perceives its environment not simply in its mind, but rather through its entire body, as it moves about or interacts with its environment. This ‘knowledge’ accrued through perceptual interaction with the environment is considered to be ‘practical,’ in that ‘it is knowledge about what an environment offers for the pursuance of action in which the perceiver is currently engaged” (Ingold 2000:166). Ingold’s (2000) concept of ‘agent-in-environment’ elucidates ecological feedbacks between farmers and their farming environments, while simultaneously providing a critique of cognitive science and its dedication to the nature/culture dichotomy.

The nature-culture dichotomy represents a distinct worldview from that of many traditional societies, yet until recently most scientists considered it a given (Ingerson 1994, Descola and Palsson 1996, Ingold 2000). Ingold (2000:168), by way of Gibson’s (1979) ecological psychology, explains:

Gibsonian psychology offers a way of thinking about human-environmental relations that dispenses with the conventional dichotomy between naturally given and culturally constructed worlds. According to convention, it is necessary to distinguish between the ‘real’ environment, as it is presented to detached, scientific observation, and the ‘perceived’ environment as it is built up through a selective response to stimuli. In anthropology, the distinction is commonly expressed by means of a contrast between the ‘etic’ level of objective description and the ‘emic’ level on which the environment is made meaningful by cultural subjects. Yet from a Gibsonian perspective, it is apparent that the world becomes a meaningful place for people through being lived in, rather than through having been constructed along the lines of some formal design.

Such a nature-culture dichotomy has been directly linked with the onset of modernity and modernity’s effects on agriculture have been substantial (Descola and Palsson 1996, Scott 1998, Ingold 2000). Scott (1998) proposes that industrial farming adheres to a ‘high modernist ideology’ that approaches agriculture in a counterintuitive fashion. Instead of working with the existing environment and fine-tuning the agricultural approach to match the natural contours of the land, climate, soil structure, and topography, industrial agriculture attempts to modify the environment to fit the needs of the seeds, inputs, and machinery, prescribing a universal, predetermined method for agriculture (Berry 1997). This farming approach conceptually removes humans from their environment and illustrates Hornborg’s (1996:45) concept of ‘decontextualisation.’ Decontextualization refers to the process in which rational models based in abstract, totalizing systems, such as science, technology, and the market, displace local, implicit interrelationships between humans and their environments (Hornborg 1996, Berry 1997). In traditional natural resource management systems there exist forms of homeostatic regulation based on ecological feedbacks that do not necessarily correspond to the ‘vocabulary or even the logic of modern science’ (Rappaport 1968, 1979, Hornborg 1996: 49). Rappaport (1979:100-1) states in *Ecology, Meaning, and Religion*; “Because knowledge can never replace respect as a guiding principle in our ecosystemic relations, it is adaptive for cognized models to engender respect for what is unknown, unpredictable, and uncontrollable, as well as for them to codify

empirical knowledge.” As modern decontextualization spreads, more researchers propose that knowledge systems that were previously embedded in their locale have become ‘disembedded’ (Gudeman 1986, Marglin and Marglin 1990, Croll and Parkin 1992).

Gibsonian insights into perception and its experiential basis elucidate the human-environment relationship and perception in a static, egalitarian world, but they lack explanatory power when dealing with a research problem inundated with the historico-political complexities of industrialized society. The presence or absence of a nature-culture dichotomy or an awareness of ecological carrying capacity cannot explain the historical and political contingencies that affect farmers’ perceptions. Ethnoecology has admitted this fact and moved beyond its past neglect of history and politics as explanatory variables in humans’ environmental perceptions (Richards 1996, Nazarea 1998,1999, Dove 1999, Rhoades and Harlan 1999, Ellen and Harris 2000). Nazarea (1999:9) asserts:

Ethnoecology, as the investigation of systems of perception, cognition, and the use of the natural environment can no longer ignore the historical and political underpinnings of the representational and directive aspects of culture, nor turn away from issues of distribution, access, and power that shape knowledge systems and the resulting practices.

Perceptions are inextricably linked in the history and politics of a landscape and an individual.

Therefore, as Patterson (1994:234) explains, politics must be confronted – “to understand power and how it is constituted and wielded,” because power

...is not merely an issue of force or coercion. It is also about who can affect the interests of others; who can limit the freedom of others by interfering with their choices, by structuring the options available to them, or by limiting their capacity to make decisions; and who can achieve goals or advance interests in a context of competing claims.

Such recognition of political influences on perception directly links ethnoecological analysis with Marxian ideology theory.



## **Ideology<sup>3</sup>**

Wolf (1982:389) proposes that distinct modes of production create ‘essential distinctions among human beings’ that result in the construction of ideologies by the dominant groups to maintain or obtain power or supremacy. In the pre-capitalist modes of production, such as the rural agrarianism that preceded industrialism in the Ozark region, there existed kin-ordered and gender-based ideological subjugation. Discursive, mythological, and ritual strategies served to maintain the social reality of certain kin groups and the patriarchy as dominant. Traditional systems have endured in some pockets in the United States, frequently the mountainous regions that serve as refuges from the mainstream, highly-regulated capitalist society. The non-rural, industrialized United States was and is dominated by the capitalist mode, in which the majority believes in

...the Calvinist notion that God rewards virtue and that the successful are virtuous, or in the idea that Nature awards the palm of success to winners in natural selection. Poverty is thought to demonstrate the lack of worth and failure in natural selection to merit assignment to base occupations” (Wolf 1982:389).

In this capitalist mode, the dominant ideology, economic rationality, posits that the market allows for equal opportunity to all participants.

In each ideological construction there exist contradictions that must be reconciled and rationalized, so as not to generate dissatisfaction and resistance to the status quo (Wolf 1982, Habermas 1986). Marx theorized that the obvious contradictions of industrialism and capitalism,

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<sup>3</sup> I am aware of the numerous critiques of the Marxian concept of ideology by researchers ranging from Geertz (1973) to Foucault. I agree with Turner (1985:194) that “while Foucault has rejected the notion of “ideology” as a viable concept, his analyses of dominant epistemes and discourses raises the same analytical issues which are entailed in the notion of a ‘dominant ideology’” and Friedrich (1989:302) that “After the negative aspects of ideology have been qualified, clarified, or discarded, as the case may be, what remains is the analytically priceless, mainly Marxist notion of ideology as a set or at least amalgam of ideas, rationalizations, and interpretations that mask or gloss over a struggle to get or hold onto power, particularly economic power, with the result that the actors and ideologues are themselves largely unaware of what is going on.”

the alienation of the worker from his/her labor, would overcome the ideological attempts by the dominant and the workers would join in a proletariat revolution (Agger 1991). Marx underestimated the ideological abilities of the dominant, and as Gramsci (1971) has posited, the dominant own exclusive control of the “ideological sectors” of society – religion, media, and education. While Marx posited that workers were alienated from their labor through capitalist relations, Weber (1905), Gramsci (1971), and subsequent Marxian theorists propose that the alienation extends from the material to the perceptual, to the ability to control information (Althusser 1970, Friedrich 1989).

### **Rationalization and Hegemony**

Alienation occurs not only in terms of workers from production, but also the general public in industrialized states become alienated from interpretation (Friedrich 1989). Weber (1905) asserts that modern society is characterized by the dominance of the ‘zweckrational’ or technocratic rationality, which dominates and replaces other forms of rationality. Contrary to Marx, Weber understood social phenomena in terms of multi-causality rather than an absolute primacy of material conditions in determining human actions. He identified the rise of bureaucracy, secularization, and industrialization as rooted in the dominance of technocratic rationality. Weber (1905) defined this technocratic rationalization process with two interrelated tendencies, the first of which was the institutionalization of technical innovation and organizational progress and the concomitant subordination of traditional structures (McCarthy 1978). Such a process of rationalization consists of a redefinition of all practical issues as ‘technical’ and a belief in science and technology as the solution to all problems. The second tendency within this rationalization process is the dissolution of traditional power-legitimization structures, i.e. religious worldviews and mythological explanations ‘lose their cogency’ (Weber

1905, McCarthy 1978:37). The new rationality of science and technology displaces traditional power structures that had designated norms, morals, and values of the society (Habermas 1986). Not only does this ‘scientization’ of politics “fulfill the ideological function of legitimating exercise of political power over the heads of a depoliticized public’, it also leads to the “repression of ‘ethics’ as such as a category of life” (McCarthy 1978:39). While societal values were once the territory of religion and morality, they become subject only to science through technocratic rationalization. The basic tenet of such theory is that as technocratic rationality spreads, there is no morality exterior to it. McCarthy (1978:40) qualifies such a position by explaining that Habermas was not opposed to science and technology as such, but rather demanded “a critique of their totalization, of their identification with the whole of rationality.”

Technocratic rationalization berates traditional perceptions as irrational and belief systems shift to accommodate a new faith in science and technology. Rappaport (1979 :130) explicates the relationship between rationality and values in modern society:

The empirical and logical rationality that not only discovers and ascertains facts but that defines knowledge as knowledge of fact is not hospitable to the authority of either sanctity or value. Ultimate sacred postulates are no longer even counted as knowledge but are mere beliefs, if not superstitions. Values are defined by preference and as such become no more than matters of taste or of the arithmetic of economizing. If high-order meanings are not destroyed they are demeaned and their influence upon human affairs minimized by ‘serious’ and ‘practical’ men who give to rationality itself even-narrower construction.

Ideology theory asserts that dominant social groups disseminate a view of progress and individual success that enables them to maintain or create beneficial, exploitative social relations. Technocratic rationality represents a specific ideology that benefits those in power. Kreckel (1985:162) illustrates:

... ideology is not an aimless, purely traditional force; it is always supported by some very specific, but powerful interests....Whoever in a society profits from the preservation of a specific social status quo, which is a status quo of social inequality, is likely to be

interested in its ideological mystification, too. And upon occasion, he may sensibly be expected to actively contribute to the development and spread of ideologies, e.g. through advertising propaganda, education, backing up the ‘right’ political doctrines etc. In other words, as long as there is structured social inequality in a society, a close interplay between ‘ideology’ and ‘hegemony’ is to be expected.

In this case study, I examine a society entrenched in a specific ideology – that of *technocratic rationality*. According to Gramscian theory, the current social phenomenon constitutes hegemony because the dominant class has successfully realized its objective of ideological acquiescence within the entire (or the majority of) society (Bocock 1986). Once hegemony is in place, through the use of the coercive apparatuses of the State, or as Althusser (1970) refers to it, the Ideological State Apparatuses, the dominant group maintains concealed domination by a combination of repression and ideology dissemination. Althusser (1970:28) proposes that rather than the political realm, the ideological power behind the ruling group rests in “... the educational apparatus, which has in fact replaced in its functions the previously dominant ideological State apparatus, the Church....” He continues:

All ideological State Apparatus contribute to the same result: the reproduction of the relations of production, i.e. of capitalist relations of exploitation.... by subjecting individuals to political State ideology.... by cramming every ‘citizen’ with daily doses of nationalism, chauvinism, liberalism, moralism, etc., by means of the press, the radio and television...in this concert, one ideological State apparatus certainly has the dominant role, although hardly anyone lends an ear to its music: it is so silent! This is the School.

At the turn of the twentieth century, educational forums were the most widespread and unassuming means for effecting perceptual change among U.S. farm populations (Lionberger 1960, Althusser 1970, Agger 1991). As Althusser (1970) indicates, formal education replaces the Church as the key ideological force. This occurs because the Church, especially when understood through strict biblical interpretation, does not encourage ‘progress’ in capitalist terms, rather it is conservative and encourages spirituality over science and technology (Abrams 2001). With the Church in a position of supremacy in the moral economy, which defines

propriety in human-environment relations, the ruling class would have limited power over self-sufficient farmers. However, if education supplants spiritual morality with technocratic rationality, farmers become dependent on the latest technological developments and those corporations and scientists that produce them.

Mass culture and communication are primary means for ideology dissemination (Adorno 1945, Horkheimer and Adorno 1972). Perceptions are controlled through the flow of information – that which flows and that which is restricted. With the rise of bureaucratization, language and information are strategically controlled and channeled to maintain false consciousness (Adorno 1945, Horkheimer 1972, Friedrich 1989). Friedrich (1989:304) displays the interaction of language and communication control and perception regarding the farming question in the United States:

Dominant powers control the messages and even the subcodes of advertising, including political advertising, of many or most of the channels of communication, and of most of the modalities of interpretation; certain messages and models of messages are reiterated ad infinitum whereas others are jammed; control over the form of messages goes hand-in-hand with control over their means of interpretation (which is usually pervasive and subliminal). Such control of messages was glaringly illustrated in the national media such as *Newsweek* by the treatment in the 1980s of the Midwestern farm crisis: touching “human interest” vignettes of foreclosed farm families were accompanied by total silence on the devastating role of agribusiness; during the presidential caucus of 1988 the crisis was described as “over” and the save-the-farm film, *Country*, was mocked – although farms were still being foreclosed, the average farmer’s annual net income had sunk to one-seventeenth of his debts, and huge posters on Iowa’s Highway 2 said, “Suicide Is Not The Answer.” To a significant degree, then, political economy is a matter of competing for information and tropes in this comprehensive sense, and for the power to disseminate them and to misinform audiences, here the American reading public.

The majority of U.S. farmers at the turn of the twentieth century had a quite distinct worldview from the urban population. They were the last bastions of traditional agrarian knowledge and values. They did not participate to the same degree in the consumerism and commodification desired by the merchants, bankers, railroad owners, and capitalist elite in the

country (Elliott 1890, McConnell 1959). The capitalist elite believed that farmers' perceptions needed to be changed, as evidenced by the following statement, made by the President of Ohio State University, Dr. C.W. Thompson, in 1914, regarding the initiation of the Agricultural Extension Service:

There are two kinds of farmers – those who want things and those who do not. Those who want things usually are the progressive farmers who have caught the spirit of the farmers' institutes and the Experiment Station and the Agricultural College and the general newspaper agitation and believe in better things; ...They have demonstrated to themselves the value of these things. You do not need to go to these men very much. They are up to date as to methods. But they are the small minority in every township or district in the country.

Then there is the large, inert mass of farmers who have not yet recognized their own needs and therefore have not formulated their wants. These progressive farmers are here in the interest of people who have not yet responded and are asking that these methods (i.e., county agent activities) be extended so as to reach farmers in general and improve their condition throughout the country (Schuttler 1948:6).

This quote establishes the research problem, the dissemination of technocratic rationality, which employs discursive strategies to justify the transformation of farmers' value systems and worldviews (Lionberger 1960, Leagens and Loomis 1971). The discursive abstraction, 'to improve,' which resides within the grand metanarrative of technocratic rationality, reveals the need for discourse analysis (Horkheimer and Adorno 1972). One of the overriding faults in the modern academic community, which emerges from reductionistic objectivism and precludes overlapping analyses, is the specialization of disciplines. The farm problem has been considered a strictly economic issue, which has left the linguistic component of it 'ignored by both the serious economist (who generally ignores language) and the serious linguist (who generally looks away from economics)' (Friedrich 1989). By infusing contemporary ideology theory with discourse, this research overcomes difficulties encountered in past agriculture studies that ignored the power of language to influence thought.

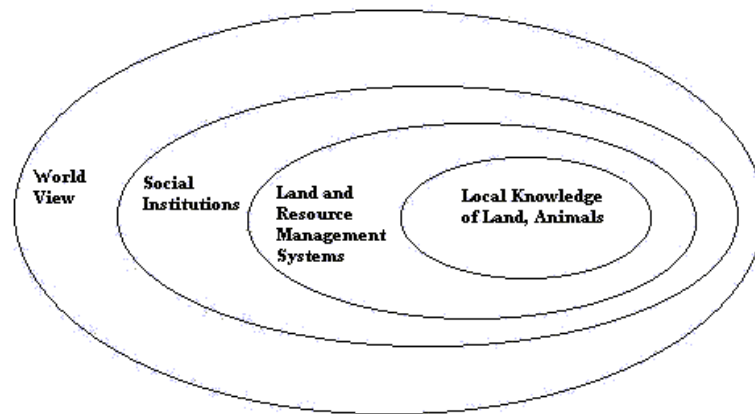
Discourse analysis detects the presence and strategic dissemination of ideology (Friedrich 1989, Fairclough 1992, Bourdieu and Wacquant 2001). Ideology theory has a specific range of applicability defined by contemporary Marxian theorists (Althusser 1970, Bloch 1985, Kreckel 1985, Friedrich 1989). Kreckel (1985:159) defines the conditions that represent ideology:

...cultural conditions of action are considered as 'ideological' only insofar as they deny or disguise the historicity and changeability of the material and symbolic context of which they are part. If, on the other hand, the maintenance of a cultural status quo presents itself as the result of willful choice without suppressing the perception of possible alternatives and without hiding the power relations that may be involved, then the notion of ideology does not apply.... To the extent that the production and reproduction of cultural conditions of life can be clearly perceived by those concerned as being based upon asymmetrical power relations or straightforward violence, the concept of ideology is not appropriate either....

From this explanation I can discern specific variables to explore in the study of farmers' perceptions. Specifically, I examine perceptions of history, farming alternatives, and the power relations behind farming decisions. Marx and subsequent Marxian theorists have identified history and perception thereof as a crucial factor in false consciousness and ideology dissemination (Althusser 1970, Horkheimer and Adorno 1972, Kreckel 1985, Friedrich 1989). As technocratic rationalization occurs, perceptions of the past become alienated. The past disappears as an option. As Marx stated in *The German Ideology* (1970) "...we must pay attention to this history, since ideology boils down to either an erroneous conception of this history, or to a complete abstraction from it" (in Barthes 1984:152). Ideology attempts to maintain the status quo, therefore a past in which present forms of domination did not occur is concealed or obfuscated. Farmers who perceive the past as an option represent resistance to technocratic rationalization.

## Resistance

Fikret Berkes (1999:13) developed a framework for studying traditional knowledge and practice, what he refers to as a ‘knowledge-practice-belief complex’ (see Figure 1.1). Berkes’ (1999) framework can depict the role of ideology as an influence upon perception. Berkes (1999:13) describes his first circle as the ‘local knowledge of animals, plants, soils, and landscape...based on empirical observations,...’ He explains that the second ellipse ‘is



**Figure 1.1** Levels of Analysis in Traditional Knowledge and Management Systems

a resource management system, one that uses local environmental knowledge *and also includes* an appropriate set of practices, tools, and techniques’ (Berkes 1999:13-14). These first two concentric ellipses represent Ingold’s (2000) agent-in-environment perception. In the case of Ozark farmers, and other communities entangled in modernization or ‘development’, the third ellipse, that of social institutions comprised of *de facto* rules and community regulators, becomes subservient to, and may be replaced by, *de jure* national or state legislation and enforcers. The fourth ellipse, that of worldview, applies to any society, because it consists of ‘religion, ethics, and ... belief systems’ that ‘shape(s) environmental perception and give(s) meaning to observations of the environment’ (Berkes 1999:14). Berkes (1999) clarifies, as seen in Figure 1.1, that the first three ‘levels’ of traditional knowledge are ‘embedded’ within the worldview,



however acknowledges that ‘there are feedbacks among the levels’ and that ‘worldviews themselves may be affected by changes occurring at other levels’ (Berkes 1999:14). Ideology resides within this fourth ellipse as a component of the belief system, influencing farmers’ interpretations of their empirical observations and experiences, and thereby their perceptions of their farming environments.

Ideology can override farmers’ perceptions of ecological feedbacks and convince them to farm in counterintuitive ways. Some Ozark farmers, however, resisted agricultural modernization and maintain traditional practices. What explains their resistance? According to Mike Michael and Arthur Still (1992) in *A Resource for Resistance: Power-Knowledge and Affordance*, resistance to rationality ideology is possible through the Gibsonian concept of ‘affordances,’ the perception of an environment in terms of the possibilities it ‘affords’ the perceiver. Micheal and Still (1992) propose that Gibson’s ecological psychology allows an individual to perceive the environment without an ideological filter – or in Foucaultian terms – to avoid the governmental discourses / power-knowledge that freezes objects. In other words, the discursive obfuscation intended by the dominant group that results in counterintuitive practices and hegemony – the freezing by imposed categories – undergoes liquefaction through experiential knowledge (Michael and Still 1992). Ozark farmers engaged in traditional practices have maintained their subjective perception of ecological affordances and avoided the ‘freezing’ of their perceptions by a dominant ideology. These farmers have disallowed ideological filters in their perceptions of their farming environments. In doing so, they have avoided the Weberian (1905) ‘iron cage’ and weathered the modern storm, allowing themselves opportunity.

## Research Questions

The primary objective of this research is to gain a better understanding of what drives farmers to farm in sustainable ways. In order to achieve this I have formulated a question that fills gaps in the extant literature and provides needed insights to sustainable agriculture proponents and practitioners. I define ‘sustainable’ as a self-sustaining agroecosystem that utilizes minimal or no exogenous inputs to maintain itself. Many traditional agroecosystems<sup>4</sup> achieved such results, yet they have been almost completely abandoned in the United States (Altieri 1987). My research site, the Ozark Mineral Area (OMA), provides a research site where traditional farming practices, characterized by use of minimal exogenous inputs, exist alongside modern, industrial agriculture that relies solely on non-local inputs and resources. As a case study, OMA allows me to answer these fundamental questions:

- What is the relationship between Ozark farmers’ perceptions of their farming environments and their agricultural practices?
- What variables explain differences in farmers’ perceptions and how are these related to their resistance to agricultural modernization?

The first step in answering these questions is to define terms. As discussed in the theoretical outline, ‘perception’ refers to the multi-sensual interaction with one’s environment, mediated by

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<sup>4</sup> I recognize the conceptual dilemma regarding the use of traditional, indigenous, indigenous technical, local, or any other concept to refer to knowledge that emerges from multiple generations of relatives learning within-about their ecosystem and sharing that ecological awareness. Ellen, Parkes, and Bicker (2000:3) make explicit the academic constraints and caveats regarding such use, “Of them all, despite its implications of anachronism and long-term cultural stasis, ‘traditional’ seems to have more credibility and is among the most common ways of describing a particular kind of anthropological other. Like the other terms, it derives its meanings from variations on the modernity-traditional dualism, which we have quite rightly learned to treat with suspicion.” In light of these factors, I use ‘traditional’ to refer to a system of knowledge and action that has been passed on, shaped, shared, modified, and utilized by multiple generations of people from a common social group in the same location.

memory, history, education, ideology and other sociocultural factors, and resulting in a mental template of that environment. There exist layers within perception, specifically experiential and ideological (discourse), which must be differentiated (Bloch 1985, Berkes 1999). Farming environments, as a concept, must also be defined. Farming environments refers to the agroecological, socio-cultural, and historical spaces that a farmer engages. To be more specific, the agroecological farming environment consists of the fields, forests, waterways, livestock, crops, non-domesticated biota, rock outcroppings, soil, etc. that a farmer engages. The socio-cultural farming environment consists of neighboring farmers, kin, feed store owners, technology, and farm buildings - basically any people, places, or things that serve as sources for farming information, action, or influence. The historical farming environment refers to the farming practices and places that exist in the traditional history of the farming region, i.e. places, memories, and people of the past that a farmer engages or considers in relation to his/her farming. The last term/concept that must be defined is 'agricultural practices.' 'Agricultural practices' refers to any actions that a farmer and/or his/her family employ upon their agroecological farming environments, and may also include actions upon their socio-cultural environment when it relates to their farming endeavor.

To answer my research questions I document the following; 1) farmers' perceptions of their agroecological, socio-cultural, and historical farming environments in the past (pre-industrial farming) and present (contemporary), and 2) farmers' pre-industrial and contemporary practices. The relatively easy part is documenting the agricultural practices. The more difficult part of documenting such a relationship is the invisible part – that which lies in the mind. Because agricultural practices have changed through time, it is necessary to take a diachronic approach. I must document farmers' perceptions of their farming environments prior to, during, and

following the documented changes in practice. Then I must analyze the relationships between past and present perceptions and practices in order to uncover possible changes in perception that may explain the current heterogeneity in agricultural practices. Subsequent research questions needed to answer the primary research questions include:

- What are the primary influences on Ozark farmers' perceptions?
- How and why have farmers' perceptions changed and how do perceptual changes relate to modified practices?

### **Conceptual Model**

The theoretical framework that guides this research begins with the proposition that perception and action interrelate, that farmers' views of their farming environments relate in a meaningful way to their farming methods. Perceptions of the farming environments are produced through agroecological and local social interactions, but are also substantially influenced by the dominant ideology in 20<sup>th</sup> century United States, technocratic rationality. For the conceptual model of the theoretical framework (see figure 1.2) I reformulate Berkes' (1999) traditional environmental knowledge framework to illustrate the Ingoldian (2000) concept of perception and infuse an historico-political ecology element that demonstrates technocratic rationalization. The four layers remain interrelated in the constitution of perception, but are slightly modified to represent my focus on perceptions of *agricultural* environments. The technocratic rationalization filter (red center arrow) represents the ideological sectors of society; religion, media, and education (Althusser 1970, Gramsci 1971).

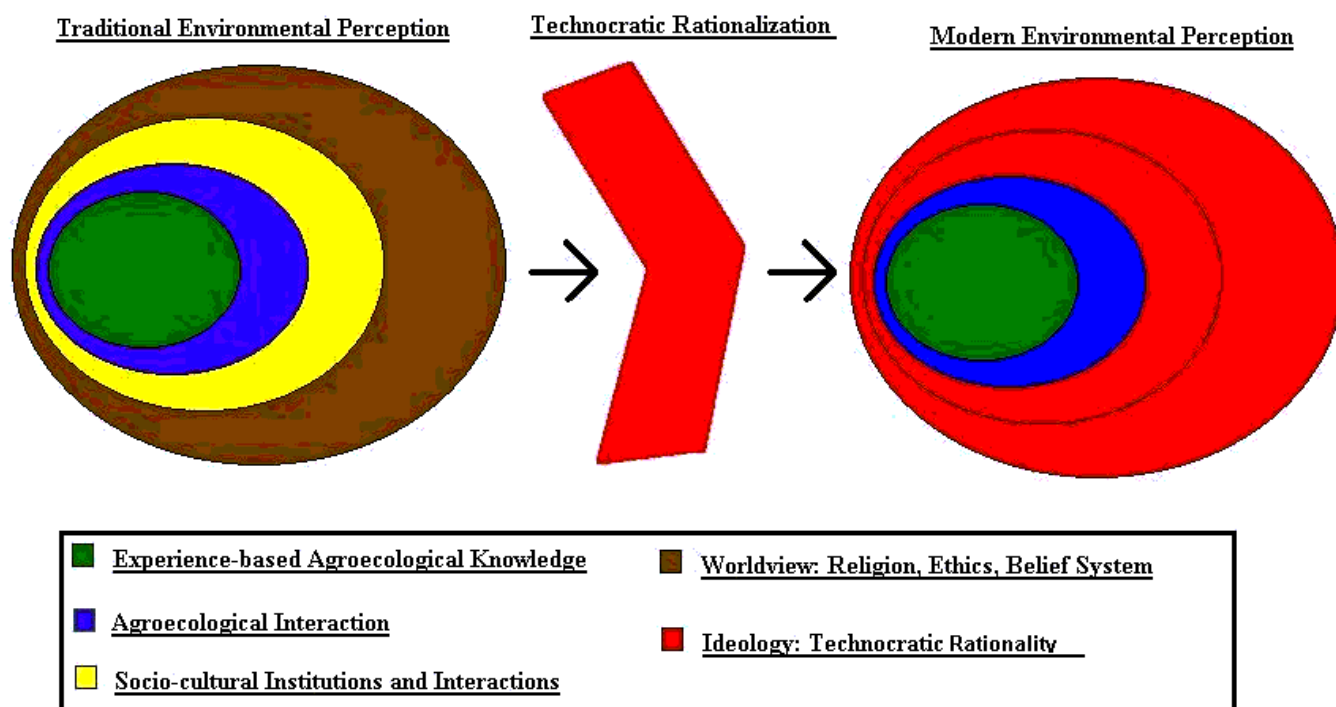


Figure 1.2 Conceptual Framework of Technocratic Rationalization

## Methods

The rapid transformation of U.S. farming deserves serious inquiry, however few researchers are inclined to tackle such a juggernaut<sup>5</sup> (Barlett 1993). After pouring over texts on agricultural modernization, United States agricultural history, and old Agricultural Extension documents, I realized that my field site serves as a remarkably useful heuristic device for understanding the local effects of the agricultural modernization process. In the Ozarks, the process of agricultural modernization has been stretched throughout the 20<sup>th</sup> century, with the most drastic changes occurring within the last thirty years. On the other hand, major technological and ideological changes occurred at a much faster rate in the rest of the United

<sup>5</sup> Giddens (1990:138) refers similarly to modernity as a juggernaut, providing an *apropos* metaphor for the modern agricultural paradigm; “-- a runaway engine of enormous power which, collectively as human beings, we can drive to some extent but which also threatens to rush out of our control and which could rend itself asunder. The juggernaut crushes those who resist it, and while it sometimes seems to have a steady path, there are times when it veers away erratically in directions we cannot foresee. The ride is by no means wholly unpleasant or unrewarding;

States, with modern agricultural practices adopted by 1960 (Hurt 2002). Not only does slowing down the agricultural modernization process facilitate an examination of it, it also informs and engages the research questions; specifically, what characteristics of Ozark farmers and geography delayed or resisted the agricultural modernization process?

In the interest of replicability, my ethnographic process is presented in detail. I spent two years in a rural Missouri Ozark community of approximately 500 people that is surrounded by National Forests, Conservation lands, and farms. When I first arrived in the field site I collected USDA statistics on the farmers in the area that were receiving agricultural subsidies from the government.<sup>6</sup> With this information and later snowball methods (to locate more traditional, isolated farmers) I planned to conduct a random sample of farmers. I learned rather quickly, however, as I spoke with more non-farmer locals, that my plan, like so many well-intentioned top-down approaches, would not succeed. The farmers of the region were the last of the past and still subscribed to a misanthropic view of outsiders, or as they refer to them in the Ozarks, *furriners*. Without any locally respected farmer contacts, I would never be granted an interview. An early attempt of self-introduction resulted in a warm welcome from a shotgun and a German Shepherd, which disabused me of an inclination toward further similar attempts.

I decided to find work in the region that would allow me to gain respect and rapport with the local population. I obtained a teaching position at a local school district where my wife had already obtained a job. After subsequent discussions with an Extension agent, other local teachers, and school custodian-farmers, I decided not to attempt even a single interview for the first year. I realized that this was the only route that would establish me as a legitimate

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it can often be exhilarating and charged with hopeful anticipation. But, so long as the institutions of modernity endure, we shall never be able to control completely either the path or the pace of the journey.”

<sup>6</sup> The Conservation Reserve Program (CRP) reimburses farmers for taking previously farmed acreage out of production and implementing what they define as conservation strategies.

researcher and not a government spy. During my first year I coached the boys' soccer team and assisted my wife with the girls' soccer team because the school district had no teachers familiar enough with soccer to coach. (It was the first year they had a soccer program). My visibility as the soccer coach turned out to be one of the most significant factors in the contacts I was able to make and greatly facilitated the interview-getting process because students told their parents about me, which in turn legitimated me as an 'honorary' local. This also allowed me entrée the following year into the meetings of local farming groups, such as Farm Bureau and Agricultural Extension Council.

Throughout my first year of fieldwork, when I was not teaching, I primarily visited local history groups, libraries, USDA offices, Soil and Water Conservation Department offices, and local sale barns. I took notes about discussions I had with people I ran into in my daily routine. In rural, impoverished, agriculture-based regions in the United States, because of the limited job opportunities and the fact that farming rarely supports a family these days, most of the people working at the school were affiliated with a farm in some way. Therefore, I was able to make many contacts through my co-workers and I constantly explained to them my research interests and asked if they knew farmers who I could interview. I also became friends with the FFA/Agriculture<sup>7</sup> teacher and many other employees of the school district who farm on the side. After establishing rapport and conducting an informal participant observation process in the region for one year, I began my in-depth and formal interview procedure.

To document present perceptions I conducted surveys, semi-structured interviews, and formal ethnoecological interviews with fifty-one farmers<sup>8</sup>. I visited all but a few of the farmers on two separate occasions, once in the fall and once in the spring (to see their agricultural

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<sup>7</sup> Future Farmers of America (FFA)

<sup>8</sup> Participant names will not be used. They will be replaced with pseudonyms.

practices in different seasons). I administered the surveys in person, allowing the participant to choose whether or not s/he filled out the survey or I did. The survey focuses on general baseline data about each farmer and his/her practices, including variables such as; age, religion, acreage, livestock species and numbers, crop species, varieties, acreage, chemical use, hormone use, etc. (see appendix A). In the semi-structured interviews, I loosely guided the interview around the farmer's farming history, agricultural changes in the region, farm information sources, input use, and other farming details that the participant wished to discuss. The semi-structured interview serves as a detailed supplement to the survey and also addresses qualitative issues regarding history, agricultural change, and traditional and modern farm technology (See appendix B). The formal ethnoecological interviews systematically document and provide quantitative data regarding farmers' perceptions of their farming environments. These tests include Thematic Apperception Tests (TATs), which were originally used in clinical psychology but were adapted and applied as an anthropological method by Virginia Nazarea (1999:13), and Semantic Differentials (SDs), which were developed by Charles Osgood as a research tool in psychology to understand how people interpret inanimate and animate objects, behaviors, and intangible concepts (Bernard 1995:305-6). I administered the TAT test to elicit farmers' perceptions by showing them seven different pictures of past and present farming practices, local Ozark landscapes, and non-local farming scenes, and allowing them to provide an immediate response about what each picture evoked in their mind (see appendix C). Similarly, I administered the SD test to elicit farmers' perceptions by providing them with a subject matter or topic, such as Plowing With Animals, at the top of a page, which is then followed by a Likert scale ranging from one to seven with various antonyms on either side of the page. For instance, on one side of the page are 'positive' adjectives such as good, useful, helpful, permanent, strong, beautiful, etc,



and on the other side are the ‘negative’ opposites, such as bad, useless, harmful, temporary, weak, ugly, etc. The farmer ranks the subject, which in the aforementioned case, Plowing With Animals, represents past farming practices, anywhere from one to seven, depending on how they perceived that topic. Seven different topics were administered to each of the fifty-one farmers in the sample, including ‘Plowing with Animals’, ‘Chemical Fertilizers and Pesticides’, ‘Planting by the Signs’, ‘Extension Agents’, ‘Wild Plants’, ‘Nature’, and ‘The Ozarks’ (See appendix D).

I documented present day agricultural practices through variations of Conway’s (1985) agroecosystem analysis, including participant observation, crop, livestock, and technology inventories, and participatory field plots. The latter methods consist of farmer and researcher walking through cultivated fields, pastures, and livestock ranges while the farmer discusses the livestock, crops, practices, and technologies that s/he raises and utilizes. The farmer and I then diagrammed some of the fields and drew up lists of livestock, crops, practices, and technologies to corroborate the surveys.

To document agricultural practices and perceptions of the past, I consulted interviews with older farmers, local historical documents, and local ethnographic studies. When I conducted interviews with older farmers (those over seventy years old) I added some specific questions about the farming practices in the past, including livestock and crop inventories, to be sure to gain consensus about the local agriculture of the past. More often than not, farmers reminisced nostalgically and long-windedly about their pre-industrial farming days without much prodding. Their responses on the formal cognitive tests are considered in my presentation of past perceptions, in conjunction with local ethnographic studies in the cultural journalism paradigm, early Ozark ethnographies, and historical records. The school district where I taught had apparently been influenced by *Foxfire* cultural journalism and I was able to locate some

publications of *MOZARK* done by local high school students from the late 1970s and early '80s that document 'traditional' cultural practices. I also rely upon ethnographic accounts from another cultural journalism venture on the other side of the Missouri Ozarks, *Bittersweet*, to document agricultural practices of the Ozark past.

Regarding the 'subsequent' research questions, especially the issue of what influences farmers' perceptions, I decided to pursue a previously unanticipated data collection method. I realized early on in my interview process that one of the recurring farmer information sources was agricultural magazines. I asked each of the fifty-one farmers interviewed if s/he could name the magazines and related farm periodicals that s/he received over the years and *Farm Journal* ® and *Progressive Farmer* ® were named almost one hundred percent of the time. It was obvious that farmers' perceptions were influenced by exogenous media, and it turned out that at least one exogenous influence was farm media publications. I located *Farm Journal* ®, *Progressive Farmer* ®, *Flower Grower* ®, and *Flower and Garden* ® magazines from the 1950s through the 1980s in local junk stores with local addresses and names on the front cover. The fact that the magazines were dated and addressed, combined with corroboration in interviews that local farmers consumed those periodicals, provided me with an invaluable data source to investigate as an influential variable in farmers' perceptions. I conducted content analysis of *Farm Journal* ® magazines from the 1960s and 1980s, dividing the contents of the magazine into agriculture-related advertisements and articles, and then coding the content by themes.

Qualitative data sets, surveys, semi-structured interviews, and TATs, were tape recorded, transcribed in their entirety, and entered into N Vivo ® where I coded and analyzed them according to attributes and themes. Content analysis and coding of the agricultural media was also conducted in N Vivo ®. I entered and analyzed quantitative data sets collected from

surveys, SDs, and livestock, crop, and technology inventories in SPSS ®. TATs were analyzed and organized by themes and then entered into SPSS for more extensive quantitative analysis in comparison with the rest of the quantitative data sets. I have employed descriptive statistical analyses to uncover the relationships between perceptions, practices, and other socio-economic variables. Methodological triangulation, the use of complementary qualitative and quantitative techniques in data collection, allows overlapping cognitive and material / technological information and analysis.

### **The Research Area: The Mineral Area of the Ozark Highlands**

The Ozark Highland region of northern Arkansas and southern Missouri, U.S.A., consists of approximately 30,000 square miles<sup>9</sup> of extremely varied landscape (see figure 1.3). The region consists of rugged peaks, broad valleys, and innumerable sinkholes, caves, and waterways (Rafferty 1980, Rossiter 1992). USDA estimates that approximately 70 percent of the region is woodlands; either in ‘large holdings, national forests, or farm woodlots,’ and the remaining 30 percent is divided into two-thirds pasture and a third cropland. Throughout the eastern ranges of the Ozark Highlands, primarily the St. Francois Mountains, there have been significant deposits of lead, zinc, silver, and iron ore, most of which have already been extracted. In addition to mining and farming, the other significant production industry in the Ozarks has been timber extraction, ranging from large-scale lumber to railroad timbers to small-scale selective logging operations (Douglass 1912). The elevation ranges from 200 to 500 meters, with steep gradients in some places, and local relief measured in meters to tens of meters. The average annual precipitation is 1,025 to 1,225 mm, with maximum precipitation in the spring and early summer,

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<sup>9</sup> According to the USDA Soil Conservation Handbook 296 (1981:84) the Ozark Highlands of Arkansas, Missouri, and Oklahoma consist of 26, 950 square miles. Different sources come up with different estimations on the size and range of the ‘Ozarks.’ McNeil (1995:1) explains that if you ask any two experts to indicate where the geographical boundaries of the Ozarks are that they are likely to come up with two different answers.

which is adequate for crops and pasture. Most farms utilize shallow wells or springs for domestic water needs and for livestock. The Ozark soils are primarily medium to fine textured, chert-based weathered limestone, relatively poor for agriculture because of their shallow base (USDA 1981).

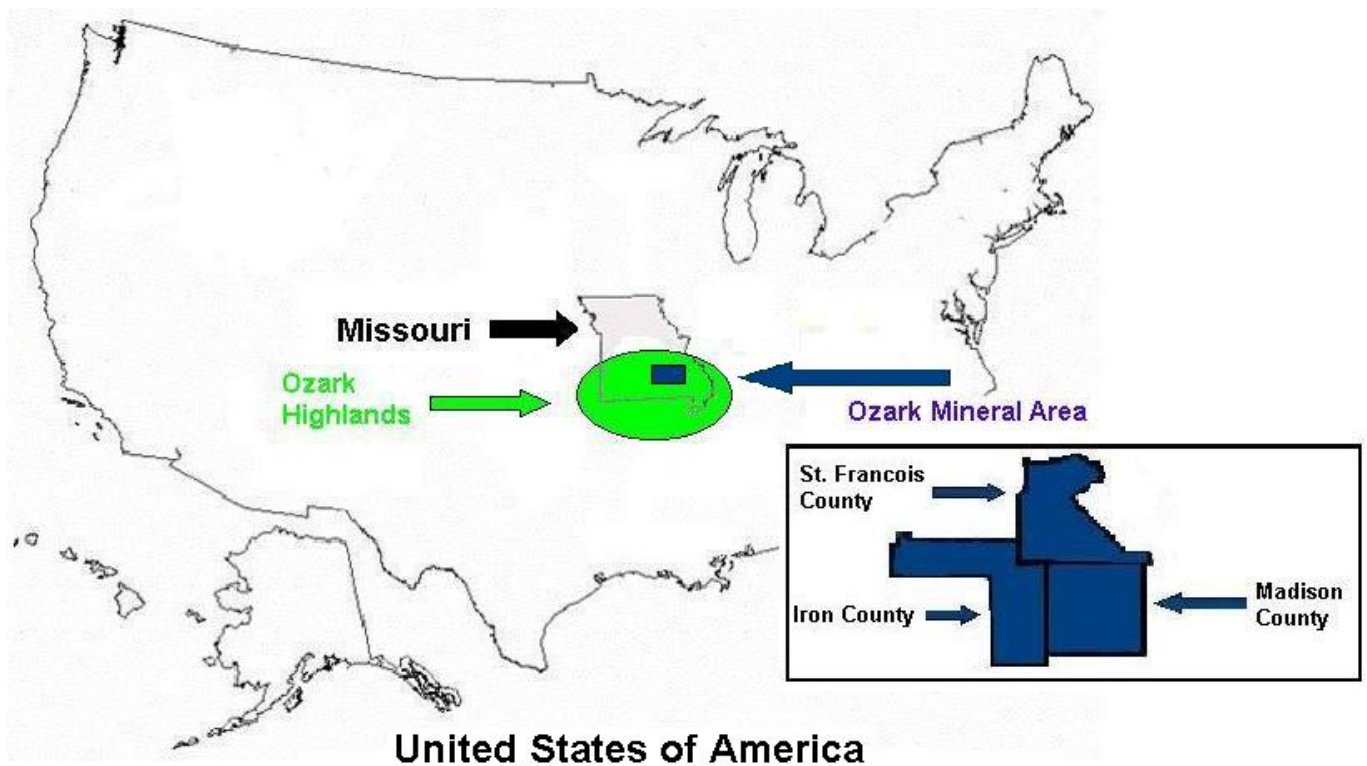


Figure 1.3 Ozark Mineral Area (OMA)

The contemporary Ozarks has been described as a ‘semi-arrested frontier’ because of its geographic isolation, traditionalism, and avoidance of government regulation (Rafferty 1980, McNeil 1995). Researchers assert that the distinguishing characteristics of Ozark natives include their sense of place and a concomitant suspiciousness, and labeling, of any outsiders, whether from another country or any neighboring city or state, as ‘furriners’ (foreigners) (Randolph 1931). Traditional Ozark natives believe that only those born in the Ozarks are capable of making a living from the rugged, often low-quality, soil (McNeil 1995). In addition, and directly connected to these attributes is the immeasurable pride that many Ozarkers, especially farmers,

express in their ancestors' self-reliance (Randolph 1931, Deane 1975, Rafferty 1980, McNeil 1995). Yet, in recent years, another distinction has emerged in striking contrast to the aforementioned self-reliance. At the onset of the 21st century, poverty, government welfare, and lack of opportunity distinguish the region as much as traditionalism (see figures 1.4 and 1.5).

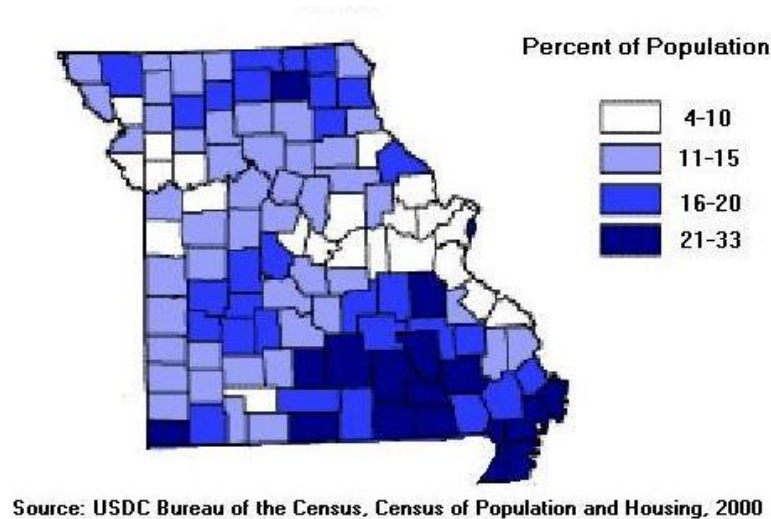
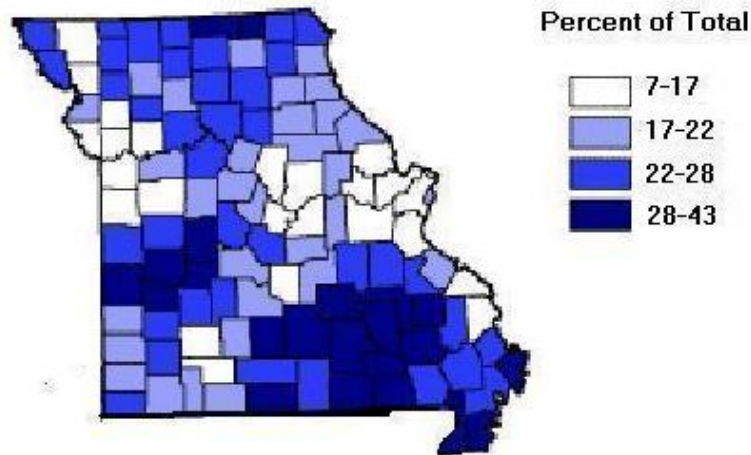


Figure 1.4 Missouri Population Below Poverty Level by County

A 1960s study characterized Ozark communities as “rural ghettos” because of the impoverishment, lack of opportunity and community dissolution (Davidson 1996:54). In large regions of the Ozarks well over twenty percent of the population is below the poverty level (see Figure 1.4). Between 28 and 43 percent of the population’s total income consists of transfer payments from the government (see figure 1.5). This high percentage of reliance on government monies and high poverty levels attest not only to a serious lack of opportunity, but also a fundamental problem with rural development in the United States.



Source: USDC Bureau of Economic Analysis, Regional Economic Information System, 1969-2000 file

Figure 1.5 Transfer Payments as Percent of Total Personal Income 2000

The specific study area consists of three Missouri counties, Iron, Madison, and St. Francois (see Figure 1.3), which are referred to as the Ozark Mineral Area (OMA). When my wife and I first arrived in OMA, in the summer of 2002, we remarked frequently that we had stepped back in time. Our usual comment was that we were living in the 1950s, minus the trailer homes. The region last saw significant prosperity around that time, when the last mines shut down for good. Even after the mines closed, local farmers were plentiful. They raised crops, hogs, and cattle, fed their families well, and sold the surplus. Somehow, sometime between then and now, what wealth was there left the region. Farmers now see their traditional ways disappearing, just as they did throughout the rest of the nation half-a-century ago. The responses tend toward a dichotomy: the old-timers and farmers are mostly nostalgic, while many of the youth and most middle-aged people living in-town see technology and opportunity as intertwined and decry their lack of both. The youth leave town for the city and the locals accept either government welfare or work at whatever job they can find; e.g., Wal-Mart, school districts, or

mechanic shops. These perspectives of the old and young represent the major ideological differences in the region and the subject of this research.

### Research Population

The following figures and tables present the religious affiliation (Figure 1.6), sex (Table 1.1), ethnicity (Table 1.1, 1.2), household income level (Table 1.1, 1.2), and age (Table 1.2) of the farmer participants.

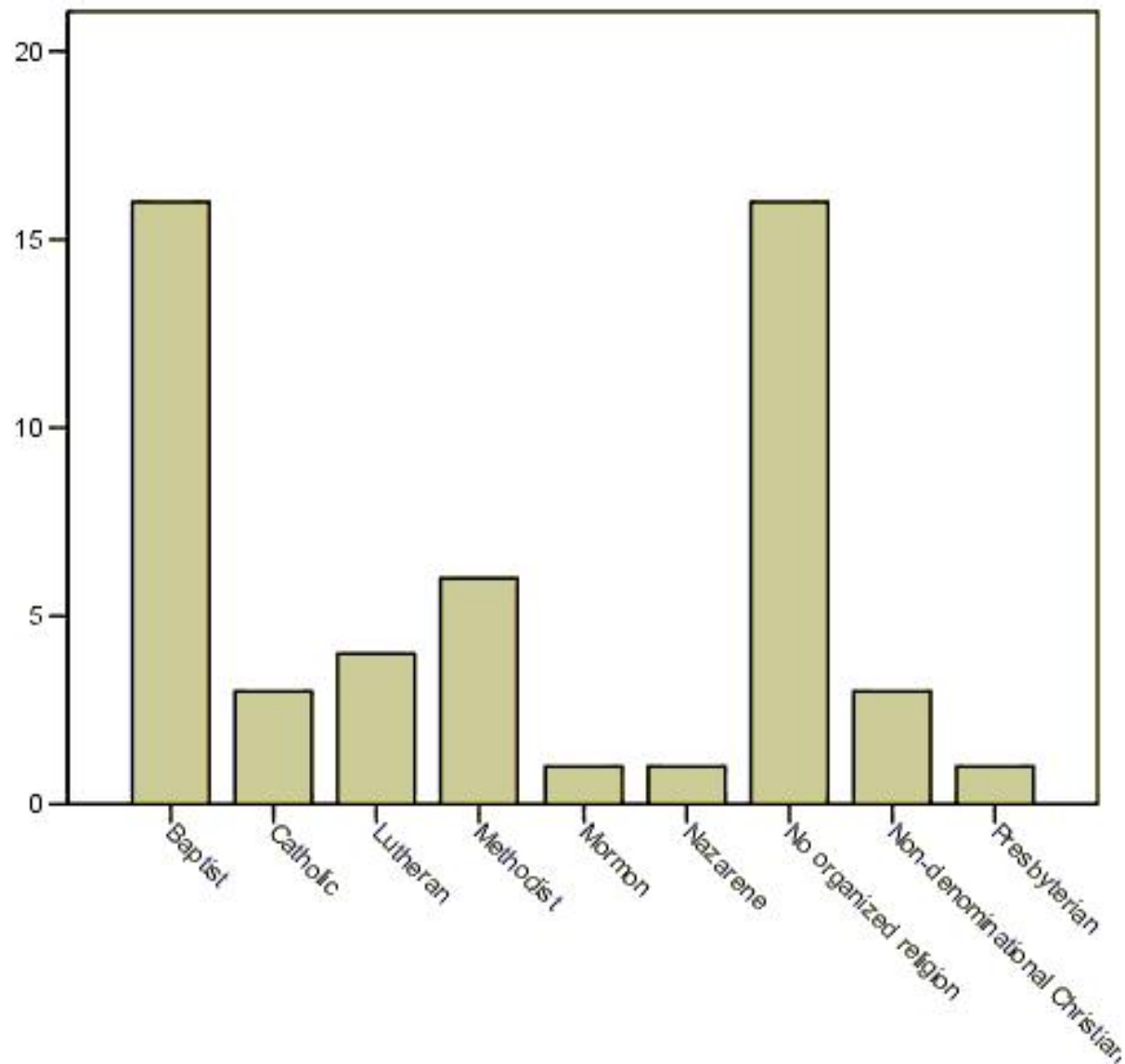


Figure 1.6 Religious Affiliation

Table 1.1 Ethnicity, Income, and Sex of Participant-Farmers

| Household Income  | Ethnicity          | Male or Female |      | Total |
|-------------------|--------------------|----------------|------|-------|
|                   |                    | Female         | Male |       |
| \$25,000-\$60,000 | Old Stock American | 5              | 10   | 15    |
|                   | German             | 2              | 5    | 7     |
|                   | N/A non-local      | 0              | 2    | 2     |
|                   |                    | 7              | 17   | 24    |
| <\$25,000         | Old Stock American | 3              | 8    | 11    |
|                   | German             | 3              | 4    | 7     |
|                   | N/A non-local      | 2              | 1    | 3     |
|                   |                    | 8              | 13   | 21    |
| >\$60,000         | Old Stock American | 1              | 1    | 2     |
|                   | German             | 0              | 4    | 4     |
|                   |                    | 1              | 5    | 6     |

Table 1.2 Ethnicity, Income, and Age of Participant-Farmers

| Household Income  | Ethnicity          | Farmer's Age           |                             |               | Total |
|-------------------|--------------------|------------------------|-----------------------------|---------------|-------|
|                   |                    | Less than 45 Years Old | Between 45 and 70 Years Old | Older than 70 |       |
| \$25,000-\$60,000 | Old Stock American | 2                      | 10                          | 3             | 15    |
|                   | German             | 1                      | 5                           | 1             | 7     |
|                   | N/A non-local      | 2                      | 0                           | 0             | 2     |
|                   |                    | 5                      | 15                          | 4             | 24    |
| <\$25,000         | Old Stock American | 1                      | 3                           | 7             | 11    |
|                   | German             | 2                      | 3                           | 2             | 7     |
|                   | N/A non-local      | 0                      | 3                           | 0             | 3     |
|                   |                    | 3                      | 9                           | 9             | 21    |
| >\$60,000         | Old Stock American | 2                      | 0                           | 0             | 2     |
|                   | German             | 1                      | 2                           | 1             | 4     |
|                   |                    | 3                      | 2                           | 1             | 6     |



## **Dissertation Outline**

This first chapter has delineated the theoretical outline for the dissertation, described the methodology, and presented the study area and characteristics of the study population. The research questions and theoretical framework guide the subsequent chapters in an inductive fashion, with data and analysis included together. Chapter two situates the study area within a larger political and geographic context. It presents and discusses agricultural policy and information sources that precipitated change throughout the United States. It then dissects the modern agricultural paradigm in terms of its epistemological origins, content, and dissemination within the greater United States. In terms of the conceptual theoretical model, this chapter represents and explains the technocratic rationalization filter that has modified the environmental perceptions of U.S. farmers (see figure 1.2).

Chapter three focuses on the historical agroecology of the OMA from the first Euro-American settlement, in the late 18<sup>th</sup> century, through 1940, when aspects of agricultural modernization began to appear in the region. I discuss the perceptions and practices of traditional Ozark farmers, focusing on their agroecological, socio-cultural, and historical farming environments. The fourth chapter consists of two ethnographic vignettes that give the reader a glimpse of the interview experience and first-hand introductions to two distinct ethnic groups that traditionally inhabit and farm the Ozarks. The fifth chapter considers the ideological encounter between technocratic rationality and the local Ozark knowledge system. It specifically traces the role that various manifestations of education played in agricultural modernization, the dissemination of technocratic ideology, in the Missouri Ozark region.

Chapter six documents the relationship between agricultural changes and federal policy and presents an in-depth look at contemporary Ozark Mineral Area (OMA) farmers and their

modern and traditional agricultural practices. Chapter seven explores farmers' perceptions of their farming environments; agroecological, sociocultural, and historical, and their relationship with variables such as religion and ethnicity. It presents the data elicited through formal ethnoecological methods. The eighth and final chapter treats the relationship between politics, perceptions, and practices and puts forth explanations for the current state of economic and agricultural 'underdevelopment' in the Ozarks. I conclude with a discussion of general findings on the relationship between farmers' practices and perceptions and make suggestions for policy modification and future amelioration of the agricultural development enterprise.

## Chapter 2

### DISSEMINATION AND DESTRUCTION OF THE MYTH

“It is one thing to describe statically or cyclically the role of myth, rite and belief in the shaping of land use and understanding but quite another to include also the influence of a new epistemology premised on changing society through the role and methods of outside specialists. In the modern world, however, it can be argued that development has joined religion as an ideological force of global significance. It does not just refer to methods and plans about how to get things done, but entails moral prescriptions, various collective enthusiasms, different and competing hierarchies of adherents and overriding assumption that human betterment is society’s primary essence, that for which it exists and by which it justifies itself.”

- Croll and Parkin (1992) *Bush Base: Forest Farm  
Culture, Environment, and Development*

“Myth deprives the object of which it speaks of all History. In it, history evaporates. It is a kind of ideal servant: it prepares all things, brings them, lays them out, the master arrives, silently disappears: all that is left for one to do is to enjoy this beautiful object without wondering where it comes from.”

- Roland Barthes (1984) *Mythologies*

### Introduction

Between 1860 and 1960, a sweeping transformation occurred in U.S. farmers’ understandings of individual, familial, and societal success. This transformation was no accident. The first yeoman farmers in the United States believed in the Jeffersonian ideal; that as long as they had their land that they would remain subject to no man. They believed in the *Agrarian Myth*; that they could be relatively self-sufficient and ensure the health and security of their families and future generations. These beliefs, however, underwent a process of perversion (Goldschmidt 1948, McConnell 1959). By the mid-20<sup>th</sup> century farmers believed that they needed to produce food not only for their families, but for families around the world. They

perceived their farm as an industrial model, a business, and strictly as a profit-making venture (Goldschmidt 1947). They became dependent upon agricultural chemical and mechanical companies and believed they needed the assistance of the federal government to succeed as farmers (McConnell 1959, Hurt 2002). This chapter engages the agricultural modernization process and how it strategically changed U.S. farmers' perceptions, practices, and beliefs.

The questions answered in this chapter include: Where did farmers receive information that encouraged change? What was the impetus for agricultural change? Who wanted and benefited from change? What were the interventions that facilitated change? This chapter presents an inductive investigation of these questions, beginning with the agricultural information sources in the research area. I asked each farmer where s/he obtained agricultural information. I then investigated these information sources as potential influences upon their perceptions of the farming environments. This chapter is the result of my (ethno) historical examination of the ensuing agricultural institutions, organizations, and media. I discuss the epistemological origins of the modern agricultural paradigm, including an explication of technocratic rationalization (see figure 1.2). The various sources of farmers' agricultural information are analyzed from an historico-political perspective, dissecting their origins, content, and ideological dissemination. This chapter demystifies the ideological process that perverted U.S. farmers' perceptions and sets the stage for the analysis in subsequent chapters of technocratic rationalization in the Ozarks.

### **The Technocratic Pulpit**

Jeffersonian agrarianism was in widespread acceptance and belief among small farmers in the United States at the end of the nineteenth century (McConnell 1959, Elliott 1890). As

Edward Winslow Martin (1873:286-7) wrote in his seminal work of 1873, *History of the Grange Movement*:

The American farmer is, as a rule, an intelligent, clear-headed, practical man....As the head of a family he is kind, affectionate, earnestly striving to advance the welfare of those dependent on him. In short, his ambition extends to two things chiefly – to provide for his family in such a way that his children may have a comfortable and happy home, and enter upon life prepared for its struggles, possessing vigorous bodies and well-trained minds...”

Less than a century later, the farming majority had been converted to a belief in science, technology, and profit as the guiding forces in agriculture (Goldschmidt 1947). Roy V. Scott’s (1970) book, *The Reluctant Farmer*, illustrates the farmers’ initial misgivings toward ‘book farming’ and describes, from a modernist perspective, the eventual establishment of the official vehicle of technocratic rationalization, the Agricultural Extension agency:

Only one course remained for the farmers, and that was to forget the past, look to the future, and adopt those ideas that promised to help them fit into the new order of things. Thus it was that when forward-looking farm periodicals like the *Prairie Farmer* talked in 1868 of agriculture being a business like other businesses, it was a voice crying in the wilderness. But little more than three decades later the *Cornell Countryman* could proclaim that the ‘object of farming is ...to make money’ and that agriculture ‘is to be conducted upon the same business basis as any other producing industry.’ Nor was it an accident that former populist leaders would become advocates of farmer institutes and that one of those institutes could be described as “a business meeting for business men.” In short, by 1900 farmers were ready for a revolution in methods if a successful technique could be found to take agricultural science to them (Scott 1970: 62-3).

According to the agricultural media, farmers needed help, they ‘were ready’ for the technocratic rationalization process that would convert them into believers in profit and progress rather than security and self-sufficiency.

The ability and methods by which to change the opinion and perceptions of the public were widely known among the governing, commercial, and publishing elite (Christenson and McWilliams 1962). The concept of public relations and/or propaganda has been strategically

utilized for centuries. One of the United States' founding fathers, Thomas Jefferson, was vividly aware of the corrosive effect of false propaganda, evidenced by this letter written in 1807:

It is a melancholy truth, that a suppression of the press could not more completely deprive the nation of its benefits, than is done by its abandoned prostitution to falsehood. Nothing can now be believed which is seen in a newspaper. Truth itself becomes suspicious by being put into that polluted vehicle. The real extent of this state of misinformation is known only to those who are in situations to confront facts within their knowledge with the lies of the day....I will add, that the man who never looks into a newspaper is better informed than he who reads them; inasmuch as he who knows nothing is nearer to truth than he whose mind is filled with falsehoods and errors....

Perhaps an editor might begin a reformation in some such way as this. Divide his paper into four chapters, heading the 1<sup>st</sup>, Truths. 2<sup>nd</sup>, Probabilities. 3<sup>d</sup>, Possibilities. 4<sup>th</sup>, Lies. The first chapter would be very short.

By the beginning of the 20<sup>th</sup> century public relations strategies were extremely sophisticated and employed regularly by corporations and government to 'engineer the consent' of the unaware public (Childs 1940, Bernays 1947:113, Christenson and McWilliams 1962, Herman and Chomsky 1988). During World War I, the Committee on Public Information dramatized and publicized the significance of public relations and its ability to influence public thought. Experts emerged in many related fields, 'such specialists as editors, publishers, advertising men, heads of pressure groups and political parties, educators, and publicists,' all with the sole intent of modifying public perception to fit the demand of their corporate or government employers (Childs, 1940, Bernays 1947:116, Herman and Chomsky 1988). Myriad public relations campaigns have disseminated technocratic discourse to manipulate and modify U.S. farmers' perceptions and general public opinion (Fairclough 2000).

## Farming Information Sources

Prior to the mid-19th century, most U.S. farmers obtained farming ideas and innovations locally, from neighbors, community church members, and family. Under the traditional system, farmers learned and innovated from interactions with their ground, plants, animals, and local social network. As early as the beginning of the nineteenth century, farm magazines became significant information sources for some U.S. farmers (Scott 1970, Walter 1996). They presented a distinct worldview, with agricultural science and technology at the fore. While farm magazines have never been farmers' primary source of agricultural insight, they 'have consistently been farmers' most frequently consulted second source of information for many farming decisions' (Walter 1996:594). Farmers in my study area consistently cited farm magazines as frequently consulted sources of agricultural information. In addition to agricultural media, other exogenous sources of agricultural information included farmer organizations, especially Farm Bureau, Agricultural Extension from Land-Grant universities, agricultural corporations via the feed store, and, in rare cases, professional specialized agricultural organizations (see table 2.1).

Table 2.1 OMA Farmer Information Sources

| <b>Intra-communal (Local)</b> | <b>Extra-Communal (Exogenous)</b>          |
|-------------------------------|--------------------------------------------|
| Kin (Family)                  | Agricultural Extension (MU <sup>10</sup> ) |
| Neighbors                     | Agricultural Media                         |
| Farmer Organizations          | Farmer Organizations <sup>11</sup>         |
| Feed Store                    | Feed Store                                 |
| 4-H                           | USDA                                       |
| Sale Barn                     | Industry / Professional Organizations      |

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<sup>10</sup> The University of Missouri

<sup>11</sup> The reason for some of the sources being placed in both sides of the table is because those groups primarily consisted of local farmers, however, the ideas discussed usually originated outside of the area.

Local sources of agricultural information reinforced traditional practices and perceptions, or, if they encouraged change, received their information from an exogenous source. Several powerful farmer organizations existed in the United States in the nineteenth century, most prominent were the Grange, the Missouri Farmers Association (MFA), and the Farmers' Union, however, the farmer organization most cited by participants in this study was the Agricultural Farm Bureau Federation (AFBF) and the state-level federation, the Missouri Farm Bureau Federation (MFBF), locally referred to as the Farm Bureau. Farm Bureau did not come into existence until the early twentieth century, but eventually superseded other farmer organizations in prominence, funding, and membership. Its origin coincides with that of the Agricultural Extension agency, which was established by the federal government through agriculture-based Land Grant Universities. The Agricultural Extension Service disseminated modern agricultural methods and ideas to the rural farming population, existing as an 'extension' of the agricultural colleges that reached out to rural populations uninterested or unable to attend the university. These two organizations played the major role in technocratic rationalization among the farming population of the United States.

### **The Roots of Agricultural Technocratic Rationalization**

"It may be hoped, however, that the motto that I have put forward as descriptive of the new political philosophy, *Order and Progress*, will soon be adopted spontaneously."

- Comte (1851-1854) *System of Positive Polity*

Exogenous agricultural information sources subscribed to, and promoted, a distinct ideological conception of the farming environment; one in which science and technology subsumed and replaced religious morality and faith as the guiding force of the moral economy (Habermas 1986a, 1989). This technocratic ideology originated in the Enlightenment and gained significant ground with August Comte's positivism. The Enlightenment tradition set out to rid society of religion because of its mystifying, obfuscatory effects on society. Enlightenment



philosophers proposed the application of scientific rationality to society to combat the irrationality of religion. Yet, such an elevation of scientific rationality created a new religion and mythology (Horkheimer and Adorno 1972, Agger 1991).

Positivism, according to Comte (1851-1854), is the 'religion of humanity,' which he developed as a replacement for contemporary religion. He visualized a centralized society ruled by a scientific, hierarchical priesthood, inspired by the organization of the Catholic Church, but ritualized with scientific concepts and disseminated by scientists (Comte 1851-1854). He explains in *The Catechism of Positivism or Summary Exposition of The Universal Religion*:

In the name of the Past and of the Future, the servants of Humanity – theoreticians and practicians – come forward to claim as their due the general direction of this world, in order to construct at length the true Providence, moral, intellectual, and material; excluding once for all from political supremacy all the different servants of God – Catholic, Protestant, or Deist – as at once belated and a source of trouble.... Retracing our steps as far as this true fountain-head, we feel deeply that, since the adequate extension of Rome's dominion, the more advanced populations are vainly seeking for an universal religion. Experience has made it quite clear that no supernatural belief can satisfy this ultimate longing.... This decisive completeness of the Positive spirit now does away with every pretext for preserving, by artificial means, the theological spirit, which has come to be, in modern Europe, as disturbing as the metaphysical, of which it is both historically and dogmatically the source. Besides, the moral and political degradation of the theological priesthood had long precluded any hope of restraining, as in the Middle Ages, the vices of the doctrine by the instinctive sagacity of its best interpreters (Comte 1891:1-7).

Marx's proposed proletariat revolution did not materialize and thereby tempered the theoretical cogency of his arguments, but Comte's proposal has, in many respects, come into existence, except for the idyllic aftereffects<sup>12</sup> (Schneider 1946, McCarthy 1978). While Comte (1851-1854) claimed he was extending empirical science from mathematics and physics to the social realm, his positivist philosophy in fact, deified science and rendered it unscientific. Habermas (1986b:67) illustrates:

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<sup>12</sup> Robert Edward Schneider (1946) details the life of a convert to religious positivism in the United States in his book entitled, "Positivism in the United States: The Apostleship of Henry Edger."

Positivism certainly still expresses a philosophical position with regard to science, for the scientific self-understanding of the sciences that it articulates does not coincide with science itself. But by making a dogma of the sciences' belief in themselves, positivism assumes the prohibitive function of protecting scientific inquiry from epistemological self-reflection. Positivism is philosophical only in so far as is necessary for the immunization of the sciences against philosophy.

The 'science' promoted in positivism is in actuality a 'scientism', a dogmatic belief in the exclusive validity of empirical science (McCarthy 1978). Within the academy, positivism ascended in the latter half of the nineteenth century and Kantian critical philosophy, which had maintained sovereignty over science until then by comprehending it epistemologically as one of many forms of knowledge, gave way to scientism. Knowledge became identified solely with science; the previously accepted validity of subjective-experiential knowledge became irrational, unless scientists tested it and determined it was true. Concomitantly, all other knowledge systems lost their ability to create meaning; positivistic technocratic ideology reduced the capacity of humans to learn from their environment by discrediting other knowledge systems and other knowers. As Wolf (1982:388) explains:

Meanings are not imprinted into things by nature; they are developed and imposed by human beings. Several things follow from this. The ability to bestow meanings – to “name” things, acts, and ideas, is a source of power. Control of communication allows the managers of ideology to lay down the categories through which reality is to be perceived.

From this reductionist ontological foundation, based on a mechanistic worldview that saw only homogeneity and uniformity in all aspects of the universe, emerged the power structure of the 20<sup>th</sup> century. All potential knowledge had to pass through the scientific power structure that now created meaning. All past traditions, beliefs, rituals, ecological understandings, etc. were rendered impotent because they lacked the 'objectivism' of science (McCarthy 1978, Shiva 1989). These events occurred in the academy and did not permeate lay society until after the technocratic dogma was disseminated (Comte 1891).

## **The Dissemination of the Technocratic Gospel**

The dissemination of technocratic rationality and scientism occurred primarily through educational channels. The university system was built upon a foundation of Protestant colleges; most major universities were founded and funded by Protestant adherents who had ‘outlooks shaped by a Protestant ethos’ (Marsden 1994:3). Yet, half a century later, universities became inhospitable to their evangelical origins. The concept of neutral science became dominant in the academic community by the late 19<sup>th</sup> century and prominent academics successfully lobbied against the explicitly sectarian origins of the universities (Rudolph 1990, Lyotard in Lash 1985:15). As George M. Marsden (1994:296-7) details in the book, *The Soul of the American University: From Protestant Establishment to Established Nonbelief*,

...the intellectual naivete of faith in the neutrality of science now often attributed to the Enlightenment was much more prevalent in early twentieth-century America than it had been in the eighteenth or nineteenth centuries. Prevailing academic opinion now accepted, almost without dispute, that since a university was defined as a scientific institution it was a neutral territory in which all views would have an even chance to be judged on their intellectual merits alone. Marxists, Catholics, conservative Protestants, and others who complained that their views did not get a fair hearing, were dismissed as of no intellectual merit.

The major changes that precipitated the ascendance of science in universities and the expulsion of religious affiliation were the importation of the German concept of academic freedom, the sources of university funding, and the shift from clerical to lay (business) control of higher education (Lash 1985:15). The German concept, *Lehrfreiheit*, which was understood by U.S. advocates as a moral and scientific search for truth, was seen as the ideal for which U.S. universities should strive (Rudolph 1990, Marsden 1994). Protestant universities were seen as ‘too narrow, elementary, or superficial’ and in need of reform. Between 1860 and 1900, the number of clergy serving as board members of private colleges decreased from approximately 40 percent to less than fifteen percent, outnumbered for the first time in history by businessmen and

lawyers (Marsden 1994:300). University funding shifted from religious institutions to ‘richly endowed educational foundations’ created by business and technology leaders and the United States government (Rudolph 1990).

Although universities underwent a transformation from Protestant to scientific during the latter-half of the nineteenth century, most of the rural population paid no mind. They did not attend universities and were therefore not concerned about universities’ moral, nor spiritual foundations. But, the government and universities were concerned about the farmers. From their point of view, farmers’ agricultural tactics and beliefs needed to improve and ‘science was everywhere the instrument of reform’ (Rudolph 1990:247). The government passed the Morrill Federal Land Grant Act of 1862, and later 1890, to set aside land and funds at public state universities to educate farmers on the science of agriculture. Frederick Rudolph (1990:251-2) sums up the historical milieu:

By 1872 the dean of the college of agriculture at the University of Missouri openly revealed the degree to which the land-grant college movement was caught up in the events that were forcing fundamental readjustments in American life. “We will teach the science of high production.”

John T. Caldwell (1983:239), in *Science and American Agriculture*, resolves that the government “looked to the science of agriculture to make folklore yield to scientific analysis.” While government and universities believed farmers needed science and technology and provided research and development institutions focused strictly on agriculture, many farmers were not interested in them (Schuttler 1948, Scott 1970, Rasmussen 1989). Land-grant colleges recognized the discrepancy between their beliefs and goals and those of most farmers. Due to this discrepancy, land-grant colleges modified their approach (Scott 1970, Marcus 1986, Rasmussen 1989, Rudolph 1990). In the mid-nineteenth century, agronomists and businessmen affiliated with the colleges became aware that various agricultural fairs and farmer meetings that

successful farmers and informal farmer organizations held as demonstrations to their fellow-farmer neighbors were successful in agricultural information-sharing (Scott 1970, Hurt 2002). Land-grant colleges co-opted these informal practices and, with financial assistance from the railroads, developed official farmer institutes. They held them in the winter, when farmers were not as busy on the farm, in railroad boxcars and along the rail, with grand displays of bands and regalia to attract farmers to hear them preach the gospel of agricultural science (Scott 1970, Rasumussen 1989, Marcus 1986). Alan Marcus (1986:4-6), in *The Ivory Silo: Farmer-Agricultural College Tensions in the 1870s and 1880s*, presents the perspective and strategy of land-grant university agricultural scientists:

Only scientific principles could improve farming and only scientists could deduce them. Farmers might utilize these principles, but they could not produce them. Scientists preached, and farmers applied what scientists preached, a situation that demanded that agriculturists know what scientists were preaching. Farmers needed to rely upon scientists for their well-being; rather than an autonomous group, farmers were a dependent caste....The establishment of farmers' institutes was one attempt by which agricultural college scientists sought to gain the upper hand. Beginning in the Midwest around 1870, these assemblies were sponsored by agricultural colleges and staffed exclusively by their personnel. Institutes did not meet at a single fixed site, moreover, but traveled throughout the state during the winter months, staying at one place from two to seven days. At each location, the institute faculty delivered the same set of lectures, puffing science's veracity and utility as well as the agricultural scientists' importance to agriculture.

In Missouri, farmer institutes were established by the State Board of Agriculture, funded by state and federal government, and facilitated by railroad owners, businessmen, and agricultural scientists (MO State Board 1912, Scott 1970). In 1865, the Missouri State Board of Agriculture was established to oversee Missouri's agricultural business, 'a big business...examining into the affairs of the Missouri Agricultural College and Experiment Station' (MO State Board of Agriculture 1912). This State Board of Agriculture consisted of sixteen corporate members in 1911. According to the *Forty-Fourth Annual Report of the Missouri State Board of Agriculture* (1912), which included brief biographies on each of these

corporate members, the leaders all purported to be ‘engaged in farming’ in some capacity, whether it was the ‘poultry business’ or ‘specialty of the breeding of Hereford cattle’ or ‘the production of certified milk’, but the majority of them also listed other occupations. These ‘side’ jobs ranged from bankers, lawyers, and judges, to the commission, merchandising, feed supply, and railroad businesses. These were not your average farmers. It is doubtful that these businessmen worked in the soil much, if at all<sup>13</sup> (McCune 1943, Saloutos and Hicks 1951). Yet, they were speaking on behalf of, and making decisions about the futures of Missouri farmers.

### **The Agricultural Extension Mission**

“The present system of American agricultural education in its various forms is the result, broadly speaking, of the application of science to practice. For a long period, the field of this scientific agriculture was almost wholly that of production. Special students of agriculture were endeavoring to discover the laws of plant and animal growth and the interrelations of soil, climate, and plant. More recently, efforts are being made to work out in the same fashion the laws of economic and social development. Thus, the field of scientific agriculture has broadened to include all the interests of farmers and their communities.

- Kenyon Butterfield in Burritt’s (1922)  
*The County Agent and the Farm Bureau*

“And last but not least, there was the County Agent of the Department of Agriculture’s extension service who, after a skeptical year or so, was found to be not a “professor” with doubtful book-learning but a friend bringing scientific help.”

- Holbrook (1954) *Down on the Farm*

The common thread among progressive ‘farmers’ who oversaw agricultural policy was their university education and belief in modern progress: through science and technology, society and

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<sup>13</sup> McCune (1943) characterized himself as a ‘reporter’ presenting a ‘critical look’ at agricultural issues in his book, ‘The Farm Bloc’, which elucidates the differences between farmers of his day and exposes the political misdeeds occurring in their name. He outlines the political issue of representation in terms of pressure groups that lobby purportedly on behalf of the ‘farmer.’ He states; “Who are these farmers whom so many people represent, speak for, and talk about? The impression that they sit around potbellied stoves and cracker barrels in country stores, talking about the weather, is a romantic one which farmers might wish were true; but it is not...Describing the nation’s farmers is not that easy. There are gentlemen-farmers, sharecroppers, homesteaders, cattlemen, sheepherders, truck gardeners, orchardists, plantation owners, dairymen, and others” (1943:4). McCune (1943:7) continues “There is also an upper crust among farmers. Some of the crustiest are actually not farmers at all, because they operate the enterprise by remote control. Constant expansion of acreage and the number of hired men working

agriculture would improve and they would get rich along the way (Missouri State Board 1912, Scott 1998). The Missouri State Board of Agriculture was eager to disseminate their worldview to the rest of the state. They worked in conjunction with the railroads, businessmen, and chambers of commerce of rural communities, establishing farmer institutes to spread agricultural development. Farmers, however, did not attend, or if and when they did, they disagreed or came for a laugh. Scott (1970:101) illustrates somewhat ethnocentrically:

The most serious problem before 1900 was simple rural inertia and apathy. In 1889 Missouri's Levi Chubbuck wrote, 'The chief obstacle to the complete success of Farmers' Institute work is the lack of appreciation on the part of the farmers of their need for more information which will enable them to produce greater yields'....Nor were Missouri farmers unique....even in such states as Ohio and Minnesota,...early lecturers found that they 'couldn't get the farmers out.'...Even when farmers did appear at the institutes in an area, according to one observer, 'two-thirds of the ...audiences were present to be amused or entertained....'

Due to farmers' resistance, universities and governing elite developed a new strategy: the Agricultural Extension Agency. In 1914, the Smith-Lever Agricultural Extension Act was passed by Congress, which provided federal funds, matched with state funds, for a cooperative Agricultural Extension program between the United States Department of Agriculture (USDA) and the agricultural land-grant colleges (Schuttler 1948, Rasmussen 1989, Hurt 2002). The Smith-Lever Act 'opened up a new era in the development of agriculture of the United States;' an era characterized by the development of farmer dependency on the federal government for both information and financial assistance (Hurt 2002). Some academics understood the political underpinnings of the Act and the potential for co-option by dominant politicians and business interests and attempted to voice their caveats<sup>14</sup>. Grant McConnell (1959:34-5) explains in *The*

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for a wage transform some farmers into counterparts of the squires of old, but instead of being called squire they may be given certificates of leadership and master farming by rural magazines."

<sup>14</sup> It is important to note that there was awareness and 'uneasiness' among some Professors and college Presidents regarding the strategic business interests inherent in the development of the official Extension service. McConnell (1959:34-5) cites President W.H. Jordan of the Association of American Agricultural Colleges and Experiment

*Decline of Agrarian Democracy* that their warnings were ‘brushed aside’ and ‘by their (agricultural colleges’) acquiescence the Smith-Lever bill was passed....without their active participation, cooperative Extension would have appeared in a different guise. Certainly its political character would have been more apparent.”

The ‘political character’ of Agricultural Extension became disguised by the governmental status of the bureaucracy. Each community had to produce funds to co-sponsor an agent with state and federal government. The universal vehicle for this sponsorship was a county farm bureau, where local businessmen collaborated and donated funds to pay the salary of an Extension agent for their county. The local businessmen felt that if farmers in their counties ‘improved’ and began earning more money from agriculture that they would spend more money in the community, whereas, a self-sufficient farmer rarely spends money on unnecessary goods (Cauley 1935).

Agricultural Extension agents followed the advice of Dr. Thompson, who had recommended that they focus on the conversion of traditional farmers to modern farmer-consumers<sup>15</sup> in rural agricultural counties throughout the United States. They preached the gospel of scientific agriculture to disbelievers, the ‘large, inert mass’ who preferred the methods and traditions of

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Stations; “The gravity of the situation is augmented by the fact that the agricultural and business interests of the country, alive to the value of our work, are now proposing to us what we shall do and are urging upon us, not only efforts of our own, but our active support of new efforts that are outside our province, but to which we are expected to sustain relations of advice and aid. These suggestions, which sometimes are equivalent to demands, are certainly made in the spirit of good will and helpfulness and are worthy of our respectful and careful consideration; but it is seriously to be doubted whether popular conceptions of the aims and methods of education and inquiry are a safe basis on which to establish the policy that shall dominate the work and influence of either the college or the station.” McConnell continues, “These warnings were perhaps the best which the Colleges ever received. They were brushed aside, however. The child, cooperative Extension, was already born and there was nothing to do but adopt it. One more implication had yet to be drawn. It related to the increase of political control and the way in which this control would be used....Dean Eugene Davenport could hardly have foreseen the exact manner in which the new law would operate, but his words at the 1913 meeting had a prophetic quality: “The inevitable result of the department’s concerning itself intimately with local conditions is to attract the attention of unscrupulous politicians, who will find therein a powerful means of advancing their own personal interests.

<sup>15</sup> See Chapter 1, page 23



their fathers and grandfathers (Schuttler 1948:6). Extension agents were convinced they were on a mission to save agriculture and to significantly improve the lives of their converts. R.L.

Reeder (1979) reports in *The People and the Profession: Pioneers and Veterans of the Extension Service Remember How They Did Their Jobs*:

In the early days it was necessary to get close to people, to be dedicated and to have a mission of concern....Seamann A Knapp had 'almost a religious zeal for the work' when at the age of 70 he launched the farmer cooperative demonstrations....J.W. Willis wrote of Seamann Knapp,... 'He was one of the greatest men I have ever known and I wish every worker could have known him and gotten his philosophy of the work. He was a great old Methodist and told me he planned the organization after the Methodist church. His state agents were the bishops, the district agents the presiding elders, and the county agents the local preachers' (Reeder 1979:16-17)

Development critics have proposed similarities between the intervention approach of religious missionaries and those of development proponents (Angrosino 1994, Rist 1997).

Angrosino (1994: 826-9) explains:

Development agents were no less convinced than religious missionaries that they had truth and historical inevitability on their side.... The church, like any international development agency, is a representative of political and economic power and not simply of moral authority. In both cases, the rhetoric of sensitivity to cultural variation exists in a state of some tension with a fundamental belief in the rightness of the beliefs or behaviors that are the substance of the program of directed change. That both churches and development agencies are instruments of social discipline is germane to the ways in which an ideology of culture is translated into the reality of intercultural intervention.

Agricultural Extension agents were missionaries of the evangelical variety, with a 'missionary zeal' for preaching the gospel of scientific agriculture (Reeder 1979:17). The beginnings of Agricultural Extension have been described as 'a period of agricultural evangelization the like of which was never before seen in this or any other country', in which 'the professor deserted his classroom...and started out to spread the gospel of better farming. No missionary in Africa ever labored harder or more conscientiously to convert his hearers to the true gospel than did these itinerant preachers of the science of Agriculture' (Kile 1948:25). Such enthusiasm evokes

Daniel Bell's (1960:371) characterization of ideology; by the emotion it generates in its followers and the ways that such emotion is channeled, "Not only does ideology transform ideas, it transforms people as well. The nineteenth-century ideologies, by emphasizing inevitability and by infusing passion into their followers, could compete with religion. By identifying inevitability with progress, they linked up with the positive values of science." Several examples from the aforementioned text by Reeder (1979) illustrate the strategies and beliefs of both the Extension workers and the farmers they attempted to convert:

Doing his pioneering in Delaware, M.O. Pence was close to Washington D.C. and remembers being pressured to sell U.S.D.A. ideas because agents were believed to be like fieldmen for companies who go out to sell a product. 'Well,' he says, 'the farmers in the south end of the state were different from those in the north end. You couldn't just sell the same things the same way – it took a lot more than just salesmanship. I knew I had to get out and do something to develop the people as leaders' (10).

Allister MacDougall, first agent in Massachusetts, writes: "As I look back at a green young man, just out of college, lacking experience in meeting and organizing people, his knowledge gained largely out of the classroom, but nevertheless expecting dirt farmers to attend his demonstrations and have confidence that they would obtain information to help them in their everyday life on the farm-..." (3).

Stribling says of South Carolina farmers: "As I began to contact farmers of the county I soon began to feel that, while many of them could not even sign their own names, they probably knew as much or more about farming than I did" (3).

Indiana pioneers tell of George Christie that "on one occasion he stopped at a farm house where a funeral was halted because the preacher had not arrived. The undertaker asked if anyone was present who would make a few remarks about the deceased. Christie rose and said, 'I didn't know the deceased and so I cannot speak about him, but I do know the university and the work it is doing to prove that alfalfa will be a profitable hay crop, and I will be happy to make a speech on that subject'" (17).

Extension agents believed strongly in their cause, but they also realized that most farmers they hoped to change knew more about farming and had more actual agricultural experience than they did. To change them required perseverance, devotion, and strategy, but in many places, farmers were so set in their ways that they still resisted. The creation of a farmer

## Farm Bureau: The Rock Against Radicalism

- Steinbeck, *The Grapes of Wrath* (1939:209-210)

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The American Farm Bureau Federation (AFBF) emerged seemingly out of nowhere, subsumed the visibility and role of extant and preceding farmer organizations, and became the sole ‘voice of agriculture.’<sup>18</sup> This occurred despite the fact that farmers had never in the history of the country been able to ‘unify in a single organization that would speak for agriculture with one voice’ (Hurt 2002:xi). AFBF succeeded where others had failed because of strategic planning and connections with the federal and state governments (McCune 1943, Saloutos and Hicks 1951). AFBF origins as a nationally organized establishment remain somewhat ambiguous because of the political and clandestine nature of the organization. It is clear, however, that the organization emerged in concert with the establishment of the Agricultural Extension Service, simultaneously as a means for generating funds to financially support Extension services and as a response to mounting anger and revolutionary mobilization among farmer groups (Kile 1948, Saluotos and Hicks 1951, Benedict 1966, Berger 1971). In 1917, A.J. Meyer, then director of Agricultural Extension in Missouri, wrote, “Farm Bureau is the official national plan for direct and definite cooperation between the USDA and the College of Agriculture and the farmers – to make the services of the county agent more useful to the farm community” (Schuttler 1948:5).

While traditional farmers had relatively similar concerns, market-oriented farmers at this time were divided into corn farmers in the Midwest, ranchers and livestock farmers in the West, and cotton and peanut farmers in the South, all with divergent interests and no clear voice. The notion of an organization speaking ‘for the farmers of the entire country’ was more than

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<sup>18</sup> Myriad farmer organizations and movements have existed and emerged before and after AFBF, but none have had the financial backing of corporate interests and none have produced the media coverage and propaganda that AFBF has been able to generate. Since the inception of AFBF, rival farmer organizations have publicly denounced their use of taxpayer funds to promote their organization and their connections with the Agricultural Extension Service and USDA (McConnell 1959, Campbell 1962, Berger 1971).

impractical, it was ludicrous (Benedict 1966, Hurt 2002). The aforementioned President of the New York Farm Bureau admitted, “There is a wide diversity of agricultural interests in the United States, varying from the Corn Belt both east and west. It is difficult to bring all these divergent interests together, but I believe these men assembled here can accomplish this” (Kile 1948:51). The primary reason it became possible was the increased scope of USDA; Farm Bureau’s cooperation with, and funding from USDA enabled it and Agricultural Extension to flourish. Congressional appropriations for USDA expanded from \$2.8 million in 1899 to \$28 million by 1917 and concomitant farm legislation ‘authorized the USDA to collect information, conduct investigations, and compel compliance’ (Hurt 2002:34).

Despite Farm Bureau’s inextricable link and origin within the government and the fact that their membership constituted well under half of U.S. farmers, they purported to speak on the behalf of all farmers in the United States (Saluotos and Hicks 1951, McConnell 1959). In 1919, the New York State Farm Bureau Federation held a meeting with representatives from twelve states<sup>19</sup> in order to create a National Federation of Farm Bureaus. The President of the New York State Federation stated that the goal of the National Federation would be:

(1) to provide the nation with some sane organization thoroughly representative of agriculture throughout the entire United States, which might speak for the farmers of the entire country; (2) to take advantage of a nation-wide organization – the Farm Bureau – which promises great possibilities of usefulness in developing a program which will reach the entire country and which will bring into action the strongest farmers of the nation (Kile 1948:48).

At this meeting was also present C.B. Smith, the head of the ‘States Relations Service of the United States Department of Agriculture’, whose presence further demonstrates that the development of AFBF was a conscious, strategic effort not only on the part of the elite

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<sup>19</sup> The delegates were invited from the following states; Delaware, Illinois, Iowa, Massachusetts, Michigan, Missouri, New Hampshire, New York, Ohio, Pennsylvania, Vermont, and West Virginia.

landholders (farmers) of the nation, but also of government office-holders<sup>20</sup> (Kile 1948, Saloutos and Hicks 1951:273). The statement that AFBF would attempt to create a ‘sane organization’ illustrates that the original AFBF leaders considered grassroots farmer organizations, similar to the Populism of the previous century, ‘insane.’

The Populist movement gained momentum in the late 1800s among rural people as a democratic reaction to the increasing power and abuses of corporations and industrialism. In concert with the Populists and small farmers were the Agrarians, who established an intellectual tradition that championed subsistence farming and advocated an alternative to industrialism, which they viewed as dehumanizing (Southerners 1930, Cauley 1935). Farm Bureau curbed that momentum and protected ‘such industrial giants as John Deere, International Harvester, the Great Northern, Pennsylvania, and Rock Island Railroads, and the Chambers of Commerce’ from ‘...more radical farm movements’ (Berger 1971:91). McConnell (1959:20) contextualizes the establishment of the Farm Bureau in relation to the Populist movement and similar ‘radical’ farmer movements gathering steam in the early twentieth century:

...the capitalism which was under attack was neither inert nor passive. It was, on the contrary, a highly active and seemingly coordinated body of politically alert men. Although the Populist threat had disappeared, the memory of it was still vivid in the minds of members of grain exchanges, heads of farm equipment trusts, and directors of banks. It is even likely that some of these glimpsed the possibility of enlisting organized agriculture or, rather, re-organized agriculture on the side of capitalism.

The strategic purpose of Farm Bureau, and its timely emergence, becomes clear when listening to its leaders at the first National meeting in Chicago, in November 1919:

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<sup>20</sup> Saloutos and Hicks (1951:273) reference the Iowa Farm Bureau Messenger from January 1, 1924 to illustrate the non-farmer leanings and leadership of AFBF: “No doubt there is much truth, however, to the charge that the Bureau had admitted into membership many who had had ‘no sympathy with the working farmer and his problems. Men with political ambitions who happen to own some land, conservative men of wealth whose money is mainly invested in farm property and professional men of the extension-worker type have seized important positions in the organization and have to some extent dictated its policies.’”

The inception of this national farm bureau association is taking place at a most opportune time. The United States is at present experiencing the greatest period of industrial unrest in its entire history. It is now just one year since the signing of the armistice. During this interval more than 3000 strikes have been inaugurated in this country. Is it any wonder that production has dwindled and cost of living has so greatly increased?

It is our duty in creating this organization to avoid any policy that will align organized farmers with the radicals of other organizations. The policy should be thoroughly American in every respect – a constructive organization instead of a destructive organization.

We shall organize, not to fight any one or to antagonize but to cooperate and to construct, managing the affairs of agriculture in a broad business manner, following the policy that most of the ills complained of by the individual will disappear when business is done in business ways.

In order to do the business involved in a national agricultural association it will be necessary that this association be represented in every place where the business of the farmer is taken into consideration. – (Harvey J. Sconce, president of the Illinois Agricultural Association, cited in Kile 1948:50)

Farm Bureau began as a counter-move to various farm organizations that represented small farmers. In particular, Farmers' Union was considered politically 'radical' because it sought to develop cooperative marketing strategies and credit associations to improve the prices that farmers received, which was farmers' primary concern (Saluotus and Hicks 1951, Benedict 1966, Howard 1983, Rasmussen 1989). The wealthy elite and businessmen worried, evidenced in the speech above, that the organization of small farmers demanding fair pay for their goods could result in massive revolts and possibly disrupt or destabilize the *status quo*. The last keynote speech at the meeting, made by J.R. Howard, the first president of AFBF, summed up Farm Bureau's response to these concerns; 'I stand as a rock against radicalism, but I believe in an organization which strikes out from the shoulder' (Kile 1948:51).

The first farm bureaus were funded by businessmen, Chambers of Commerce, railroads, and wealthy, businessmen-farmers (Saluotus and Hicks 1951, Howard 1983, Rasmussen 1989).

Robert Howard (1983:73-), whose father was the aforementioned banker-farmer and first AFBF president, J.R. Howard, unblushingly concedes:

Many of the first agents were financed in part by city people who wanted their rural customers to be prosperous. Often the money came from a variety of sources, including the federal government....Gradually local control passed to farmers', farm improvement, or crop improvement associations or clubs. Eventually all these groups met federal and extension service standards and, on the Broome County example, used the Farm Bureau name, which was favored by officials in Washington....Men who worked in large city offices were responsible for part of the spread of the farm bureau-county agent system across the North and West about 1912. Programs to improve agriculture were promoted by railroads, farm implement companies, associations of bankers, and the fertilizer industry. Railroads and banks, for example, provided the money that made possible the early placement of a county agent in Bottineau County, North Dakota....Julius Rosenwald, the philanthropist head of Sears Roebuck and Company,....donated \$100,000 to encourage the formation of crop improvement associations. He offered \$1,000 each to the first 100 counties in which farmers would organize, raise from \$2,000 to \$5,000 locally, and hire an agent for at least two years. Dubuque County, Iowa rejected the grant on the theory that money from a corporation would be tainted, but Rosenwald was responsible for the founding of farm bureaus in the Midwest and one in Arkansas.

Beyond a desire to counter 'radical' farm organizations, Farm Bureau and Agricultural Extension came into existence to 'educate' farmers that they needed to purchase new technologies to be successful farmers. Hurt (2002:92) explains; "Farm organizations shaped, if not determined, the choices and responses of their constituents, and they played an instrumental role in crafting agricultural policy." AFBF was not a farmer organization by farmers, rather it was an organization of business interests that co-opted the voice and vote of farmers to make and maintain them dependent on merchants' goods (Berger 1971). Howard (1983:76-7) continues:

The Farm Bureau spoke for all farmers, but only a minority were members.... Among rural residents, however, a high percentage were nonintellectuals who did not want anything new and did not believe that a young college graduate could teach them anything worth knowing. Barring an economic crisis and an evangelistic recruiting campaign, they were not inclined to be joiners. To a large extent, those who joined Farm Bureau came from the more progressive and more prosperous class.

The governing and scientific elite in the United States had an unwavering belief that common small farmers were unable to make rational decisions, fueled primarily by the leading



agricultural economists of the day (Saluotos 1982). In 1920, Henry Wallace, publisher of the agricultural journal, *Wallace's Farmer*, and later Secretary of Agriculture of the United States, explained that farmers were never intended to speak for AFBF. Rather they were lobbying leverage for the business leaders:

This Federation must get to work at once on a real business program if it is to justify its existence. *That doesn't mean turning the work over to committees of farmers, either. Every line of work must be in charge of experts.* The best qualified men in the United States should be hired to manage each of the various lines of work. This federation must not degenerate into an educational or social institution. It must be made the most powerful business institution in the country" (in Kile 1948:56).

Marsden (1994:308) explains that in the American Association of University Professors' (AAUP) 1915 *Report of the Committee on Academic Freedom and Tenure* they conclude that democracy is 'both a check against tyranny and itself a potential source of tyranny through intolerant public opinion. Experts were desperately needed to keep democratic opinion from being swept by waves of irrationality.' As Howard's (1983) quote above indicates, the 'nonintellectual' class of farmers was considered susceptible to irrationality. This 'irrationality' actually refers to a different value system and worldview, one in which progress is not equated with commercial success and profit (Banuri 1990). Bernal (1994:793) clarifies this distinction:

For many development practitioners, values other than those set by the market are impediments to the rational use of resources. The expansion of capitalist markets is held to be the key to economic growth and prosperity. To the degree that peasant producers are not motivated by profit, and their land, labor, and produce are not freely marketable commodities, they are seen as obstacles to progress.

Farm Bureau provided an apparatus for the wealthy governing elite to speak for the farmer, and in doing so, remove any possible obstacle in the way of their notion of progress.

Small farmer groups did not sit idly by as Farm Bureau stole their voice. They spoke out against AFBF as 'an agent of big business' (Hardin 1952, Hurt 2002:52). Throughout the century there have been continuous attempts to expose Farm Bureau's appropriation and

misrepresentation of farmers' voices and their connections with government and big business. Yet, without access to major media outlets, these cries were rarely heard<sup>21</sup>. AFBF's financial and political connections, in conjunction with their propagandistic strategies, were too strong.

Farm Bureau continued to increase farmer membership through savvy and informed propaganda and public relations strategies that mimicked those of government and big business of the era (Childs 1935, Saluotos and Hicks 1951, Block 1960). Saluotos and Hicks (1951:271) describe this propaganda strategy and apparatus in *Agricultural Discontent in the Middle West:1900-1939*:

Distinctly businesslike was the creation of the department of information to keep the general public "sympathetically informed" about the Farm Bureau. This department kept "the closest possible co-operative relationship" with the publicity departments of the state federations. The latter, in turn, were expected to localize the publicity materials coming from the national headquarters and to build up efficient publicity departments.

The department of information was divided into various divisions with special duties to perform. The news service, one of the subdivisions, issued the *Weekly News Letter*, which summarized the work of the federation. In addition, the *Weekly News Bulletin* was issued to the agricultural press and to weekly publications in those territories in which the state federations did not have publicity directors. News releases were issued several times each week to the Associated Press, the United Press, the International News Service, the Universal News Service, the Newspaper Enterprise Association, Scripps-McRae, and the Publishers' Autocaster Service Company. The editorial service, another subdivision, assembled information and collected figures of interest to editorial writers on agricultural problems. The feature service furnished and distributed to magazines, newspapers, and county farm bureaus special articles written by Bureau leaders. A publishing department printed pamphlets, reports, and other publications of the federation. A project was also undertaken to publish, through a reputable publishing firm, a series of Farm Bureau books. A farm films service, indeed novel for those days, was established through an arrangement with the Illinois Agricultural Association to take advantage of motion pictures as an educational medium. Upon failing to obtain bona fide farm films from established firms, a Farm Bureau motion picture division was

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<sup>21</sup> Dale Kramer (1950), *The Truth about the Farm Bureau*, originally released in 1922 as a pamphlet, Helen Fuller (1942) *Who Speaks for the Farmers?* Wesley McCune (1943) *The Farm Bloc*, Saluotos and Hicks (1951) *Agricultural Discontent in the Middle West 1900-1939*, Berger, Samuel (1971), *The Dollar Harvest*, in addition to numerous pamphlets and publications by various rival farm organizations.

established. Complete information on this novel experiment is lacking, but it is known that a number of pictures, a series of newsreels and animated cartoons were produced.

In addition to their public relations barrage, especially crucial in their ascendance was an ‘economic crisis and an evangelistic recruiting campaign’ funded by the United States treasury (Howard 1983:77). President Franklin D. Roosevelt inherited the worst economic depression in U.S. history. He called Congress into a special session that would later be known as the ‘Hundred Days.’ By the time Congress emerged, they had passed ‘the most unprecedented and long-lasting legislation in American history....legislating farm programs for both immediate relief and long-term recovery’ (Hurt 2002:68). Farm Bureau voraciously lobbied for, and in some cases designed, these government farm subsidies (Benedict 1966, Berger 1971, Hurt 2002). The myriad farm subsidies that emerged are well beyond the scope of this research, however, I will elaborate on one particular political contrivance between AFBF, USDA, and Agricultural Extension that empowered AFBF immensely.

O.M. Kile (1948:198), agricultural economist and AFBF publicist who wrote the original Farm Bureau public relations text *The Farm Bureau Movement* (1921), writes in his officially sanctioned history *Farm Bureau Through Three Decades*; “With a President committed to liberal farm legislation and a sympathetic Congress, ...The Farm Bureau was ready now that its great opportunity had come....” They were ready to swiftly gain control of agricultural policy in the United States. According to Kile (1948:199), Farm Bureau was given the responsibility of crafting the bulk of the Agricultural Adjustment Act (AAA) of 1933<sup>22</sup>. This legislation encouraged crop reduction to boost the prices that farmers received. Yet, it only benefited the largest landholders and resulted in a dependence on subsidies that farmers have never overcome (Hurt 2002:83). The farm subsidies were to be administered by an Agricultural Administration

Agency (AAA) that would oversee the monitoring, accounting, and distribution of the subsidies, however, because of Farm Bureau resistance and a need for an expeditious implementation, control landed in the hands of Farm Bureau and Agricultural Extension (Block 1960, Campbell 1962). Kile (1948:205) clarifies the role of Farm Bureau in subsidy distribution:

One of the first jobs to be done after assembling personnel, was to make contracts with millions of farmers to reduce acreages of specified surplus crops in return for benefit payments....The AFBF was right on the job. Advices went out from Chicago headquarters late in June to each state farm bureau office, asking them to: 1) call meetings of their boards of directors with state extension services to decide whom they wanted to administer the Act in each state, and demand that the administration be non-political; 2) ask every county farm bureau and county agent to make an immediate survey among farmers to determine whether they wanted to use the benefits of the Act in that year; 3) to report findings to state and national farm bureau headquarters to their respective governors, senators and congressmen and to Secretary Wallace....

Mr. O'Neal added the emphatic statement that state and county farm bureaus and county agricultural agents should serve as the instruments for making the administration of the Act effective. State farm bureaus went to work and soon took a dominant place in this activity and on the AAA county committees. The strong local farm bureau units soon became the logical clearing-houses through which the county and township production control associations were organized.

Farm Bureau and Agricultural Extension assumed extensive responsibilities during this period and correspondingly experienced significant boosts in enrollment and funding (Berger 1971, Hurt 2002). During the AAA mobilization, Farm Bureau launched expansive membership drives. In many cases, they implied that farmers had to belong to the Farm Bureau in order to receive their crop reduction checks or that AFBF was responsible for the subsidies that farmers received (Block 1960:19, Berger 1971:98). AFBF membership experienced a significant increase to the chagrin of rival small-farmer organizations that complained about the injustice,

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<sup>22</sup> Berger (1971:97) notes that while Kile (1948) claims that Farm Bureau drafted the Agricultural Adjustment Act of 1933, a later study by Campbell (1962) disputes Farm Bureau's role as an 'originator of New Deal Policy.'

but could do little to stop it<sup>23</sup> (Block 1960, Campbell 1962, Benedict 1966). As long as the government was distributing funds, Farm Bureau amassed power through the control and redistribution of checks. As Scott (1998:5) outlines in *Seeing Like a State*, ideology is disseminated most quickly, and with the least resistance, when an authoritarian state intervenes and creates ‘fertile soil’ for its spread, specifically during times of war and depression.

Eventually, the Roosevelt administration asserted itself and assumed more control over the supervision of the government’s farm programs. USDA moved to ‘democratize’ the agency, ‘by dealing directly with farmers, which would obviously decrease the influence of the Farm Bureau’ (Berger 1971:101). These changes halted some of the redistribution politics of AFBF and angered its leaders (Saluotos 1982). Roosevelt’s administration felt they had curbed the immediate farm crisis and looked to assist ‘the rural poor, the subsistence farmer, and the rural black man, with the creation of the Farm Security Administration (FSA) (Hurt 2002). Samuel Berger (1971:101) asserts; “The Farm Bureau claims and deserves credit for destroying the Farm Security Administration.” The Farm Bureau opposed FSA because they could not control it and because it did not benefit their leaders, businessmen and large landholders (Hurt 2002, Campbell 1962). Farm Bureau’s opposition to the FSA, which would have alleviated the burden on small U.S. farmers, reveals where their true interests resided (Saluotos and Hicks 1951, Berger 1971). Hurt (2002:90-91) sums it up well; “The Farm Bureau...claimed to be the “voice of agriculture,” though it spoke only for larger-scale commercial producers. It opposed the unionization of labor as well as the Farm Security Administration because the FSA operated independently of the extension service and catered to small-scale, marginal farmers.”

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<sup>23</sup> William J. Block (1960) documents the extensive opposition to the connections and cooperation between Farm Bureau and the Agricultural Extension Service by extant farmer groups and movements in his work, *The Separation of the Farm Bureau and the Extension Service*.

Although many rival farmer organizations consistently claimed that Farm Bureau members were large-scale landholders who engaged in little actual farming, this was not the case (Saluotos and Hicks 1951:273, Campbell 1962). Since the beginnings of industrialism in the United States, farmers have been fleeced by railroads and middlemen and consistently felt that they were treated unjustly by the government. They felt a strong urge to organize and Farm Bureau capitalized on that desire. Farm Bureau convinced farmers of all stripes that they represented them and would fight for them in Washington. Despite evidence to the contrary, as farmers saw the AAA subsidies and heard Extension agents repeatedly claim that Farm Bureau lobbied for them, many joined ranks with the influential Farm Bureau. Farmers wanted to feel powerful and Farm Bureau gave them that feeling, illusory or not. They took full advantage of their opportunity to control the farm vote because it was through their ability to affect elections at local, state, and national levels that they maintained and increased their congressional power (Saluotos and Hicks 1951, Campbell 1962). They maintained hegemony over their farmer members and the public through efficient, choreographed public relations campaigns (Saluotos and Hicks 1951). Despite these campaigns, many farm leaders and government officials continuously demanded the separation of Farm Bureau and Extension, claiming that the connection compromised the ability of Extension to objectively assist farmers in need (Hardin 1952, Block 1960). Finally, after three decades of collaboration, administrative fragmentation and pressure from other farm groups resulted in the official divorce of Farm Bureau and U.S. government Extension (Hardin 1952, Block 1960, Campbell 1962). Contemporary Farm Bureau propaganda successfully obscures the marriage and divorce, and in the minds of most modern-day members, the two were never united (Schuttler 1948, Berger 1971).

## Scientific Management

At the turn of the twentieth century, members of the United States government and the industrial entrepreneurial elite foresaw a necessary change in agriculture. They believed that the industrial revolution needed to be applied to agriculture. In 1909, President Roosevelt's Country Life Commission concluded that there were problems with rural areas that needed to be corrected, that the necessary step to improve the 'business of agriculture' was '...nothing more or less than the gradual rebuilding of a new agriculture and a new rural life' (Hurt 2002:16). To realize these lofty goals, agricultural colleges proposed a new approach to farming. They applied Frederick Taylor's concept of scientific management to farming in order to pursue this business-oriented approach. Scientific management originally gained recognition at the turn of the twentieth century, in response to rampant labor-ownership conflicts in industrial plants. Taylor proposed that scientific managers would serve as liaisons between industrial plant owners and employees, thereby removing the culpability of the owners for worker mistreatment. The scientific manager objectively assessed the workers' and owners' situations and devised, through scientific methods and reasoning, an impartial work and pay schedule that was fair to both parties. Not only did they serve as liaisons, they improved the efficiency of the industrial plants, increasing profits and decreasing expressed worker discontent (Merkle 1980). The application of scientific management progressed throughout the United States and abroad to myriad industries and academic disciplines. As James Scott (1998:197) explains, agricultural engineers applied scientific management with indiscriminate devotion:

The high tide of enthusiasm for applying industrial methods to agriculture in the United States stretched roughly from 1910 to the end of the 1930s. Agricultural engineers, a new specialty, were the main carriers of this enthusiasm; influenced by currents in their parent discipline, industrial engineering, and most particularly by the doctrines of the prophet of time-motion studies, Frederick Taylor, they reconceptualized the farm as a "food and fiber factory."...The industrial model was applicable to some, but not all, of

agriculture. It was nonetheless applied indiscriminately as a creed rather than a scientific hypothesis to be examined skeptically. The modernist confidence in huge scale, centralization of production, standardized mass commodities, and mechanization was so hegemonic in the leading sector of industry that it became an article of faith that the same principles would work, *pari passu*, in agriculture.”

The concept of scientific management was much more than an industrial model of efficiency; it was perceived as a moral order that would change the way practitioners saw the world. As Judith A. Merkle (1980:40) describes in *Management and Ideology: The Legacy of the International Scientific Management Movement*; “Much as Saint-Simon before him, Taylor saw science as a moral system taking the place of a dying Christianity in the new industrial order. The machine, with its universally imposed discipline, was the visible symbol of the new moral order” (Merkle 1980:). Comte’s (1851-1854) positivism experienced a renaissance; his religion of science was coming to fruition. Merkle (1980:80-1) describes the resurrection of Comte’s positivism in scientific management:

The Scientific Management movement was considerably more than a movement for the application of science in management. It was a means for converting industrial technology into ideology. In the universal application of the differential piecework rate, time-and-motion study, and the centralized planning of work routing, the scientific managers saw a true revolution in social relations, and the means of bringing rational order to a society destabilized by industry. From the hard reality of production technology, they derived the shakiest postulates: that social efficiency is the analogue of machine efficiency, and that the appropriate social order mimics the internal organization of machinery – designed by experts according to a pattern of minute specialization, rigid hierarchy, and absolute control.

In addition to their devout belief in the science of agriculture, agricultural scientists and Extension workers shared with merchants, railroad owners, and bankers the belief that the goal of agriculture should be to earn profits. A University of Missouri Agricultural Extension bulletin from January 1938, *Re-planning Missouri Farms*, declares; “Net *total farm* income is the goal....Good management means answering the question ‘will it add more to the income than it



costs?,' with regard to every farm enterprise, practice, or financial decision....The only purpose of management is to guide production toward greater *future* net returns" (Ibach 1938).

### **Agricultural Economics versus Agrarianism**

From 1900 to 1930, the United States agricultural economy fluctuated rather uncontrollably (Campbell 1962, Saluotos 1982). While USDA officials had opposed government intervention into the strict economics of U.S. agriculture, that changed with the appointment of Henry Wallace, the ardent AFBF supporter and agricultural media publicist cited above, as Secretary of Agriculture. Wallace's tenure as Secretary of Agriculture was highlighted by his reliance on agricultural economists to amass agriculture statistics and develop activist economic agricultural policy (Saluotos 1982). Agricultural economists from land grant universities headed his newly formed Bureau of Agricultural Economics (BAE). Theodore Saluotos (1982:18), renowned American agricultural movement and policy expert, explains that:

The importance of the BAE as a research and educational agency cannot be overemphasized. It attracted ...some of the foremost thinkers in agriculture and began exploring hitherto neglected fields. The BAE helped establish a graduate school of studies in the USDA in which courses often were taught by leaders in their respective fields, set standards that ranked ahead of most, if not all, federal departments with cabinet rank in the federal service, and promised to launch a series of studies touching every phase of production and prices.

The BAE worked in close concert with land grant universities and AFBF to develop agricultural policy. Agricultural economists developed policies during the 1920s and '30s that were designed to simultaneously stimulate scientific commercial agriculture and eliminate inefficient farmers (Cauley 1935). Henry Wallace discursively justified and rationalized such policies through propaganda on the radio, the primary vehicle for such propaganda at the time (Childs 1943). He attempted to convert the public to the perception of agriculture as a business that needed to be improved by science, while simultaneously denouncing and discouraging the agrarian movement

occurring in response to the Depression, in which urban poor and homeless returned to the country to scrape out a subsistence living. He implored in a radio address May 13, 1933:

A tragic number of city families are reoccupying abandoned farms, farms which born farmers, skilled, patient, and accustomed to doing with very little, were unable to make a go of it....We do not need any more farmers out in the country now....

To reorganize agriculture, co-operatively, democratically, so that the surplus lands on which men and women now are toiling, wasting their time, wearing out their lives to no good end, shall be taken out of production – that is a tremendous task. The adjustment we seek calls first of all for a mental adjustment, a willing reversal of driving, pioneer opportunism and ungoverned laissez-faire. The ungoverned push of rugged individualism perhaps had an economic justification in the days when we had all the West to surge upon and conquer; but this country has filled up now and grown up. There are no more Indians to fight. No more land worth taking may be had for the grabbing. We must experience a change of mind and heart.

The frontiers that challenge us now are of the mind and spirit. We must blaze new trails in scientific accomplishment, in the peaceful arts and industries. Above all, we must blaze new trails in the direction of a controlled economy, common sense, and social decency” (cited in Lord 1944:43).

Wallace understood that the public did not share the perception of farming that his BAE economists held and that the primary task for them was a ‘mental adjustment’ of the farming population. His characterization of subsistence farming as ‘wasting their time, wearing out their lives to no good end’ embodies the USDA perspective and their policies at this time. Bernhard Ostrolenk (1935:xvi-xvii) sums up the mindset of Wallace’s agricultural economists:

An increasing group of economists believes that fundamentally an adjusted production will build up a wealthier farm population. This does not mean lesser total production, but less submarginal production. It does not involve the stopping of progress, or the lesser use of machinery, land, or labor. It may, in fact, involve the greater use of all three. It does involve the turning back of unprofitable land and the ridding of agriculture of incompetent producers by permitting the free play of the weeding process of price.

Troy J. Cauley (1935:61-3), Professor of Economics at Georgia Tech University and an intellectual representative of the agrarian tradition<sup>24</sup>, responded to Ostrolenk and other agricultural economists of the era who promoted policy designed to eradicate small farmers:

What type of farmer do economists and others generally have in mind when they speak of the “submarginal farmer” or the “incompetent producer”? Usually it appears to be a farmer who employs small scale methods, utilizes hand labor as against machinery, and does not specialize in the production of any single crop or type of live-stock. Further he is thought of as carrying on these operations on poor land, either from the standpoint of its lack of fertility or its remoteness from markets, or both. He is the “hill billy”, the “backwoodsman.” He raises a little patch of corn, a little dab of potatoes, and other dabs of various other crops. He has a few head of scrub live-stock which subsist largely upon what the Lord provides. His methods are traditional, not to say superstitious, rather than scientific. Of business efficiency he has none.

This is the type of farmer who is to be removed from agriculture for his own good and for the good of the country as a whole, and the process by which he is to be removed is that of the “weeding process of price,” which is to say that he is to be driven into bankruptcy by the low prices of farm products and thereby be eliminated as a producer. If this be the type of farmer who is to be eliminated, what type is to be left to carry on agricultural production? The type is described in almost glowing terms by Professor Ostrolenk (1932:30-31):

“A few farmers with foresight and the available capital have been able to make use of them (all of the great variety of new and improved machines for use in agriculture); but the vast majority is still farming as in the days before the tractor. The vastly increased production during and after the World War in spite of lessened farm help must be attributed to this small minority who had begun to avail themselves of these extraordinary aids to production....But a second phase in the agricultural revolution, and one more significant than the mechanization of agriculture, is the metamorphosis of the farmer into a business man. For years agricultural colleges in every state had been graduating groups of young men who were returning to the farms with new ideas. The high schools were supplementing this work with the younger boys who could not go to college. Extension systems of agricultural colleges brought to every hamlet the latest information on the

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<sup>24</sup> During the 1930's a group of twelve 'Southern' authors each contributed an article for a book entitled, *I'll Take My Stand*, (Southerners 1930) which represented their 'stand' against industrialism. They delineated the agrarian tradition and juxtaposed it with industrialism, outlining the evils of industrialism and the applied sciences that precipitated and disseminated it disingenuously. They proposed, similar to Marx, that industrialism dehumanizes the laborer and depicts work itself as 'mercenary and servile' and encourages people to avoid it with labor-saving devices. Agrarians, on the other hand, embrace labor and believe that it must be both effective and enjoyable. They understood where the perverse elements in society resided and urged the rural population to reject it; "How may the little agrarian community resist the Chamber of Commerce of its county seat, which is always trying to import some foreign industry that cannot be assimilated to the life-pattern of the community?...For, in conclusion, this much is clear: If a community, or a section, or a race, or an age, is groaning under industrialism, and well aware that it is an evil dispensation, it must find a way to throw it off."

newer agricultural methods. By institute demonstrations, lectures, fairs, and exhibits the farmer was introduced to the results of researches that were laying the foundation for the agricultural revolution. Crop production and animal husbandry were raised from a superstition to a science. These newer farmers studied markets, and demanded and received more accurate information about crop movements, intended plantings, market demand, and distribution agencies....Farming ceased to be a personal vocation to them dependent on weather or whims, and became an industry and science, with reasonably exact forecasts in production for each unit of land, labor and capital employed”

Cauley (1935:63-4) once again retorted to Ostrolenk, explaining that although the agricultural economists devised a seemingly foolproof plan to rid the U.S. economy of hillbilly farmers, they failed. They forgot to consider that small farmers who have not purchased items on credit cannot go into debt and therefore cannot be eliminated from the agricultural market. When hillbilly and backwoods farmers feel that the price is too low, they don't sell. Cauley (1935:72) relates:

A farmer lounging on the courthouse lawn of a small town in Tennessee said, “When a farmer starts keepin’ books he’ll go broke shore as hell,” in which he apparently said something approaching a profound truth. But “submarginal” farmers do not keep books and do not conduct their farming operations in book-keeping spirit, so to speak. And consequently they do not go broke, any more than the wild Indians ever went broke. At times they pull in their belts and at other times they let them out a little, but by and large they keep on farming.

The governing and business elite became aware of this truth as middle-of-the-road farmers who invested and indebted themselves for the promise of machinery and scientific agriculture were eliminated from agriculture by the Depression, while traditional farmers retreated back into strictly subsistence farming (Cauley 1935). To remove subsistence farmers from agriculture, the capitalist elite would have to destroy the conservative value system of poor farmers and make them dependent, and in doing so, take the whole farming population with them.

### **Displacement of the Agrarian Myth**

Through comprehensive and effective preaching, marketing, and propaganda by USDA, agribusiness industry and media, Agricultural Extension, and Farm Bureaus, by the mid-twentieth century most U.S farmers had converted from spirituality or subjective agroecological

knowledge to technocratic ideology as their guiding approach to farming (Berger 1971, Rasmussen 1989). In the process, they had been transformed from the *Agrarian Myth*'s chosen tillers of the soil to modern agri-businessmen. Yet, there were many 'reluctant farmers' who remained skeptical about the whole-scale adoption of modern agricultural strategies (Scott 1970). Some of these reluctant farmers, whom the social scientists studying technology diffusion referred to as 'skeptics', were obstinate because they still did not share the values and beliefs of U.S. businessmen (Lionberger 1960:66). Herbert F. Lionberger (1960:66), in *Adoption of New Ideas and Practices: A Summary of the Research Dealing with the Acceptance of Technological Change in Agriculture, with Implications for Action in Facilitating Such Change*, describes the problem with skeptics; "Those who are slow to adopt new ideas or practices and who insist on more than average evidence of acceptability are generally viewed with disfavor by educators because such persons serve as barriers to change."

### **Applied Social Science**

Social science research branching out from land-grant colleges and funded by various 'philanthropic' businessmen, organizations, and USDA assisted in technocratic rationality dissemination. These social scientists, rural sociologists and agricultural economists primarily, considered themselves objective researchers, advancing knowledge and spreading beneficial scientific agricultural applications (Lionberger 1960, Leagens and Loomis 1971, Reeder 1979). They conducted scientific analyses of the diffusion process to facilitate the widespread acceptance and adoption of agricultural technologies developed by companies and Land-Grant University agricultural engineers and specialists (Lionberger 1960, Leagans and Loomis 1971). The Agriculture Extension Service felt motivated and emboldened by social scientists who were examining the human 'behavior' problem and facilitating their work of agricultural conversion.

Social scientists informed Extension agents that, ‘...wherever people’s behavior has been studied, it has been found possible to change it in at least five ways – what they know, what they can do, what they feel, what they think they ought to do, and what they actually do....scientists with their scientific truth are change agents as much as Extension workers with their educational action” (Reeder 1979:87).

In their research, social scientists examined farmers’ sources of agricultural information, in an approach similar to mine cited at the beginning of this chapter, however they detailed methods for convincing farmers to change approach. Subsequently, their findings were distributed to agricultural Extension Service offices in rural counties throughout the country. The most systematic and strategic methods for coercion were shared. Agricultural Extension agents around the country now had an esoteric diffusion vocabulary and methodology that allowed them to forge a multi-pronged offensive. The following quote describes Extension practitioners’ excitement upon receiving the research:

While the Extension pioneers were building bridges from their trial-and-error methods, the humanities scientists were beginning to look more closely at this effort in adult education....One day in 1955 a little publication appeared on Director Anderson’s desk in Iowa that talked about how farm people accept new ideas. With it was a request for 500 mimeographed copies. Marvin read it and exploded, ‘Hell’s bells, if it’s as good as I think it is, lets’ get enough to put it out where it can be used.’ He was right, of course, and the publication has been reprinted 14 times for use around the world. It had been done originally by Joe Bohlen and George Beal for a flannelboard presentation called ‘The Diffusion Process.’ It discussed the now famous stages of awareness, interest, evaluation, trial and adoption, plus a discussion of the communication channels that had the most effect at each stage. Shortly to become household words to Extension practitioners were such names as innovators, adoption leaders, late adopters. Here in respected research form was a publication that put labels on what agents had been struggling to do through snow, mud, heat, over bad roads and bridgeless streams (Reeder 1979: 32-3).

Diffusion studies proposed that in each community there existed variation in receptiveness to new technologies and ideas and specific stages of adoption, and that different

forms of media varied or complemented each other in their abilities to effect change (Lionberger 1960, Leagens and Loomis 1971). Researchers also determined that farmers' 'psychological characteristics' and their interaction with, and attitude toward, university agricultural research and Extension related significantly to the adoption of new agricultural technology. According to Lionberger (1960:98-9):

A number of personal characteristics related to adoption rates have been considered. These include rationality, mental flexibility, dogmatism, orientation toward farming, and innovation-proneness. When rationality is defined in terms of maximizing profits in farming, it may operate as an intervening variable between contacts with educational agencies, and the adoption of new farm practices. In other words, exposure to reliable sources of farm information may create a state of rationality which in turn predisposes an individual to the adoption of new practices....

The farmer who is inclined to mental rigidity tends to resort to the traditional formula of hard work, persistence, and thrift in matters of farm management. A mentally flexible person, on the other hand, is capable of perceiving significant elements in novel situations, of dealing with them mentally, and of making adjustments to them. The latter would most certainly be associated with high adoption rates. This was found to be the case among beef cattle farmers in a Kansas county, and among a selected sample of farmers in Ohio. In the Kansas study, professional orientation toward farming was associated with high adoption rates. This quality was defined in terms of contacts with county agent, attendance at Feeder's Day conferences, favorability toward the College of Agriculture and the Extension Service, and willingness to try new farm practices before trial by neighbors.

Rationality is a consistent theme in agricultural modernization. Farmers who adhere to a traditional value system that venerates 'hard work, persistence, and thrift in matters of farm management' are cast as irrational, while farmers who interact with the disseminators of technocratic ideology and adopt their belief system are considered to have a 'professional orientation.' Social scientists studying agricultural technology diffusion in land-grant colleges considered themselves 'objective' scientists, yet their research programs proposed not to merely document, but rather to change the values and belief systems of rural people. Their studies of the diffusion process and its application in the agricultural arena were early examples of applied

social science research in the United States. It speaks volumes to the need for researchers to critically examine the funding sources and possible repercussions of all aspects of their studies (Bennett 1996, Brosius 2001).

Lionberger (1960:ix) acknowledges the presence of coercion in applied social science when he explicitly states that; “Almost every organized group is concerned with educating or influencing somebody. Industry, labor, and management have their own public relations programs. Churches are dedicated to perpetuating and extending their religious beliefs...Land-grant institutions recognize this need also.” Despite devotion to neutral science and recognition that intentional propagandizing takes place through his research, his dogmatic belief in the benevolence of science, technology, and progress override any possible detrimental repercussions. Diffusion scientists believed that there existed agricultural problems, technological in nature, and beyond the comprehension of the simple farmer, that required technological solutions from the educated class. Habermasian theorist, Thomas McCarthy (1978:39) conceptualizes that technocratic rationality creates a “depoliticization of practical issues...defined as technical problems whose solution must be left to the appropriate technicians. With the fusion of science, technology, industry, and administration, a perspective arises in which ‘the development of the social system seems to be determined by the logic of technical progress.’”

### **Diffusion Research in Agricultural Media**

Agricultural media, primarily agricultural magazines, serve as the initial introduction to new agricultural technology and ideas. These farm magazines are “virtually farmers’ only source of sustained journalistic coverage of agricultural issues, rural life, and the business of farming” (Walter 1996:595). Richard Krumme (1983:234), editor of *Successful Farming*, has an



article, *The Future of Farm Magazines*, in the edited volume, *Agriculture in the Twenty-First Century*, which was funded by Philip Morris Incorporated and based on a symposium at the Colgate Darden Graduate School of Business Administration at the University of Virginia, that describes the role that agricultural magazines have played in the business, journalism, and agricultural spheres of the United States:

Farm magazines...were well ahead of consumer magazines in collection of demographic data about readers....No other demographic group is so identified, so measured, as are farmers.... Magazines such as *Successful Farming* tend to rise and fall with the relative health of agribusiness, that is, with the welfare of those who advertise their wares to farmers. Our subscription pricing structure does not require the reader to pay a full and fair price for the magazine. Instead, most farm magazines are subsidized by the advertisers. There are a number of successful controlled-circulation magazines, that is, free, which derive no revenue from readers....We have a circulation of 10,000 – in the South – which is nonpaid. The economics of soliciting and procuring a low-cost subscription simply were not there, yet we wanted those readers in order to achieve a penetration into certain farm enterprises.

Information dissemination is strategically planned and coordinated with various forms of mass media ‘to achieve a penetration into certain farm enterprises’ and infuse a subliminal effect on the farmer (Lionberger 1960:43). Similar messages and themes appear repetitively in myriad agricultural media, including farm magazines, Extension literature, and industry pamphlets<sup>25</sup>.

Wolf (1982:388) explains the purpose of such redundancy:

The development of an overall hegemonic pattern or “design for living” is not so much the victory of a collective cognitive logic or aesthetic impulse as the development of redundancy – the continuous repetition, in diverse instrumental domains, of the same basic propositions regarding the nature of constructed reality.

Specific themes, like mantras, are repeated *ad nauseam* in agricultural media to establish and reinforce technocratic rationalization. These conversion strategies were developed and refined by social scientists studying technology diffusion.

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<sup>25</sup> Charles A. Siepmann (1950) delineates propaganda techniques in his book entitled, *Radio, Television, and Society*. Propaganda strategies he describes include repetition, insistent exaggeration, identification, the appeal to

Through content analysis of farm magazines I uncovered specific themes and trends in both articles and advertisements directly or indirectly influenced by diffusion studies (see Appendix E for examples). I will now provide specific examples from Farm Journal ® magazines from the 1960s that illustrate their consultation and implementation of the diffusion research in order to coerce the farming public to change their farming approach<sup>26</sup>. Lionberger (1960:12) specifically prescribes an appeal to traditional values; **“Practices compatible with existing ideas and beliefs are most likely to be adopted quickly.”** To appeal to current beliefs and values, farm magazines showcased the morality of traditional society. They veiled their belief in scientistic rationalist ideology under a thin guise of traditionalism. As Gerry Walter (1996:597) explains in *The Ideology of Success in Major American Farm Magazines, 1934 – 1991*:

*Farm Journal* has for years claimed to serve ‘families who own or operate farms/ranches.’ *Successful Farming* similarly invokes the farm family on its masthead, and *Prairie Farmer* from its founding pledged to ‘strive to make the paper contribute to the whole of the farm family’. Yet the magazines’ mission statements and declarations of editorial policy also have regularly invoked commercial elements of agrarianism... editorials equated farming success with understanding supply and demand, and both magazines early on proclaimed their commitment to higher production; greater economic efficiency; and more modern, science-based technology.”

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authority, false association, and herd instinct, many of which have been consistently followed by the agricultural media.

<sup>26</sup> Wesley McCune (1943:8-10) argues that some agricultural representatives in United States government in the first half of the 20<sup>th</sup> century did not represent farmers and strategically disseminated media that pushed business rather than farmer agendas. He states “Nor are all constituents farm-bloc farmers. There is a powerful voice of business – both big and little....The United States Chamber of Commerce...has had an agricultural division for years...composed of big farm operators and heads of companies that process farm commodities....A third item of significance in the effort of industry to hold the moral support of agriculture, sometimes making it a silent partner in farm-bloc proceedings, is the program of the National Industrial Information Committee, sponsored by the National Association of Manufacturers and composed of the cream of New Deal enemies, the committee functions under the following officers: national chairman, J.Howard Pew, president of the Sun Oil company; vice-chairman, Ernest T. Weir, chairman of the board of the National Steel Corporation, and the other vice-chairman, C.M. Chester, chairman of the board of General Foods Corporation....Another illustration of the fact that not all who sport the farm label are in overalls is the backing of the potent *Farm Journal* and *Farmer’s Wife*, self-acclaimed to be the most influential farm periodical. Editor of the *Journal* since 1921 has been Arthur H. Jenkins, who is also treasurer of the corporation. .... Four owners of the *Journal* ...are four members of Pennsylvania’s archconservative Pew family. J. Howard Pew, mentioned earlier, is also a director of the Philadelphia National Bank, the Sun Shipbuilding and Dry Dock Company, and the American Petroleum Institute. J.N. Pew, Jr. has been with the Sun Oil Company since 1908 and is vice-president of Sun Shipbuilding and Dry Dock.”

1960s *Farm Journal* advertisements and articles appealed to farmers' traditional understanding of morality because rural populations at the time had not yet allowed themselves to trust science and technology as sincere mediating forces in the moral economy. One specific example of this use of traditional morality by industry can be seen in the presentation of their product as a correlate to a paternal care for family and stewardship of livestock (see Appendix E). An advertisement that graphically resembles an article states:

How many of these good management practices do you use with your baby pigs? A quiz for pork producers who love their way of life on the family farm and are determined to succeed. by Tom Staley Dean of the Professional Advisors ...We found that nursing pigs, when creep-fed our Professional Pig Kisses, gained, on the average 9 lbs more per pig than baby pigs not creep-fed....We call this our Professional Program of Care and Kisses. Check below how many of these proven profitable practices you follow:....Professional Feeds, Armour Rd. K.C., MO, beacon division of Textron, Inc. (Farm Journal ® May 1964:58c).

In the same advertisement, they appeal to family, stating, "A good start always involves taking care of many little details from the very beginning. This is true whether you're building a house, raising a son, or producing pork" (Farm Journal 1960:58C). Following agricultural diffusion studies, industry appealed to the most fundamental agrarian value; family. Similarly, a May 1964 Farm Journal ® advertisement appeals to farmers' reverence for nature. They provide an aerial view of expansive wheat fields being combined with the caption; "The good earth nourished it. The summer sun ripened it. Now three Massey-Ferguson Combines harvest it, non-stop! (A1-3). Other advertisements and articles similarly appeal to the farmers' affiliation with nature.

Along similar lines, I discovered that the 1960s Farm Journal ® magazines rarely displayed explicit photos of agricultural chemicals, their receptacles, or the spraying process. Chemicals were praised for their abilities to improve yields and cost and labor-efficiency while

decreasing nuisances, like unwanted plants and pests. They were simultaneously alluded to with pictures of undesirable pests and plants (weeds) and statements such as; “At the crucial germination stage, don’t make your soybean seedlings fight with weeds for their share of sun and nutrients. Control annual grasses and many broadleaved weeds for four to six weeks with one application of PPG CHLORO IPC herbicide” (Farm Journal ® May 1964:50F). Agricultural diffusion studies (1960:16) had correspondingly advised:

**Educational programs must take values into account.** A direct attack on values that are obstructing change may generate antagonisms and make the educational job much more difficult than it already is. Over a long period, it is frequently possible to modify such values and create a more favorable point of view. However, short-term educational programs had better be developed in deference to the existing value structure” (Lionberger 1960:16).

Farmers were skeptical about chemicals because they were novel and artificial. Industry had to defer to the existing farmer value that nature was to be maintained and protected, because from their agroecological interactions, farmers knew that it afforded them their livelihood. Farmers’ conservatism and reluctance to adopt chemicals were ‘obstructing change’, so, as diffusion studies recommended, industry appealed to farmers’ values, initially. In contrast to the 1960s agricultural chemical ads, the 1980s *Farm Journal* ® advertisements invariably displayed agricultural chemical containers and spraying apparatuses and machinery in the forefront of all of their layouts. Within ten to fifteen years, industry had succeeded in their attempts ‘to modify such values and create a more favorable point of view’ regarding agricultural chemicals and therefore industry no longer needed to defer to farmers’ traditional values.

Other themes included ‘professionalism’ and ‘authority.’ Diffusion studies had found that while farm media was extremely influential in the initial awareness, interest, and evaluation stages of technology adoption, that ‘professional orientation,’ as defined earlier by diffusion theorists as interaction with land-grant colleges and Extension Service, was more influential in

prompting change (Lionberger 1960:44). Industry claimed an official capacity whether they were affiliated with the university or ‘professionally’ trained or not. As seen in the aforementioned example, they declare themselves to be “Professional Advisors”, when in actuality they are ‘professional’ only because the name of their company is ‘Professional Feeds.’ At the time, rural people were not familiar with industry or higher education because they did not experience them. Rural people were still accustomed to simple lifeways and social interaction and would not have imagined that these ‘professionals’ would lie to them to sell products. They were strategically mislead. Both articles and advertisements, which frequently were designed to resemble an article, continuously referred to, ‘modern’, ‘research’, ‘scientists’, ‘specialists’, ‘University men’, ‘agronomists’, ‘engineers’, as superior to traditional farmers and farming methods, especially because farming was now about business rather than sustainability. This holds true with the delegitimization of local knowledge inherent in ideology (McCarthy 1978).

Traditional methods and lifeways were denigrated as old-fashioned and unreliable in comparison with modern, scientific agriculture. An insurance advertisement featuring an old sewn picture of a traditional farm with barns, a silo, free-range livestock, and a caption stating, “Our farm is our insurance”, has a section below that reads; “**Who’s kidding who?** In the old days, the farm was often all the insurance a man needed. But times have changed. Nowadays life is more complicated, especially in the financial sense” (Farm Journal May 1964:49). The farm of the past suddenly became out-dated and unfeasible. An article from the same Farm Journal ®, *CORN YIELDS: Are you aiming high enough?*, states:

Midwest farmers are still shaking their heads in disbelief over last fall’s outpouring of corn ...*Amazed and perplexed*....What did it? Was it those ‘timely rains’ that everyone talked about last summer? Or was it the fertilizer, the thicker and earlier planting, the weed killers and all the other improvements that have come with a rush? “We wouldn’t have called 1963 a good corn year 15 years ago,” insists Vernon Aussieker of Washington County, Ill. “If I had grown last year’s crop with the practices I used in the

Forties, some of my fields wouldn't have been worth picking."...the good corn growers that Farm Journal has talked to agree on this: In wet years or dry, extra fertilizer is the surest way to clear more money from corn. He applies phosphorous and potash in bulk, uses 100lbs. of 18-46-0 for starter, and side-dresses with 150 lbs. of anhydrous....Purdue University's noted agronomist thinks there has been a lot of undue worry about dry sub-soil, at least in his area" (37).

Farmers were told (by fellow farmers) that they had to abandon past strategies and adopt new input-intensive methods recommended by university scientists to achieve good harvests.

Company slogans of the era demonstrate the strategic exaltation of modern and scientific approaches; "Geigy - Creators of Chemicals for Modern Agriculture ®" and "Pfizer - Science for the world's well-being ®." Scientists had expert knowledge that farmers could not achieve without their assistance. A Farm Journal ® (May 1964:41) article written by 'Midwest Field Staff' that depicts a 'scientist,' a farmer, and a boy in a field of soybeans reports:

**HOW TWO CHAMPIONS GROW 60-BUSHEL SOYBEANS: Tom first tests for pH** – likes to keep it at 6.5. "That's where Purdue University says those nitrogen-fixing bacteria work best," says Tom. "And they're right. One year, Chris and I proved to our own satisfaction that the right pH makes an extra 3 or 4 bushels an acre...." Is nitrogen on soybeans an extravagance? Not if you ask Tom. "I can't prove this, but I think a little nitrogen, together with the potash, hustles our beans along and matures them four or five days sooner."

**Weeds bother the Maddoxes....** Especially Jimson weed. "But the others haven't been much of a problem since I started spraying amniben in a band 12 to 14 inches wide directly over the row. The difference between no weeds and quite a few weeds can easily make 8 or 9 bushels difference in the yield," says Tom.

There are several salient themes in this example. First, the farmer concedes, "I can't prove this...", implying that while the simple-minded farmer cannot prove facts, the university scientists who enlightened him can. The farmer's only role in modern, scientific agriculture is consumer and applicator, not developer or innovator, as s/he was in the past (Rhoades 1984, 1990). Ian Scoones and John Thompson (1994:17) delineate the conventional perception of the farmer 'in many settings of agricultural research and extension' in relation to science:

RPK (Rural People's Knowledge) is 'primitive', 'unscientific', 'wrong', etc. Formal research and extension must 'educate', 'direct', and 'transform' rural people's production and livelihood strategies in order to 'develop' (i.e. modernize) them....The superiority of 'rational science' is assumed and the pursuit of change (development) is derived almost exclusively from the findings of the research station and transmitted to the farmer through hierarchical, technically oriented extension services. Farmers are seen as either 'adopters' or 'rejectors' of technologies, but not as originators of either technical knowledge or improved practice.

Farmers in the mid-twentieth century remained reluctant to wholeheartedly trust scientists; other farmers' opinions were reported as being the most influential variable that precipitated new technology adoption (Lionberger 1960). According to diffusion literature, farmers who were 'rejectors' could be convinced of the utility of new technologies and need for change by their 'influential' neighbor-farmers:

*At the evaluation stage, when a decision regarding the basic merit of the new idea, product, or practice is required, and when considerations regarding applicability to the local situation become paramount, fellow farmers who have had the requisite experience and whose opinions are respected are the sources most in demand....At the adoption stage superior performances or demonstrated merit is required. Own experience and the experience of other farmers is most important (Lionberger 1960:27).*

Farm media strategically produce distinct versions of their magazines for different farming regions of the country and cite farmers from the appropriate region as examples. Articles and advertisements consistently provide photos and quotations from 'local' farmers who serve as influential success stories from the scientific agriculture paradigm (Walter 1996). Farmers' humble opinions about the utility of chemical fertilizers, herbicides, and pesticides are corroborated by university specialists, but it is the farmer testimony and example that diffusion literature cites as the crucial variable.

## Converting the Farmer into a Businessman

Agricultural diffusion theorists specifically advocated the dissemination of a new business-oriented perspective to replace traditional knowledge systems. Lionberger (1960:16) outlines the impediments to the necessary value change:

The values of accumulating material wealth and a high standard of living tend to be associated with high adoption rates. On the other hand, the values of security, debt-free farm ownership, and traditional farming methods are found to be associated with low adoption. Adherence to certain religious values may also retard change.

Industry heeded such advice and set out to convince farmers that farming pursuits were a business, that they should abandon traditional conservatism and go into debt in order to compete, and that borrowing from banks was commonplace and necessary. Industry slogans followed suit; for example, “**Aureomycin®** CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE.” A pertinent March 1960 *Farm Journal* ® article displays a letter from a high school senior who is curious about whether or not he should stay on the farm with his father or attend college. His letter is featured on the page with a picture of the boy. He asks; “If a farm boy wants to farm is it necessary to go to college?...Does farming have a future for the average young man like me? Will large farms take over the small farms in the future? (Ours is 160 acres...).” In response, the editors ‘sent Larry’s letter to a few good farmers around the country’ and included one primary response and short one-line excerpts from thirteen other ‘farmers.’ The main response took up a full page and advised the boy:

Why penalize yourself by trying to compete in an educated society without college? You’re thinking about operating a small business – and not too small at that. Other businessmen are going to be educated. You’d better be too.

...The specific know-how for running a dairy farm is hard to dig out of a college. So load up on business law, accounting, economics, and even off-beat stuff like psychology - you might get to be a millionaire if you could figure out some basic motivation to make people want more milk...



**The future of farming for the likes of you?** If you are geared to go at the pace agriculture is going to move during the next decade, there's a real future for you. We're going through a real shake-down in agriculture right now....If all you're after is security, get a job in a factory. If you have enough confidence in yourself to take some risks, then farming is for you.

**The future of the small farm?** Not very bright, Larry, but in my book neither is the outlook for the giant corporation plantation....as the older men whose sons have gone to the city start to slow down, be ready to step in. Keep good enough records on what you've done to justify a big enough loan from money sources. Keep your banker posted on how you're doing,...(1960:39,107-8, 117).

All but one of the subsequent one-line responses corroborated the recommendation of college classes such as agricultural economics. These responses were primarily conveyed in the language of a cost-benefit analysis, recommending college because it made business sense (1960:108). Farmers were traditionally frugal individuals, yet suddenly, the experts (at least those presented in agricultural media) all agreed that they should abandon conservatism and borrow and invest capital for higher returns. As the response states, 'you might get to be a millionaire.' Farmers, however, did not farm to become rich; they farmed to maintain their family in relative comfort in a familiar rural setting (Barlett 1993). The agricultural media encouraged farmers to abandon their traditional values of security and debt-free ownership, borrow more money from banks, and invest more money in machinery and chemical inputs. Farmers who wanted to maintain their traditional value of 'security' were advised to abandon their traditional livelihood and 'get a job in a factory' (Farm Journal ® March 1960:108).

The responses encourage farmers to be ready to 'justify a big loan from money sources.' A *Farm Journal* ® (February 1965:56E) advertisement from the company *Olin* revamped the prototypical picture of the traditional farm couple; the balding, simple farmer in his bib overalls with his pitchfork in hand and his wife in a country dress by his side in front of their rural farmhouse was reworked to display the desired farmer value of material wealth and success.

Instead of wearing bib overalls, the farmer is pictured wearing a slick three piece black suit and tie and glasses, with his pitchfork still in hand so that we may identify him as a farmer, and his wife by his side wearing an elegant gown, mink stole, and ivory beaded necklace. The caption below states, “**Back in the 30’s, this picture would have looked a lot more ridiculous.** That was before Olin introduced the first chemically-compounded high analysis fertilizer: Ammo-Phos ®. If you still aren’t using it, you must have had a hard time paying for that mink stole” (see Appendix E). Industry followed the recommendations of the diffusion studies to a tee, aware that if farmers did not believe in material wealth accumulation, that they would not adopt modern farm practices and buy their products. Technocratic rationalization attempted to convince farmers that they were irrational if they did not adopt the value of material wealth accumulation and abandon past belief in debt-free ownership.

Technocratic ideology only spreads when traditional knowledge and power structures lose their cogency (Habermas 1986b). Diffusion theorists encouraged contact with extra-local ideas and information sources that would demonstrate that traditional beliefs were not necessarily paramount and/or sacrosanct. Once technocratic rationalization began, the traditional system began to lose its explanatory and moral strength (McCarthy 1978). Diffusion theorists described how exposure to outside influences induced change among farmers:

The satisfied man doesn’t change much. For adoption of new practices to take place in areas where residents either do not know or are complacent about changes taking place around them, there must be a feeling that the present situation is not necessarily the best or **the only way to reach their goal**. Dissatisfaction with conditions as they exist, followed by awareness of alternatives, is prerequisite to change. Effective ways of bringing this about include increasing their contacts with the rest of the world, exposing them to a number of ideas regarding conditions that need changing and telling them of the means to make such changes as have worked elsewhere. Once people have learned that all things are not as they are locally, and that change is both possible and desirable, ways and means of achieving desired ends can be suggested effectively” (Lionberger 1960:14).

Industry latched onto this recommendation. It allowed media to simultaneously portray food scarcity issues from around the world as both problems and opportunities that affected poor U.S. farmers. In a *Farm Journal* ® *Introductory note from the Editor* (November 1965:5) entitled *Why?*, the editor employs the ‘dissatisfaction through exposure’ strategy:

Maybe you’ve noticed how often we’re making it possible for farmers to take a trip somewhere – sometimes in this country, sometimes to distant parts of the world. Right now, for instance, we’re organizing a dairymen’s tour of the West Coast, which is taking off about now; a trip around South America in January....

Why? And why do we carry occasional major articles like the one in our September issue, “You need to know about South America,” and the article and editorial in last month’s issue on the impending food crisis in underdeveloped countries?

It’s because our farmers need to know, as never before, what’s going on outside their own community and state, outside their own country, even. They need to know not just so they’ll be among the “informed,” but because it’s urgent in their own personal interest.

In this day and age farmers need every money-making idea they can get – and some of the best ones aren’t found near home. They need to know what competition they’re going to be up against-and it will be plenty! They need to know where their opportunity lies to sell more, and that’s abroad. As parents of boys who may be called on to serve in the military somewhere around the world-as taxpayers who have to pay the bill for this and for foreign aid-as citizens who are concerned about the world’s hungry – our readers want to know and need to know what’s happening in this world, and to see some of it personally when circumstances allow....”

Industry achieved two-fold results through the repetition of the food scarcity issue. For farmers who continued to view the world through their traditional perspective, with farming as a morally superior lifeway, the ethical dilemma of starving children in other, less fortunate parts of the world served as an impetus to adopt technologically advanced methods that produce more food. Farmers who had adopted the technocratically rational perspective that farming is a business (and more advanced technology produces higher yields) needed to achieve higher returns to offset their investments in technology. Familiarity with foreign markets and demand allowed them to survey the best return for their investment and guided them in their agri-

business decisions. In the former, more traditional case, the awareness of extra-local agricultural scenarios that ‘need changing’ could induce the farmer to feel obligated to assist.

This strategy corresponds with Giddens’ (1979) proposition that ideology frequently portrays dominant interests as universal. In this case, food scarcity became a recurring theme in agricultural media because it politically motivated funding, research, and the implementation of new technologies that would purportedly solve the conundrum (Shiva 1993). It also served as an ethical justification for the input and capital-intensive agricultural paradigm that emerged during the modern era. Farmers who had resisted the application of chemical herbicides and pesticides for moral or religious reasons, or because of their potential safety hazards, were bombarded with the necessity of them to produce enough food to save starving children around the world. The agrichemical industry was the beneficiary of adoption of modern agricultural strategies, not the children starving in Ethiopia or South America, but the burden was placed upon the shoulders of U.S. farmers. They could not continue to strive for their traditional goals of self-sufficiency and family support when starving children around the world needed them to produce more.

For those farmers who had not yet succumbed to the adoption of modern farming strategies, the presentation of the new agriculture as vastly superior to all other modes of farming attempted to create the desired ‘dissatisfaction’ with present conditions and demonstrate that ‘change is both possible and desirable’ (Lionberger 1960:14). The November 1965 *Farm Journal* ® highlighted an article on the front cover, *Seven Wonders of American Agriculture*, by Lane Palmer, managing editor. Palmer outlines the superiority and unlimited potential of science and technology when applied to agriculture, comparing it to the ‘original Seven Wonders of the World’ (1965:38). The article begins by thanking “God, for the outpouring of His favor” and

then delineates the seven remarkable ways that humans ('Americans') have been able to 'triumph over' nature:

1. **Your Amazing Yields** Yellow, nitrogen-starved fields, once a common sight, were missing this summer. Cheap abundant fertilizer had done its work...
2. **Your Triumph over pests** Remember the hopelessness you felt when the corn borer was littering rows with dropped ears?... All are still with us, but how they have been tamed!... And where were the weeds? A chemical weed-killer so specific that it killed virtually everything except the cotton, left the rows as clean as the cultivated middles – a triumph of modern chemistry. **No weeds, few insects or diseases.** Hundred-acre fields of cotton and soybeans look like carefully manicured gardens of Europe -without hand labor. Chemicals protect the seeds, feed the crop, kill weeds, and insects, defoliate plants.
3. **Your output of meat** -...But the true measure of our fabulous food supply has been our shift from bread to meat. You have doubled the output of beef just since 1950. And it's better beef – because you've tripled the amount fed out.... Carefully fortified rations, an array of vaccines, and the vigilance of veterinarians have given us the cleanest cattle population in the world.
4. **Your concern for quality – Quality that seldom varies** ... "Controlled atmosphere" now gives us apples the year round.
5. **Help for the hungry** ...When war or famine strikes, we can give emergency relief with wheat, rice, soybeans, and dried milk...As a taxpayer, you share the cost of these programs. But more important, you produce the abundance that gives us food to share.
6. **Your labor efficiency** Any American who complains about high food prices should be invited to remember what he used to pay for eggs. The records show .60 cents in 1955, 57.3 cents in 1960, and 53.9 cents last year. He pays more for milk, but his processor and deliveryman get all of the increase and then some....Who has made up the difference? Farmers, with their amazing gains in labor efficiency.... **Meat almost everyone can afford.** Who would have dreamed we'd get a pound of meat from a pound of feed; one man would handle 50,000 birds; that food would take only 19% of a family budget.
7. **Your Family life** - The farm has always offered the ideal setting for family life – the best place to teach children the habits of work and self-reliance....Today you have best of both worlds. You live no farther from the outside world than your automobile, your telephone and TV set. Yet you enjoy a close-knit family life, never far removed from the beauties and serenity of nature...

Despite this colorfully idyllic depiction of modern farming, farmers were not happy with modern agriculture, nor did they experience the benefits heralded by the agricultural media. Only a few years earlier (March 1960:22), the editors of the same magazine attempted to allay farmer discontent with an appeal to traditional values and naively ideological optimism:

**Are Farmers Pessimists?** After seeing a survey that said farmers were the only large group who were pessimistic about the 1960's, I made a note to write a few paragraphs about it for this space....What you might hear, Gifford remarked, might go about like this: prices are too low; costs are too high; we have to take whatever price is offered; everybody except farmers has "protection"; middlemen fleece us; imports hurt; youngsters can't get started in farming any more; surpluses are ruinous; big farms are taking over; family farms are dying out; integration is making us hired hands....

But, he adds, "the inner character of farmers is a vibrant, progressive philosophy of faith, courage, individualism, drive and optimism...This inner life springs from the kind of courageous character and drive and faith that in earlier years pushed back the frontier; ...the same resilient reliable, progressive inner life that today produces our current, amazing farm productivity."

Now the question is: Do we do justice to ourselves and to agriculture by talking ourselves and our business down? Or, would we do better to let our talk reflect the resourceful confidence most farmers exhibit in actions?

### **Agricultural Discourse**

Farmers' concern and pessimism was warranted, but rather than confronting and presenting reality, media outlets recast it as technocratic discourse. Most farmers had become highly dependent upon technology, government aid, and advice from agricultural specialists by the mid-twentieth century (Hurt 2002). As agricultural historian, R. Douglas Hurt (2002:51) put it; "farmers climbed on the scientific and technological treadmill and then found they could not afford to get off." The February 1965 edition of *Farm Journal* ® included an article, *More hay, better pasture – with FERTILIZER*, that explained and perpetuated the strong influence and power of university agricultural specialists over farmers' decisions:

...W.D. Pardee, University of Illinois agronomist...says that some top Illinois growers are going with 400 to 500 lbs. of 0-20-20 per acre on alfalfa....The better farmers no longer think in terms of putting on just enough to 'get by.' Rather, they're asking college scientists and industry agronomists what their land needs to grow 5-ton or 6-ton alfalfa. "When these farmers come to see us, we have to watch what we say because they go back home and do whatever we tell them," says George Smith, head of soils at the University of Missouri. (February 1965:45).

Agribusiness has always wielded significant influence over the editorial content of agricultural media (Walter 1996:597). Throughout the Farm Journal ® magazines were plugs for specific agrichemical products and brands in ‘staff reports’ and supposedly neutral articles that belie the objectivity of the magazines and demonstrate willingness to spin reality and discourse to the desires of industry. Articles presented university-trained specialists as experts who would recommend the purchase and application of more artificial inputs.

The magazines had achieved a dependent audience. For farmers to compete and earn enough money to pay off their technological investments and increased cost-of-living, they felt compelled to engage in modern agriculture, which meant they had to remain up-to-date on new technologies. They relied heavily on the advice of university specialists, which placed specialists in an extremely influential and attractive position to industry and middlemen. Despite the fact that increased inputs and decreased financial conservatism were driving farmers into debt and ‘out of business’, agricultural media continued to portray agricultural success in a commercially aggressive light and specialists continued to advocate more inputs and technology (Walter 1996).

Agribusiness framed the discussion with farmers by assigning new meanings to concepts that would influence their perceptions of agrichemical products. Technocratic rationalization occurs through this process, because the ability to assign meaning develops control over those domains (Wolf 1982). By redefining authority on agricultural knowledge, agribusiness and universities took over the domain of farm knowledge. In a similar, but more conceptual fashion, agribusiness co-opted and reconstituted the agricultural meaning of common vernacular. The previously moral concept of ‘clean’, as applied to the farming environment provides an example. Farmers were concerned about the safety and cleanliness of agricultural chemicals. They were unsure of the effects and heard various stories about them or had experienced their toxicity

themselves. Agrichemical advertisements frequently differentiated their agrichemical product from others by claiming that they were less ‘toxic’ or ‘safer’ for humans than other brands. Also, in many early 1960’s cases, brands were differentiated as being safer for the subsequent crop, meaning the residue from the agrichemical used to kill weeds in the corn crop, would not damage the soybeans that would follow them in the same field, as herbicides had previously (Farm Journal ® March 1960, May 1964, February 1965).

Farmers’ concern about the safety of agrichemical products decreased adoption and sales. The farmer perception was that agrichemicals were not clean. Therefore, the agricultural media created and disseminated a completely distinct meaning for the word ‘clean’. The generally accepted, dictionary definition of the term ‘clean’ states, ‘free from dirt, stains, or impurities, unsoiled; free from foreign matter, unadulterated, as in *clean* drinking water’. In agricultural terms, ‘clean’ became uniform, straight, or without undesirable plants. Fields that were doused in myriad agrichemicals but had straight lines of crops with few or no undesirable plants were ‘clean’ and fields with a diversity of crops or plants became ‘dirty.’ The February 1965 (56A) *Farm Journal* ® includes an herbicide advertisement with an image of a farmer on a red tractor cultivating rows of corn that states in bold letters; **“Sure, you can grow clean corn with Atrazine and also cultivate ...if you want to.”** The *Farm Journal* ® article, *Seven Wonders of American Agriculture*, (November 1965:38) states, “And where were the weeds? A chemical weed-killer so specific that it killed virtually everything except the cotton, left the rows as clean as the cultivated middles - a triumph of modern chemistry.” Another example from the same issue speaks about meat production from feedlots; “You have doubled the output of beef just since 1950. And it’s better beef because you’ve *tripled* the amount fed out.... Carefully fortified



rations, an array of vaccines, and the vigilance of veterinarians have given us the cleanest cattle population in the world” (38).

These examples illustrate a discursive shift in the meaning of ‘clean’ in the minds of the agriculturally-oriented public. As the first and second examples demonstrate, a chemical that literally ‘kills everything except the cotton’ has been sprayed on a field, yet while the general public would consider that field tainted or dirty, the agricultural media discursively transfigures it into ‘clean’. Similarly, the second example refers to the cattle population in feedlots as ‘the cleanest in the world’, yet it consists of steers crowded together and injected with antibiotics, vaccines, and hormones to prevent disease from the unnatural concentration of so many animals and so much waste in one location. This notion of ‘clean’ refers to the application of veterinary science and vaccines to prevent disease, but disregards the contamination of feedlots.

Agricultural media was discursively transforming the meaning of ‘clean’ to refer to the use of agrichemicals and science, thereby removing, or distracting from, the stigma of agrichemical toxicity and animal waste and disease concentration. By the 1980s, to get ‘cleaner corn fields,’ agrichemical advertisements portrayed and advocated the use of numerous (12) different herbicides together, “to control a wider spectrum of weeds than ever before” (Farm Journal ® March 1981:40A, Versicol Chemical Corporation). ‘Clean’ represents one of many discursive shifts employed to facilitate the dependence of farmers on agribusiness products.

### **Technocratic Rationalization as Development**

Numerous critiques of the international development paradigm have cited and reproached the imposition of Western values on traditional communities and the concomitant destabilization or eradication of their means of subsistence, social relations, and cultural traditions (Dahlberg 1979, Banuri 1990:30). The story does not need to be retold. Yet, the application of Foucault’s

(1971) concept of the ‘archaeology of knowledge’ to the concept of development by Wolfgang Sachs (1992) presents a pertinent examination of the discursive history of the development model. Sachs (1990) cites U.S. President Harry Truman’s inaugural address from January 20, 1949, where he characterizes all non-industrialized nations as ‘underdeveloped areas’ and symbolically deems them ripe for development. According to Sachs (1990:5), Truman’s speech indicated that “development meant nothing more than projecting the American model of society onto the rest of the world.”

The discursive creation of development and its application to agriculture, whereby benevolent scientists help poor, uneducated peasants ‘develop’ improved farming methods, provided an in-road for the development of agricultural markets and dependency on U.S. corporations’ agrichemicals and machinery<sup>27</sup> (DeWalt 1988, Field 1988). ‘Development’ more realistically refers to technocratic rationalization. ‘Underdeveloped areas’ needed to undergo the process that occurred in the rural, traditional regions of the United States that has been outlined in this chapter. Just as U.S. farmers needed to be taught by the Agricultural Extension Agency and the university scientists, so it went for uneducated, traditional farmers around the world; as *Farm Journal* ® (November 1965:38) preaches; “**Help for the hungry** in other lands -first with our food, then our farming know-how. Our greatest aid program may well be the example our farmers set for the world.... we send our agricultural scientists and Peace Corpsmen to teach them how to feed themselves.”

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<sup>27</sup> See Billie DeWalt (1988) “Halfway There: Social Science in Agricultural Development and the Social Science of Agricultural Development” for an example of the application of the US agricultural (economic) development model in Mexico. Also Bruce Field (1998) “The Harvest of Dissent: The National Farmers’ Union and the Early Cold War” outlines how the Farmers’ Union of the United States “berated the Truman administration for advancement of American imperialism and for the denial of rights of other nations to seek their own courses of action in world affairs. He also indicates that Farm Bureau leaders, on the other hand, argued that US policy should focus on the expansion of overseas markets for American agricultural products and responded that the Farmers’ Union critique of Truman revealed that they were a ‘communist organization.’

## Chapter 3

# HISTORICAL AGROECOLOGY AND ENVIRONMENTAL PERCEPTION IN THE MISSOURI OZARKS

Let there be light in the firmament of the heaven  
to divide the day from the night;  
and let them be for signs, and for seasons, and for days, and years.  
- *Genesis 1:14*

To everything there is a season,  
and a time to every purpose under heaven:  
a time to be born, and a time to die;  
a time to plant, and a time to pluck up that which is planted.  
- *Ecclesiastes 3:1-2*

## Introduction

This chapter overviews the historical agroecology of the Ozark region, with a specific focus on the research area, the Ozark Mineral Area (OMA), from approximately 1800 to 1940. It begins with a presentation of the settlement pattern in the Ozark Highlands, focusing on the cultural groups that settled the frontier. While the presence of mining, charcoal, and timber operations in OMA creates a distinct historical trajectory from the rest of the Ozark Highlands, OMA settlement and agricultural history is similar to the Ozarks in general (Douglass 1912). I employ Berkes' concept of traditional environmental perception with a focus on agriculture as a framework (see figure 1.2). Specifically, I illustrate how the practices (experience-based agroecological knowledge and interaction) and worldview, in conjunction with the primary social institution of the traditional Ozarks, the Old-Time Protestant church, result in a uniquely Ozarkian understanding of the world. I primarily rely on my interviews, but I also consult and corroborate my findings with several other main sources: Vance Randolph's (1931) detailed

ethnography of the Ozark Highlands, Russell Gerlach's (1976) comprehensive study of the ethnic geography of the Missouri Ozarks, interviews conducted and published by local OMA high school students (cultural journalism) from 1979 through 1981 in a publication entitled MOZARK, and ex-slave narratives from the research area recorded in the 1930's<sup>28</sup>.

### **Ozark Settlement History**

The French first settled the Ozark Highlands in the late 17<sup>th</sup> century, but ceded the territory to Spain in 1762. The land was returned to the French in 1802 and immediately sold to the United States in the Louisiana Purchase of 1803 (Gerlach 1976). During this period, the Western Cherokee, Osage, Illinois, Caddos, and Quapaws were the primary Native American tribes inhabiting the area, with the Osage predominant on the Ozark Highlands (Ingenthron 1970, Jones 2000). In 1808, the U.S. government convinced the Osage to sign a treaty that transferred ownership of most of the Ozark region to the United States (McNeil 1995). This date symbolically marks the beginning of this investigation, because at this point United States formal policy could officially affect the traditional lifeways of the Ozark farmers. The majority of the early Ozark settlers, referred to by Gerlach (1976) as 'Old Stock Americans', arrived between 1800 and 1860, primarily hailing from Tennessee, Kentucky, and Virginia. Old Stock settlers were of European (primarily Scottish and Irish) descent, but had resided in the Americas for at least a generation<sup>29</sup>. With their arrival, the religious landscape changed drastically, from a primarily non-religious or Catholic affiliation to overwhelmingly Baptist and Methodist.

By 1830, at least two-thirds of Missouri's population was either Protestant (primarily Baptist or Methodist) or non-religious (Gerlach 1976:27). The subsequent and second prevalent

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<sup>28</sup> These ex-slave narratives consist of interviews conducted under the auspices of the Federal Writers' Project of the Works Progress Administration in the late 1930's.

<sup>29</sup> The term Old Stock American will be used throughout the dissertation to refer to settlers of European descent that had resided in the United States of America for at least a generation.

ethnic group to settle the Ozark Highland region was the Germans. These German settlers were educated farmers who belonged to either the Catholic or Lutheran faith. Gerlach (1976:107)

juxtaposes these two groups of original Ozark settlers:

The Old Stock American who emigrated from Appalachia to the Ozarks was drawn largely from the lower socioeconomic strata of that era. No amount of romanticizing can alter this fact. In a comparative sense, this illiterate, scrabble farmer, who was also a woodsman and hunter, was up against some of the most skilled farmers Europe had to offer. Nowhere was this distinction more important than in the selection of land. The German selected his land according to the quality of the soil....The Old Stock American sought soils that were easy to work, which meant bottomlands and somewhat sandy uplands. Unfortunately, for many of them, the soils they selected were inferior ones found in rocky and hilly terrain.

Gerlach 's (1976) claim that Old Stock Americans 'unfortunately' chose 'inferior' soils compared to Germans reflects his perceptual bias towards strict crop productivity as the only means for judging land.

Old Stock Americans perceived land productivity differently than Germans and were not solely interested in the best cropland. Similar to their previous homes in Appalachia, they sought a refuge that would provide wild game, wild greens, and medicinals, in addition to cropland, all of which would enable self-sufficiency. Harriet Simpson Arnow (1960:8-9) describes the Appalachian origins of Old Stock pioneers and their perception of farming and farmland in *Seedtime on the Cumberland*:

"He comes of good farming stock," was enough said of the birthright of a man, and earthly dreams were not of mink coats and Cadillacs or of vice-presidencies in great industrial establishments, but to own a good farm with a big stretch of bottom land and a fair boundary of timber. Farming was not just an occupation. It was a way of life that colored all our days from birth till death with family food coming directly from the land or the products of the land converted into milk or butter and meat and eggs....Land, land, no matter what it was – cedar bluff, sheep skull rock, creek meadow, sage grass field, or pine ridge – we loved it all. Our love was not untouched with materialism. All land was good for something.

An Old Stock farmer explains his ancestors' motivation for moving to OMA:

They came a-lookin' for a place to go – a place that had water and timber and a land that was pretty good – a place where they could make a living. They came from Holland to North Carolina... but they came (here) from North Carolina. My great-great grandfather came over here and went to Cape Girardeau to the courthouse and the Spanish owned it then, and he bought a Spanish Land deal for in here and got it surveyed off and he went back home and sent three boys over here and they built a house and got everything ready for 'em and then the rest of the family came (Interview 28).

Spanish land grants became available to Americans for agricultural purposes in 1795. The Spanish had forbidden any Protestant Americans to settle Missouri until that date, having reserved it for immigrants from Catholic countries. These land grants, which were 'irregular in shape and positioning', frequently 'offered the pioneer free land, exemption from taxes, and in some cases, free animals, seed, and tools' (Gerlach 1976:15).

While Germans and Old Stock Americans had religious and agricultural differences, both were subject to similar geographic, edaphic, and economic constraints. The German agricultural approach, while not as amenable to Ozark geography as that of the Old Stock American, shaped itself to fit the physical topography, and changed slightly in response to local cultural traditions (Gerlach 1976:97). The settlers arrived with culturally distinct worldviews that affected their farming strategies, but were also characterized by intra-group socioeconomic differentiation.

The 19<sup>th</sup> century Ozark Highlands was a frontier; an unknown, relatively unpopulated expanse of craggy forested hills. The forests were virgin hardwoods and pines larger than any trees the contemporary Ozark inhabitant could imagine. One Ozark farmer related a story he had heard about the trees while we toured his barns; "My uncle, one of my dad's older brothers, used to talk about when they would cut the White Oaks, that they could just barely pull a crosscut saw through, so they would be 4 feet wide or better, and skid them up in piles and burn 'em, clear the land. They 'd be worth a fortune now" (Interview 27). These trees were not, however, worth money to the early settlers because they were not close enough to any major waterways or

thoroughfares to ship them out. The trees held utilitarian value because the settlers used them to build their homes, barns, outbuildings, and fences. One farmer who lived on a secluded farmstead explained; “Dad built all the outbuildings. His brother was fourteen when they built this barn here. The timber was off this ground” (Interview 38). The expansive old growth forests represented a lot of work. The early settlers needed pasture and crop land, so they cleared the enormous trees (Douglass 1912). Another farmer, born in 1908, explains; “When we was kids we was clearing up the farms. Do you know what new ground is - where you cut the trees? I’m talking early 1900s - end of 1800s – I was born in 1908. We were clearing up the land for farmin’. (Interview 35).

According to the U.S. Census of Agriculture, St. Francois County (the closest to a railroad and riverway) had 69,967 acres of farmland in 1850 and 207,685 farm acres by 1900. In the two counties farther from railines and riverways; Iron County had 87,624 farm acres in 1880 and 102,284 by 1900 and Madison County had 55,044 acres of farmland in 1850 and 147,711 in 1900<sup>30</sup>. Once railroads reached closer to OMA, primarily between 1864 and 1870, more immigrants looking to farm arrived and cash sources increased. Timber became a reliable source of money for cash-deficient Ozark inhabitants. A 97-year old farmer, who had only stopped farming a couple years before our interview, told me that ‘Money was hard to come by. I knew people that worked for 2 bits a day. 2 bits is a quarter or a bushel of corn” (Interview 31). Most of the other old-time farmers explained; “It was farmin’, timberin’, and minin’” (Interview 28). Farming was not always one’s choice of livelihood, but rather a requirement for survival. Some of the early settlers engaged in a little bit of everything; hunting, fishing, logging, and farming. On the other hand, some settlers considered themselves strictly farmers and may have only dabbled in timber to earn a little money on the side when it was necessary. Early Ozark

inhabitants farmed as a necessity, in order to maintain self-sufficiency in a time and place where survival was the primary goal (McNeil 1995).

### **Ozark Farmsteads**

Traditional Ozark farms adhered to no standard shape or size, but rather varied according to the contours of the land, the labor supply (children and family able to work), and the ambitions of the settlers. Due to the Ozarks dramatic topography and the noted cultural attributes of Old Stock Americans, specifically their desire for privacy and independence, the original farmsteads usually consisted of a valley and the hills on either side, what locals refer to as a ‘holler’ (hollow) (see Figure 3.1). Ozark farmsteads were mini-watersheds that provided the necessities for self-sufficiency: a water source, hunting grounds, crop land in the valley, and timber for building. Most settlers were already accustomed to self-sufficient living in the Appalachian mountains, which are similar in landscape and biota to the Ozarks. They brought with them domesticated animals, plants, and seeds. Like their ancestors, they utilized everything at their disposal, including wild plants and animals for sustenance, shelter, medicine, and protection.

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<sup>30</sup> There is no agricultural census data available for Iron County in 1850.





Figure 3.1 Typical Old Stock Ozark Farmstead

## Traditional Agricultural Practices

### Open Range

The first settlers allowed some livestock, beef cattle and hogs, to run free, on what they call the ‘open range.’ While none of the interviewed farmers recall hogs running completely free, Randolph (1931) recounts stories about Ozark farmer-settlers releasing hogs into the woods and hunting them when they wanted pork. Similarly, a local slave narrative relates; “Dere used to a lot of wild hogs around dere and dey would eat anything dey got hold of” (Rawick 1972:146). Local farmers explain the early use and dependence on the open range:

They depended wholeheartedly on the open range. (They’d) turn their cattle out and they knew where the grass grew (Interview 29).

Back then, it was open range, so the cattle may not see anybody for three or four months. A lot of it was how they were worked, when they were worked, if they were. A lot of them were roped and tied to a tree (Interview 27).

We run all of our cows in the woods in the summer back then, the range, and we always used back west of us, turn em that away.

“Did you brand em? How’d you know which were yours?”

Earmarked. There were lots of em loose on the range .... When I got big enough I had to take the horse and go round up the cattle. I just go make sure to find 'em and we always kept troughs up here with salt and they'd come back home (Interview 30).

Not all early Ozark farmers had beef cattle to release onto the open range and those who did frequently lost some to predation and theft. One farmer explained that his family could not afford to keep beef cattle, that they were lucky to have hogs and horses (Interview 36). While farms varied in terms of livestock, they shared a significant reliance upon animals for all farm endeavors.

### **Animal Husbandry and Utility**

Mules or horses provided various forms of farm labor: 'skidding' logs from the woods, hauling logs, rocks, and any other building or agricultural materials of significant weight or bulk, raking and storing hay and other grain, transporting people, and plowing and cultivating fields.

The aforementioned farmer whose ancestors migrated from North Carolina around 1800 describes the role of horses on his father's farmstead in the early 1900's:

Ol' Rex horse was his old horse that he had for so many years. He rode him. He was a riding horse, but he used him. He broke him to work and later on in years, they quit riding him so much. He was usually the one we used to rake hay with. We took it up loose, and we used him to rake it up with and the other horse tended to the wagon. Ol' Rex, he was around for years.... The horses got fed every day and watered everyday, Saturday, Sunday, whatever. They were fed and watered and taken care of because of their power. They were really taken care of better than the cattle (Interview 28).

Animals were well trained and disciplined. A farmer interviewed in 1981 explains the diverse uses and efficiency of his donkeys:

I work her and make a garden with her....I haul rock or skid posts or whatever you need to do with her....They're good to clean brush up, you know, around here, and they've eaten brush and they eat old stumps. I grain them everyday, and I've gotten my hay up for the winter, you know....Yeah, it makes a pretty good garden. Well, I wouldn't trade her for the best garden tiller there is. You know, because I can have the garden done by the time you get the tiller down here. She plows real good, and she won't step on a

potato or nothing. You can just turn her around between the potato rows. She won't step on them. She just works real good (MOZARK 1982:38)

Farmers used animals to clear areas for pasture or crop land. The farmer cited above used his donkeys to clear brush and stumps, but goats were also frequently used for clearing land.

Several farmers explained that goats were used to clear overgrown pasture and fields that had brambles, poison ivy, and small trees. One farmer referred to a goat as 'a self-propelled mowing machine.' Not only were nanny goats used to clear unwanted brush and produce milk, farmers also treated them as a human immune system trigger, similar to a vaccine, in certain cases. One farmer related this story:

This is an old farmer remedy. You take a nanny goat that's milking - and if you get poison ivy real bad - you turn her loose in poison ivy patch for a day and let her ingest a bunch of it and the following day after you can go up to her and drink that milk and you'd be surprised how fast your poison ivy dries up.

I had my eyes swelled shut, my fingers were sticking together - and blisters popping and my neighbor told my dad about it and he brought down a quart and I drank it - two glasses one day and then the next day he brought down another quart and within three days it was starting to dry up and I've been a firm believer ever since (Interview 20).

This is the only case I heard of goat milk being used as a traditional remedy from the region, but another farmer related a similar case for honey from bees that frequent poison ivy blossoms.

### **Animal Feed**

The feed required to keep draft animals healthy and strong is quite different than that provided to animals destined for the table. The strenuous nature of their labor required that they consume foods with the highest nutrient content. In addition to grazing, they were fed corn, wheat, barley, or oats. The majority of farm-produced grain was fed to horses or mules or used for human consumption. Beef cattle, milk cows, goats, and sheep were pastured, while chickens and hogs foraged for their sustenance and were tossed scraps or excess grain.

## **Protection**

Animals also provided protection. Dogs were used as guard animals to protect chickens, goats, sheep, and cattle herds. One farmer leaves a dog behind with his goat herd to protect them from predators, mostly feral dogs and coyotes. He does not allow the dog to be treated as a pet because he wants to discourage the dog from leaving the herd. The dog thinks it is a goat, spending all its time with the goatherd (Interview 8). Similarly, mules served as protection because they would run off predators and alert the household with their calls. These animals were expected to protect livestock and alert the household of intruders and predators. Many farmers talked about the devastation that predators such as coyotes, raccoons, bobcats, and predatory birds wreaked upon their farmsteads. One case in particular stands out in my mind because the woman farmer that related the story told it in such a humorous fashion:

If I could keep the coons out of them I would keep about 20 chickens now, but I had some leghorns, about 25, and the coons got in and just wiped them all out. And you know how they kill em? They chew their heads off and leave their whole bodies lay there. The coons chew their heads off and leave the rest of them and that's how you know that coons got your chickens (laughing) (Interview 24).

Another farmer related the predatory difficulties he has had with his fowl; “We have five ducks, and two chickens – that’s all the coyotes left us. We had 30 some odd chickens at one time. Now we’re down to two – between the coyotes and the owls they don’t have a chance down here” (Interview 20).

## **Food**

The most obvious service livestock provided early Ozark farmers was sustenance. Essential livestock were milk cows, hogs, sheep, and chickens. In 1880, Iron County had 4,186 head cattle, 1,608 milk cows, 11,926 hogs and pigs, and 2,993 sheep and lambs in 1880; Madison County had 6,328 head cattle, 2,209 milk cows, 17,833 hogs and pigs, and 3,848 sheep

and lambs; St. Francois County had 9,215 head cattle, 3,184 milk cows, 20,231 hogs and pigs, and 8,848 sheep and lambs (see Tables 3.1, 3.2, 3.3).<sup>31</sup> Other farm animals were beef cattle, goats, ducks, and rabbits. Nanny goats and cows provided milk, cream, and butter, hens provided eggs, and hogs provided the primary meat source. The most common comment about the hog was, ‘used to we ate all but the squeal.’ Farmers usually butchered several hogs at a time in the fall of the year, salted them, and smoked them in a smokehouse for the winter. Farmers recount the foods their livestock furnished and the processes involved in their procurement:

Before we had deep freezes, this was the only fresh meat you had and the game you would kill. In the fall you butchered a hog. Back when I was young we didn’t butcher beef because we didn’t have no way of keeping the meat. Yeah, we smoked and pickled the hog, but you couldn’t do a beef that way. But when we did butcher a beef, it would be two or three neighbors go together and split it up, because then we didn’t have electric. We didn’t get electric in here until ’43 or ’44 (Interview 37).

We had regular cows too, but we usually had milk cows. When we had a farm I did all the milking. We didn’t have a whole lot of cows. We always had two or three milk cows and my mom made milk and butter and cottage cheese and my dad would buy the little calves and we’d bottle feed ‘em and he’d buy 15 or 20 at a time and we would bottle feed (Interview 14).

This interview excerpt explains that livestock were butchered in the fall to avoid spoilage:

Dad always butchered a beef in the fall of the year and .... he’d always butcher four or five hogs and cure hams, shoulders, bacon.... He always put ‘em in the smokehouse – place out on the side of the house where we smoked meat.... But about every night it froze a little and he’d hang that up in there in the smokehouse and that beef would kind of dry on the end, on the outside, and it just stayed, it didn’t spoil or nothin’.... Hang it in there and air dry on the outside and it was good and aged.... Course mom would go out there when we needed meat and beef and just cut a chunk of it off and bring it in and that’s the way it went. And then when it come spring, why, lots of times, if we had too much of it left, why, she might can some of it then. If it was in the summer time it probably would have ruin’t it. But in the wintertime you didn’t have to worry about it. It stayed.

“How’d you keep the animals out of it? Did you just keep it all closed off - so nothing could get in?”

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<sup>31</sup> These figures come from Missouri Agricultural Statistics Service (MASS) and are based on United States Agricultural Census data. Agricultural census data in OMA cannot be considered extremely precise because of the reclusiveness and non-market orientation of the counties’ inhabitants.

Yeah, it was all closed in and nothing couldn't get in. Chunked all the holes – couldn't get no possums or coons in there. Same thing with the chicken houses, possums and coons and stuff like that, minks, they were bad about getting in the chicken house. You had to keep everything chunked up pretty good and so on to where they couldn't get in (Interview 28).

| <i>Year</i> | <i>All Cows</i> | <i>Milk Cows</i> | <i>Hogs and Pigs</i> | <i>Sheep and Lambs</i> |
|-------------|-----------------|------------------|----------------------|------------------------|
| 1850        | N/A             | N/A              | N/A                  | N/A                    |
| 1880        | 4,186           | 1,608            | 11,926               | 2,993                  |
| 1900        | 8,245           | 2,456            | 8,446                | 3,075                  |
| 1920        | 9,700           | 2,100            | 5,000                | 1,300                  |
| 1940        | 9,700           | 2,200            | 6,900                | 1,900                  |

Table 3.1 Livestock on Iron County Farms (Source: MASS)

| <i>Year</i> | <i>All Cows</i> | <i>Milk Cows</i> | <i>Hogs and Pigs</i> | <i>Sheep and Lambs</i> |
|-------------|-----------------|------------------|----------------------|------------------------|
| 1850        | 4,697           | 1,743            | 17,703               | 4,933                  |
| 1880        | 6,328           | 2,209            | 17,833               | 3,848                  |
| 1900        | 8,997           | 2,649            | 13,971               | 4,751                  |
| 1920        | 10,900          | 2,400            | 7,700                | 3,300                  |
| 1940        | 11,900          | 1,600            | 9,800                | 3,300                  |

Table 3.2 Livestock on Madison County Farms (Source: MASS)

| <i>Year</i> | <i>All Cows</i> | <i>Milk Cows</i> | <i>Hogs and Pigs</i> | <i>Sheep and Lambs</i> |
|-------------|-----------------|------------------|----------------------|------------------------|
| 1850        | 4,095           | 1,558            | 4,872                | 4,153                  |
| 1880        | 9,215           | 3,184            | 20,231               | 8,848                  |
| 1900        | 13,021          | 3,480            | 12,971               | 3,547                  |
| 1920        | 13,000          | 3,700            | 10,500               | 2,700                  |
| 1940        | 16,400          | 3,800            | 12,600               | 2,900                  |

Table 3.3 Livestock on St. Francois County Farms (Source: MASS)

### **Clothing**

Sheep were frequently kept on early Ozark farms because their fur was converted into a textile fabric and then into clothing. Randolph (1931: 35-6) details the practice of spinning cloth from sheep wool:

Only a few years ago the spinning-wheel and loom were seen in every mountain cabin, but nowadays most of them have been destroyed, or relegated to the loft or to an outbuilding....Some few old women still spin and weave,...The wool is clipped from the sheep by means of clumsy hand shears, and is always incredibly dirty and full of cockleburrs, which must be picked out by hand – an almost interminable task....Some of the old-time Ozark women are very expert. The material thus produced is used in knitting socks, mittens, mufflers, and the like, and in the old days was woven into cloth and made into clothing, but weaving is now a thing of the past in most parts of the country....Cotton from the hillside was also used in making cloth, the seeds being picked out of it by hand in the absence of any sort of gin.

By early 20<sup>th</sup> century, homemade wool clothing was being abandoned in favor of cotton clothing sold in crossroad trading posts (Randolph 1931). While cotton was raised in parts of the Ozarks, wool was more common and accessible for frontier families. A farmer explains a common clothing source utilized from the early- to mid-1900s:

I wore shirts that mom made for us, made for me and dad in the summer, you know. He used to get feed sacks in bags that were white and she would put those in the wash kettle and boil them and bleach them out ‘til they were white. Then she would take this Ritz

dye and put in there and dye 'em a certain color and make shirts for us in the summer and I wore them shirts many a day when I was a kid – that's the way we did it (Interview 28).

Ozark farm families utilized any feasible material or source for the work clothes that they wore in the fields. Usually one good outfit was kept for church services and school, but work clothing was strictly utilitarian and made out of anything that fit and protected from the elements. A 97 year-old farmer describes the scene; "I used to have sheep and goats. When I was young my kids were little, the dollar was scarce, I'd shear the sheep and goats and I'd give my wife the money to buy the kids clothes so that we could go to church" (Interview 31). After Ozark farmers stopped producing their own clothing, it was one of their few necessary purchases. Another elder farmer explains that, "We sold strawberries – 10 cents a quart - that's the way we got our school clothes. We didn't sell much off the farm – just a little – mostly to have food" (Interview 35).

### **Human-Animal Relationship**

Due to sustained interaction and extreme reliance upon mules or horses, farmers established a profound relationship with them. Farmers related stories about how their parents or grandparents spoke fondly of their work animals and considered them part of the family. They also noted their intelligence, personalities, and intuition. Frequently they considered them much more than a draft animal, more like a trusted friend. One woman related a story about her mother that is worth retelling for its humor and insight into the farmer-draft animal relationship:

My mother, she must have been ornery when she was little, but anyway, her grandfather was stone deaf, and had a mule named Bill that he plowed with all the time. Well her mother sent her out to get her grandpa for lunch and she got out there to get him and she realized that he hadn't seen her and she hid down in a ditch and she yelled, 'Whoa, Bill' so the mule would stop. And Grandpa was mad, he yelled, 'Get up Bill, Get up Bill (loudly).' So she let Bill get started again and after he had got goin' for a little while, she yelled, 'Whoa Bill, Whoa Bill' and that poor mule would stop and she did that three or four times and that poor old mule had to deal with grandpa getting mad. Anyway, ol' grandpa was a good guy, but he loved Bill. He loved Bill. Bill was his best buddy and



he would give Bill a second helping on Christmas and on Sunday he always rested 'im (Interview 6).

Farmers named their draft animals and other animals on the farm. Two farmers explain the unique relationship between farmers and their animals:

Bob and May was the last two horses that I remember we worked here. Then we had one named Judy that plowed the garden and that was the last workhorse that I remember. They did a good bit of both using reigns and controlling them with commands. Every cow in my herd has a different personality, every sheep has a different personality. Well, you teach school, I can tell all my sheep apart, and I am always amazed my wife can tell all the kids apart, they always look alike to me (Interview 27).

Well, I'll say this, it was very personal with the animals. They had them named and grandpa talked about the names they had on each horse - what that horse did, or how this horse did, and how they worked together as a team and it was neat stories. And my great uncle, he owns the next farm over and he's got the homeplace. He was the fourth generation over there and he would tell about some of the horse tales. It was interesting just how ornery they would get sometimes and how one would do something and another one would go right along with 'em, or they would balk or whatever like they 're not gonna do it today, they didn't want to and that's all there was to it (Interview 21).

Farmers engaged in innumerable cultural practices that enculturated children into an agrarian lifestyle and taught them how to interact with and respect livestock. Sometimes a cow would have a calf that she rejected and refused to nurse. When such a case occurred, the farmer would either give that calf to another more receptive cow to nurse or to one of his/her children to bottle-feed. In such a way the child learned to take care of an animal, learned respect for it, and in most cases became fondly attached to it. Usually, if the calf was given to a child as their own, the calf would not be a steer from the beef herd because the child would become attached to an animal whose destiny was theirs or a neighbor's dinner table. The child was usually given either a milk cow's female calf, a heifer, that would become a milk cow herself, a male from the beef herd destined to be a bull, or a gilt<sup>32</sup> intended for herd reproduction, all of which would stay on the farm for years to come. Sometimes farmers gave their neighbors' children animals to get

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<sup>32</sup> A heifer is a young female cow that has not had offspring. A gilt is a young sow that has not farrowed.

them started in animal husbandry. Some farmers relate their stories about animal husbandry enculturation:

Used to people would give an animal to a relative's kids - a sow or a heifer and then the kid could start their own herd. That's the way it was years ago. That's how our son started - we gave him a longhorn bull. It was only two days old and he had to bottle feed it.

"Farmers would give milk cow's calf - was that common?"

Yeah, it was something for them to start on and if you raised milk cows all your life, it was a start for them. They didn't see all this change that was coming. Most of the parents, if you were in the beef cow business, would give a beef cow calf, if in dairy, might give a milk cow calf, something to get them interested and get them started (Interview 35).

To let them earn it that way. That's pretty commonplace. Instead of paying a kid wages, you give 'em a cow or you give 'em a orphan calf or something like that. If you can do that and then the next thing you know, they're a senior in school and they've got three or four cows and now they've got a start (Interview 12).

Yeah, we gave him his start and he got the milk cow's calf for helping take care of the cow and all the other stuff he's got he got on his own. The milk cow we have now is his cow. Yeah, the cow I'm milkin' belongs to him. (laughs) See I gave him the milk cow calf and we kept her and that's his seed cow there.

Well, that was they way all us kids got our start, mostly from the milk, I got my start from milk cow's calf. My dad gave me a milk cow's calf, and it was a steer, and I got it raised up and he traded me a heifer for the steer so I could keep it and that's what -----'s done, kept his heifers and sold his steers and then my daughter started high school this year so I get to give her one of the milk cow's calves and then she's got a cow and she can start her own deal (Interview 18).

...and I remember him toolin' around on the 460, just puttin' around in the pastures and looking at cattle and so forth, and he one day, he pulled up with a wagon attached to the back of the tractor, and he had a gilt. He, without saying a word much, just threw the gilt over the fence and he told my dad when he was a boy, 'she's yours son, take care of her'. And that's how my dad got in the hog business (Interview 19).

## Signs

When Old Stock pioneers arrived in the Ozarks, they had a time-tested, handed-down set of rules and signs that determined when they conducted agricultural activities. They followed lunar cycles and zodiac signs in their interactions with plants, animals, and the earth. Early Ozark farmers believed, as the bible states in *Ecclesiastes* 3:1-2; “To everything there is a season, and a time to every purpose under heaven: a time to be born, and a time to die; a time to plant, and a time to pluck up that which is planted.” When they castrated male livestock they followed the lunar sign to ensure that the animals did not bleed to death. Farmers explained that as the lunar cycles affect the tides, they pull entities composed of any percentage of water. Therefore, chances of an animal bleeding to death are heightened as the lunar pull causes increased blood flow. Similarly, they dehorn and wean animals according to the same principles. As one farmer explained, it is just ‘less stressful’ on the animals.

Vance Randolph (1931) published a detailed ethnographic account of Ozark culture, *The Ozarks: An American Survival of Primitive Society*, in which he documented the Ozark hillman’s belief in the signs. Randolph (1931) strives to present the Ozark culture in a relatively objective fashion; yet, he depicts local belief in the ‘signs’ as overly superstitious and ignorant. He states; “The man who laughs at witchcraft and supernatural warning is found to be a firm believer in the moon’s influence upon crops,...One would expect to find a definite negative correlation between superstition and educational progress, or at least between superstition and intelligence, but this does not seem to hold true” (Randolph 1931:88). Although Randolph (1931) belies his neutrality, he presents a seemingly accurate representation of Ozark belief in the signs:

Every hillman knows better than to castrate pigs without considering the signs of the zodiac, for animals cut when the sign is in the heart are almost sure to become infected and die. The best time for this operation is “when th’ sign leaves th’ privates an’ is a-startin’ down.”

There seems to be a widespread belief that things in general increase or decrease with the moon, and this principle is very seriously considered in connection with certain agricultural activities....Besides the moon's phases, there are also the signs of the zodiac to be considered, and almost every hill farmer can make out these signs in the almanac, even though he cannot read a line of ordinary print (Randolph 1931:98).

The signs of the zodiac must be considered in many operations connected with childbirth and the care of infants. For example, a child should never be weaned except under Aquarius, "when th' sign's in th' laigs," although just what would be the penalty for violating this rule is not clearly understood (107-8).

Randolph (1931) claims that Ozark hillmen do not understand the signs, but rather follow them as handed-down superstitions, but a few Ozark farmers, after accepting me as a non-skeptic, explained the principle to me quite clearly. They told me that the 'penalty for violating this rule' of weaning in the wrong sign is that the animal or baby, whichever is being weaned, will be more stressed out, experience more pain, cry much more incessantly, and be more resistant to eating. Ozark farmers believe that lunar pull affects the weaning process and that if weaned in the correct sign, the baby will cry minimally and be able to switch sustenance much easier. A female farmer explains; "Not so much music in the middle of the night when you wean by the signs. We absolutely do. When you have children, you take the bottle by the signs, you take pacifier by signs, you potty train by the signs, and I'm not superstitious, but there's something in that" (Interview 6). Another farmer corroborates her assertion; "When it comes to weaning calves you can look at the almanac and you can catch it just right and your calves will bawl just one day. Then they'll start coming to the feed trough" (Interview 30). Similarly, another farmer states; "My daughter and I used to break horses, we had one castrated and it was the wrong sign and I couldn't ride him for weeks, another one was castrated according to the signs and I was riding him within a week. It makes a difference" (Interview 14).

Regarding Randolph's (1931) claim that castration should occur in the correct sign to avoid infection, the Ozark farmers I consulted claim that it is to avoid excessive bleeding because the lunar pull could cause augmented blood flow. One farmer stated adamantly; "You'll have a bleeder, I'll guarantee that, if you castrate during the wrong sign" (Interview 25). Another farmer said; "It's big for when you dehorn the cattle. That's the best to follow -wait 'til the sign was going down and then they didn't bleed as bad and it don't hurt" (Interview 46).

### **Crop Husbandry**

The farmer and his/her children clean out the barn in the winter when there are relatively fewer farm tasks. They load the manure into a cart hitched to a mule or horse and cart it around the field spreading the manure evenly. Farmers spread the barn manure after the full moon when the moon has begun to wane (third and fourth quarters). Farmers state that at this time the lunar pull is into the ground and the manure will be pulled into the soil:

You clean out the barn whenever it's right on the new of the moon and you can roll that stuff all summer and you'll never get it to go down in that ground where you want it. You put it out there on the right time and when you work that ground and you'll never see it.... On the dark of the moon it'll draw it down. If the moon is growing, it will draw it up. The energy of the manure will be drawn up (Interview 33).

After manure has been spread on the fields, they are usually plowed in the early spring with a manual plow pulled by a team of two horses or mules. The plowing is done in the new moon because the pull of the moon is upward, to keep the soil from excessive compaction<sup>33</sup>. An Ozark farmer explains:

If you're plowin', in the new moon, when the moon is growing, you're ground won't pack near as bad. Setting posts is another thing, when you dig post holes, if you set them on the old moon, when the moon is decreasing, why, the full moon in other words, they'll

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<sup>33</sup> I want to clarify that when farmers speak of planting, spreading manure, plowing, or castrating in the new or old moon, they are not referring to these activities at nighttime by the light of the moon. They refer to the part of the month when the moon is in that particular phase.

stick tighter. Guys say it don't make no difference, but they will, they'll just stay tighter than if it's in the other moon (Interview 28).

The same lunar cycles are consulted to know when to set fence posts. Ozark farmers believe that there is no need for cement when setting fence posts because as long as it is done in the correct sign, it will be pulled tightly into the ground. Another farmer corroborates; "I put in a lot of rails and them old-timers wouldn't plant a rail fence any time,... They'd put them in there at the right time and they stay there for years, and fenceposts - you don't need concrete if you do it at the right time." (Interview 33).

## **Planting**

Farmers grew a variety of crops<sup>34</sup>. Vegetables were grown as row crops or in large kitchen (or 'truck') gardens. These crops consisted of subterranean crops, such as onions, potatoes, sweet potatoes, beets, turnips, radishes, and carrots, and above-ground crops such as tomatoes, peppers, squash, cucumbers, tobacco, cotton, melons, pumpkins, beans, okra, green beans, and peas. Lunar cycles indicated distinct planting dates for above-ground versus subterranean crops. Randolph (1931:118) summarizes the practice:

The changes of the moon and the signs of the zodiac are very important in determining the best dates for planting certain crops. In general, it is said that vegetables which are desired to grow chiefly underground, such as potatoes, onions, beets, turnips, radishes and peanuts, are best planted in the dark of the moon. Plants which bear the edible part above ground, such as corn, beans, tomatoes and peas, are best planted in the light of the moon.

A consensus of interviewed farmers corroborated this description. One preacher-farmer always tries to follow the signs when planting, but, he echoed the sentiments of most interviewed farmers when he explained that it is not always possible when the weather does not cooperate.

The following story illustrates why they plant tubers in the old moon and what happens when the weather disrupts your planting by the signs:

I told the guy that lives right up here...he was gonna plant his potatoes one day, and I said, 'Junior, you don't want to plant those potatoes now, it's right on the new of the moon.' And he said, 'well, I ain't gonna plant in the moon.' And I said, 'I know, but you'll have tops and no 'tater.' So, I went up there one day and he was digging those potatoes and he got a hold of those tops and pulled them right up like that and I said 'Junior, if you had planted them on the right sign ...your tops won't be huge, it won't make all tops, you'll make potatoes.' ...if you want underground crops you plant in one phase and if you want above ground you plant another phase.

I started in on the middle of the field planting the corn, because there was gonna be point rows on either side and there come a rain (so he quit for the day). After while I got back down there to finish planting it and I saw him one day and he said to me, 'how come you change seed right in the middle of the field?' I said, 'I didn't.' 'Well, the corn's different,' he said, 'from what you planted first over there.' I said, 'yeah, that's when I wanted to plant it all, but I didn't get it done.' He said, 'Them ears sticking up like this, then others are right up the stalk so the water stands in em.' I said, 'yep, that was the moon.' He said, 'Awww, I've always tried to tell that to my boys, but they won't listen to me.'

Farmers had several fields of grains, such as oats, wheat, barley, corn, and soybeans, ranging from five to twenty acres. Sometimes soybeans were interplanted with corn and allowed to climb the stalks. Much of this grain was used as feed for the draft animals, in addition to hay. They sometimes planted clover, vetch, or winter wheat as a winter crop or green manure that they would plow into the ground to integrate organic matter and nitrogen into the soil. One farmer related a saying that he was taught as a child that reminded him to always place four seeds in the ground when planting; 'One for the blackbird, one for the crow, one for the cutworm

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<sup>34</sup> While my interviews and sources such as Randolph (1931) portray a consistent reliance on kitchen gardens and orchards, Robert Sidney Douglass (1912), in *The History of Southeast Missouri*, claims that kitchen gardens and orchards were the exception rather than the rule in southeast Missouri during pioneer times.

and one to grow' (Interview 27). This reflects their strategy of growing excess to ensure that they would end up with sufficient food regardless of pest infestation and predation<sup>35</sup>.

## **Cultivation**

Farmers had to keep the unwanted grasses and plants out of their gardens. They cultivated with a gooseneck hoe and sent the children out to pull weeds by hand. As with all other agricultural practices, they followed the lunar cycles to ensure that weeds, once pulled, did not return to pester them again. Randolph (1931:119) relates a dramatic explanation:

In general, the hillman kills weeds and deadens trees between the first and twentieth of August, in the dark of the moon, in the sign of Virgo, or Gemini, or Leo. However, if sprouts are cut on the night or tenth of May, it is well known that they will never grow again. One of my neighbors insisted upon clearing his garden-patch on these two days, although his wife and child lay dying only a few yards away.

I never heard a farmer speak of the ninth or tenth of May as the day to kill weeds, but several farmers explained that as long as you kill unwanted plants during the appropriate sign, the last quarter of the moon, they will not return during that growing season. Virgo, Gemini, and Leo are considered to be 'barren' zodiac signs, when the moon is pulling energy into the earth and not drawing plants upward to grow. Therefore, farmers utilize those lunar signs only to trim or kill trees and deaden and destroy noxious growths.

## **Harvest**

The most salient aspect of the harvest in traditional Ozark society was the communal nature of the activity. Farm families worked together to get their grain harvested, shocked, and stored in the barn for winter. They pulled a thrasher with their draft animals, while kids and other farmers followed along and placed the cut stalks of grain into 'shocks'. The shocks were

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<sup>35</sup> I have surely omitted some important cultigens. But, it is doubtful that I could learn and list exhaustively all the crops grown traditionally in the Ozarks. What I have presented constitutes a majority of the most commonly grown



left in the field for long enough to dry out. Then the family work crew tossed the dried grain stalks into a cart, draft animals pulled it back to the barn, and the hay was put up loose into the barn. A farmer recalls his work as a boy in the harvest process:

We started with the two horse mowing machine ...and then we'd go and pile it if we was gonna load it in a wagon with a frame on it, but if we wasn't, then we would windrow it and then we would turn around and pitchfork it. And we went out and 'choked it' and then we let it sit for a day or two in the 'chocks.' Then we'd tie a rope around it and I would ride the horse, the mare, ya know, and my dad, or whoever's working in the field, would put a rope around it and kind of pull it and tell me to get up and stack it and put it in the stack. My job was draggin' it in the chock – of course when you had a big field you would use pitchforks and hauled it in and made stacks (Interview 4).

Another farmer details the last part of the process, including a good definition of a 'shock':

In our barn they had a set up where you would hook a rope to a team of mules and when you'd put the loose hay in the barn you had these big forks that you would hook into the hay. Then you'd take the mules out and you'd pull them back to the barn and hook into the hay.... We put up loose hay when we were kids because we didn't have a baler. We would 'shock' the corn or put it in big shocks ... you kind of mound it up and you pile it in such a way so that the outside layer, strands of grass or whatever you're using for hay, (is) kind of going vertically with the pile so that it sheds water as much as possible. It may be 8 ft. tall and 8-10 ft. in diameter. And you would put these right in the field and then you'd haul them in in the winter time to feed the animals (Interview 11).

Some farmers converted their grain plants into silage to create winter fodder for livestock. Silos were common throughout the region at more affluent farming operations. One farm wife told me about the sociability of harvest season and silage production:

When we were children, ...corn was used in silage. That's something that all the farmers did, and they all had a silo for the grain. His folks had one on the ground and we had one on the ground and then a big tall one and everybody went to people's places and did it together. During the haying season, it's too big a thing. ... there was a pretty good settlement of farmers out there. The ladies would go out to one of the houses and cook all morning and make bunches of pies, lined up and cooked all this food, and then the kids got to play except for whatever chores they had to do, and the tea was made in big ol' water buckets, cause it took a lot of it for the guys and some dogs came and drank out of the water buckets, but the men drank it anyway (laughs).

Although she remarks that all farmers ‘had a silo for the grain,’ it is doubtful that all the small farmers could afford such luxuries. Some local silos were constructed by teams of ‘negroes’ in the early 1900s, whose labor would not have been hired by most of the farmers who worked communally. A female farmer in an adjoining county related this story:

Somebody come around selling these silos to these farmers around here and he brought a team of Negroes to come and build them. At one time, the -----es probably had some money to pay for that silo. They were pretty prosperous. The -----s had some money....It didn’t take a lot of money, a little bit of money went a long way then. This one here’s got a roof on it, and the one at the ----- farm. It’s got a roof on it. Those are the only four I know of in the county. They poured a ring a day, slip forms and hauled the gravel from the river or the nearest creek, brought it up there and shoveled it out and mix it by hand and pour it. A ring a day. They were all built by the same crew (Interview 24).

The presence of these silos symbolizes a salient distinction between farmers of the region. Only farmers enmeshed in the cash economy were able to afford such a building because they required significant labor and materials, beyond those accrued by the small-scale, self-sufficient, non-entrepreneurial farmers. As she stated, there were only four such silos in the county, but other farmers constructed their own more modest silos to store silage for winter fodder.

## **Orchards**

One of the first agricultural projects that early settlers established once they had constructed their homes and settled in was an orchard. Fruit trees required relatively little work and produced an abundance of nutritious food. The most common fruit trees planted in the orchard were apple, cherry, peach, pear, and plum, in addition to various varieties of grapes and strawberries. As one old-timer farmer emphatically professed; “all them old fellers had an orchard” (Interview 28). Farmers prevented pest infestation during the blooming season by hanging home-made soap in trees. A farmer explains the process:

And also in the spring of the year when they go to blooming, be sure to keep the bugs off of them. Of course, I make some old home-made soap and keep that soap hanging in the

tree, and that keeps tree borers out of it. The more it rains, the more that soap runs down the tree and down around the roots (MOZARK 1982:33).

Another farmer explained that his family took surplus fruit into town to sell when they had a good harvest:

My grandpa, he had big orchards, two or three on his farm. He'd load his wagon and go to ----- and peddle those apples. They worried about the weather; if it was gonna kill the fruit or not. I've seen, and this is true, sometime between '41 and '45 our peach orchard bloomed out, full of blooms, the last week, sometime in February, and it didn't get killed. Those peaches were as big as my thumb, come a hard freeze in April, and you know where they went. We had to hustle a lot of blackberries and huckleberries that year. I was a swift huckleberry picker. Huckleberries are just a wild blueberry, they're smaller, they made a good pie. Mercy! (Interview 29).

Besides domesticated fruit trees, wild species were also very important for early settlers. They harvested fruits from wild vines and frequently transplanted vines into their garden plots. Wild species included blackberries, huckleberries (blueberries), gooseberries, and mulberries. Many old-timers recall being sent out as children to 'hustle up' wild fruits in baskets to bring back to their mothers who would convert them into dried fruits, pies, preserves, and butters. When early settlers arrived they did not have canning materials, but some had pottery jars that they sealed with forms of wax. In later years, specifically under the Roosevelt administration, rural areas began to see (Mason) fruit-jars that were widely used for canning. According to Randolph:

The early settlers had no fruit-jars or cans, but nowadays most women "put up" great quantities of tomatoes, wild blackberries, gooseberries, huckleberries and plums, together with various sorts of preserves and fruit-butters....There are big stone jars of pickled cucumbers, too, put up in a soured mixture of water and molasses,... (1931:34).

While women tended to transform these delicious fruits into pies and preserves, men converted them into wines, meads, and various liquors. Similarly, they transformed much of their surplus corn harvest into whiskey, locally known as moonshine.

## **Foraging**

Ozark farmers harvested myriad plants and animals from their forests. They utilized many young sprouts in their ‘sallet’ (salad). Randolph (1931:33) relates the traditional practice of wild plant gathering; “Many hillfolk are fond of “greens” or “wild sallet” composed of the tender leaves of pokeweed, thistle, wild lettuce, dandelion, pepper-grass, lamb’s-quarter, mustard and several varieties of dock.” Many older farmers corroborated this account of wild ‘sallet’ and remembered fondly when they ate many plants that they or their parents had collected in the woods around their home:

Grandma knew all the wild plants and she would pick them for greens. She’d pick a whole tub full of wild greens. I like ‘em, but I don’t care for spinach. I don’t care much for turnip greens, but wild greens I like, poke greens, I like (Interview 37).

“Did you remember your mom picking herbs or wild plants and using them?”

Oh, yeah, for greens in the spring of the year? Yep, she always done that. She picked yarrowdock and lambs quarters and poke and I don’t remember what the other thing was right off hand, but she had about 2 or 3 different things that she picked (Interview 28).

## **Medicinal Plants**

Traditional Ozark families harvested medicinal plants and herbs from their surrounding forests (Nolan and Robbins 1999). Common wild medicinal plants included, but are not limited to: sassafras, catnip, bloodroot, sarsaparilla root, echinacea, ginseng, and dentney. Randolph (1931:94) contrasts Ozark ‘yarb doctors’ with modern science:

There are also the “yarb” doctors...who know nothing whatever of modern medicine, and make no pretense of scientific treatment, but rely upon a few simple roots and herbs. Catnip tea is their best remedy for colic, hoarhound is indicated in coughs and colds, sassafras is an excellent spring tonic, mullein leaves are smoked for asthma, pumpkin-seed tea is used to expel tapeworms, slippery elm bark cures all sorts of intestinal trouble, and so on.

The following interview excerpt portrays the traditional use of wild medicinals in OMA:

“ Did your parents ever use plants as wild remedies?”

Oh yeah, we still do.

“ You still do use some of them. It seems like there’s not too many people still doing that.”

I don’t know too awful many of them, but my grandmother, my mother’s mother, was an old, you might say, medicine woman and midwife, so she knew so much more than I will ever know, but there’s a fairly good business in digging wild roots yet. Ginseng, Goldenseal, Calamus, Bloodroot, and Echinacea.

“And that’s all out in these hills isn’t it?”

Yeah. Do you know what jewelweed is?

“Jewelweed, no.”

It’s a little plant that grows a little orange and yellow flower on the end of a little stem, it grows in wet areas, it’s juice will deaden the itch of poison ivy or a bee sting as anything you could buy (Interview 27).

Some Ozark farmers trace their medicinal plant knowledge to their Native American, primarily Cherokee, ancestors and forebears in the region<sup>36</sup>. An 85 year-old farmer-preacher relates:

I was always taught (medicinal plant knowledge) because of my Indian ancestors. Like wild cherry bark, take it and sarsaparilla, and what else? And prickly ash and boil it and make a mush and some alcohol, a little bit, and set in an ice box and take a spoonful a day for rheumatism. Use ginseng and goldenseal - can have sores in your mouth, canker sores and chew on it and two days later the sores are gone. Turns your mouth yellow, but it works. And also Jimson weed, it has a burr that come up on top of it and it grows around barns a lot and you can take seeds out of that and cook it in a skillet and if you’ve got bronchitis or something you can make a poultice with it and that will just knock it like that, but the Jimson weed is poison...(Interview 4).

Farmers cultivated plants and herbs that they used as medicinals. For example, tobacco, whiskey, hot peppers, and culinary herbs were used as medicinals, in addition to more conventional uses as stimulants, inebriants, pest repellants and culinary spices, respectively.

Whiskey was given in small doses to children or animals as a type of stimulant to help

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<sup>36</sup> Jones (2000) indicates that there has been a substantial population of Western Cherokee throughout the Ozark region since the 1700s and possibly before who have avoided Euro-American government and identification as

resuscitate, invigorate, or cure them. Many wild herbs were propagated in the kitchen garden for meat seasoning and vegetable preservation. This farmer reviews his mother's herb use and introduces another traditional Ozark farm practice – beekeeping:

My mom ... used to use catnip for colic for the kids, and there was another one for sore throat and gout. She grew it behind the house, and then she grew herbs to make pickles, dill, and stuff like that. She grewed quite a few of those herbs. Dad always had bees,... I never did do bees. I got enough of that when I was a kid. I had to help dad cut wild bee trees and such and they could sting him all over and it didn't bother him, but me, they'd swell me like a poisoned pup. I got enough of that, I said, 'if I ever get big enough, God, deliver me from bees' (We laugh.) (Interview 28).

Beekeeping was a traditional skill that provided two-fold services. Farmers not only robbed their beehives of their honey, but they also believed that they needed to have bees near their gardens and fields for sufficient crop pollination. Traditional bee-keeping farmers observed bees and outlined sets of rules to reduce the ferocity and presence of mad bees when they robbed their honeycombs:

Him: Bees always been in the family. Her dad taught me quite a bit about it.

Her: My dad always had bees. He thought he had to have bees to have all his crops pollinated.

Him: When bees are making honey, they're not as aggressive. When you're ready to rob 'em in August, they're aggressive. You have to remain calm, move slow, and keep your body temperature right. Bees don't move at night. Her dad tried to rob the bees' honey at noon, because all the bees are out working. But you should never work bees on a rainy, cloudy day, because they're mad, and they'll sting. One time they run me off through the woods and I had about fifty stingers in me. I've had my eyes swell shut a few times – it hurts pretty bad to be stung on your face (Interview 25).

### **Socio-Cultural Institutions, Interactions, and Worldview**

The most influential, socializing force in traditional Ozark villages was the religious institution, which tended to be an Americanized frontier version of Protestantism – either Baptist or Methodist, referred to as 'Old-Time' Protestantism (Robertson 1950). These religions

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Native American to avoid persecution. Some of my farmer-participants related stories about relatives who are a

succeeded on the frontier because they did not require any formal education for their clergymen; almost all Ozark Baptist preachers were farmer-preachers who toiled on their farms just like their congregation. Baptist farmer-preachers have been described as ‘unlettered, but powerful orators’ (Robertson 1950:37). Randolph (1931:47) explains Ozark preacher indoctrination; “In the old day a man who felt “called” to preach was examined in doctrine by the elders, and if they were satisfied as to his orthodoxy and enthusiasm he was ordained – the examiners were not at all concerned with his intellectual or educational status.”

The local congregation made all church-related decisions, with no intervention or advice from a centralized authority (Brauer 1953). They rejected all external authority, just as the original Protestant faith protested and seceded from the authority of the Roman Catholic Church. Individualism and freedom, in both religious and political veins, were the sum and substance of Old-Time Baptist preaching (Robertson 1950). The sole authority in religious matters was the bible, which superceded any supposed theological expert (Robertson 1950). Another reason for the success of the Methodists and Baptists in the Ozarks was their mobility. Baptist preachers traveled with farmers to the frontier while they settled the land and Methodist ‘circuit-riding’ preachers visited frontier settlements, essentially bringing the church to the people. These frontier religions almost invariably focused their efforts on the poor, uneducated, and dispossessed (Brauer 1953). Randolph (1931:44-5) describes the establishment of American Protestantism in the region:

In the early days very few of the Ozark villages were able to build churches or support resident pastors, but each settlement was visited at intervals by a circuit-rider or “saddle-bag preacher”. At present, however, there is some sort of a “church-house” in every mountain hamlet, and many have regular ministers, usually of the Baptist or Methodist persuasion. Infinitely more diverting, however, are the itinerant evangelists known as “bresh-arbor preachers”, who do not come to the village churches at all, but hold forth in the traditional fashion at the old camp-grounds. A revival at the old camp-ground is a

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significant percentage Cherokee and who taught them about medicinal plants.

sort of picnic for the young folk, and is the real social center of the whole region for the time being.

Randolph (1931) hypothesizes that the Ozark family attended religious meetings more as a social outlet than because of any deep religiosity.

In addition to Baptists and Methodists, OMA contained Lutheran and Catholic groups and churches. Lutheran and Catholic devotees were primarily German families who had arrived with distinctly German belief systems and cultural attributes. These beliefs, attitudes, and traditions sharply contrasted with prevailing Anglo-derived values. Contrary to the freedom, individualism, and anti-authoritarianism of Baptists and Methodists, German “religion represented a mixture of conservative to ultraliberal Protestantism and Catholicism, which carried the fear of popery and Rome” (Gerlach 1976:110). The prevailing Ozark sentiments of misanthropy and suspicion of outsiders frequently spilled over into the Ozark Germans, at least to a small degree, primarily because the Baptists and Methodists significantly outnumbered Lutherans and Catholics in the Ozarks in general and OMA specifically. Figure 3.2 demonstrates the primacy of Baptist followers in Missouri.

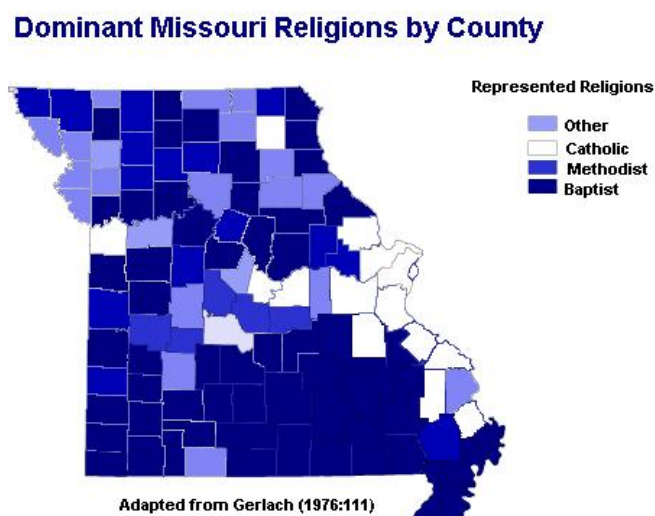


Figure 3.2 Dominant Missouri Religions by County<sup>37</sup>

<sup>37</sup> The denominations accounted for at least 25% of total church membership in the county (Gerlach 1976:111).



One significant difference in the strictly Old Stock villages compared with those of German descent is the number of churches. While non-German rural townships in the Ozarks have an average of 6.7 churches each, the German rural townships have an average of 2.6 churches (Gerlach 1976:113). Also, Old Stock American areas have an extremely higher percentage of sect-type churches (Methodist, Baptist, or other Protestant-based religions started as schismatic movements for or against post-frontier change) than the German regions. 40.7% of total congregations in strictly Old Stock villages are sect-type churches, compared to only 5.7 % in German areas (Gerlach 1976:114). Old Stock farmers tended to congregate in smaller groups. These 'churches' were very informal, simple buildings that would also be used for other purposes, such as town meetings, dances, and picnics. The church was the fundamental social outlet. The Ozarks are 'overchurched', as one researcher stated, because the inhabitants are prone to clannishness (Gerlach 1976:115). They tended to stick with their own; they worked, played, and prayed with a small group of kin and friends.

### **Socio-Cultural**

Ozark farmers collaborated on agricultural endeavors because cooperation made work easier. One farmer recounted a maxim that used to carry much meaning; 'many hands make for light work.' Several farmers referred to the Amish as representative of the value systems and community cohesiveness that once existed in Ozark villages. One interview notes:

I admire em (Amish). We sure do. We was up there two or three years ago and everyone of them Amish houses had something to sell; pumpkins, turnips, chickens, or something. That's how it used to be in these communities. We actually lived like the Amish, and we didn't know it then. And we didn't have insurance. For instance, if the house burned, the neighbors went and helped you build it, a new home....They had more time. They didn't have to get up and go to the coffee shop or something like that. They didn't have a job from 8 to 5 in town.... Neighbors would help one another .... I remember tradin' work when we'd thrash and all the neighbors would thrash together. You never hired no work when you was thrashing (Interview 35).

Another farmer speaks of the generosity exhibited by traditional Ozark families:

Not all the families around here had meat. No, there was a lot of them that (did not) and mom had to give away a lot of food to different people, people that we knew, and people in the family that had had it kinda rough. Why, they come along and need something, why if we had a little extra, she give it to 'em. We'd share with 'em (Interview 28).

The fond feelings local farmers felt toward kin were equaled by their antipathy toward outside authority. They did not want anyone to infringe upon their independence. The most representative case in the Ozarks of exogenous infringement upon Ozarkers' independence was alcohol taxation and Prohibition.

In OMA and throughout the Ozarks and Appalachia, hill people distilled homemade whiskey, or moonshine, out of their corn harvest. Moonshining is an efficient use of corn because it is a high value product that can be transported in a compacted medium. The first intrusion by the federal government was not meant to stop whiskey production, but rather to tax it. The government began sending revenueurs into the Ozark hills to collect taxes on whiskey being produced and sold. As Randolph (1931:224) explains, locals felt that "a man who raises corn has a right to use it any manner that seems good in his eyes, and that the 'Guv'ment' in far-off Washington has nothing to do with the matter." Ozark whiskey producers usually had strategies to outsmart and evade the revenueurs, while revenueurs attempted to trick the locals by purporting to be cattle, hog, or land buyers. Revenueurs managed to seize over two-thousand moonshine stills between 1935 and 1939 in the Missouri and Arkansas Ozarks (Massey 1973:197-8).

Stories by farmers about their parents', grandparents', or own personal involvement in this illicit business demonstrate the independent spirit, historical rejection of outside authority, and rationale for production and cultural significance of moonshining. One old-timer farmer detailed the reasons for moonshine production:

They raised corn, make whiskey out of it, put it on back of horse, done by my grandpa at Hahn's Mill. They got paid for grindin' corn. They got the grains for grindin' it, so he had surplus grain, so the only way he could make any money out of it was to make whiskey out of it. Then he could transport the whisky easier than corn. By coincidence, that grandpa on that side made whiskey and sold it to the other side of the family who was runnin' a tavern down there in town where the New Era Bank is now (Interview 3).

Usually local authorities were not interested in arresting the Ozark moonshiners, because they also disagreed with outside intervention on a local issue. This resistance to outside rules and intervention reflects the central tenet of the religious beliefs of the area, local vs. centralized authority. As one farmer attests:

Moonshining was probably bigger than anybody knew about. I had an uncle that lived over there in -----, and they always said that he was in with the sheriff. He got by with making it out in the community and I always heard him laughing about it, saying that the Sheriff said, '-----, if I hear anything, I'll be the first one out there (laughing). I knew an old man that lived right back here and he worked in St. Louis and he was from Arkansas and he said, 'I pulled many a load of bootleg whiskey in the boat with a tarp over it to St. Louis and sold it at work – did it for years.' If I'd had all the corn that I fed made into whiskey, I'd probably pay your debt off for you (Interview 29).

A devoted moonshiner interviewed in the early 1970's corroborates the leniency of local officials and the common belief in autonomy:

People used to leave moonshiners alone. Everyone minded his own business. People didn't want to cause you no trouble or nothing. They was trying to make a living and we was trying to make a living, so they'd just leave us alone....I tell you there just wasn't very many people that lived around up there. It was wild country and everybody knew we was making whiskey, but they knowed we had a good rig, that we wasn't gonna poison nobody, that we were gonna make everybody happy, so they just let us go. Why, we had a sheriff down here at that time who knowed we was making whiskey, but hell, we'd give him five gallon a month. He wouldn't bother us (Massey 1973:198-9).

Ozarkers truly believed that the 'furrin' government of the United States had no right to dictate what they could or could not do, as evidenced by the following exchange between an aged Ozarker, recently acquitted by a local jury of a moonshining charge, and the sheriff:

Listen hyar now, Jim," he said, "I've knowed you ever sence you was knee-high to a toad-frog, an' you bein' sheriff don't cut no ice 'ith me. My gran'pap he fetched ther 'ar worm from Tennessee, an' hit's min, an' I aim to hev it, too!" The officer humorously

reminded the old man that he had denied all knowledge of distilling at his trial, and remarked that if the worm<sup>38</sup> was really his, he must be guilty of perjury. “Dang it all, I aint guilty of nothin’!” the old man roared. “You heard th’ jury turn me loose, didn’t ye? You give me my worm, an’ be dang quick about it, or I’ll hev th’ law on ye! (Randolph 1931:237-8).

Another moonshiner explains that despite the high prices for moonshine whiskey during Prohibition, he still could not earn much money because of his obligations to his kin:

One day, after a moonshiner had told me of the high prices which he had obtained for his whiskey, I asked, “Henry, how is it that you fellows don’t all get rich?” He chewed his cigar – my cigar – for a moment and replied: “Wal, if a feller could make hisse’f, an’ sell it away off some’ers, he would git rich, shore ‘nough. But soon’s ever I git a batch run off, hyar comes all my kinfolks on me, an’ all their friends, an’ all my woman’s kinfolks, an’ so they all drinks and buys on credit, an’ never pays nothin’, an’ purty soon hyar I am busted! Or ellse somebody’ll git mad an’ go tellin’ folks whut a stingy ol’ devil I am, an’ th’ sheriff’ll git wind of it, an’ come a-chargin’ out hyar with his choppin’ axe....Makin’ whiskey is th’ hardest work a feller ever done, an’ there aint no money in it nohow. No sir, they shore aint!” (Randolph 1931:232-3).

Besides the underground production and sale of moonshine whiskey, there have been many other underground enterprises that evade the hand of the IRS. In the agricultural realm, underground markets existed for everything from various forms of alcohol, to vegetables, meats, and marijuana. Regarding the trade of products and labor, one farmer explains:

It benefits everybody. You take that mechanic out there, he ain’t turning in income, we ain’t turning in income, and we’re all eatin’ and having work done and we’re not paying taxes on it and nobody’s involved in it, nobody knows, they don’t need to know our business. He’s got meat for his freezer, and we get our car fixed, and everybody’s happy. We don’t have to trade any money, we ain’t cheatin’ anybody on anything (Interview 18).

## **Education**

Formal education provoked the ire of many Old Stock Ozark preachers and families. They disapproved of the requirements that schools placed on their children, ranging from vaccinations to school supplies, and they felt slighted at losing their farm labor for such extensive periods during crucial agricultural times; planting and harvest. They especially

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<sup>38</sup> Worm in this case refers to the moonshine still.

despised the pretentiousness of the educated people with whom they came in contact, who treated them disrespectfully and with scorn (Randolph 1931). The Ozark preachers fueled their suspicion of formal education, not only because they felt it would cause licentiousness, but also because they were not required to be educated and they despised religious groups that elevated the status of the educated over that of the poor and unschooled (Brauer 1953). Randolph (1931:47) recorded part of an Ozark preacher's sermon that reflects such misgivings:

Mountain preachers generally consider themselves above all worldly graces, such as dignity and restraint, and particularly resent what they call "book-larnin'"....The following paragraph is chosen almost at random from a brush-arbor denunciation of the higher learning: "Some folks sets a powerful store by this hyar eddication, but I tell you- all right hyar an' now that readin' an' writin' an' cipherin' aint never got no sinners into Heaven yit, an' don't you never fergit it!...Hell's chuck full o' schoolmarms, an' they aint no lack o' doctors an' lawyers an' other eddicated fellers thar, nuther!

Along similar lines, an aged Baptist farmer-preacher informed me:

All that education stuff is getting people in trouble. School is what makes farmers get in trouble, trying to teach farmers how to farm, but just making it harder on them. All this education makes it worse.

That's just like a guy said, 'how can you tell when hay is dry enough to bale?' You could go to school maybe a lifetime and not know nothing about that. You go pick that hay up and you can tell immediately. Well, like I said, I think we've learned way too much and don't have enough knowledge (Interview 33).

Ozark farmers disagreed with any form of government welfare or financial lending. They believed in the responsibility of individuals to support themselves and their family. They did not want government or financial institutions to intervene in their affairs because they did not trust them to be just and equitable. These farm families had difficult times during the depressions of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries and the experiences left an indelible mark on their psyches and on their approaches to food production. Farmers developed a concomitant utilitarian (salvage) ethic in which they viewed everything as potentially useful and never threw away

anything that could possibly be reused. A middle-aged farmer explained his parents' perspective:

My dad was born in 1911, so they went through the Depression and they looked at things a little differently than some other people that were younger than them but still had kids in the same class. This farm is a good example of the people that originally owned this. They were older than my folks and they used everything until it was worn out and then they found another use for it and got a whole 'nother lifetime for it and then after they wore it out for that, if they could find another way to use it, they'd use it a third time. And there's all kinds of latches around here made out of one-eyed horseshoes.... They didn't throw anything away. My folks were packrats. They didn't throw anything away. And they were successful farmers.... They just, they didn't particularly go much into, or believe in going much into debt on anything. They used things, they reused things, instead of going out and spending money and buying something new, that would do the same job, but do it maybe easier or better, but they would do it a little the harder way, because they didn't expend the capital (Interview 17).

When reflecting on the Depression of the 1930s, farmers passionately discussed the necessity of owning land. Their parents hammered into their heads that the farmer is nothing without his/her land and that they should never, regardless of the circumstances, sell the farm. One farmer described his plea to his daughter, which echoed that of his own father:

This is my heritage. This is my dad's place. This is my place and I tell my daughter every time I bring her back here: 'Don't sell this place' (adamantly). That movie, that *Field of Dreams* movie, you know there's the brother-in-law and he says 'don't ever sell this place, don't ever sell this farm.' And I tell my daughter that all the time, 'Don't ever sell this place.' And my dad beat that into my head because he grew up during the Great Depression and when times get hard, and times could get hard again, I'm a great believer that history repeats itself, and I don't think that the stock market is just going to keep on going. I think eventually things could get ugly, and when it does, you better have a place where you can raise a garden and raise a cow and survive (Interview 12).

Ozark farmers' belief in the land's ability to provide a living resonates strongly with Jeffersonian agrarianism that champions the farmer as the pure soul of the USA (Cauley 1935). Some Ozark farmers believed in the Jeffersonian ethic; they believed that they were superior to anyone who did not till the soil for a living. One farmer told me about how his grandfather and

other farmers in the past truly believed that farming was the most righteous of occupations. The following is from an interview with that farmer about his grandfather's agrarian ideals:

My grandpa thought farming was the only way to make a living - that's all he ever did and he thought that everybody ought to do it. Your dad could say, 'my son is going to college' or 'he's studying,' whatever 'anthropology' or whatever and he'd say, 'oh, that's nice, it's a shame he's not farming, though'. See that was the way he looked at it. I have two cousins who are really educated, one's a doctor in English, and he teaches ... and intelligence just rolls out of him. He's wrote some books, ... His other brother works for the Tennessee Department of Education and he's a counselor. They're real nice, educated, great guys. But anyway, my grandpa, when he was still livin', was sittin' here in the kitchen and my mom was working in the kitchen and they was talking about Tim and Steve and he said, (emphatically) 'Aahhh, they're soft, they couldn't do a days work if they wanted to'. And mom said, 'well, grandpa, not everybody makes a livin' with your back, ya know. They're makin' their living with their education.' And grandpa says, 'Hummmph.' That didn't mean nothin' to him. He thought farmin' was the only way to go. That's why he didn't want me to leave the farm. He would have provided whatever I needed to keep me on the farm. He always said, 'You never got anywhere carryin' a dinner bucket' (Interview 18).

Farming symbolized independence, self-sufficiency, hard work, and family unity, all of which represented success to an Ozark farmer. In fact, Ozark farmers shared these values and beliefs with much of the farming population in the United States at this time (Elliott 1890, Cauley 1935, McCune 1943). Scott (1970: 62) corroborates:

In the late 19<sup>th</sup> century most farmers were devotees of what Richard Hofstadter has called the agrarian myth. Convinced that agriculture afforded a superior way of life, farmers saw themselves as true democrats, independent of baser elements of society, producing for their own livelihood, and largely immune to the realities of the marketplace. Although such views were counter to the facts, except where geography and the lack of markets made subsistence farming and a pioneer existence inevitable, farmers continued to see themselves as simple and honest tillers of the soil.

Farmers especially considered themselves more virtuous than their city counterparts, whom they believed were sinking in sin. Randolph's (1931:299) ethnography attests:

The old-time hillman is impressed not a whit by the fine clothes and big motor-cars of the invaders, for he knows perfectly well that nearly all tourists are salaried people – "nothin' but hired hands" – while he himself is a landed gentleman despite his rags, and "don't take no orders from nobody". Like most rustics, the Ozarker regards all cities as sink-holes of iniquity, and believes that all city-dwellers are grossly immoral.

Ozark hillpeople viewed familial security, their land and ability to work for themselves, as their wealth and in most cases did not strive for material accumulation.

### **Local Markets**

The Ozark Highland region was definitely a place where ‘geography and a lack of markets made subsistence farming and a pioneer existence inevitable’ (Scott 1970:62). Some regions, however, allowed for market-oriented farming, making it unrealistic to portray the entire Ozark region, or OMA as outside the market’s influence. While farmers were extremely self-sufficient, they still relied on local markets for certain items, such as salt, coffee, and plow points. They sold surplus crops, animals, eggs, milk, and chickens to the local market and if they were close enough to the railroad when it came into the area<sup>39</sup>, they sent market items to St. Louis. A farmer who lived relatively close to an early railroad explained the marketing of surplus goods by local farmers and peasants:

You sold eggs in town....We’d take them to the grocery store and he had a pen behind the store and he would buy them so much a pound and put them out there. Then people in town, on the weekend, they used to do that on Friday, because on the weekend they was looking for a chicken to kill ya know. They would go down there and they would pick them out one, whichever one they wanted, and then he would go catch it and take it in and weigh it and sell it to them. And eggs, they always had eggs and if he had an oversupply of eggs, why, he’d send ‘em to St. Louis. They bought more eggs, but usually he didn’t sell that many eggs through the store because everybody already had their own eggs, their own chickens, and their own milk cows.

Even them people in town had their own milk cow and they had a place where they’d keep her by the night and turn her out by the day and she’d run around down the streets or down the river bottom or wherever and evening come and they’d go huntin’ for the cow and keep her that night, milk her and turn her out the next morning. She’d be loose. You’d see a milk cow runnin’ around on the street down there....Yep, Yep, everybody had chickens and hogs and so on. You could just about survive on that, get a long. They didn’t have much, but didn’t have no electric bill to pay, didn’t have no telephone bill to pay, and so on and all they worried about was their taxes mostly. That’s all they had to save money for - tax payin’ time (Interview 28).

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<sup>39</sup> Railroads that linked parts of the region with St. Louis and Cape Girardeau, to the northeast and southeast respectively, were completed before the 20<sup>th</sup> century, some before 1870 (Gerlach 1976, Interviews 2003).



The only bills farmers had to pay were their land taxes, which they did begrudgingly, only because they had to have, above all else, their land.

### **Human Enslavement**

“I ‘member how de old slaves use to be workin’ in de field singing ...

‘On Jordan’s Stormy Banks I stand, and cast a wishful eye.  
To Canaan’s fair and happy land, where my possessions lie.  
All o’er those wide extended plains, Shines one eternal day;  
There God, the son forever reigns, And scatters night away.  
No chilling winds, nor pois’nous breath, Can reach that healthful shore;  
Sickness and sorrow, pain and death, Are felt and feared no more.  
When shall I reach that happy place, And be forever blest?  
When shall I see my father’s face, and in his bosom rest?  
I am Bound for the Promised Land.”

- Missouri Ex-Slave (Rawick 1972:119)

Slavery took on a distinct character in Missouri, partially due to the state’s geography and because of the population’s attitude toward the practice. The hilly, non-uniform terrain of the Missouri Ozarks precluded the plantation style use of human slaves that occurred in the United States’ piedmont, coastal plains, and Mississippi Delta, so ‘the Mississippi and Louisiana type with its white overseer and gangs of driven blacks was comparatively uncommon in the State’ (Trexler 1914). The Ozark region had significantly fewer slaves than the central and eastern regions along the Missouri and Mississippi rivers (see Figure 3.3). Large-scale slavery occurred along the waterways because the land is more fertile and productive and more accessible to markets. OMA had between five and fifteen percent of its population enslaved in 1860, which necessitates its treatment in this research.

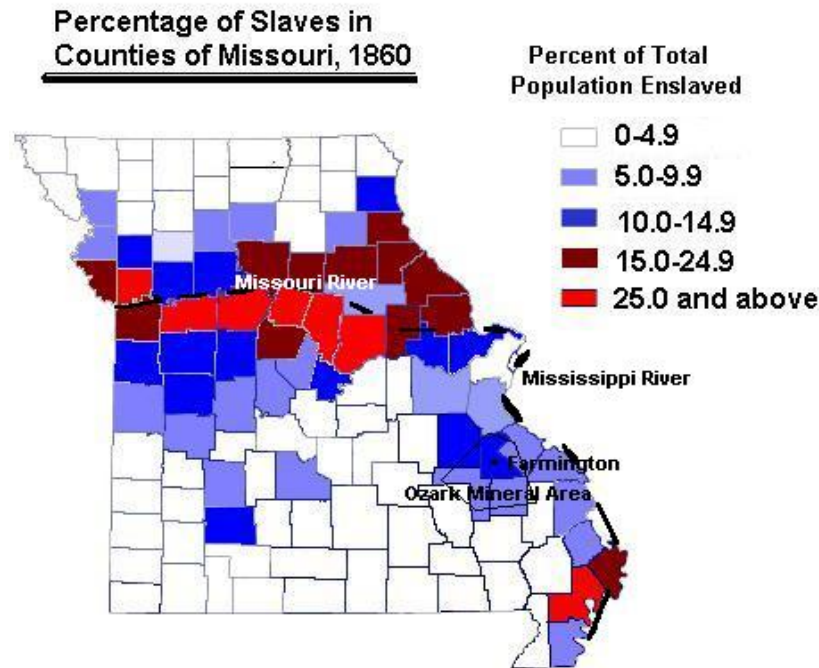


Figure 3.3 Slavery in Missouri by County

Slaves in Missouri worked predominately as household hands and generalized farm laborers and frequently worked alongside their masters in the fields. Historical accounts claim that large-scale slave breeding and trading was minimal or non-existent in Missouri.<sup>40</sup> The constitution of 1820 ‘provided that the legislature might pass laws to prohibit the introduction of slaves into the State as “an article of commerce”’ (Trexler 1914:227). Yet, in reality, the General Assembly never passed such legislation, and, regardless of these accounts, these practices occurred. The following narrative from a slave raised and held captive just to the southeast of OMA reveals that these practices occurred along Missouri riverways:

I was born a slave. My boss was John McWiggin, a Scotch-Irishman, who raised hogs, sheep, hemp, and darkies. He had ‘bout 830 darkies on de place. We lived in log cabins....Had ‘bout fourteen cabins and dey was placed so dat de old master could sit on his porch and see every one of dem....The niggers had three or four wives before da war,

<sup>40</sup> Trexler (1914:227) claims that numerous slaveholders and old residents from Missouri vehemently denied that ‘slave breeding was ever engaged in as the antislavery people so often charged.’ He also cites examples of respected Missouri officials that deny Missourians ‘raised slaves for the southern market.’ An Ex-Lieutenant Governor states; “I feel sure it was never done.”

as many as dey could bear chillun by. But after de war dey had to take one woman and marry her....Ben Oil had 100 niggers. He just raised niggers on his plantation. His brother-in-law, John Cross raised niggers, too. He had 125 niggers. He had a nigger farm. His other brother-in-law we call him old man English, had 100 niggers. Dey all jus' had nothin' else but niggers. Before de war broke out, ...carried us all down der to New Orleans wid him and opened up a nigger pen. Dat's a place like a stock yard where dey auction us off....When dey want to raise certain kind a breed of chillun or certain color, dey just mixed us up to suit dat taste, and tell de nigger dis is your wife or dis is your husband....I had 15 head of chillun (Rawick 1972:217).

This account paints a stark picture of the harsh realities of slavery of which few modern inhabitants of the United States are aware, because we rarely hear history from the perspective of the dispossessed (Wolf 1982, Scott 1985). Such accounts, moreover, tell us that the ruling gentry of Missouri did not disapprove of the common practice among slaveholders of human slave breeding and marketing.

Some slave-owners raised their slaves as other breeds of livestock. Despite local mores against polygamy, slaves were forced to reproduce with random partners. They were bred to develop specific characteristics such as size, color, and disposition, like cattle, sheep, or hogs. The fact that the woman refers to her children as 'head of chillun' reflects the way the slavebreeders spoke and thought of human slaves; they considered them livestock. The following excerpt from an OMA slave narrative demonstrates their treatment as livestock:

I was born in slavery on de Hill place in Farmington....A brother and sistah of mine was sold as slaves 'fore I was born. I nevah saw them. My father was sold away from my mother. Our home was not pleasant. The mistress was cruel.... Our cabin was one room, one door and one fireplace. Our mistress was a rich woman, and she had three husbands. She had a big square smokehouse full of hog, beef, deer, all pickled away. She had 12 cows and lots of butter and a spring-house. To eat we had corn meal and fried meat dat had been eaten by bugs. We had some gravy and all ate 'round de pans like pigs eating slop. And we had a tin cup of sour milk to drink. Sometimes we would have gingerbread. Dis was 'bout twice a year. My brother dat was a slave ran off with four or five other boys and never come back...They had a 'nigger-breaker' in Farmington who would take care of de slaves who were hard to handle (Rawick 1972:73).

Farmington is now the most populous town in OMA and is situated in St. Francois County, the OMA county closest to the Mississippi River, where slaves were also more numerous (see Figure 3.3). The fact that they had a ‘nigger-breaker’ in the town indicates that slavery was occurring on more than a small-scale basis and that slaves were treated not only like animals, but also in violent, pernicious ways. Human slaves were used as beasts of burden to perform agricultural tasks. They were forced to pick weeds, plant crops, harvest crops, plow fields, carry loads of rocks, logs, and harvested crops, and many other menial farm tasks. One former OMA slave explains; “My mother...was worked like an old horse and de best part of her life was spent in bondage” (Rawick 1972:189). Another ex-slave from the region speaks of the way they were treated like livestock, “I’ve seen slaves go through Danville in droves like cattle. Dey was chained together and dey walked ‘em to St. Louis to de nigger yard” (Rawick 1972:19).

Researchers have posited that humans’ social relations are indicative of their ecological relationships; i.e. if they are prone to mistreat and deceive other humans they will act accordingly to their natural environment, and vice-versa (Bennett 1996). Therefore, farmers who mistreat their animals will have less qualms about deceiving and exploiting their neighbors or other humans. The salient point of this treatment of slavery in the research area is to distinguish between those farmers who held slaves and/or believed in dominion over other humans and those who did not. These relations reflect their perceptions of their farming environments.

A small percentage of OMA farmers had slaves; some had a few slaves for general field or household work, while a few had a lot of slaves to work in their fields. On the other hand, most Ozark farmers could never have afforded to own a slave and never would have owned one if they could. Farmers who had numerous slaves were more affluent than most small-scale Ozark farmers and viewed farming not solely as a way of life, nor as a moral familial enterprise,

but as a business that earns profit and accumulates wealth. The farmers who settled the most strategically-located and fertile lands were usually the farmers who held slaves. My ethnographic research uncovered several families that had slaves on the original deeds to their property and these properties were usually located in low-lying areas with more extensive floodplains or valleys and/or closer to the town of Farmington. Many of these families were of German descent, however, I do not want to imply that only German families were slaveholders. Rather, in OMA, it was a distinctive case in which the Old Stock Americans predominately selected hollers in the hills for their farmsteads while many Germans selected more fertile, expansive flatland farmsteads. Obviously, the latter were more conducive to slave-based agriculture. This excerpt from an interview with a German farmer documents the common practice of trading slaves:

I'm the sixth generation with the ----- name on our ...place, it belonged to a great, great, great grandmother of mine...and it started when my great, great, great grandpa ... got the farm by trading his sister some slaves. He was actually ... settled in New Madrid (near the Missouri River) and his sister settled up here and she didn't like it up here, so I think they traded properties and they traded the slaves for the place too. This is the original homestead.... It was built by slaves in the early 1800's to 1820's (Interview 19).

In most cases slaves were treated as property that could be bought, sold, traded, and accumulated as any other form of material wealth.

In contrast to affluent slaveholders were poor Old Stock farmers, who one local ex-slave remembered rather fondly, stating; "One of our neighbors, Mr. McMullin, was a poor white but he had a heart" (Rawick 1972:74). Slavery was a relatively accepted aspect of society at this time, so it was not uncommon to have a family of slaves who helped around the house and in the fields, but were not necessarily mistreated or denigrated (Rawick 1972). An oft-neglected part of slave history is the slaveholder family who owned a family of slaves who they looked upon and treated as members of their own family (Rawick 1972). Some ex-slaves expressed nostalgia for

their slave days (no matter how strange that sounds) because they were part of the family and their physical needs were met<sup>41</sup>. One ex-slave spoke fondly of his ‘owners’:

Tom Casey owned both my mother and father....De master had a pretty good farm and dat was where I worked when I was a boy. Mr. Casey never hit me a lick in my life. He was sure good to us....Before freedom we had our own house and stayed here after freedom. My master said, ‘Well, Joe you are your own boss.’ I said, ‘How come?’ He said: ‘I’ll help you.’ Dey would not turn us out without a show. We stayed dere free and I went out in de diggin’s in de tiff at Valle Mines (Rawick 1972:76).

Neither slaveholders nor slaves were an homogenous group. While most slaves were of African descent, some slaves were of Native American or mixed African-Native American descent.

When the French and Spanish settled the region they sometimes enslaved the native inhabitants (Trexler 1914). On the other hand, some early Old Stock settlers intermarried with the Native American population. So, there were varied perceptions of the native population in the region.

From the data presented, several different relationships between Ozark farmers and human slaves are evident. First, the most common were the self-sufficient hill farmers who did not have slaves and disapproved of the practice (Massey 1978:6). Secondly, there were hill farmers who could not afford slaves, nor were they appropriate for their farming style, but whom believed in the dominion of themselves over the human ‘other.’ Third, there were small-scale slaveholders who treated their slaves with respect and sometimes as family members. Finally, there were slaveholders who mistreated their slaves and considered them the equivalent of livestock; an inhuman piece of property that only served to amass wealth. The latter had power and wealth and did not consider themselves subject to local morals or religious beliefs. They utilized religion to justify their practices and to maintain their superiority and control over their slaves. Beyond that, they utilized their slaves to strategically and deceitfully steal the wealth of

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<sup>41</sup> There were extreme difficulties and hardships for many ex-slaves after emancipation who had no land, no shelter, and no money, which caused them to reflect nostalgically upon their more secure days in slavery.

their neighbors (Trexler 1914). As this slave interviewed in St. Louis explains, religion was manipulated to keep slaves subservient, yet the masters rarely followed the religious teachings:

Dey would take a great string of slaves in de road on Sunday and make us walk to church. Buggies with de white folks would be in front of us, in de midst of us, and all betwixt and behind us. When we got dat four or five miles we had to sit on a log in de broiling sun, while a white man preached to us. All dey evah would say would be niggers obey your masters and mistress and don't steal from'em. And lo and behold, honey, de masters would make us slaves steal from each of the slave owners. Our master would make us surround a herd of his neighbor's cattle, round em up at night, and make us slaves stay up all night long and kill and skin every one of dem critters, salt the skins down in layers in de master's cellar, and put de cattle piled ceilin' high in de smoke house so nobody could identify skinned cattle."

Den when de sheriff would come around lookin' for all dem stolen critters, our boss would say, 'Sheriff just go right on down to dem niggahs' cabins and search dem good, I know my niggers don't steal.' Course de sheriff come to our cabins and search, sure we didn't have nothin' didn't belong to us, but de boss had plenty. After the sheriff's search, we had to salt and smoke all dat stolen meat and hang it in old marse smoke house for him. Din dey tell us, don't steal (Rawick 1972:207-8).

Another ex-slave from OMA corroborated the disingenuous slaveholder practice of sending a slave to steal a neighboring farm's livestock:

Slavery didn't teach you nothin' but how to work and if you didn't work your back would tell it. Slavery taught you how to lie, too. Just like your master would tell you to go over and steal dat hog. Den de other master from who I stole de hog would say, 'Peter, why I've lost a hog; did you ever see him anywhere?' I would say, 'No, suh.' Of course if I did not lie I would get a whippin' (Rawick 1972:94).

Despite local mores and generally accepted religious teachings that told all people not to steal, lie, and cheat, a very small minority of affluent 'farmers' in OMA strategically flaunted and ignored these rules in favor of the secular capitalist approach of accumulation of wealth at all costs. With these unscrupulous strategies large landholders accumulated wealth and power in their communities, at the expense of their more virtuous neighbors.

## **Agroecological Perception**

Traditional Ozark farmers paid close attention to the movement of the moon and sun, utilizing these celestial bodies as guiding forces for their interactions with the agroecological farming environment. The season, temperature, and location of the moon were key factors in determining the agricultural activity that needed to be done. A Baptist farmer-preacher related the following story:

We went to church over here and a guy was preaching and he said, ‘the moon’s shining pretty, but ain’t that something that that old moon don’t do a thing’, he said; ‘it’s just a big old rock over there and the sun shines against it.’ And I said, ‘I’d like to ask that joker how come one week it’s way over here like this, just a little string up there, and the next week it’s half, and the next week it’s a little more, and the next week it’s full, and the next week there ain’t no moon. Where does it go?’ I’d like to ask him (agitated, animated, and excited). But anyway, I didn’t ask him. I’m fully convinced, I’m just as sure as I’m sitting here, I believe that when the moon was created, the sun was created, they both had a job because it (the Bible) said, the moon was to be the lesser light for the night and the sun would be the light for the day and I believe that. I know I’m foolish but I believe it (Interview 33).

Literal biblical interpretations guided many of the farmers’ interactions with the natural world.

While White (1967) has proposed that the Judeo-Christian worldview encourages farmers to ‘dominate’ their environment, some farmers believe that their biblical interpretations compel them to be stewards of the land. A farmer illustrates:

Farming dates back to biblical days and most of your illustrations in the bible are based on farming and in an orchard or vineyard or something like that. That’s the way they explain things: stewardship. I think a lot of the problems in our country nowadays is because people are raised in the city where they are out of contact with nature. God sets up nature to reproduce and cleanse itself and recycle – everything recycles. Well, the people raised in the city don’t understand that because they’ve never had a chance to (Interview 37).

Traditional Ozark farmers who treated the Bible as their guide, as most Old-Time Protestants did, viewed themselves as stewards of their farming environments. Farmers had intimate relationships with their animals and believed that the Bible directed them to love their animals



and take good care of them. The following quote demonstrates the belief that animal mistreatment will have severe repercussions in the afterlife:

So many of these little ole horses and ponies are taken off to be killed and make dog feed out of them. You know, I'm afraid that's gonna be bad on Judgment Day for people like that. I don't believe in that. I think people ought to have a little more love in their heart than to act like that. Take these ponies here. They're nothing extra. There's better ponies than these, but I would not sell them to be killed at no price. I'm a very poor person, but you couldn't pile enough gold there in front of me to take these ponies and kill them (Massey 1978:84-5).

Another Baptist farmer reiterated the notion of stewardship; "We need to be good stewards of our land. Today's attitude is that they need to get more and more out of the land, with higher, better technology, rather than years ago, they wanted to take care of the land because in the future it's gonna take care of them. You gotta treat it properly" (Interview 40). The previous quote expresses the need for stewardship, but also the idea that traditional Ozark farmers considered the welfare of future generations. Another farmer confirmed the aforementioned concern for future generations:

I remember one time he was sitting up there in his rockin' chair underneath a couple shade trees. (He was) about 85 years old then and he was reading a couple magazines and I said to him, 'what are you reading Uncle Rod?' He goes, 'I'm ordering some fruit trees.' I was looking at him and I said, 'Uncle Rod, you're 85 years old, why are you ordering fruit trees? Do you think you're gonna live long enough to eat fruit off of those trees?' And he said, 'yeah, I'm 85 years old and I've been eating fruit off of trees all of my life since I was a little boy and now it's my turn to make sure other little boys get to eat off of fruit trees (Interview 12).

These two concepts, stewardship and concern for future welfare, are interconnected. When people act as stewards to the land, they sustain it for future generations. The goal of the traditional Ozark farmer was to protect his/her farm and sustain it. To maintain a productive farm, farmers had to know their farming environments intimately. An Ozarker describes the way in which his father instilled this environmental awareness in him:

We caught game back through that time to survive on. We killed that game to eat it and take care of it. One thing that my dad forbid us of doing was to kill anything out of season. Now, he wasn't talking about the laws of the land, the seasons they make on it, but he had a season of when it was fat and in condition to be harvested to eat, and that was his seasons he went by then. We never took more of anything than we could take care of (MOZARK 1982:17).

In the above quote, he clarifies that *de jure* laws, such as hunting seasons determined by Natural Resource Departments, did not necessarily correspond with ecological laws he learned from his forbears. Traditional Ozarkers believed in the superiority of their intimate ecological awareness over that of any outsiders' knowledge. Holliday (1974), an Ozark native who wrote his PhD dissertation on traditional life, explains this ecological savvy:

All of the boys reaped tremendous rewards from the simple fact that they knew, intimately, their woods environment. They never questioned the fact that they could survive in the woods, because they knew well enough the various characteristics of their habitat that they could reap almost anything that nature had to offer. That they knew enough about wild animals, their skill in tracking, hunting, trapping attested. Their knowledge of trees and plants, and their uses, gave them added assurance that nature would support them" (McNeil 1995:20).

Ozark farmers paid close attention to ecological feedbacks because they served as indicators for agricultural activities and livestock, crop, and soil health.

Traditional farming consisted of a preventive approach toward livestock and crop health learned through awareness. Crop and animal diversity decreased pest and disease buildup. Livestock, such as chickens, goats, and hogs, scavenged for food and in the process consumed any organic matter, such as decaying fruits or crops, that might harbor pests and diseases. Also, because they were free range, they dispersed waste that fertilized the ground in such a way that it did not introduce pathogens or toxins into waterways or food supplies. Along similar lines, Ozark farmers believe that 'waste should be spread.' The following quote presents the traditional Ozark perception of proper waste disposal:

One of my old neighbors lived in a big house with many modern conveniences; he had a good cookstove, and a kitchen sink,....However, there was no toilet at all, not even the rude 'backhouse' so common in the Ozark villages. This man told me that his parents and grandparents had lived long and happy lives without toilets, and that he felt that there was something unclean and degrading about a group of people urinating and defecating in the same spot. In town, he said, waterclosets were doubtless necessary, but in the clean woods the situation was very different. Filth, he added, should be scattered rather than collected (Randolph 1931:40).

Some traditional hog farmers in the region share this sentiment, however they do not extend it to human feces as in the aforementioned example. They refuse to put their hogs in confinement buildings, and criticize those who do, because they believe, like their ancestors, that waste should not be accumulated in one place, but rather it should be dispersed (Interviews 29,38,46,49).

The traditional preventive strategy includes a belief in the reduction and elimination of livestock stress. Farmers in the area see stress as the major contributor to livestock disease and injury and consider it their responsibility to prevent it. One traditional farmer proposes his philosophy on the domestication of animals; "I'm getting almost into philosophy here but when the animals agreed to become domesticated, we agreed to take care of 'em and it's an unwritten contract and a good deal of my livelihood depends on how well my animals do and animals under stress can't do good" (Interview 27). Several old-time farmers in the area engage in a livestock practice that reduces the chance of complications in heifer pregnancies. They always breed heifers with a specific breed of bull, a Longhorn, to ensure a smaller calf. Although the market favors a different breed, Angus, these farmers breed with a Longhorn bull to reduce the stress level on the young mother and prevent painful, possibly fatal, calf deliveries. This practice is not only easier on the heifer, it is also less financially risky for poorer farmers. One older farmer explains:

On the heifers I use a Longhorn. I've had good luck with 'em. Just on the heifers, they throw small calves and they bring about two cents a pound less when you sell 'em. But

then you don't have to worry about the heifers. I'd rather have one that's bringing about two cents less and having it safely (Interview 35).

While Ozark farmers protected their animals and alleviated their stress, they were intimately familiar with death. They cannot be essentialized as pure conservationists that unconditionally loved all animals, nor as religious zealots who believed that 'thou shalt not kill' extended to livestock or pets. In reality they could not be overly sensitive to death because they slaughtered their animals to eat and they did not hesitate to kill animals that threatened their livelihood. One Baptist preacher-farmer caught me off guard with this story that demonstrates the harsh realities of farm life and nature and his awareness of both:

We usually order 50 pullets (young hens) in the spring and we had 51 of 'em and every one of them lived. I was getting from 48-51 eggs a day and I went over there one morning and the neighbor's dog got in there and killed 'em all but 13. The guy said to me, 'I'd tell him I want eight dollars a piece for them chickens.' And I told him, 'No, you'll have to kill the dog.' He said, 'Well, that dog belongs to my grandson, I don't think his grandma will allow it.' (I said) 'Well, in this case, I'm a mean man, I'll kill the dog. You do whatever you want.' He said, 'I'll just pay you for the chickens.' I said, 'No, I don't want you to pay me for the chickens, I don't know what they're worth, but if I took your money, me and you both be broke. I don't want you to pay for the chickens, I just want you to kill the dog.' So, he killed the dog. Once a dog kills, you can't stop a dog. No, No you can't.

"So, when a dog kills a bunch of chickens, it'll come back all the time looking for more?"

He told me after that, after he killed the dog, 'Well, the dog killed some of our chickens last year and then we just put them up.' It's just an old mixed breed dog. That thing killed the chickens and then just carried them over there in the corner and then just piled them up. He was still killing them when I went over there (Interview 33).

Farmers have always had to deal with predators and they established innovative strategies to discourage such threats, but when a pet became the predator it posed a dilemma that may appear moral, but to an Ozark farmer is not even a question. They would have had no qualms, nor questions, about killing a threat to their livelihood. Another noteworthy aspect of the story is that the farmer refused to accept financial compensation. He did not see the animals in financial

terms, but rather as a means to support his family (Interview 33). He farms because he enjoys interaction with the natural world and because he believes it is a morally righteous livelihood that allows his family to support themselves.

Throughout this chapter I have discussed traditional Ozark farmers and their perceptions, and introduced a distinct group, those who view farming as a business. While we cannot portray ‘traditional Ozark farmers’ as homogenous, they shared the majority of the described characteristics, practices, and beliefs. On the other hand, the latter ‘farmer’ who ‘farms’ for profit, breeds slaves for market, and deceives his/her community members does not fit the descriptions that I have presented and represents a minority. We must consider the relationship these respective farmers had with the ‘other’, whether that ‘other’ be other human groups, animals, plants, or the Earth. As we see from the data presented, most of the traditional Ozark farmers, German or Old Stock American, treated the ‘other’ with respect and stewardship, provided it did not impinge upon their livelihood. Just as the different responses to Native Americans in the area exemplify, with some early settlers intermarrying with Native Americans and learning from them, and others enslaving them, there were distinct perceptions of the ‘other.’ A small minority of agriculturists in the region viewed the ‘other’ merely as a tool for their aggrandizement and avarice. These were not really farmers; they were businessmen (McCune 1943).

## Chapter 4

### **THE IDEOLOGICAL ENCOUNTER: AGRICULTURAL DEVELOPMENT IN A SEMI-ARRESTED FRONTIER**

One of the most profound recent discoveries about the process of agricultural modernization is that the laissez-faire approach will not do the job, that leaving agriculturists to their own initiative and resources is not enough, and, conversely, that external environmental intervention is necessary through the use of modern technical, physical, economic, social, educational, and political inputs.

The universe of focus is intended to include farmers, professional agriculturists, government, business, and political leaders as the central actors in the drama of agricultural modernization; physical, political, biological, economic, social, technological, and educational variables in the environment must be manipulated so as to set a stage conducive to achieving the human behavioral patterns required... for transforming tradition-oriented agricultural systems to modern ones.

- Leagens and Loomis (1971)

*Behavioral Change in Agriculture:  
Concepts and Strategies for Influencing Transition*

In its encroachment upon the countryside, urban civilization has left islands of folk culture in the mountain fastnesses and distant valleys. Parts of the Old South, Appalachian and Ozark mountaineers, ...and an occasional community with strong religious ties maintain social values almost uninfluenced by the pecuniary calculus of the cities and keep customs foreign to the norm of American urban life.

- Walter Goldschmidt (1947) *As You Sow*

### **Introduction**

This chapter considers the ideological encounter between modern technocratic ideology and the local Ozark knowledge system and the effects on the latter. It examines, as J. Peter Brosius (2001:151) situates contemporary struggles of political agency, how “certain voices are able to edge others out, certain voices may be co-opted, certain voices may be dismissed as

disruptive, and certain voices may be taken to be irrelevant.” The preceding ethnographic vignettes represent voices that have been simultaneously edged out, co-opted, and taken as irrelevant. This process has primarily occurred under the guise of education, but individuals and groups promoting discourses of empowerment and assistance have also played roles.

### **Technocratic Rationalization Through Education**

“Every educational system is a political means of maintaining  
or of modifying the appropriation of discourse,  
with the knowledge and the powers it carries with it.”

- Foucault (1971) *Discourse on the West*

In OMA, technocratic rationalization occurred through several general channels, the most influential of which were education, media, and non-farm industrial occupations. The source of each of these mediums originates outside of Ozark farm communities. The mandates, epistemology, and information disseminated to and through educational channels originated in universities or bureaucratic offices outside of the area. The agricultural media was loyal to the agribusiness industry, which consisted of exogenous chemical and mechanical companies that did not reinvest in the Ozark farm communities that purchased their products (Goldschmidt 1947). Besides farming, farmers engaged in mining, mechanical (car or tractor), or mercantile (agricultural chemical) occupations, which held allegiances to, and were based in, companies in locations outside of OMA (Goldschmidt 1947).

While the economic sphere of society wields considerable power, without the affective apparatus of the State, corporate interests can do little to change the views of the public (Bocock 1986). The establishment of technocratic ideology first required a thorough process of traditional knowledge delegitimization in order to subsume the roles, and replace the rationality, of the previous knowledge system (McCarthy 1978). Such a systematic delegitimization process required the ridicule of traditional ways as backward and irrational (McCarthy 1978). This

process began in formal educational institutions because they were portrayed as neutral sources of societal improvement. Althusser (1970:29-30) describes school's role in rationalization:

It takes children from every class at infant-school age, and then for years, the years in which the child is most 'vulnerable', squeezed between the family State apparatus and the educational State apparatus, it drums into them...the ruling ideology (French, arithmetic, natural history, the sciences, literature) or simply the ruling ideology in its pure state (ethics, civic instruction, philosophy)...But no other ideological State apparatus has the obligatory (and not least, free) audience of the totality of the children in the capitalist social formation, eight hours a day for five or six days out of seven....The mechanisms which produce this vital result for the capitalist regime are naturally covered up and concealed by a universally reigning ideology of the School, universally reigning because it is one of the essential forms of the ruling bourgeois ideology: an ideology which represents the School as a neutral environment purged of ideology.

### **Education in the Ozark Mineral Area**

“But the collecting of these superstitions must be attended to at once, before the entire body of Ozark folk-lore is driven into hiding by the laughter of the schoolmarms and tourists who are just beginning to invade the hill country.”

- Randolph (1931) *The Ozarks:: An American Survival of Primitive Society*

At the beginning of the twentieth century, OMA was characterized by extremely isolated sections, semi-peripheral regions that enjoyed limited trade and commerce through nearby railroads, and a few intricately connected elite - political economic groups or individuals that engaged in large-scale commerce through mining, timber, agribusiness, and banking industries. These diverse sectors envisioned themselves and the need for formal education in distinct ways. The isolated agrarian sectors of OMA, dominated by Old Stock families, engaged in home education consisting of hands-on learning; children were taught by parents, relatives, grandparents, or neighbor-friends what they needed to know to survive and prosper in their agrarian lifestyle. As a gender-specific education, girls were taught to cook, sew, tend the garden, collect medicinal and edible plants, and gather eggs, while boys learned to handle livestock, milk cows, tend hogs, cattle, and chickens, hunt, fish, and butcher meat. This experiential knowledge was accompanied by, and situated within, the sociocultural logic of



traditional Ozark society. While the contemporary, modern educational system pedagogically compartmentalizes knowledge and learning by creating exclusive categories of information, such as math, science, and reading, and defining schools as the sole locale designed for learning, traditional education had few such parameters (Althusser 1970, Salas 1994). The learning process in self-sufficient agrarian communities occurred through life activities and would never have been limited to the schoolhouse. Also, because education occurred through hands-on activities with family and neighbors, learning typically included a technological component, but also an ethical explanation grounded in the local cultural worldview (Salas 1994). Arjun Appadurai (1990:188) explains that contrary to the modern educational system, technical knowledge is frequently intertwined with cultural and spiritual understandings of the world:

In many traditional agrarian societies (and probably in some non-agrarian ones as well) it is difficult to distinguish technical knowledge very clearly from knowledge which is tied to larger normative and social ends. In such societies *techne* and *episteme* ... are both embedded in wider social, religious, and epistemological grounds and contexts.

Traditional Ozark farmers believed that the knowledge needed to live happily and successfully could be learned through everyday family and church activities.

In contrast to traditional Old Stock Ozarkers were semi-peripheral and commercially oriented sectors of OMA, which consisted of ‘progressive’ Old Stock individuals and German communities that participated in more societal activities and commerce and desired more formal educational services. Germans brought with them a belief in the necessity and value of formal education and a relatively long-standing academic tradition (Rudolph 1962, Gerlach 1976). In addition, many obeyed the Weberian *Protestant Ethic*; that through hard work, education, and devotion, they would be rewarded, both financially and spiritually (Weber 1905). Some German families encouraged their children to attend universities and return to impart their accumulated formal knowledge on the local children. German farmers, however, wanted at least a few of

their children to remain on the farm because they placed the stability and continuity of the family farm above all other values (Gerlach 1976:60). In the words of Sonya Salamon (1987:185); their ‘values require preservation of the original agrarian covenant which regards farming as a superior way of life.’ Germans applied their cultural belief in formal education and science to agriculture in order to improve their operations. This belief in exogenous, formal knowledge contrasted significantly with the educational history and beliefs of the Old Stock population.

The more powerful, commercially-oriented sector of OMA succeeded in establishing schools and laws to force all children in the region to attend school. It was with these first schools that the delegitimization of traditional knowledge began. Randolph (1931) refers to schoolteachers in small, one-room schoolhouses established in the rural, isolated regions of the Ozarks as ‘schoolmarms’. Schoolmarms were formally educated women from nearby towns who told the children that their parents were backwards, old-fashioned, and incorrect. They punished the children for behaving or believing like their parents. The schoolmarms taught children that the traditional ways of their parents, ranging from their homemade clothing, soaps, or songs, were outdated and needed to change with modern times. Randolph (1931:166) was in the Ozarks during the late 1920s attempting to document and preserve traditional folk music. He explained the effect of the schoolmarms’ ridicule:

Since the coming of schools, newspapers and phonographs the old songs and ballads are rapidly falling into disrepute; the younger generation knows little about them and cares less, while the older people have grown sensitive and sullen under the derision of the schoolmarms and other rural cognscenti, and are more and more inclined to keep their memories to themselves.

The supposed expert was the schoolmarm, teaching the children what they needed to know to succeed in the modern world, however the Ozarks at this time was not the ‘modern’ world.

Ozark children needed to know what their parents' knew; how to scrape a living out of a relatively inhospitable environment.

Robert Rhoades (2000:7-8), in *Integrating Local Voices and Visions into the Global Mountain Agenda*, details the commonalities among marginal mountain regions and their encounters with the technocratic rationalization process:

... the Appalachian hill people were undergoing a 'period of shame.' They believed their hand-me-down knowledge, hard won through everyday experience, had little value compared to the higher status knowledge found in America's cities and flatlands. To be accepted they had to shed their "hillbilly" habits and adopt those of outsiders. Learning had to come from textbooks or other materials designed and produced by city-educated teachers who knew little of or cared little for Rabun Gap. Highland cultures had to be replaced by a national culture promoted by the mass media.

Rhoades (2000) equates these Appalachian experiences with those in agrarian communities in highlands Ecuador, highlighting the similar processes of local knowledge delegitimization, industrial exploitation, sociocultural and economic disruption, and impoverishment. Ozark communities endured the same pejorative process, whereby their land is damaged, their lifeways discredited, and they themselves are discursively labeled as the 'other', whether that 'other' be the backwards 'hillbilly' of Appalachia or the Ozarks or the 'indio' of Ecuador. This process of mountain region 'development' described by Rhoades (2000) represents the homogenizing trend of technocratic rationalization. According to such rationale, any knowledge system distinct from Western science has no merit and needs to be replaced. Scott (1998:305-6) explains:

Knowledge that arrives in any form other than through the techniques and instruments of formal scientific procedure does not deserve to be taken seriously. The imperial pretense of scientific modernism admits knowledge only if it arrives through the aperture that the experimental method has constructed for its admission. Traditional practices, codified as they are in practice and in folk sayings, are seen presumptively as not meriting attention, let alone verification.

Isolated Ozark families preferred their traditional practices, their forms of education, socialization, and farming, and rejected attempts by outsiders to ‘improve’ them. Randolph (1931:304) documented that the isolated Ozarkers did not want outside assistance:

Another thing which has prejudiced the hill people against outsiders is the fact that so many of them feel called upon to save the hillman’s soul, or show him how to build a new-fangled privy, or advise his wife about the proper feeding of her children. The Ozarker is fiercely proud of his own accomplishments and independence. He despises all uplifters, and contemptuously rejects anything suggestive of ‘help.’

Outsiders, however, continued to intervene under the auspices of assistance. While most urban and formally educated people at the time envisioned ‘progress’ as modernization and believed that interventions were justified because they would help modernize the isolated Ozark families, the business-oriented elite that facilitated and created change had strategic economic intentions (McConnell 1959, Olson 2003).

### **Agricultural Extension: Adult Education**

“The widespread disregard and even contempt for the colleges, so common among actual farmers, was but the foremost indication that the institutions had failed to reach the goals that their founders had set for them” (Scott 1970:138).

“People in the county were not satisfied with his work, and the newspaper condemned the spending of money on a young fellow with no experience who was trying to tell old-time farmers how to farm” (Reeder 1979:3).

Traditional farmers resisted modern agriculture because they did not believe change was necessary, especially change encouraged by fancy scientists and city people. Due to their resistance, the Agricultural Extension Service and businessmen strategically targeted children as an ‘in’ into the farm family (Scott 1970, Reeder 1979). Several Agricultural Extension professors explain in a report entitled, *The First Fifty Years of the 4-H Program*:

In the early days, Extension educators conceived the idea of involving youth as mediaries between the university researcher/educator and the farmer in the community. This proved successful because, in the early 1900s, corn clubs were established, educators found youth to be more receptive than their parents in adopting new corn planting techniques. Through the young peoples' involvement and accomplishments in the corn clubs, the parents were

exposed to new farming methods and were convinced to try and adopt new practices (Van Horn et al. 1998).

Farm clubs initiated children into competitive and business-oriented approaches toward farming, whereby local chambers of commerce and railroads financially rewarded children for growing the largest or most abundant crop (Scott 1970, Scott 1985). Through such an approach, they attempted to change the worldview of adult farmers, to make them more receptive and participatory in business and exogenous technology-oriented farming approaches. These competitive farm clubs became what are now known as 4-H clubs. They emphasize the ‘development and growth of the individual’ and his/her ability to out-compete competitors in the agriculture field (Rasmussen 1989, Van Horn et al. 1998). Scott (1970:121-2) explains the two-fold role of the youth farm clubs:

In Missouri lecturers were directed to handle certain topics in such a way as to make them understandable and appealing to children....More common than ordinary institutes were the various types of clubs established for farm boys and girls. The club approach allowed promoters to arrange contests and introduce a competitive element, thereby arousing greater interest than was possible any other way.... In any event club work generally had two clear-cut objectives. Promoters hoped on the one hand to teach young people methods of improved agriculture, both through the actual producing of a commodity and through the changing of school programs to make them more meaningful to rural students. On the other hand, officials who established youth clubs hoped to use them to influence adult farmers.

The emphasis on the individual and competition deviated from traditional values that children learned in the home and church, which stressed the health and vitality of the entire community rather than accumulation by an individual. In Missouri specifically, children were enticed into these programs not only with financial rewards and recognition, but also with camping retreats used to encourage the ‘junior leaders’ (Scott 1970, Rasmussen 1989, Van Horn et al. 1998). In addition to extracurricular project clubs that occurred outside of school hours, 4-H developed

school programs that ensured that all children (attending school) were exposed to modern agricultural lessons. Van Horn et al. (1998:2) describe the 4-H origins and rationale:

Historical documents indicate that 4-H school programs for boys and girls were organized early in the 1900s. School programs tend to be more structured and uniform than project clubs making it easier to work with large groups of youth.... Advantages of school programs include (a) easier access to the youth since they are already enrolled at school; (b) greater diversity among participants; and (c) larger numbers of youth, who for various reasons, would not belong to a project club.

Funding for modern agriculture clubs for youth came from both government and private sources (Reeder 1979, Rasmussen 1989). Private funding sources recognized the industrial support that 4-H provided. Applied social scientists had documented that "...farmers who had one or more children in 4-H club work and who shared with their wives favorable attitudes toward 4-H had adopted more improved farm practices than those who did not so qualify" (Lionberger 1960:74). Therefore, agribusiness understood that it was in their best interest to coerce the youth of farm families to participate in youth farm clubs. Among the business supporters of 4-H clubs were the railroads, which had helped to establish the first, pre-4-H rural youth clubs (Scott 1985:93).

### **Railroad Agricultural Development Programs**

"By means of the printed word, exhibits, radio, educational trains, and a multitude of other techniques, the carriers poured so much information into the countryside that few rural residents failed to come into contact with at least some of it."

- Roy V. Scott (1985:90)

*Railroad Development Programs in the Twentieth Century*

Railroad companies played an inestimable role in the agricultural development of the United States in general and Missouri in particular and a significant aspect of such development included dissemination of agricultural modernization propaganda in various forms. Land-grant college officials perceived railroad companies as allies in the agricultural modernization pursuit (MO State Board of Agriculture 1912, Scott 1985). While land-grant colleges claimed they were

engaged in the dissemination of modern agriculture to assist farmers, railroads “did not attempt to conceal their motives under the guise of philanthropy; their spokesmen emphasized that development work was strictly a business proposition” (Scott 1985:37). Railroad executives stated outright that they facilitated the spread of modern agriculture only because it would result in increased business for themselves (Scott 1985:37).

The University of Missouri collaborated extensively with railroad companies on the implementation of diverse ‘educational’ strategies to convince Missouri farmers to adopt industrial agricultural practices. These strategies included, but were not limited to, exhibits at state and local fairs, financial awards and prizes for exemplary modern agricultural endeavors, reduced rates for farmers attending agricultural meetings, printed propaganda ranging from ‘regularly issued periodicals to bulletins, folders, short articles prepared from newspapers and farm journals’, and educational or demonstration trains (Scott 1985:39). The demonstration trains proved the most popular and effective means for information dissemination and the Missouri State Board of Agriculture regularly utilized the Missouri Pacific and Frisco railroad cars to set up farmer institutes throughout the state. Demonstration trains operated primarily in conjunction with agricultural colleges or agencies. The agricultural schools or agencies provided the lecturers and materials and the railroads contributed ‘motive power, cars of different types, and operating crews’, in addition to the majority of the advertising that attracted farmers (Scott 1985:41). Demonstration trains successfully attracted Missouri farmers; reportedly, in one month in 1910, lecturers from the agricultural college of the University of Missouri spoke to 40,000 people about the merits of improved agriculture and in 1911, “62 trains carried 740 speakers more than 35,000 miles and brought them into contact with almost a million people” (MO State Board 1912, Scott 1985:41).

Agricultural demonstration trains introduced new crops and varieties into the Ozark region, including soybeans, hemp, bright leaf tobacco, and especially the commercial production of fruit crops. The Kansas City Southern railroad distributed an educational bulletin to fruit growers in the Ozarks that highlighted the modern practice of fruit spraying (Scott 1985). Much of Missouri's rural landscape, however, remains distant from rail lines, especially the central Missouri Ozarks and the northern half of the state (Gates 1932). In OMA two separate rail lines were originally constructed to transport minerals from the mines and also served to colonize the region and distribute propaganda (Gates 1932, Scott 1962). Each of the OMA region's three counties has one rail line pass through its borders, but due to the dramatic topography many farmers in isolated sections still had a difficult time attending railroad agricultural demonstrations (Scott 1962, Gerlach 1976).

### **Farm Bureau's *Educational Campaign***

"Ours is not a lobbying campaign. We have nothing to 'put across' on Congress, in the sense ordinarily implied at Washington. But we do have a big educational campaign to put forth and the objects to be arrived at are big enough to enlist the best energies of the agricultural leaders in every state. By proper organization and coordination of efforts we can carry such a campaign of ideas and information as to win Congress to the support of those principles essential to the adequate development of agriculture, which – as all must one day realize – are therefore essential to the permanent and highest development of the Nation" (Kile 1948:94).

- Gray Silver, AFBF Washington Representative in 1920



The most fruitful periods for Agricultural Extension, 4-H Clubs<sup>42</sup>, and Farm Bureau, when enrollment, visibility, and funding multiplied, occurred during times of war and depression (Kile 1948, Scott 1970, Rasmussen 1989, Van Horn et al. 1998). During these periods, the federal government relied on these groups for the dissemination of non-agricultural information, and therefore provided them with federally-mandated responsibility and commensurate funding (Schuttler 1948, Rasmussen 1989). Extension workers experienced increased morale because they felt a patriotic duty to convince farmers to increase production for the war effort. Rasmussen (1989:73) describes the transformation in self and public perception that Extension workers felt during World War I:

The war brought a common objective to the agents and transformed their diffuse local programs into a unified national program. Their effective work greatly enhanced their prestige and increased their morale. Instead of being book farmers, they were the patriotic leaders of numerous war campaigns, service agents for many branches of the federal government, and propagandists of a high order. The major responsibility of the county agent's war work was to campaign for increased production.

The significance of the war slogan, the need for increased production, cannot be overemphasized. This doctrine became the mantra of the modern agriculture paradigm that would fuel the spread of technocratic ideology throughout the twentieth century. Extension agents, whom Rasmussen (1989:73) referred to as 'propagandists of a high order', chanted 'more production, more production, to feed the poor abroad, to feed the poor at home,' Farm Bureau and agricultural media joined in the refrain. Farm Bureau latched onto the

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<sup>42</sup> Van Horn et al. (1998:2) detail the increased support 4-H experienced during both World Wars; "...the organizational response resulted in excellent public relations as well as an exponential increase in membership. During World War I, 4-H Club work was partially abandoned and the energy of the members was devoted to raising food as part of the war effort. Many temporary county agents were hired, resulting in a rapid increase in the number of 4-H clubs and members. At the end of the war, more than one million 4-H club members were enrolled.... Second, During War World II, the 4-H program again focused on raising Victory Gardens. 4-H members also grew essential war crops, raised meat animals, and canned millions of jars of fruits, vegetables, and meats. The 4-H war slogan was "Food for Freedom."...At the end of the war, 4-H enrollment once again saw a large increase, reaching a total of 1.5 million."

propagandistic use of patriotism as its primary symbol of coercion. Saluotos and Hicks (1951:259) present statements by 1920 AFBF President, J.R. Howard, against what he considered anti-American activities among rival farmer groups:

“Patriotism,” Howard said, “ought to be as vital a part of our existence today as when we were fighting the Huns. Patriotism should be taught in schools, and the American flag should float over every school in the country today as it did two or three years ago.”<sup>43</sup> ...They stated that “a large factor in the high cost of living is the curtailment of production through short hours, lessened efficiency of labor and strikes,” placed the Bureau “unqualifiedly in sympathy with the government’s determination to suppress radicalism,” and offered the aid of the federation to the effort “to rid the country of Bolshevism and other anarchistic tendencies.”<sup>44</sup> The state farm bureaus that assembled in Chicago on March 3 and 4, 1920 to ratify the work of the November meeting re-emphasized their “unwavering faith in and full support of the Constitution of the United States,” denounced those “who have distressed and bewildered the country by ill-advised and un-American virtues and beliefs of the yesterdays,” hailed the American Legion as “one of the most important factors in the life of America,” assailed the Farmers National Council as the ally of “the radical element of the industrial world,” and condemned the lag in production brought about by strikes for shorter hours and better wages.<sup>45</sup>

Farm Bureau leaders employed myriad propaganda outlets to denounce rival farmer movements that stressed grassroots activity as anti-American in efforts to ‘civilize’ the farmers. Similar to their traditional agricultural practices, such democratic, unruly activities as strikes, marches, and boycotts, according to the modern paradigm, were backwards and uncivilized. Mostly, they were denounced because they disrupted the business activities of Farm Bureau leaders.

Business leaders and ‘progressive’ farmers interested in spreading a business and technology-oriented modern agriculture recognized that society was ‘fertile’ for ideology dissemination during periods of justified federal intervention and took advantage of their opportunity during World War I (Scott 1998:5). Through USDA funding and implementation by extension agents, farm bureau agencies were established in many counties in the state of

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<sup>43</sup> Iowa Farm Bureau Messenger, February 7, 1920

<sup>44</sup> AFBF, Resolutions of November 14, 1919, and March 4, 1920 (Chicago, 1920) (leaflet)

<sup>45</sup> What is the American Farm Bureau Federation? (Chicago, 1920) (pamphlet)

Missouri as official instruments of the federal government in the war effort to increase production (Schuttler 1948:19). Schuttler (1948:19) describes the ambiguous position of the fledgling county farm bureaus:

Missouri fitted itself into the national picture in the effort for all-out food production in which the Farm Bureau had a quasi official status as the local organization through which the United States Department of Agriculture carried out the production end of its war program. It was recognized by the Secretary of Agriculture as part of the machinery for implementing the Food Production Act. The Department of Agriculture sent out suggestions for organizing Farm Bureaus; the Missouri Extension Service made the services of a number of men available to help counties organize Farm Bureaus – including six in the state office and five county agents in different parts of the state; a school of instruction in Farm Bureau organization was arranged and the full strength of the Extension Service was put behind the movement.

While there was this very close relationship between the Extension Service and the county Farm Bureau, that relationship did not exist between the Service and the state Farm Bureau. The latter never became an integral part of the Government machinery for increasing the production of food and fiber. Naturally, since the men who made up the Missouri Association of County Farm Bureau Boards were the leaders in their respective county Farm Bureaus, the distinction was not always clear to the general public and sometimes not to the county membership, but both the Association and the Extension Service understood it and acted accordingly.

The Extension Agency explicitly attempted to change the practices of farmers whom Farm Bureau was attempting to speak for, yet the Extension Agency fathered the farm bureaus in most counties of Missouri (Schuttler 1948, Scott 1970, Rasmussen 1989). The covert agenda of Farm Bureau leaders becomes much more apparent upon reading Gray Silver's quote at the onset of this section. Silver, the first 'Washington representative' of AFBF, formally declares that Farm Bureau had no intention of starting 'a lobbying campaign' for the farmer, but rather a 'big educational campaign,' which reveals Farm Bureau's original leaders plan to spread technocratic rationalization under the guise of agricultural development. Of course, they continued with the propagandistic party line to farmers, telling them they had inside connections and would fight for fair prices, an end to railroad and packer monopolies, and agricultural subsidies (Kile 1948).

Farmers believed Farm Bureau had political clout and would fight on their behalf. The Missouri Farm Bureau originators, however, were not small farmers – they were rural elite with extensive commercial interests beyond agriculture (MO State Board 1912, Schuttler 1948). Farm Bureau leaders wanted farmers in their region to buy into the motto of ‘increased production’ because the ‘progressive’ farmers who increased production had to purchase inputs and obtain loans. Not coincidentally, many Farm Bureau leaders had an interest in banking and the agrichemical industry. As an example, the President of Missouri Farm Bureau Federation and its five affiliated companies in 2001, Charles Kruse, received an MS in agronomy from the University of Missouri, was a technical representative for an agricultural chemical company, served as the Executive Vice President of the North American Equipment Dealers Association, was appointed by then Governor John Ashcroft as Director of the Missouri Department of Agriculture, in addition to other governmental appointments and distinctions (Agriculture 2001). This example demonstrates that state and federal Farm Bureau leaders participated in political and commercial enterprises that compromised their ability and desire to speak and act on behalf of real farmers and had vested interests in ‘educating’ traditional farmers into input-dependence (Kramer 1950, Saluotos and Hicks 1951, Hardin 1952, Berger 1971).

The establishment of county farm bureaus in Missouri follows the geographical distribution of riverways, which also demarcates the counties most engaged in the slave trade in the nineteenth century<sup>46</sup> (see figure 5.1). The prime floodplain agricultural land and access to markets created and attracted people who believed in agriculture strictly as a business. While this data by no means implies that Farm Bureau is or was in any way connected, encouraged, endorsed, or believed in slavery, it serves as a heuristic comparison to study the business-only

perception of farming. Such a correlation indicates that many agricultural leaders in these counties perceived and participated in farming strictly as a business unencumbered by extensive ethical or moral restraints.

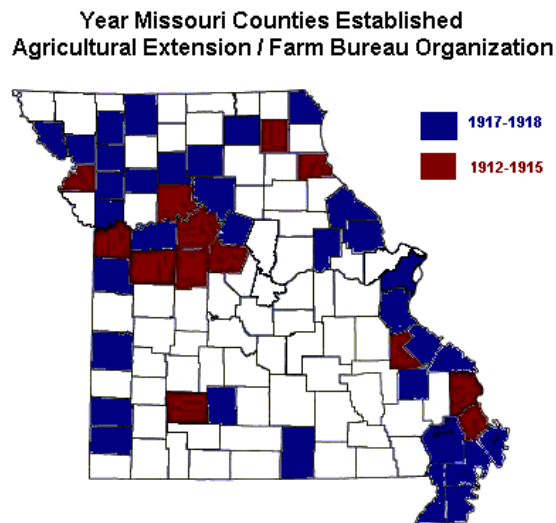


Figure 4.1 Original Farm Bureaus by County

### **Local Participation in Farm Bureau and Agricultural Extension**

OMA experienced technocratic rationalization relatively early compared to the rest of the Missouri Ozarks. Farm Bureau leaders assisted in the dissemination of this profoundly distinct worldview from that of traditional Ozark farmers. St. Francois County established one of the first Missouri farm bureaus in 1914, and Madison County was in the second group of joining counties in 1918 (see Figure 5.1). OMA farmers whose families are active in Farm Bureau and believe in its efficacy as a farmer lobby organization would be surprised to learn that the group originated as part of government. They believe that Farm Bureau lobbies government on behalf of farmers to protect them from industry and middlemen. An interview excerpt demonstrates a farmer's belief in the efficacy of the group:

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<sup>46</sup> The two counties along the Missouri River that are not represented as Farm Bureau members were heavily

“Are you all involved in Farm Bureau?”

Oh yeah, big time. Bill was way into it. He was the President for 21 years.

“Do you think that it’s useful as a lobbying tool?”

Yes, absolutely. I think that Farm Bureau’s got a really big voice in agriculture in the state, in the nation. Farm Bureau farmers, businessmen, they lobby and they write legislation, well, they influence it. The legislation – they listen to us – I don’t know how many members there are in Missouri, but we’re a strong organization, very politically motivated (Interview 32).

Mr. Redinger, the aforementioned dairy farmer, explained that his family has been very active in Farm Bureau and Agricultural Extension and stated that Extension was a “big influence in the area and they try to stay ahead with the university stuff and everything, and try to lead you in the right direction” (Interview 21).

These two farmers represent OMA’s more modern farmers, members of farm families that believe in technocratic rationality. While they believed in the application of exogenous science and technology to local farming, the organizations and groups that they participated in, such as Farm Bureau and Agricultural Extension, played an influential role in the perpetuation and creation of such beliefs (Hurt 2002). As Hurt (2002:92) observes, farm organizations had the power to shape the decisions and views of their constituents, especially Farm Bureau with their thorough public relations capabilities. Farm Bureau disingenuously represented their relationship with federal government and Extension to their members and the general public because farmers would never have believed that such an entity would work for and with them (Berger 1971). Farm Bureau employed discursive politics on farmers who joined the organization. While OMA Farm Bureau members believe the monthly or weekly county meetings and annual state meetings they attend serve to protect themselves, the farmers, through planning and lobbying, they actually provide an attentive, captive audience to consume more propaganda, similar to the strategy of creating school programs for children. Schuttler (1948:113) documents in her authoritative *History of the Missouri Farm Bureau Federation*:

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influenced and loyal to a pre-existing farmer organization, the Missouri Farmers Association (MFA).

In 1946, the State Federation had become charter member of the Central Farmers' Fertilizer Company, which represented Farm Bureaus and cooperatives in the Midwest...According to Manager Brown, the savings incident to volume purchasing and the payment of patronage dividends, while important items in the program of the Farm Bureau Purchasing Service of Missouri, are not its most important contribution to the agriculture of the state. "The development," he says, "of ways and means of applying the agricultural "know-how" of today is our real objective. That involves research and development of sources of raw materials....

During the company's first year, after studies made in cooperation with the College of Agriculture, and using information from the experiment stations of other states and the USDA, a complete line of quality livestock and poultry feeds was developed....

Brown is assisted by W.H. Burnett, chief accountant and credit manager; Howard H. Irwin, director of petroleum distribution, and W.E. Tallent, director of feed distribution. During its first eight months the company did business amounting to \$482, 001.95....

Not only was Farm Bureau engaging in a lucrative agri-business whose customers were its members, they maintained that their primary objective was the 'development of ways and means' by which to convince farmers to adopt modern agricultural technologies. Leaders repeated the mantra of 'increased production through modern agriculture' to their members and thereby filtered their perceptions of farming through technocratic rationalization.

Attendance at a local county Farm Bureau meeting impressed me as to the devotion and charity of the farmer-members. They truly wanted nothing more than to help local farmers and the community. They believed in their organization wholeheartedly, but the farmer part of Farm Bureau has been amputated from what is now strictly an insurance and agrichemical company (Berger 1971). Frustration and despair emanated from them with every word. They discussed how they are no longer allowed to use any of the resources of the 'company' part of the organization and expressed frustration over the inability to attract members interested in farm issues rather than a desire to obtain insurance that covers a woodstove<sup>47</sup>. An excerpt from my field notes during and after the meeting reveals my surprise that a subset of an organization that

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<sup>47</sup> Farm Bureau Insurance companies have one of the only home insurance policies that covers certain woodstoves.

presents itself as a potent lobbying force on behalf of the farmer felt so impotent and was so underfunded in their struggle:

The thing that sticks out to me is how ‘poor’ this group was, yet how devoted they were to the organization. The patriotism was blind, yet true. They held a devoted ‘Pledge of Allegiance’ to the American flag before they commenced the meeting and then we watched a video update from the Missouri State Farm Bureau Federation that introduced agricultural issues and legislation that they should be concerned about. Apparently this ritual occurs at the start of each meeting – an update from federal or state federation and pledge of allegiance. They spoke of helping people and discussed whether a senior citizens’ group that they had assisted with a fundraiser to establish a sort of ‘meals on wheels’ program deserved the assistance even if it didn’t help their group visibly. They concurred affirmatively, because their group exists to help the community. They pride themselves on helping people, farmers or not, but what stands out is the fact that a recognized, important group that pretty much stands alone as the voice of the farmer and rural America has such limited resources. The concerns revolved around their petty budget and how to stretch it to help the community, keep themselves afloat through member recruitment, and make sure that their members get to state and federal meetings.

The salient aspect of the meeting was members’ allegiance to the state and federal Farm Bureau organizations, despite the federation’s apparent inability to curb farmers’ downward economic spiral. Members stated that despite the losing plight of the U.S. farmer, Farm Bureau has succeeded because they have obtained government subsidies for farmers through their powerful lobby, which in their minds, justifies the organization. The methods by which the leadership of the federal organization currently spreads their ideology was clear – they disseminate propaganda through videotapes and policy agenda pamphlets that are distributed and shown at all county Farm Bureau meetings (Saluotos and Hicks 1951).

Not all farmers interviewed spoke favorably about Farm Bureau or believed in the efficacy of their organization. A few farmers are aware of the Missouri Farm Bureau Federation’s (MFBF) and AFBF’s involvement in the agrichemical and oil industries, in addition to their extensive investments in agribusiness industries and despise their affiliation with groups that they believe caused the demise of the small farmer. But these anti-Farm Bureau examples



were either exceptions to the rule or they were not discussed. Federal and State Farm Bureau Federations and Agricultural Extension have strategically influenced OMA farmers' perceptions of their farming environments by controlling the discourse and framing the agricultural discussion within strictly capitalist economic terms, without regard for the agrarian morality and ethics that guided traditional Ozark human-environment interaction.

**Ethnographic Vignettes:  
A German Dairy Farm and an Old Stock American Hog Farmer**

December 9, 2003

**The Resignation of a German Dairy**

When I first heard of the Redinger family, I was informed that they were the quintessential German agriculturalists, dairy farmers from a long line of respected, innovative farmers. I called them to set up the interview and I was taken aback when Mr. Redinger told me the news; his family dairy business that had existed since their ancestors homesteaded the region in the 1800's had closed down less than a year ago. I apologized and asked if they would prefer not to discuss the situation. He invited me over, stating that he did not mind talking about it, that he appreciated the concern I had for farming in the region.

Their farm was distinct from most of the farms that I had visited because the dairy farms in my research area had already been out-subsidized, out-regulated, and out-competed by larger industrial dairies, agribusiness, and the government (Barlett 1989). A few decades ago there were over fifty dairy farms in the Redinger's county. Their dairy was one of the last dairies in St. Francois County to go under in 2002. They explained to me that their parents were extremely successful as dairy farmers:

Him: We used to buy a brand new tractor every year. We had as many as seven tractors and combines. We'd trade combines every three or four years.

“Did your dad always do that also?”

Him: Yes. That was dad. We didn't take over until – well, I worked for dad for 30 years. And then finally he got to where he said, 'I can't milk anymore, I can't take anymore.' About eleven to twelve years ago he turned it over to me.

Her: The last four dairies in this county, we all went out in the same year. Two went out in the summer and two in the winter. That's the end of the dairy business in St. Francois County. Then, what'd they say? There was 50-some odd dairies, 56 dairies at one time.

The Redinger dairy was successful because they always had a diversified approach. They had enough land to grow the crops to feed their dairy herd, which offset investments in feed and kept them competitive in the market. The diversification allowed them to stay afloat as long as they did. As sanitation regulations passed by the government and required by middlemen forced farmers to upgrade their equipment, they became obligated to borrow more and more money for capital investment in new dairy technologies (Barlett 1989:257). If the Redingers wanted to continue farming, they had to borrow money from banks and buy more government-required dairy technology from companies. While Mr. Redinger's father was successful, he had been obligated to place the dairy farm upon the technological treadmill in order to compete, and once on, there was no getting off (Cochrane 1979, Molnar et al. 1990). The Redinger dairy failed to show any profit throughout the 1990's and merely continued to amass debt. Despite their reluctance, they finally resigned themselves to the fact that small-scale, family dairy farming in the Ozark Mineral Area has been successfully eradicated by the industrial capitalist system.

March 18, 2004

### **An Unjust Haze: The Ozark Hog Farmer's Lament**

Dilapidated smokehouses, chicken houses, and barns littered the farmstead. Rusty old farm implement parts were strung about as if a tornado had just disassembled and scattered them

wildly. Jimmy, dressed in ragged bib overalls, a seed company ball cap, and cowboy boots, walked out and met me as I strolled toward the door, backpack slung over my shoulder. The backpack was full of Miller Lite cans, a tape recorder, a worn ball cap, and a variety of survey and formal interview papers; I was prepared for a slugfest interview, mud-slinging expected, hence the ball cap. And mud-slinging I got – spewed out at times with the frustration and despair of a whooped man.

Their Old Stock American family had been a notoriously independent, self-sufficient hog farming legend in the area, back in the day. Now many consider them an anachronistic survival of historic Ozark times, when farmers could raise animals and crops for themselves and sell some for a decent price. Some non-farmers in the area quietly and pejoratively refer to them as ‘the pig farmers’ and berate them for not modernizing and confining their stinky animals. But, Jimmy’s family hears of the comments and doesn’t give a shit. Their hogs remain on the ground, in the barns, cleaning stubble from the fields, wherever they want to release them to roam on the farm. They don’t believe that an animal, nor a human, should be raised on concrete. They also don’t believe in changing, for anybody.

He showed me into his old farmhouse through a sideporch strewn with dirty boots, cowboy hats, full and empty mason jars, and random farm implements. In the center of the living room/kitchen was an enormous iron stove, churning out heat. On the wall above the ragged couch where he directed me to sit hung a cross-stitch picture of a tractor with the words, **Farming Country**, stitched above it. We each cracked a beer and he squinted his eyes and cracked a sly grin, ‘So what ya got?’ I began by asking him about his life growing up on the family farm. He was somewhat guarded when the interview began, responding sparingly. He was feeling me out. I had met him at a county Farm Bureau meeting, which he attended with a

drunken slur and a wry sense of humor. Despite multiple attempts to set up an interview, he continuously avoided my phone calls or side-stepped me with excuses. Finally, I caught him on the phone and explained that I merely wanted to talk about his experiences over a couple beers, to document how farmers have been denied the right to practice their traditional livelihood. That struck a chord with him and he reluctantly agreed, saying that he wouldn't be of much help to me.

He is a slightly bitter man when it comes to the inability of his children to carry on his family profession. Despite owning over five hundred acres of pasture, cropland, and timber, two hundred and fifty of which were the original family farmstead, he barely scrapes by, with a heavy debt load, as a full-time farmer. He blames corrupt politicians and industry. He feels the farmer has been dealt a crooked hand, but he feels completely helpless to stop, prevent, or slow down the process. As the interview progressed, a dense fog of injustice seeped into the room and hung in the air, enveloping our conversation. When I showed him a picture of a traditional farm scene he reminisced nostalgically, "Them was pretty good days – had a few hogs and the price wouldn't fluctuate," but then he began his frustrated diatribe:

Just too much big corporations in farming now. They're shipping money from cash register to cash register, business to business, and crowding us out. That's the way it's going. And they don't have to pay taxes. The tax laws are set up to where they can beat the tax laws. Now if they was paying the taxes and not shifting their money around and getting out of the taxes, it'd be a different story. But my kids don't want nothing to do with farming because they can see that it's – they can see how things are going. They like farmin', but they can't make a go at it.

When I got to farm it was reasonable and I could've been way better off. The kids just love to be on the farm and we've really loved it. Something's gotta change because you take a big corporation; one man can take and own a grocery chain and can invest in a farm or something. Well, it creates a job, but he ain't in the same business. He's just switching his money around and he's beating the tax laws. And for instance, you can take the hogs - and a hog company, they'll produce thousands of them and they just supply and they can buy our extrey (extra) if they want....

If it ain't a father and son or brothers, I don't like it. It shouldn't be a contract for your hogs. They should be open market. They should open the market! Somewhere on the trade, other countries or something, something's messed up. I don't know where it's at, but...you see the real estate people driving Hummers and I wouldn't even want one (laughing).

I hated that hogs went out. I loved raising hogs. You can't make any money at 14 cents. It's been that way for a year or two. Who's gonna take care of the taxes? Where's farming gonna end up? We don't mind the working for nothing, we just want to be able to feed the people. I don't want to own 5000 acres to farm because it's more than I can take care of. With the right kind of management, you could take 500 acres and one man could take care of it. I don't know what to say. We don't need to be told a bunch of laws crammed down our throat! Anybody with common sense – if they don't know something, they'll ask somebody. All these regulations. They want you to be certisfied (certified) to go cut a stick of wood. I mean if you need certified, you oughtta have sense enough to go get certified. Oh yeah. Chickens, laying business was good and a man can have a laying house out there and he could do pretty good with his layers and that's all fall through with the regulations.

“Why?”

The big companies cut 'em out –they squeezed 'em out.

“Did the government come in first with laws about how you had to do things?”

It is dirty! We used to have a dairy over in Arcadia. Murphy's Dairy, they finally shut it down I think. They couldn't – they got bought up by a city company, but the government regulated them too...they went under. There was nobody – there wasn't anything in it – you'd have to get too big. But nobody's listening to the farmer. They're just ready to get rid of the farmer. You think that this Sierra Club would listen to us? They got plenty of money. Maybe Kissinger will talk to them. We need the right politician in. What office are you running for?

“I'm not running for anything.”

I hate politicians. (laughing) You won't lie like that.

## Chapter 5

### AGRICULTURAL CHANGE AND CONTEMPORARY FARMING

“You heard about the new John Deere tractor they’re making?”

Tom didn’t see it coming and took the question seriously.

“No. New Model?”

“Yeah, it’s got no seat nor steering wheel....

It’s for guys who’ve lost their ass and don’t know where to turn.”

Both men laughed, Clarence all the harder for having suckered Tom into it,  
but the laughter was a little rueful.

They knew plenty of farmers who were in just that state.

- Richard Rhodes (1989)

*Farm: A Year in the Life of an American Farmer*

### Introduction

In the Ozarks, social norms, economic opportunities, and agricultural practices have changed significantly during the last century, but many cultural attributes have endured. This chapter presents a closer look at the OMA farming population, their contemporary farm practices, and agricultural changes that have occurred between 1940 and 2004. It explores transformations in the OMA agricultural landscape and farming population in relation to technocratic rationalization and federal policies.

### Farmers in the Ozark Mineral Area

Contemporary farmers in the Ozarks struggle to continue farming. They do not want to give it up. Of the fifty-one farmers interviewed, only 27.5% are full-time farmers who make their living solely from agricultural endeavors. The majority, 52.9%, are part-time farmers who work another job to support their farming lifestyle, but attempt to supplement their primary

income with their agricultural projects and provide some homegrown food (see Table 6.1, Barlett 1986,1993). Nineteen percent of farmers interviewed are hobby farmers, who have either retired or currently work another job, but farm on the side simply for pleasure or food, not to supplement their income financially (see Table 5.1). My sample of farmers represents only farm families that have survived the agricultural depressions, droughts, and price fluctuations of the last fifty years, which have been severe (Hurt 2002). In the past, many more Old Stock farm families were living a relatively self-sufficient lifestyle on very few acres, albeit a poor one. One of the major changes in the region has been the loss of smallholder full-time farmers.

Table 5.1 Farmer Classification Table

| <b>Farmer Type</b> | <b>Frequency</b> | <b>Percent</b> | <b>Valid Percent</b> | <b>Cumulative Percent</b> |
|--------------------|------------------|----------------|----------------------|---------------------------|
| Full-time          | 14               | 27.5           | 27.5                 | 27.5                      |
| Hobby              | 10               | 19.6           | 19.6                 | 47.1                      |
| Part-time          | 27               | 52.9           | 52.9                 | 100.0                     |
| Total              | 51               | 100.0          | 100.0                |                           |

Since contemporary farmers have a difficult time earning a living from agricultural pursuits, they are forced to find other employment (Barlett 1986,1993). They refuse to completely give up farming, however, because it is part of their identity; as they constantly said, ‘it’s in our blood’ (Interview 21). They self-identify as farmers first, even if their primary income comes from work as a bus-driver or janitor in the school district. The job is merely a means to continue farming and they dream of the day when they can retire and become their true selves again – farmers. The fact that they are unable to procure a sufficient income from farming does not reflect on their abilities as farmers. To the contrary; contemporary farmers demonstrate an ability to successfully invest earnings in farming and make a profit, despite the limited hours they are able to farm.

Engagement in off-farm employment represents an exposure to industrial economic values and worldviews that sharply contrast with the agrarian tradition (Goldschmidt 1947, Barlett 1993). Peggy Barlett (1993:78) illustrates this ideological conflict in her book, *American Dreams, Rural Realities: Family Farms in Crisis*, where she explains that non-farm work can corrode agrarian values because of the influence of the industrial, materialist worldview:

The nonfarm world of work brings with it values from an industrial economy that challenge older agrarian traditions. Rising incomes and steady pay from jobs create expectations about family lifestyles that have moved Dodge County toward a consumer society, and assessments of the “good life” now increasingly emphasize individualism and materialist accumulation. The American dream of affluence, based on income and lifestyle, challenges the agrarian definition of “success” that encompasses independent livelihood, property ownership, and nonmonetary work satisfactions. One full-time farmer explains the allure and distinct value system of the larger political economy and shields his son from off-farm work because of the potentially corrosive effect it may have on the agrarian value system that he and his wife have instilled in him:

We had an unspoken agreement between my parents and I about me farming. We don’t know what Stephen is going to do. He don’t want to go to school. He told us that when he was fourteen, ‘I’m not going to college’ and I told him, ‘you do whatever you want, I’m not gonna push you into anything.’ I’d love for him to stay around here because we could use the help. There’s not a lot of money in it, but we’ve been groomin’ him here. He never has worked anywhere except for here. He got his own projects just like we did as kids. But you take a kid that’s 15 or 16, that’s raised on a farm like this, and if he goes and gets a job in town, you’ll ruin ‘em, because he’s got money every week and it’s hard to come back where you don’t (Interview 18).

Although full-time farming has almost completely disappeared in OMA and throughout the country, primarily because of political economic factors and governmental intervention outside the control of small farmers, their inability to earn a living from agriculture reinforces the technocratic ideological proposition that their knowledge and methods are outmoded, outdated, and passé (Barlett 1989). Many non-farmers or members of the younger generation view older farmers’ inability to earn a living as full-time farmers as evidence of their farming incompetence or the inefficiency of their traditional ways.



When I asked one of the youngest part-time farmers, J.R., who is also one of the local high school agriculture teachers, if he ever experienced communal agricultural activities, like harvesting, he responded by citing the stories his grandfather and great-uncles told him about the ‘good ol’ days.’ He explained that he had never experienced that, but could not explain why it had ceased. He then spoke of his father, who was also an agriculture teacher, educated at the University of Missouri in the 1960s, and his predilection towards working solely with people that knew his ‘system’. His father’s ‘system’ was distinct from that of the traditional farmers in the area. Contrary to the communal approach of his forebears, he desired only the assistance of his son, whom he was grooming as a modern agriculturist. From here, his train of thought seemingly derailed, but actually took a revealing detour toward the contemporary scene of old-timer farmer congregation, the sale barn. The sale barn is a contemporary agricultural phenomenon, but serves as the hotbed of traditional, old-time farming stories and nostalgia, where almost all of the farmers hang out, drink coffee, eat breakfast, and haggle over livestock. As the newest agriculture teacher, the old-time farmers expect J.R. to spend time at the sale barn and share in their stories, but he explained that while he would like to hear some agricultural wisdom from the old-time farmers, their knowledge is either gone or no longer relevant. As he put it, “I wanted to go to listen to these old time farmers to find out how they used to do it and get their advice, but there isn’t any anymore. The guys that are there are part-time farmers, they may like to be full-time farmers, but they don’t have the time and they can’t make the money to do that, so they’s got another job and they just go there to b.s. about whatever” (Interview 19). As industrial agriculture’s economic rationality and subsidization squeezed traditional farmers out of their livelihoods and identities, it simultaneously denied the validity of their knowledge (Bartlett 1989, 1993).

## Agricultural Changes

“This tendency to specialize in one or two cash crops has very clear effects upon the social and physical landscape. Basically, it expresses the competition between the old traditional rural values and the urban value system. One of the first evidences of this meets the eye immediately – the virtual disappearance of the barnyard. Practically no farmers milk cows; almost as few have chickens, a garden is considered a luxury, not because it is work to plant one, but because it is considered cheaper to buy the products at the market and turn the land into cash crops.”

- Goldschmidt (1947:28-9) *As You Sow*

Conventional agricultural economists describe the period between 1933 and 1970 as the ‘technological revolution’ of agriculture and the years immediately following World War II as an ‘agricultural boom’ (Benedict 1953, Cochrane 1979). Agricultural and applied economist Willard W. Cochrane, (1979:124) in *The Development of American Agriculture: A Historical Analysis*, characterizes World War II as ‘the miracle for which farm people were waiting for’ and rattles off the various boons it created for agriculture in the United States. While agricultural prices increased substantially, the twenty-five year span following World War II represents the period in OMA when farmers were most negatively affected by technocratic rationalization. Cochrane (1979:125) epitomizes the effects of the technocratic rationalization of the period:

The science-producing agencies – the colleges of agriculture and the U.S. Department of Agriculture – continued throughout the 1930s to do what they were supposed to do, namely, discover new scientific relationships and properties. And the same agencies, with private industry, were busy converting this newly discovered scientific knowledge into new technologies for the use of farmers. To an important degree, these new technologies were not adopted by farmers in the 1930s because their adoption required an outlay of funds which those farmers did not have and could not borrow. Thus a backlog of technologies related to farm production built up in the 1930s and remained largely unexploited in 1939.

The war and postwar boom changed this, too. With rising farm prices and incomes farmers acquired the funds and the credit to purchase the technologies that the Extension Service and the farm newspapers had been telling them they should be adopting to reduce their unit costs. And this they did with a vengeance. They jammed these new technologies into practice, reduced their unit costs, and expanded their farm output. Farmers generally made the rational production decisions as soon as their financial positions would permit, and to the extent that the new technologies could be made available in the war years.

The results of this widespread adoption of new technologies materialized quickly in the Ozarks. The three OMA counties, Iron, Madison, and St. Francois, all experienced rapid and substantial decreases in the amount of farms, farmers, and livestock following the post-war ‘boom.’ Farm ownership in Iron county shifted dramatically from 1945 to 1969, from 930 farms in 1945 to 248 in 1969. The same trend occurred in Madison County; from 758 farms in 1950 to 375 in 1969, and in St. Francois County; 1,114 farms in 1945 down to 571 in 1969. The number of farms continues to decline from 1974 to the present, however, it does so at a much slower rate comparatively (MASS). Farmers who obtained credit to engage in modern industrial agriculture learned quickly that the Ozark landscape is not conducive to such endeavors. They went bankrupt and were weeded out of farming. Farmers who remained on the farm either completely avoided agricultural modernization or had sufficient capital to invest in industrial technology and combined that with a diversified approach.

### **Why Adopt Modern Technology?**

While neo-traditional folk revitalization movements ranging from the 1960s ‘Back to the Earth’ movements through the organic and fair trade movements of the present may cast an essentialized light on traditional agriculture, there is no way to romanticize a mule’s oat farts blown in your face, chicken lice, lost crops and hunger, or a full day of back-breaking work in one hundred degree weather (Interview accounts). Hamlin Garland expresses his frustration at city folks’ over-romanticization of the farming life:

... farming is not entirely made up of berrying, tossing the new-mown hay and singing *The Old Oaken Bucket* on the porch by moonlight. The working farmer has to live in February as well as June. He must pitch manure as well as clover. Milking as depicted on a blue china plate where a maid in a flounced petticoat is caressing a gentle Jersey cow in a field of daisies is quite unlike sitting down to the steaming flank of a stinking brindle heifer in flytime. Pitching odorous timothy in a poem and actually putting it into a loft with the temperature at ninety-eight in the shade are widely separated in fact as they

should be in fiction. The grime and the mud and the sweat and the dust exist. They did and still do (Holland 1970:16-7).

Traditional farmers had a hard life, especially in a marginal environment like the Ozarks. Many traditional farmers were ready to get off the farm if something better came along. Others wanted to remain on the farm, but were ready to accept technologies that made their work easier and their animals and crops less susceptible to pests.

### **Agricultural Machinery**

The first technology that most OMA farmers adopted was the tractor, which became common there in the late 1940s. Farmers generally did not abandon their use of mules and horses when they obtained a tractor. Typically, they continued to use a mule or horse on smaller or vertical plots and the tractor was used on larger, flatter fields. Excerpts from interviews with two old-time, Old Stock farmers, who tell the story much better than I could, illustrate the conversion from animals to tractors and wire balers:

He used horses up 'til about '47. Then he got a tractor.

“Did he quit using his horses completely?”

No, he kept a team and used them to plow the kitchen garden and we would cut timber. So we skidded with them. Dad had a team of mules for about 5 years after that I can remember, and he used horses after that. That I can remember. He got a B International. You had to drive that tractor 9 miles to plow an acre (Interview 29).

In the '50s, once tractors got big, when we bought that A tractor, we still had mules and mares, and he'd raise mules once in a while, but not too much. We used 'em to cultivate with, used the horses to cultivate with, and rake hay, and pull the wagon to get the hay. Then by the '50s, why the pick up balers started coming out. Used to have the old square balers, they'd stack it in the field and then bring in a square baler if they wanted to bale it. They'd park it right there next to the stack and throw it up and run it through the baler, that's the way they baled it back in the forties.

But then in the fifties, pick up balers begun coming out. First one come out and I remember August Robbins across the river had one that was a Case and it was a wire baler. Two guys, one on each side, would ride the baler and you punched wires (he

pronounces it Warrs). You had wooden blocks that you blocked off every so often, and punched your wires from them. One guy punched wires, another guy tied wires. You had to watch the back when your bale was starting to come out. You grabbed the block back there and put it up here in the block holder. When you hold the block out to a certain place, the length of your bale, you block that thing over there and let that block go down in whenever you was ready to put a bunch of hay in, and come again and you rode that thing and that was a dirty job. You looked like a colored boy when you got done, especially in that old dusty clover (Interview 28).

This detailed description of the first pick-up wire balers documents the event for posterity's sake, but also establishes traditional use of local manual labor, even with the adoption of 'modern' technology.

The wire baler dropped the tied bales into the field. Once baling was completed, the farmer and boys took a horse and wagon to the field and stacked bales on the wagon, pulled them to the barn, and loaded them into the barn. The traditional wage-earning work in the region for high school-age boys through the 1980s was baling and hauling hay. Many of the male farmers I interviewed engaged in this work as teenagers. The common story was that boys loved working bales because they could get exercise and strengthen their muscles for football season while also making money.

Farmers invariably complain that they cannot find local boys to bale and haul hay any longer. A confluence of factors has convinced boys that they need not work in the farmers' fields baling hay. Baling hay is unattractive to kids now because of the following: insufficient pay, hard, scratchy, itchy work in extreme heat, farming is no longer cool to most kids, they can get a workout in an air-conditioned gym, and local fast-food joints pay the same for less strenuous work in comfortable place where they see their friends. Farming has become less and less profitable for farmers. Therefore, they have a difficult time paying wages that will entice kids to work for them. The increasing influence of television media also breaks down traditional incentives that encouraged children to work on farm fields.

Baling technology has also affected the scenario. Whereas traditional bales were small and square, agricultural scientists and technology developers devised a new, round baling system. The round baling system increased the amount of hay in each bale and allowed the farmer, if s/he has sufficient technological gadgetry, to complete the entire baling process with limited assistance. This change did not consider several factors. The round bales do not fit in traditional barns. Therefore, many farmers leave their round bales in fields and cover them with various types of plastic tarps to ensure that they do not become wet and rot. Farmers who adopted modern round balers abandoned the use of their barns. Barns in the region are basically obsolete. As one farm couple related, they maintain their barns solely as antiques, representative of their nostalgia for farming of the past. A concomitant of this process is that cattle no longer go to the barn and the family members therefore, have much less interaction with the animals than they would have had traditionally.

Another factor is that rather than paying a local child to assist with the baling process, a farmer pays exorbitant amounts of money (gets a loan and goes in debt) to an agricultural equipment dealer for the most modern tractor and baling apparatus to ensure that s/he can get the hay baled in time for the winter without help. The farmer's money also goes to petroleum companies for oil and gas for the equipment and to equipment dealers for repair parts. As farmers become more dependent on exogenous companies rather than local help, their money is funneled out of their community, never to return. This is a major factor in the current problem of community dissolution and the reason Ozark communities have become 'rural ghettos' (Davidson 1996).

## Agrichemicals

The adoption of chemical pesticides and herbicides began around the same time as that of the tractor, in the 1940's and '50's. Livestock sometimes had pest infestations, such as lice or worms. Traditional preventive measures were time-consuming and variable in their efficacy against such problems. With the development of chemical pesticides for livestock, and the pressure of extension agents, chemical dealers, and farm media, many farmers adopted their use. Many farmers already used chemical fertilizer or lime intermittently and the seed and feed store owners who provided farmers with those products advised them to use pesticides and herbicides for livestock and crops (they of course made commission and profit on the sale).

As agrichemicals became more common and encouraged by local feed store owners, some local farmers began to abandon traditional practices. When I asked the local Extension agent if farmers in the region follow lunar signs, he responded:

Yeah, I see it a lot when I go to the older farmers. They tend to use that stuff more and you hear it talked about a lot more with them. But the newer ones don't and I think when production agriculture started comin' in, then people started worryin' less about that, thinkin' we can overcome it with chemicals and fertilizers. That'll solve it. If we plant at the wrong time and weeds come up, we can just spray 'em. So that probably started taking some of that mindset out.

This explanation of agrichemical use in the Ozarks, however, fails to address the role of official state agriculture institutions' introductions and their relationship with the contemporary use of chemical herbicides. University of Missouri trained Soil Conservation and Agriculture Extension agents and scientists introduced various species into the Ozark agroecosystems in attempts to 'improve' soil conservation, wildlife habitat, and overall farm productivity. Many of these introduced species quickly became invasives. Invasive, 'noxious weeds' represent the primary, and in many cases, the only reason Ozark farmers utilize chemical herbicides. One introduction in particular, multiflora rose (*Rosa multiflora*, **Thunb. ex Murray**), is currently the

most pervasive, problematic invasive species for farm owners in OMA. Some invasive plants pose less of a problem to livestock owners because their animals will graze on the foliage, however this is far from the case with multiflora rose. Multiflora rose invades pasture areas, degrades forage quality, reduces grazing area and agricultural productivity, and can cause severe eye and skin irritation in cattle (Bergmann and Swearingen 1997, Munger 2002, Interviews). Farmers, Extension Agents, and the Conservation Department all agree that the best way to eradicate this nuisance plant is to use agrichemicals.

Multiflora rose is endemic to Japan, but was originally introduced to the United States in 1886 as rootstock for cultivated roses. The U.S. Soil Conservation Service began to advocate the use of multiflora rose in soil erosion control in the 1930's. Missouri and Illinois served as the original locations for experimental plantings. As recently as the late 1970's many state conservation departments distributed rooted cuttings to landowners. The thorny, bushy shrub was conceptualized as a living fence that would provide escape cover and a source of winter food for wildlife, such as pheasant, bobwhite quail, and cottontail rabbit, while simultaneously contributing to soil conservation (Eckardt 1987, Bergmann and Swearingen 1997). But, the species soon spread and became a serious invader of agricultural lands, pastures, and natural communities from the Midwest to the East Coast. As the Missouri Conservation Department explains, it "...readily invades prairies, savannas, open woodland, and forest edges. It is a thorny, bushy shrub that can form impenetrable thickets or "living fences" and smother out other vegetation. It is a serious pest species throughout the eastern United States" ([www.missouriconservation.org](http://www.missouriconservation.org)). Multiflora rose has spread to every county in Missouri and has been designated a 'noxious weed' by Missouri state law since 1983, allowing counties to require mandatory control of the plant.



Researchers and farmers have concluded that the most effective control methods consist of chemical approaches<sup>48</sup> (Bergmann and Swearingen 1997, Munger 2002, Missouri Conservation Department, farmer interviews). The various state agencies that contribute to policy regarding invasive species and advise the public on their control explicitly advocate the use of commercial agrichemical products (see appendix G for Missouri Conservation Department recommendations). Individual farmers must outlay their own financial resources and engage in practices that, in some cases, violate their moral value system to prevent the spread of an invasive species introduced by the state onto private farmlands. An excerpt from an interview epitomizes the response of OMA farmers:

“Can you talk about when your family first started using chemical pesticides and herbicides, when they came into this area, and when they became more frequent?”

Well, I’m trying to think, the only large-scale herbicides we’ve ever used has been to control multi-flor rose. It is a pest that was introduced by the Conservation Commission. It was supposed to be a hybrid plant that was good for wildlife feed and cover and you could build a bull-proof fence out of it, but it spreads like crazy and it’s hard to control. It’s like a shrub, I’ve seen that a lot of tractors couldn’t go over.

“So herbicides come in to combat something that they introduced?”

That’s about the only extent of herbicides that I’ve ever used.

### **Agricultural Hormones**

In addition to chemical fertilizers and pesticides, many farmers have used hormones to encourage increased growth in their steers and higher milk production in their dairy cows. Hormone use among cattle farmers, who focus on cow-calf operations to produce steers for the meat market, is currently very low. During the 1970s and 1980s Ralgro ® hormone implants were marketed and propagandized very heavily in various media outlets. Many farmers believed

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<sup>48</sup> Researchers are investigating several biological control methods, including a native viral pathogen (rose-rosette disease) spread by a native mite, and a seed-infesting wasp, the European rose chalcid (Bergmann and Swearingen 1997).

they were a good way to increase gains in steers before they sent them to the sale barn or other markets. Ozark farmers who tested them out, however, found that the gains were insignificant and the cost of the hormone implants outweighed the returns.

Currently, farmers who use hormone implants are city farmers who own livestock farms and pay real farmers to work their animals. They believe in technology and have not actually tested the hormones and therefore tell their farmer-employees to apply the implants uniformly on their steers before they go to market. The local sale barn owner and employees explained that many of the largest livestock dealers who run their animals through their sale barns are ‘furriners’ who live in St. Louis or other cities and demand that the sale barn workers implant all the animals that they purchase. Local farmers, however, have tested the hormone implants and state that they cannot discern a noticeable weight, nor size difference between steers who have been implanted and those who have not. Most local farmers merely consider the hormones a corporate ploy.

Regarding the milk-producing hormones, Bovine Somatotrophin (BST), also known as recombinant Bovine Growth Hormone (BGH or rBGH) or Posilac ® (Monsanto brand name), the case is distinct. BST causes cows to produce more milk, but dairy farmers have expressed dissatisfaction with the hormones because of mastitis, increasing price, and difficulty in management. Yet, many feel obligated to use it to remain competitive (Molnar and Cummins 1990). An excerpt from my interview with the Redinger family, highlighted in the ethnographic vignette, sheds light on BST and its effects on cows and dairy farmers:

“Did you ever use hormones – to make sure cows are producing more milk?”

Him: Yeah, whenever they first come out, we had a friend, we started his dairy – he worked at a research farm at the French Village, Monsanto’s research farm, and when they started dropping their cows out, he got to where he could buy some of

their cows at market price...He'd buy them and we'd pay him and he'd take what he wanted and we'd buy the rest of them....

Her: He's the one that got us on the Posilac®, the hormone thing.

“Was that real useful, could you see an increase in production?”

Him: Yes, but you could tell that it took more management. We would have more mastitis, and when they got mastitis you would have to take them off of it and leave it off.

Her: I felt like it did more harm than good, in a sense, because it was just – how do I say that, for the management of your cows.

Him: It took a lot more management.

“Did he come and work with you all and that's how he got into it?”

Him: That's how he got started.

“And then he went up to Monsanto and did he introduce you to the hormone because he was familiar with it from up there?”

Him: Right. At first he said, I can't tell you about it, but then after it come out in the paper and stuff he would tell us what was going on.

“And what were you thinking?”

Him: We thought it would be great and he told us that there were some problems, but then, up there, things were pretty well environmentally controlled. Those cows were tied up and turned out for an hour or two a day and that was all the exercise they got and they got tremendous production.

“So mastitis was an issue and then you'd have to pull them off, but initially when you started it, it was productive?”

Him: Yes it was.

“But when you saw side effects did you keep using it?”

Him: Yeah, well, we used it for about a year I guess, just on certain cows and then we got selective about using it

Her: And it started to get expensive. The price on it went up.

Him: And then I hooked up with another dairy man or two, especially in the winter when I had more time for management and we'd pick up 50 or 100 doses when somebody was buying a volume, then we'd get it cheaper. I'd use it in the winter, but in the summer I'd quit. Heat was a big problem with the Posilac ®.

Her: Then after summer we got to where we weaned 'em off of it, but the price is what drove us away from it. It got to be too expensive. The bigger dairies can afford, if that cow started having problems, they'd just ship her right on, we couldn't afford to do that (Interview 21).

The Redinger dairy, like all family dairies in OMA, finally went under because of the pressure of the technological treadmill. This result, the demise of the small dairies, was predicted by researchers (Molnar, Cummins, Nowak 1990).

BST was released on the market despite research that documented the possible negative effects on small dairies, human consumers, and cows, and the fact that milk production was already out-producing demand levels (Molnar, Cummins, Nowak 1990, Montague 1994, 1995). A government investigation of its effects, based on FDA and Monsanto (Environmental Assessment) studies, went so far as to predict a 'beneficial net impact on the environment.' It also stated that 'there is no evidence that BST poses a health threat to humans or animals' and that because 'BST use is not capital intensive, and consequently can be used by small producers with relative ease...the use of BST is not expected to increase the direct advantage that large producers have over small producers' (Government 1994:iii, 51). The Redinger case belies the truth behind this statement, especially because such technological adoption is required by federal regulations in the United States for a dairy to remain in business. As Molnar, Cummins, and Nowak (1990:3084-5) explain in the article, *Bovine Somatotrophin: Biotechnology Product and Social Issue in the United States Dairy Industry*:

The relatively rapid rate of technology adoption in the dairy industry has been fueled in part by the competitive nature of milk production and the technological treadmill associated with expanding milk supplies....A long-run phenomenon, the technological treadmill suggests that as supply of a commodity increases, market prices fall, and

operators employing conventional technology face reduced profits and lower productivity relative to adopters, as well as questions about survival of their operations. Questions about survival are particularly evident when government regulations require investments in technology to retain access to product markets. Marginal operations face these decisions when faced with the prospects of becoming Grade B dairies. Technology must be implemented or income, and perhaps sheer survival, is threatened.

### **Agricultural Modernization**

Notice one thing?  
“Ain’t no vegetables nor chickens nor pigs at the farms.  
They raise one thing – cotton, say, or peaches, or lettuce.  
‘Nother place’ll be all chickens.  
They buy the stuff they could raise in the dooryard.  
Jesus, what I could do with a couple pigs!”  
- John Steinbeck (1939) *The Grapes of Wrath*

This section presents the current state of OMA modern agriculture and discusses the relationship between socioeconomic variables and agricultural practices. Agricultural practices were documented through on-farm technology and practice inventories and surveys and analyzed in SPSS. OMA modern practices consist of the following: 1) Pesticide and herbicide application to agricultural fields, 2) CAFO; confinement animal feeding operations, 3) Hormone use, 4) Genetics or veterinary science, and 5) Focus on monoculture or marketing outside of the state. While tractor use could have been included, it does not really serve as an indicator of ‘modern’ agriculture, because all farmers in the study area use tractors. Tractors range from 1950’s to 1960’s models that have been maintained to the most recent air-conditioned cab tractor from John Deere ®, Case ®, or Massey-Ferguson ®. Regarding pesticide and herbicide application, I designated a ‘limited’ category that reflects farmers who engage in no modern practices except the limited, sporadic, and exclusive use of herbicides on invasives, such as multiflora rose, or a ‘touch’ of Sevin dust on their kitchen gardens when they have a serious infestation threatening to destroy their harvest. CAFO refers to the aforementioned confinement of livestock in buildings (see figure 5.1). ‘Hormone use’ refers to the previously discussed use of hormone implants in

steers or hogs or rBGH hormones in dairy cows. The category of ‘genetics or veterinary science’ refers to the purchase, extraction, or preservation of semen for artificial insemination of livestock and a reliance on veterinarians for breeding stock and disease prevention advice and treatment. The last modern practice represents a break from the traditional farm diversification and the sale of crops, animals, seed, etc. in local or regional markets. Farmers typically and traditionally diversify their farms as a form of risk aversion and sell their animals, crops, eggs, and dairy products locally at one of the local sale barns, animal swaps, or to local residents or feed stores. More industrial, market-oriented farmers engage in monoculture production of one product, animal or crop, destined for markets in other states and therefore represent a modern trend in Ozark agriculture.



Figure 5.1 OMA Confinement Hog Operation (CAFO) (see appendix H)

Table 5.2 presents the range of modern agricultural practices OMA farmers employ. 55 percent of farmers either employ no modern agricultural practices or irregularly use herbicides or

pesticides for severe infestations. The heterogeneity of the adoption of modern practices emerges as conspicuous in this table. There are no identifiable trends in the adoption of modern agricultural strategies. Thirteen percent of the farmers do not engage in any modern practices besides the application of pesticides or herbicides on a regular basis, but beyond that, the adoption of modern agricultural practices is extremely varied. Figure 5.2 presents a graph of the modern agricultural practices in a condensed form to illustrate the relative avoidance of modern agricultural strategies.

Table 5.2 Modern Agricultural Practices in the Study Population (2003)

|                               | Frequency | Percent | Modern Practices                                                                                                                                            |
|-------------------------------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Pesticide/Herbicide Use    | 7         | 13.7    | 1. Pesticide/Herbicide Use<br>2. CAFO (confinement)<br>3. Hormone Use<br>4. Genetics / Veterinary Science<br>5. Focus on Monoculture or Non-local Marketing |
| All                           | 3         | 5.9     |                                                                                                                                                             |
| Limited chemical garden/fence | 14        | 27.5    |                                                                                                                                                             |
| Multiple 1-3                  | 1         | 2.0     |                                                                                                                                                             |
| Multiple 1,2                  | 1         | 2.0     |                                                                                                                                                             |
| Multiple 1,3,4,5              | 1         | 2.0     |                                                                                                                                                             |
| Multiple 1,4                  | 3         | 5.9     |                                                                                                                                                             |
| Multiple 1,4,5                | 2         | 3.9     |                                                                                                                                                             |
| Multiple 2-5                  | 2         | 3.9     |                                                                                                                                                             |
| Multiple 4,5                  | 1         | 2.0     |                                                                                                                                                             |
| Multiple, 1,3,5               | 2         | 3.9     |                                                                                                                                                             |
| None                          | 14        | 27.5    |                                                                                                                                                             |
| Total                         | 51        | 100.0   |                                                                                                                                                             |

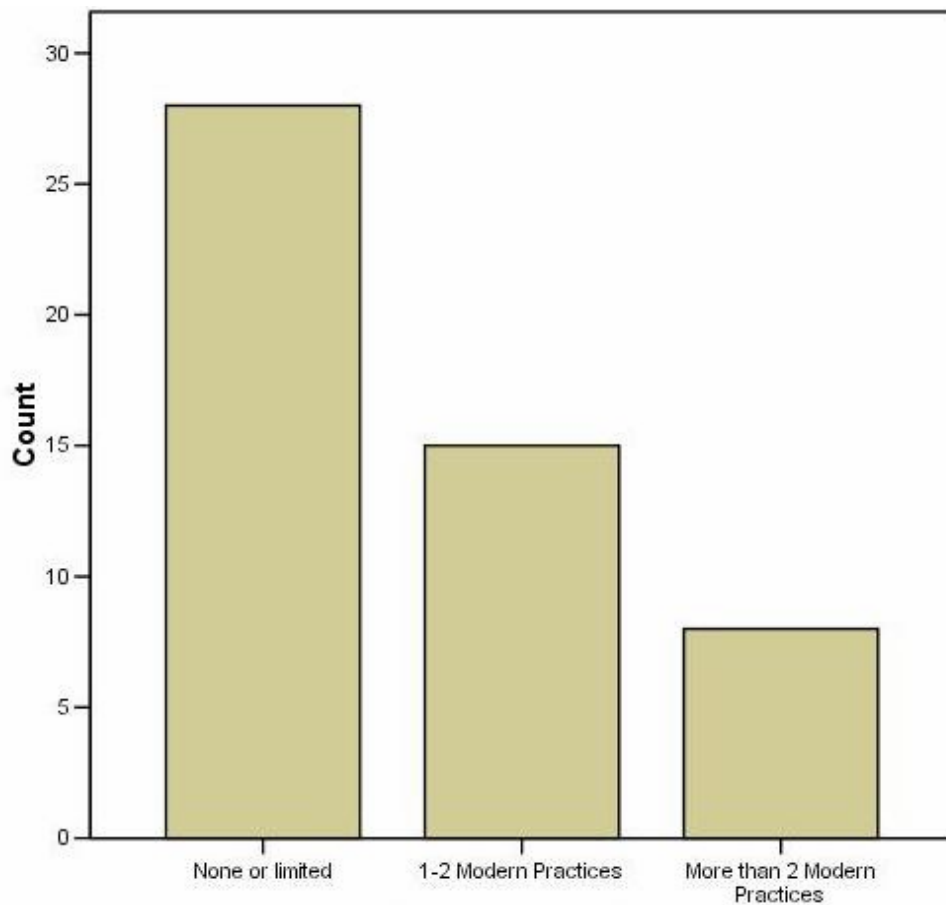


Figure 5.2 Modern Agricultural Practices Condensed

Tables 5.3, 5.4, and 5.5 depict several possible explanatory variables for the adoption of modern agricultural practices. Age and sex represent possible explanatory variables for the adoption of modern practices. Age only serves as an indicator for the oldest farmers. Older farmers, over seventy years old, represent one subset in the sample that does not engage in as many modern practices. Other variables, however, such as income, education, and intergenerational farming do not appear to correlate specifically with an adoption or non-adoption of modern practices.



Table 5.3 Modern Agricultural Practices by Education and Intergenerationality

|     |                              |                       | Modern Farm Practices Condensed |                      |                              | Total |
|-----|------------------------------|-----------------------|---------------------------------|----------------------|------------------------------|-------|
|     |                              |                       | None or limited                 | 1-2 Modern Practices | More than 2 Modern Practices |       |
| Yes | Education Beyond High School | Raised by farmers Yes | 7                               | 3                    | 2                            | 12    |
|     |                              | No                    | 3                               | 1                    | 2                            | 6     |
|     |                              | Total                 | 10                              | 4                    | 4                            | 18    |
| No  |                              | Raised by farmers Yes | 16                              | 7                    | 4                            | 27    |
|     |                              | No                    | 2                               | 4                    | 0                            | 6     |
|     |                              | Total                 | 18                              | 11                   | 4                            | 33    |

Table 5.4 Modern Agricultural Practices by Income and Age

|                   |              |                             | Modern Farm Practices Condensed |                      |                              | Total |
|-------------------|--------------|-----------------------------|---------------------------------|----------------------|------------------------------|-------|
|                   |              |                             | None or limited                 | 1-2 Modern Practices | More than 2 Modern Practices |       |
| <\$25,000         | Farmer's Age | Less than 45 Years Old      | 1                               | 1                    | 1                            | 3     |
|                   |              | Between 45 and 70 Years Old | 7                               | 2                    | 0                            | 9     |
|                   |              | Older than 70               | 6                               | 3                    | 0                            | 9     |
|                   |              | Total                       | 14                              | 6                    | 1                            | 21    |
| \$25,000-\$60,000 | Farmer's Age | Less than 45 Years Old      | 3                               | 0                    | 2                            | 5     |
|                   |              | Between 45 and 70 Years Old | 8                               | 3                    | 4                            | 15    |
|                   |              | Older than 70               | 2                               | 2                    | 0                            | 4     |
|                   |              | Total                       | 13                              | 5                    | 6                            | 24    |
| >\$60,000         | Farmer's Age | Less than 45 Years Old      | 0                               | 2                    | 1                            | 3     |
|                   |              | Between 45 and 70 Years Old | 1                               | 1                    | 0                            | 2     |
|                   |              | Older than 70               | 0                               | 1                    | 0                            | 1     |
|                   |              | Total                       | 1                               | 4                    | 1                            | 6     |

Table 5.5 Modern Agricultural Practices by Sex

|                |        | Modern Farm Practices Condensed |                      |                              | Total |
|----------------|--------|---------------------------------|----------------------|------------------------------|-------|
|                |        | None or limited                 | 1-2 Modern Practices | More than 2 Modern Practices |       |
| Male or Female | Female | 12                              | 2                    | 2                            | 16    |
|                | Male   | 16                              | 13                   | 6                            | 35    |
| Total          |        | 28                              | 15                   | 8                            | 51    |

Ethnicity and religion emerge as variables with the most general explanatory power regarding the adoption or non-adoption of modern agricultural practices. Old Stock Americans

and Old-Time Protestants reject exogenous impositions on their traditional knowledge and practices because of their subjective, conservative worldviews. The same holds true for the most part regarding the non-adoption of modern agricultural practices. Table 5.6 indicates that approximately 93 percent of Old Stock Americans engage in two or less modern practices and 57 percent engage in ‘none or limited’ modern practices, compared to approximately 67 percent and 39 percent of German farmers respectively. The salient number that stands out in terms of ethnicity is that of the eight total farmers who engage in more than two modern practices, six of them are of German descent.

Table 5.6 Modern Agricultural Practices by Ethnicity

|           |                    | Modern Farm Practices Condensed |                      |                              | Total |
|-----------|--------------------|---------------------------------|----------------------|------------------------------|-------|
|           |                    | None or limited                 | 1-2 Modern Practices | More than 2 Modern Practices |       |
| Ethnicity | Old Stock American | 16                              | 10                   | 2                            | 28    |
|           | German             | 7                               | 5                    | 6                            | 18    |
|           | N/A non-local      | 5                               | 0                    | 0                            | 5     |
| Total     |                    | 28                              | 15                   | 8                            | 51    |

Similar numbers emerge regarding religion, as seen in table 5.7. Approximately 68 percent of Baptist and Methodist farmers engage in ‘none or limited’ modern agricultural practices and less than ten percent employ more than two. In comparison, 31 percent of farmers who belong to other Christian denominations engage in ‘none or limited’ modern practices and approximately 38 percent employ more than two.

The ‘N/A non-local’ and ‘no organized religion’ categories in tables 5.6 and 5.7 respectively require some elaboration. Five of the farmers who fall in both of these categories are either transplants who engage in strictly organic agriculture or members of the local chapter of the Missouri Organic Association (MOA). These farmers represent a distinct ideology and agricultural foundation from locally-raised Ozark farmers. I consider the organic and fair-trade

movements in agriculture to be fundamentally and philosophically neo-traditional; representative of a conscious moral decision to rejuvenate and celebrate traditional lifeways and a rejection of industrial agriculture and its social concomitants. As table 5.6 demonstrates, these farmers do not engage in any modern agricultural practices because they violate their moral value system. Similarly, these values are represented in table 5.7 by five of the nine farmers who profess no affiliation with organized religion and engage in ‘none or limited’ modern agricultural practices.

Table 5.7 Modern Agricultural Practices by Religion

|           |                       | Modern Farm Practices Condensed |                      |                              | Total |
|-----------|-----------------------|---------------------------------|----------------------|------------------------------|-------|
|           |                       | None or limited                 | 1-2 Modern Practices | More than 2 Modern Practices |       |
| Religion  | Baptist and Methodist | 15                              | 5                    | 2                            | 22    |
| Condensed | Other Christian       | 4                               | 4                    | 5                            | 13    |
|           | No Organized Religion | 9                               | 6                    | 1                            | 16    |
| Total     |                       | 28                              | 15                   | 8                            | 51    |

Neo-traditional farmers do not reject the modern agricultural paradigm because of experience in a cultural tradition that stresses independence, subjective interpretation, community cohesiveness, and cultural conservatism, like some of the Old Stock Americans and Old-Time Protestants. Neo-traditional farmers (represented by the N/A non-local category) do not share traditional Ozark perception, nor do they engage in as many traditional practices as Old Stock, Baptist, or Methodist farmers (see Tables 6.28 and 6.29). Neo-traditional farmers do not understand the lunar signs and their application in agriculture, but they respect them and wish they could implement them. Similarly, they have no experience with communal or familial farming practices, such as sharing labor or giving a female dairy calf to a child for a birthday, because they did not grow up on traditional farms. The neo-traditional reverence for the past is a bit of an essentialism because it omits the harsh realities of the agrarian lifestyle, such as the aforementioned reasons cited for the original adoption of tractors or other modern devices that

made farm life a little easier. Neo-traditional farmers embrace pre-modern, traditional agriculture because they see inherent socio-cultural and agroecological degradation in the modern agro-industrial complex.

Because neo-traditional farmers have learned of fallacies within modern agriculture, they approach their agroecological relations from a non-technocratically rationalized perspective. They are therefore able to perceive more possible affordances from their environment (Michael and Still 1992, Ingold 2000). From the Foucaultian perspective, their perceptions and reality are not crystallized within a technocratic, objectivist framework that detaches the observer from the environment (Agger 1991, Michael and Still 1992). As the following excerpt from a neo-traditional, hobby farm couple demonstrates, despite having been enculturated into a scientific worldview, neo-traditional farmers can break out of the false consciousness of modern industrial capitalism and perceive themselves as part of their environment (Michael and Still 1992):

“Does a religious perspective influence your land management?”

Her: I feel like when I’m gardening I’m in my happy place. That’s my church. Even just being on our place I feel very connected with the earth and plants and being a part of it all. When we first moved here we tried to manicure and tame the land and then we came to the realization that we don’t really own that piece of property and that it doesn’t make sense to control it.

Him: We’re just taking care of it.

Her: Yeah, we’re just taking care of it for our little life span. And it’s not to conquer, but to be a part of, and that’s about as religious as I get.

Him: In an organized religion sense, no, but in personal, peace with earth sense, most definitely we do (see religion as a guide). We don’t shoot animals when we don’t need to eat them.

“Animals – were you aware of animals from your parents?”

Her: My parents really didn’t grow up on farms that had a lot of livestock. They had fields and crops. They may have raised a pig for 4-H, but they didn’t have livestock. They worked on railroads, had gardens, canned, chickens, but not a lot of livestock.

Him: It started off with dogs and cats and then we met some people that had a lot of birds. We liked their peacocks, so we got peacocks and ...we went to sales they had once a month in Farmington where they would have all sorts of exotic animals. So we at first bought things because they were pretty; Chinese pheasants and all sorts of birds. In the city we had tame birds, like parakeets and finches, so we always had birds. So we've always been bird people. Then it kinda evolved into practical, like using them for food. We had a huge deep freeze that was empty and so we started getting tame turkeys, pheasants, rabbits. That was all new to us and it was like if you had to learn to survive this is what you would do. So we kind of learned the ins and outs. Our friends had a huge incubator and we would have 'em go through the different stages and we'd incubate eggs and hatch them. They'd have to be in a brooder and it turned into a pretty big operation. We were hatchin' out a couple hundred birds.

"Do you use chemical fertilizer, pesticides, or herbicides?"

Him: We don't use fertilizer other than compost or manure that you buy in a sack. As far as 12-12-12, or something like man-made fertilizer, no, we do not. Manure or peat moss or compost, that kind of thing, is what we use. We have rose bushes that we use an organic spray on to take care of their diseases or problems.

"Why organic?"

Her: We just don't like that stuff. The less chemicals the better is our opinion. It's nasty. In St. Louis, you could lay in your grass and no bugs would get on you and that was scary. The earthworms were killed. Before we moved in the country we lived in a subdivision that had 750-1000 houses and this *Evergreen* lawn service would come out with these great big hoses and just spray it down with this shit. We never participated in it, but they would just spray it down and we wanted no part of it....Needless to say, we had ugly grass....

"Where do you think that perspective came from – disliking chemicals?"

Him: My dad always got the bug spray out and God forbid you see a bug or an ant because he was gonna spray. I remember my dad had a lawnmower and it had a tank with a handle on the exhaust of the lawnmower. It would get hot and this chemical would drip on the hot muffler and it would make smoke and that's how you kept away the mosquitoes. You would go behind it to push and be in the smoke and inhale it. Maybe that's why I don't like it. But that's an honest memory that I have. I can still see tank where it trickled out of. They used really nasty chemicals. DDT. I remember my parents, their neighbors were moving and they said 'George,' that was my dad's name, 'you just go ahead and help yourself to anything in there in the carport.' And my dad went over there and looked through the stuff that was going to be thrown away and my dad found like a gallon or two container of DDT. My dad took it because he thought, 'wow, you can't get that anymore.' This was in the early seventies when it was being discontinued.

Her: I can remember that in the summers they used to spray for mosquitoes and a truck would come by with a big tank and a huge hose and it would make a huge fog. The smoke would all come out and kids would jump on their bikes and ride their bikes behind it. I would run and get inside my mom and dad's car to hide. I remember being just a little kid and thinking, that's crazy.

Him: And I always wanted to run behind it and that's probably why I am how I am today (laughing).

Her: But our parents didn't even have enough sense to tell us not to do that.

Him: Our parents thought, 'why would the county spray like that if there was anything wrong with it?'

This example demonstrates both the role of experience in the formulation of ecological perception, but also the mindset of the United States general public during the heyday of the modern era. While this couple arrived in the Ozarks in the early 1990s with a primarily modern worldview, ready to tame and control their land, they quickly realized through experience that such an approach was not so easy, nor appropriate. Their previous experiences and awareness of the repercussions of excessive chemical use cast doubt on quick-fix technological solutions and allowed their subsequent experiences to guide most of their agroecological perceptions and interactions. On the other hand, for several decades after World War II, the majority of the United States public believed devoutly in technocratic rationality, that chemicals were a bountiful solution to problems with limited or no negative externalities. They believed in the institutions that regulated and informed society. These institutions and federal policy were steeped in technocratic rationality.

### **Federal Regulatory Policy**

“The People of Chicago saw the government inspectors in Packingtown, and they all took that to mean that they were protected from diseased meat; they did not understand that these hundred and sixty-three inspectors had been appointed at the request of the packers, and that they were paid by the United States government to certify that all the diseased meat was kept in state.”

- Upton Sinclair *The Jungle* (1905)

Contemporary industrial agriculture is not more efficient than traditional agriculture, rather it relies on government intervention. Subsidies give it the appearance of efficiency (Barlett 1989, Hurt 2002). Government intervenes in innumerable ways, ranging from price-fixing, capital credits, subsidies, tax laws and breaks, production restrictions, embargoes, research funding and dissemination, and regulation, to ensure that large-scale industrial agriculture survives its' internal contradictions (Cochrane 1979, Britan 1987, Chibnik 1987, Barlett 1989, Mattera 2004). Throughout the mid-twentieth century, government policy aimed at 'improvement' required that farmers adopt new technology in order to continue selling their products (Barlett 1989). Such adoptions were impossible in many cases because small farmers lacked the capital to 'improve' and refused to put their farm at risk by obtaining credit and going into debt. As a result, many dairy operations and farms went out of business and were swallowed up by large corporations in nearby cities. Farm numbers dropped drastically in the 1950s and 1960s as a direct result of such legislation and regulation.

Ozark farmers no longer commercially milk cows, raise chickens, or sell eggs. I asked farmers why they no longer engage in these practices, at least on the local level. The farmers, one after another, repeatedly explained that the government regulated them out of farming. They nostalgically spoke of the not-so-distant past when they could sell their products to local grocery stores or deliver them to their neighbors. They exuded frustration when they talked about government regulations that purportedly improved agriculture, but forced them to stop milking cows, selling milk and cream, or cease their chicken operations because their eggs were not sufficiently uniform or their water was not verifiably clean. A conversation with a farm couple, corroborated by numerous older farmers, reveals the local impact of government regulation:

“Did people sell eggs and milk and stuff to local grocery stores that were here?”

Him: Yep. Fletcher always run most of the milk. There were two little dairies, Fletcher's and Murphy's. When Fletcher run it, he had the milk cows and everything where the school is now. That was fenced. That was pasture for the milk cows and those fields behind it was where he grew hay for the cows and grain.

"Why did it go out of business?"

Him: I guess it was just so many state regulations. It was with Murphy's - the state regulations said that the dairy barns had to be upgraded to Grade A barns and all this and that and that's why I quit also because the barn we were using wasn't good enough for the state. So, I had to get out.

"Why did you have to upgrade perfectly good barns? Sounds like they were trying to push the little guys out."

Him: Well, yeah they were. Around 50 years ago is when they did that because that's when we got married and that's when the grain stopped and the dairy stopped. We still shipped cream for awhile, but you didn't make enough off of that - that was just a headache.

"When the state started cracking down did people still buy locally, kinda underground?"

Her: The ....s had the dairy cows. He was the only one that did that - the local stuff. And Murphy's was picked up by SealTest. Well, I don't know...

Him: I think Sealtest did get 'em. They got a parking lot and a refrigerated area over there in Park Hills (St. Francois County)

"Was there a health risk that the state increased regulations?"

Her: No idea. People here were fine. Let me give you another example. Jim and I have always butchered our own beef. He likes to shoot it and skin it and pull all that extra fat and stuff out of it.

Him: I butcher here and I get rid of all the fat that I can and I get rid of...

Her: Then we take it to the slaughterhouse and they let it hang for about a week in their little outbuilding and then they process it and package it. Then we pick it up and they can't do that anymore. They can't do that no more. He showed Jim the letter.

Him: If I take it in to him, they can butcher it and hang it, but I can't take it in there already dead.

"So it charges you more to process it?"

Her: Also he can't sell local cows.



Him: No, it has to be inspected. It costs you a dollar a head to sell anything, that's the checkoff. Now you take a beef and have the whole thing processed. They charge per lb. and they leave all the fat and the kidneys and all that on, all the waste stuff you don't want they leave in there and you have to pay for it. They weigh it and then they cut it and you can't sell the hide. I haven't been able to sell a hide for 3 or 4 years. I would sell the hide to the slaughterhouse and think what you pay when you buy leather now. He keeps the hide. I didn't know this, but they kept the tongue and a friend of my sister loves to eat the beef tongue (Interview 30).

Another farmer relates a similar story regarding the demise of local chicken operations:

The ..... boys had a pullet operation. They used to sell a lot of chickens in Fredericktown. And then you go back to politics. Some of these people that had these big companies, they got on the health department here and they made the health department come out and test these chickens, and they was using spring water. Spring water. I grew up on spring water, and they condemned the spring. It was ...'s dad....They raised some of the best chickens and you could go out there and buy a chicken. I went out there and bought chickens right there off the farm. They cleaned 'em in spring water so they shut 'em down. It was politics. Big companies put the pressure on them. It was a big scale operation, so it was local competition, keeping out big outside companies because they sold to all the grocery stores in Arcadia, Piedmont, Fredericktown. They got a van, an old Suburban, and they take and killed certain days and delivered certain days (Interview 25).

I interviewed the farmer whose parents and brothers ran the chicken operation in question and this was her take on the chicken situation and its effects on her farming endeavors:

We raised chickens over here to butcher and sold the fryers and then...I'll tell you the reason we had to get out of the business was we washed our chickens in a spring, my grandmother's spring, which was perfect water, and the health department made dad quit because we were selling them commercially. I think they forced him out of business. That was before I was even married to.... Then when .... and I got married, and it wasn't long before we got the laying hens, but we were run out of that, and then we had hogs and cattle .... I don't still have a garden, because when I got this job it was just too much, but I had canned like 300 quarts of green beans and tomatoes and worked in my garden and raised five kids on top of that.

It's so hard to make a living, you cannot make a living on a farm right now. You have to have other interests and other jobs and the mother and the father have to work to make ends meet. In that respect, there's more people getting out of the farming business now because you can't farm and have enough money to exist anymore. You just really can't.

Why do people still farm?

Because they like it, it's a way of life that they like. I had somebody say to me the other day, 'when are you gonna sell that farm and move to town?' and I said, 'it'd be on my deathbed, cause I wouldn't do it.' I farm because I love it, always have, I go out every evening when I get home and run through the cattle, drive through the cattle and see the babies, the new calves and cows (Interview 24).

These examples demonstrate that Ozark distrust and despise for the government is not unfounded. Regulatory pressures designed to place local farmers' agricultural markets in the hands of larger industrial companies have resulted in substantial transformations in OMA agricultural population and landscape (Mattera 2004). Besides farm ownership, there are also other quantifiable indicators that reveal the detrimental effects of governmental intervention and regulation in the dairy industry. St. Francois County had the largest number of dairy operations of the three study area counties. In 1950, the county had 4,200 milk cows. By 1970, the number had dropped to 1,200. By 1999, the number was down to 350 and I would estimate that, with the most recent closings of the last dairies in the county, that there are currently less than 100 milk cows in the entire county. In the neighboring counties, the numbers are similar. Iron County in 1950 had 2,300 milk cows. By 1960, only 600, and in 1970, 200 milk cows. The current numbers in Iron county are inestimable because there are less than fifty head. In Madison county in 1950 there were 2,200 milk cows. By 1960 the number was down to 900 and by 1970, 100 milk cows.<sup>49</sup> This unprecedented abandonment of dairy farming was precipitated specifically by governmental sanitation regulations that required farmers to 'upgrade' their extant milking operations and barns to stainless steel containers and government approved dairy barns and tanks (Dorner 1983, Barlett 1989).

As dairy operations went out of business, the attendant agricultural enterprise of wheat farming also was abandoned. While beef cattle graze on hay and grass, milk cows are frequently

fed grain to ensure high quality milk production. Governmental production limits and subsidies to reduce grain production, coupled with the demise of local dairy industry, resulted in a significant decline in wheat production. Ellen Gray Massey, (1978:69) renowned Ozark cultural historian and folklorist, documents with the help of her students in *Bittersweet Country* that these government subsidies precipitated Ozark farmers abandonment of grain farming:

In the early fifties people stopped threshing in this area altogether. Ellis explained that the government paid farmers not to raise wheat during the times of huge wheat surpluses, and the result was insufficient business to pay Ellis and others to operate the big machines. Farmers were put on wheat allotments based on a percentage of their usual acreage. The grain fields in the Ozarks were always small – usually eight-, ten-, or twenty acre fields – and most of the grain raised was for the farmer’s own consumption. With acreage further reduced, some to five acres or less, the cost of equipment to raise grain and the effort involved made it impractical. Most farmers quit raising grain altogether.

In OMA specifically, these accounts are substantiated by agricultural census numbers that reveal the severe effects of government regulation. In St. Francois County, wheat production fell drastically from 5,500 harvested acres in 1950 to 600 in 1960. In Iron and Madison counties the numbers were equally devastating; Iron County harvested acres of wheat plummeted from 3,200 acres in 1950 to 100 in 1960 and in Madison County, from 2,200 in 1950 to 500 in 1960.

When I asked local farmers about the most significant agricultural changes they had seen in their lifetimes, responses were extremely varied. Many farmers spoke of increasing farm consolidation into fewer hands, how there used to be a lot more smallholder, subsistence farmers in the region. The following interview excerpt illustrates the dynamics of agricultural consolidation on the local level:

“What do you see as the biggest changes in farming in your lifetime?”

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<sup>49</sup> All these numbers are available in appendix F, which includes tables on Farm numbers, acreage, and value, Livestock numbers, and wheat production for the three study area counties from the 1850 agricultural census through 1999.

Overall the lack or loss of small farmers, subsistence farmers. I know of one that would classify as that in the area, and it's just he and his mother, and they have a very small operation. They have a few cattle, and I don't know much more than that, but they have a small place. He cuts wood and sells it, but used to, the vast majority of farmers in the area were basically subsistence farmers and now they're gone.

"What happened to these people?"

Oh, they sold their land or they died on the farm and the heirs sold the land. Or they sold the land themselves and moved to town.

"So, they moved to town, or if they're still here they may be trying to scrape out a living in timber or something like that?"

Yeah, well, a lot of them just have jobs in town. The majority of farmers in the county have a job in town. That's another change. When I was a boy, I could look around and there were numerous farmers around that all they did was farm. Their wives were at home, raising the family or tending chickens or gardens or canning, subsistence. Some of both; they sold cattle, chicken, eggs, milk, hogs, and now we have no dairy farms in the county and there's hardly any hogs. None of them I'd really call a farm, they just have a few hogs. I still have a handful, but not for much longer. I have someone that does butcher them. My father-in-law has a small meat-packing plant, actually he's retired now, but still cuts them up, but he's getting too old to do it, and I don't have the time to do it, so I'm just gonna get rid of the hogs. Originally we got rid of them for lack of labor to do it and lack of profit.

"When the packing industry got their own hogs, they dropped that price enough to get rid of the small hog farmer, didn't they?"

Yep. The last load of hogs I sold, sold for 9 cents a lb.

"How long ago was that?"

Five years ago in December.

"You still had 'em five years ago, you were probably one of the very few still trying to run hogs along with other things?"

Right, you'd have to go down to Madison County, to ....s, and .....s, and .....s and that's about it in this area. Over in Ste. Gen county, they have a few, but it just got to the point where you were just turning dollars around and you were never putting anything in the bank to live off of, so why do it. From the chickens, until we quit, the hogs made the money around here. We didn't have enough land base to run a cattle operation and we started putting money in the land and that allowed us to have more cattle and then when hogs got so pitiful a price it just made sense to get rid of them and put everything into the cattle operation and cropping operation – and that's just how it went (Interview 26).

As dairy and chicken regulation and consolidation/vertical integration occurred in the 1950s and 1960s, the general response from farmers of the region was either an abandonment of farming or a commercial focus on hogs. Subsistence farmers relied on local markets for the small amount of cash necessary to pay their taxes, clothe their children, and purchase staple and luxury crops that they could not produce themselves. When the government regulated their local markets away, they had no choice but to find off-farm work, which frequently resulted in the abandonment of farming.

From 1945 to 1970, the amount of OMA farms basically split in half, while the total amount of land in farms changed much less drastically (see appendix F). This change in land tenure represents the consolidation and accumulation of farms by wealthier, businessman farmers. As smaller farmers, who were capital-poor, were forced to abandon farming, larger farmers purchased their farms to try and compete in the industrial market. As the farming enterprise declined in these communities, the general health of the rural economy simultaneously deteriorated. Farmers who previously purchased and exchanged goods locally emigrated to another town or city to work. Businessman farmers, who frequently purchased small farms when foreclosed upon or put up for sale, usually resided in a city distant from OMA, therefore, the money they earned by running cattle did not funnel back into the local community. Ozark communities began to develop dependence on transfer payments and exogenous corporations and transform into rural ghettos (Davidson 1996).

Cattle are the last frontier for OMA farmers; chickens and hogs have been regulated and vertically integrated to such a degree that small farmers cannot participate in their production. The primary income for many farmers comes from cow-calf operations because they do not require extensive inputs. Farmers keep a herd of cows and a few bulls. Their livestock graze in

pasture land and they sell male calves after they raise them for about eight months, depending on the market price. This type of operation requires little capital, just the land and breeding stock, and experiences relatively little government regulation. Breeds have changed significantly over the years, with an increasing focus on the market. In the past, farmers raised primarily Herefords, however now, with Angus being in high market demand, farmers increasingly raise Angus and Angus-crosses with Charolais, Hereford, and Limousin.

Heavy federal regulation, however, discourages and precludes farmers from butchering their animals and selling cuts. The meat-packing industry does not want small-scale competition, so the government has passed extensive laws regulating meat processing. The regulatory policies purport to ensure quality meat for the public, however, local accounts belie the sanitation of the packing plants. While I was conducting this research, there was a case of Mad Cow disease, Bovine Spongiform Encephalopathy (BSE), discovered in Washington state that sent ripples throughout my study population. Local farmers were extremely concerned that this discovery could result in increased regulation of their cattle operations, despite the fact that they free range their animals and do not engage in the cost-cutting, unnatural strategies that cause the disease (feeding animal parts to herbivorous animals). The aforementioned interview that traced the effects of government dairy regulation to contemporary meat regulation sheds important light on the causes of Mad Cow disease and the local effects of the livestock industry-USDA collusion that currently occurs (Mattera 2004):

“What do you know and think about this Mad Cow discovery?”

Her: It was a big dairy and they went to Canada and bought the cattle. I think they oughtta been – I thought you had to have them inspected before you crossed the international line.

“When did this process that makes it hard for small farmers to make a living begin?”

Him: It’s a process that gradually increases day by day, you never know. I don’t think it’s fair.

“The rural communities are getting poorer and poorer and it seems like city people have no idea that it’s happening.”

Him: They don’t have the least idea

Her: That’s just like the deal on the streams – that they made such a big tadoo about a couple years back, when there was such a big tadoo about that – the clean water, what’d they call it – clean water on the streams. There for a while they were trying to, I had a stream running through here and if the cattle could walk through it – you had to fence it, on both sides, so that they couldn’t get in the water and drink it.

“So you’re not allowed to do that – but huge farms can have 1000s and 1000s of cattle on one little spot – and no problem.”

Him: That’s right –and some of them are so big – that they have to have 1 or 2 riders that checks them twice a day.

“Processing animals – that’s interesting – when did those changes come about?”

Her: We go to Sutton’s – when he took the dressed beef up there – he showed Jim the letter from the state that morning – and he said, read it, this will be the last one I can do for you like this.

“Did they used to buy local beef and sell it?”

Him: They haven’t been able to buy local beef for a good while.

Her: I’m gonna tell you something – if you want to see something in connection with the Mad Cow – go down to Fruitland. Go down there – it’s worth your time to go. If you got a weak stomach – don’t go. Go out there – it’s close to 55.

Him: I had a cow down here in the lot and she got down on her hind quarters and she couldn’t get up and I was gonna shoot her and take her back up over the hill and let the coyotes have her. I wouldn’t eat her. What I had to do was pull the calf and she had a pinched nerve in her back and couldn’t use those back legs.

Her: Go down to this slaughter place and then you’ll know why we didn’t eat her.

Him: Well, I had two fellas here cutting logs, cutting out the big timber out of my timber...and they said, ‘don’t kill that cow, take her down to that place – to Fruitland.’ So they helped me load her up. We got her up in there, in the very back and we took her to Fruitland. She was right up against the front end.

Her: It was a very hot day.

Him: They took her out of there and they hoisted her up, skidded her out, took her out of there and slaughtered her and processed her and sold her as meat.

“They are inspected by the USDA?”

Him: There’s a veterinarian in there. He’s there all the time. We had to sit and wait ‘til he got there and they paid us, and it wasn’t that much.

Her: I don’t know that it was worth driving down there. The other one that he took – another sickly one – there was really something wrong with her. But they took it – and they may have made dog food out of it – or something – whatever they do with something they can’t use. But they kept it. They should let you see it if they’re on the up and up. They gave us a sample. The truck delivers here – the one from Fruitland – to these grocery stores here....Everything was against it though the day we went. Everything was real hot and steamy and stinky. There’s two big – settling tanks – they’re just – just looks like blood. I wouldn’t want to live around there. Places like that in my estimation create Mad Cow disease. The root of it, because they know they can get away with it. But, my estimation is that the veterinarian who’s there, he’s not doing what he really should be doing or it wouldn’t be happening.

“That’s probably going on in a lot of places.”

Him: Sure. We waited a good while. We got down there, waiting for it to unload and the boss come out to the truck and he says ‘come on in, we’re having dinner, you can snack on some too.

Her: And he gave us a sample of a whole lot of the stuff they made – and I brought it home and give it to the dogs. I couldn’t eat it.

“So you eat your own beef only. Do a lot of other farmers do that around here?”

Yes. Yes

“The city folk have no idea what they are getting, do they?”

Her: No. No idea.

The local effects of such regulation are substantial. While local farmers raise high quality, free range animals without the use of hormones or antibiotics because they are unnecessary in a clean, natural environment, federal regulations preclude them from selling these animals locally. Rather, these animals are sold at sale barns to livestock dealers who then accumulate what are referred to as potloads (large tractor trailer loads) of similar breed animals



and sell them to a slaughterhouse. These slaughterhouses then sell the high quality Angus from the countryside as extremely high grade cuts in fancy city grocery stores and restaurants. Meanwhile, the lesser quality animals are shipped back to the rural grocery stores. Because of government regulations, farmers are unable to sell their high quality animals to their neighbors. Instead, their neighbors end up with meat that local farmers would never have sent to market. Through institutionalized technocratic rationalization the agricultural process is obscured and industry fleeces both consumers and farmers.

### **Institutional Technocratic Rationalization**

Governmental agriculture regulation is justified under the guise of sanitation, improvement, modernization, and standardization. According to technocratic rationality, these policies are necessary to ensure optimal production, regardless of the impacts on rural communities engaged in farming. An article in March 1960 Farm Journal ® explains to farmers the rationale behind the regulation of eggs, stressing efficiency and quality as major factors:

**Pick your chicks for EGG QUALITY New USDA program and lower egg consumption force quality drive** – .... Egg consumption is down again, to 354 per person this year compared with 392 about nine years ago. The USDA is pushing a new egg quality program on farms throughout the country. Both developments add up to a big new push to *produce and deliver more uniform-quality eggs*....The best way to get the facts is to study both breeder-hatchery claims *and the official summaries of Random Sample Tests* on which they are based....**Tip-off for the future** is a new set of grading rules for “Fresh Fancy Quality” that the USDA started using last September. They practically outlaw old candling methods in favor of breaking out eggs and measuring the height of the albumen with a Haugh Unit meter as a yardstick of quality. USDA is also testing electronic X-ray devices that will check interior quality accurately. These new standards are backed by a Grade AA official label....More individual states are also pushing new quality programs. In Pennsylvania, where the Bureau of Markets’ certified egg program is not yet two years old, egg sales have climbed, prices have firmed some. Buyers and farmers are enthusiastic (94-5).

Besides explaining the importance of such regulation, to reinvigorate decreasing egg sales and ensure quality, such technocratic rationalization portrays these regulatory policies as inevitable

and necessary. That such policies may deny small farmers their livelihood remains completely outside of the purview of technocratic rationalization. The only consideration is the continuous implementation of the newest technological and scientific developments.

These regulatory policies do not occur in a bubble. Some human beings must enforce them and interact with the farmers who lose their livelihoods as a result. These individuals are the members of agricultural agencies; the county Extension agent, the Soil Conservation agent, the Department of Natural Resources agent. These individuals must believe in technocratic rationality, because without them, the modernization of agriculture would fail. Lionberger (1960:44-5) describes their importance:

While the mass media – farm magazines, etc. were primarily responsible for generating awareness of modern farming strategies and products, the main sources of information on ‘instruction in putting change into effect’ are the agricultural agencies, including the ‘county agent, vocational agriculture instructor, college of agriculture, Soil Conservation Service, etc.’

This is one of the major contradictions inherent in technocratic rationalization; community members contribute to the demise of their neighbors’ farming operations without even knowing they do so (Agger 1991). They spread the irrationality inherent in devout technocratic allegiance and allow an accumulation by few to destroy the livelihoods of many (Lukacs 1971).

### **The Persistence of Traditional Farming**

Although conservative, traditional Ozark farming systems, similar to smallholder farm systems around the world, are based on openness to experimentation and new ideas; anything that facilitates a more efficient interaction with the agroecosystem (Netting 1974, 1993, Rhoades 1989, Richards 1996). Rhoades (1989:5) explains in *The Role of Farmers in the Creation of Agricultural Technology*:

Out of some 4,000 cases, at least 98 per cent of the farmers had not ‘adopted’ the technology as it was presented in extension efforts, but had ‘adapted’ the idea to their

own farming conditions, household architecture and pocket books. Farmers do not think in terms of adoption or non-adoption as we do, but select elements from technological complexes to suit their constantly changing circumstances. The dichotomous terms of adoption, non-adoption, traditional-modern, native-improved, are irrelevant and misleading from the farmers' point of view.

Paul Richards (1996) refers to this farmer integration of ideas and methods as repertoire enhancement, which directly contrasts with the epistemologically closed industrial agriculture system (Scott 1998). OMA farmers continue to engage in myriad traditional agricultural practices, and have adopted a few modern ones, because they allow them to sustain their farms within the current socio-economic climate. Traditional farm practices included in this analysis and presented in table 5.8 are: 1) Belief in the lunar signs, 2) Free range chickens or hogs (cattle not included), 3) Livestock family traditions, such as naming animals or giving livestock to children as gifts, 4) Application of manure to fields as fertilizer, 5) Communal and family practices such as communal harvest or plowing or trading goods, and 6) Honeybee keeping or maple harvest.

The salient aspects that emerge from table 5.8 are the sheer number of OMA farmers who continue to engage in traditional farming practices. Over 82 percent engage in at least one traditional farming practice and approximately 75 percent engage in at least two traditional farming practices. Of the nine farmers who do not engage in any traditional practices, five of them are not originally from the Ozark region. 80 percent (33 of 41) of local farmers perform at least two traditional farm practices. Twenty farmers engage in at least four traditional farm practices, with seven engaging in all practices analyzed and ten practicing all but local honey or maple harvest (see Tables 5.8 and 5.9).

Table 5.8 Traditional Farm Practices

|                         | Frequency | Percent | Traditional Practices                                                                                                                                                           |
|-------------------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Livestock Traditions | 2         | 3.9     | 1. Belief in Lunar Signs<br>2. Free Range Livestock<br>3. Livestock Family Traditions<br>4. Manure Application<br>5. Communal and Family Practices<br>6. Honey or Maple Harvest |
| 4. Manure Use           | 2         | 3.9     |                                                                                                                                                                                 |
| All                     | 7         | 13.7    |                                                                                                                                                                                 |
| All but 6               | 10        | 19.6    |                                                                                                                                                                                 |
| Multiple 1-4            | 2         | 3.9     |                                                                                                                                                                                 |
| Multiple 1,2,4          | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 1,3,4          | 2         | 3.9     |                                                                                                                                                                                 |
| Multiple 1,3,4,5        | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 1,4            | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 1,4,5          | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 2-4            | 3         | 5.9     |                                                                                                                                                                                 |
| Multiple 2,3,5          | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 2,4            | 2         | 3.9     |                                                                                                                                                                                 |
| Multiple 2,4,5          | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 2,4,6          | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 3,4            | 1         | 2.0     |                                                                                                                                                                                 |
| Multiple 3,5            | 3         | 5.9     |                                                                                                                                                                                 |
| Multiple 4,5            | 1         | 2.0     |                                                                                                                                                                                 |
| None                    | 9         | 17.6    |                                                                                                                                                                                 |
| Total                   | 51        | 100.0   |                                                                                                                                                                                 |

Table 5.9 Traditional Farm Practices

|                                 | Frequency | Percent |
|---------------------------------|-----------|---------|
| No Traditional Practices        | 9         | 17.6    |
| 1 Traditional Practice          | 4         | 7.8     |
| 2 or 3 Traditional Practices    | 18        | 35.3    |
| 4 or more Traditional Practices | 20        | 39.2    |
| Total                           | 51        | 100.0   |

Why do traditional farm practices continue when throughout the last century all farmers heard from Extension, agricultural propaganda, and schoolteachers was that modern agriculture is more efficient and superior to their old-fashioned ways? The answer lies in the epistemologically open nature of traditional Ozark thought and Richards (1996) concept of repertoire enhancement. Traditional Ozark farmers who remain involved in farming did not jump blindly into the advertised and advocated agricultural modernization. Rather, they hybridized their operations, gleaning only those practices that made their farming operations more attuned to the local agroecosystem and socio-political climate, and therefore more efficient in terms of the capital and labor resources they had available. As labor became more scarce, they ‘ponied up’ the necessary funds or obtained credit to purchase round-bale equipment, but they did not overextend themselves and attempt to completely modernize their farming operations.

Farmers engaged in the most traditional practices frequently lamented the passing of a more communally-oriented past. They also spoke of how they continue to try and cultivate the familial and communal character that their region had in the not-so-distant past. A younger farmer explains how he buys his gasoline at a locally-owned and run mechanic/gas station

because of the relationship he has with the owners and employees. He connects this element of community cohesion with the larger economic problem of the region:

My wife pulls in there and they jump up from behind the counter and pump her gas and at Christmas time she bakes them cookies. Everybody's happy. I'd rather do that than give my money to some place where the gas is ten cents cheaper, but I give my money to some guy that lives in Cape Girardeau that owns the gas station. That money does not benefit this community. I am a big believer in buying locally, but I'm one in a hundred guys that believes that. Everybody else bases it on price. It trickles to the people. I don't believe in trickle-down economics, but in a small town setting it does (Interview 12).

Another farm couple related a representative story about how a 'furriner' truck driver came out to their farm and got his truck stuck in the mud. He asked them if he could use their phone to call a tow and they refused. Instead, they made a phone call to some family neighbors and they helped him get his truck loose:

Him: And he couldn't believe that, but I don't know where that truck driver came from, but he didn't know how it works around here. We have a way where you don't spend anything unless you absolutely have to. And there's times where this is not as much the economic situation as much as the fact of a loyalty to people to help you. There's not as many of us now, because a lot of them are older than we are. But in times past, we always worked together. If somebody needed something, you called, and the help showed up.

Her: It was give and take, we shared.

Him: When you're getting ready to go somewhere or you got events planned for that day or evening and your neighbor called, and said, 'I've got to get help.' Well, you forget about whatever you were going to do and you go help, because the next time it might be you that needs help. It took me awhile to learn that over the years, but you learn the people that you can depend on and that comes from the fact that they know that they can depend on you. It's more of living by the golden rule in my opinion. And if you don't have these type of people, you're gonna have a hard time... (Interview 15).

Traditional Ozark farmers work together to ensure that their family members and neighbors succeed as farmers. They learn from each other and share ideas and assistance. Technocratic rationalization attempted to banish communal values. Lionberger, (1960:103) an adamant proponent of agricultural modernization, explains:

A high positive correlation is particularly evident with the use of such sources as the county agent, the college of agriculture, and vocational agriculture teachers. On the other hand, high dependence on relatives and friends as sources of information is usually negatively associated with the adoption of new farm practices. Too often, reliance on relatives and friends to the exclusion of others more successful as farmers perpetuates a relatively low level of knowledge regarding the technology of farming.

## Chapter 6

### CONTEMPORARY PERCEPTIONS OF THE FARMING ENVIRONMENT

“The emergence of an agronomic *episteme*, divorced from a wider agrarian discourse, represents just such a separation of knowledge from context, in the process of which the corresponding *techne* is rendered obsolete. In this process, the very epistemological fabric of the community is also rendered obsolescent and survives only in the diminished form. This is the epistemological precursor of the corrosion of the prime value of sociality. It is in such situations, where technological change creates a (previously meaningless) distinction between technical knowledge and broader modes of knowing, that utilitarian criteria for assessing such change lead to the same conclusions as broader criteria involving cultural reproduction. For change of this sort tends simultaneously to involve a reduction of options (and an increase of risks) for individuals and groups and leads to a corrosion of core cultural values”

- Appadurai (1990:188) in *Technology and the Reproduction of Values in Rural Western India*

OMA farmers have changed significantly in their practices, in large part because of political and discursive educational strategies. A concomitant of this ‘modernization’ process has been a dissolution of communal values. Whereas farmers traditionally worked for the betterment of their family and their community, such values and actions exist primarily in memory now (Randolph 1931). Farmers traditionally considered themselves stewards of the land and their animals because their future generations would depend upon the same land and livestock for their livelihood. Now, after a half-century of propagandistic campaigning to convince farmers that humans have mastered nature and therefore need not concern themselves with environmental reliance, some farmers strictly follow economic-oriented approaches to agriculture. Some Ozark farmers, however, continue to perceive themselves as agrarian stewards. This section introduces contemporary Ozark farmers’ mental perceptions of their farming environments; agroecological, socio-cultural, and historical, through Thematic



Apperception Tests (TATs), Semantic Differentials (SD), and their discussion of agricultural practices, changes, and memories in semi-structured interviews (see Appendices C and D).

### **Perceptions of the Agroecological Environment**

#### **Nature and Wild Plants**

Ozark farmers expressed a reverence for the abstract concept of ‘nature.’ When asked to rank the concept ‘nature’ on a SD, they invariably ranked it positively, with 92.2 percent ranking it positively (see Figure 6.1). When asked to rank ‘Wild Plants’ however, which indisputably belong within the domain ‘nature’, farmers varied in their rankings, with 17.6 percent choosing a negative ranking and 13.7 percent ranking ‘Wild Plants’ as neutral. Table 6.1 and figure 6.2 display these rankings of ‘Wild Plants.’

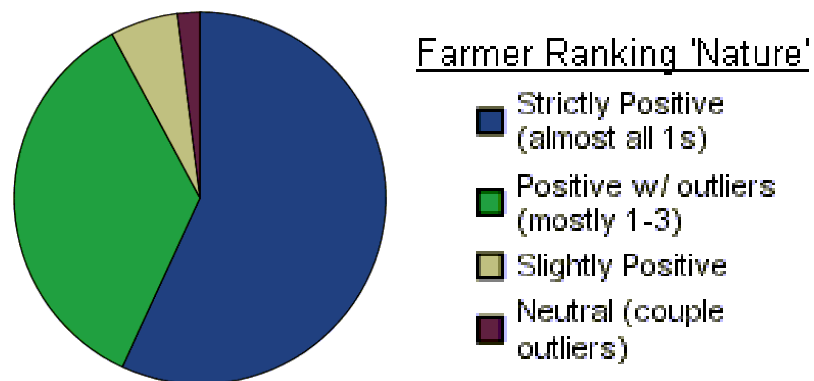


Figure 6.1 OMA Farmer Ranking of ‘Nature’

Table 6.1 Ranking of 'Wild Plants'

| Farmer Ranking 'Wild Plants'             | Frequency | Percent |
|------------------------------------------|-----------|---------|
| Wild Plant Perception Positive (General) | 35        | 68.6    |
| Wild Plant Perception Negative (General) | 9         | 17.6    |
| Wild Plant Perception Neutral            | 7         | 13.7    |
| Total                                    | 51        | 100.0   |

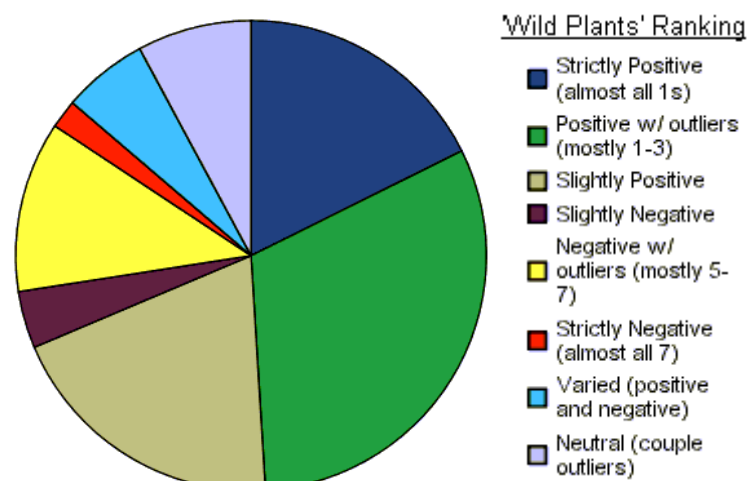


Figure 6.2 OMA Farmer Ranking of 'Wild Plants'

Discrepancy between ranking of nature and wild plants reflects the ideological filter that has modified traditional perceptions of wild plants. Throughout the twentieth century, agricultural media, Extension lectures and pamphlets, and corporate propaganda in the feed store portrayed wild plants strictly as an obstacle and nuisance, a 'weed' rather than a potential resource (see appendix E). For technocratic rationality to take hold in rural areas, corporate interests needed farmers to view wild plants not as potential medicines, animal forages, or 'sallet' ingredients, but rather as 'weeds'. Rappaport (1979:101) explains; "A model dominated by, let us say, the postulates of economic rationality would propose that an ecosystem is composed of elements of three general sorts: those that qualify as "resources," those that are neutrally useless, and those

that may be regarded as pests, antagonists, or competitors.” Technocratic rationalization devised a previously non-existent role for modern chemistry and technology by convincing farmers that all wild plants needed to be eradicated.

While Ozark farmers of the past perceived wild plants as potentially useful, contemporary Ozark farmers vary in their perceptions of wild plant utility (see Table 6.2 and Figure 6.3). Table 6.2 demonstrates that approximately 75 percent of farmer-participants born and raised in the Ozark region have maintained their traditional belief in wild plant utility, while only approximately eight percent have abandoned that perception. The three non-local, non-intergenerational farmers who ranked wild plants as ‘very useful’ are members of the Missouri Organic Association (MOA). Their ‘outlier’ responses reflect a distinct ideology from both local traditionalism and technocratic rationality. When figuring non-‘organic’, non-local farmers’ perceptions of wild plants, four of seven, approximately 60 percent, view wild plants as ‘somewhat’ or ‘very’ useless and only one of seven perceives them as useful. The only farmers who perceive wild plants as ‘very useless’ were not born into farm families. These findings illustrate that intergenerational farmers raised in the Ozarks, opposed to non-local, non-intergenerational farmers, maintain a belief in the utility of wild plants.

Table 6.2 Ranking of ‘Wild Plant’ Utility based on Intergenerationalty and Locality

|                   |       |       | Perception of Wild Plant Utility based on Semantic Differentials |                                         |                            |                                          |                                    | Total |
|-------------------|-------|-------|------------------------------------------------------------------|-----------------------------------------|----------------------------|------------------------------------------|------------------------------------|-------|
|                   |       |       | Wild Plants<br>Very Useful<br>(1)                                | Wild Plants<br>Somewhat<br>Useful (2,3) | Wild Plants<br>Neutral (4) | Wild Plants<br>Somewhat<br>Useless (5,6) | Wild Plants<br>Very<br>Useless (7) |       |
| Raised by farmers | Yes   | Local | 10                                                               | 18                                      | 6                          | 3                                        |                                    | 37    |
|                   |       | No    | 1                                                                | 0                                       | 0                          | 1                                        |                                    | 2     |
|                   | Total |       | 11                                                               | 18                                      | 6                          | 4                                        |                                    | 39    |
| No                | Local | Yes   | 1                                                                | 1                                       | 1                          | 0                                        | 1                                  | 4     |
|                   |       | No    | 3                                                                | 0                                       | 2                          | 2                                        | 1                                  | 8     |
|                   | Total |       | 4                                                                | 1                                       | 3                          | 2                                        | 2                                  | 12    |

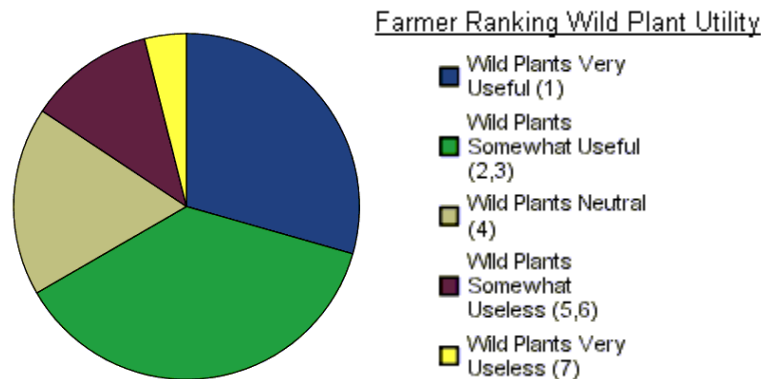


Figure 6.3 OMA Farmer Ranking of 'Wild Plant' Utility

Traditional Ozark farmers experienced troublesome, dismal years when droughts destroyed their crops. In these years, they were forced to supplement the small amount of crops or livestock that survived by hunting and foraging in order to procure sufficient food for their families. According to Berkes (1999:95), when a social group endures times of need, when their necessary resources are limited, they develop a conservation ethic, defined as 'the awareness of one's ability to deplete or otherwise damage natural resources, coupled with a commitment to reduce or eliminate the problem'. The elders and community leaders pass this conservation ethic on to subsequent generations to ensure that if and when they endure lean times again, they will have preserved their natural resource base. Ozark farmers who experienced the agricultural depressions of the late nineteenth and early twentieth centuries developed a strong utilitarian/conservation ethic. The utilitarian ethic of Ozark farmers consists of a heightened awareness and use of the resources that the natural surroundings proffer and may explain the retention of a perception of wild plants as useful. Ozark farmers related stories to me about their parents' and grandparents' difficulties and foraging behavior and communal agricultural activities that alleviated the burden of such hard times (see chapter 3). Ozark subsistence farmers of the Depression era were attuned to their ecological surroundings and frequently

foraged for food and medicine. A farmer described the plant knowledge of an old Ozark farmer who tried to teach her and expressed her chagrin for not retaining the knowledge:

When I rented that farm it was real neat because there was this 90 year old guy that lived there and he really liked me because I would talk to him and help him get in his wood in the wintertime. He had so much information. He showed me plants, but I can't remember them now. I wish I would have recorded it or written it down. He showed me plants that I could make medicine out of and there was one kind that was good for a bellyache and different remedies for horses and I used a lot of that stuff. Most of the plants, we'd go out in the field and I wouldn't pick them unless I was with him, and he knew exactly what they are, and you could boil this for a stomachache and I used a lot of that stuff and it helped, but I couldn't go out now and pick it. He learned it from life.

Ozark farmers, and the rural population in general, have lost a significant amount of ecological knowledge that their ancestors would have passed on to them. The delegitimization of traditional knowledge has tempered, but not destroyed, the Ozark conservation ethic. A full-time traditional farmer illustrates:

People have just lost their connection to the land. They've completely lost their connection to the land. People even in this country (region), even in the rural areas, have lost it, they don't know anything about it. We talked about that with her dad who's sixty-one years old. They're the last generation to know anything about it. Her dad grew up on a little old farm during hard times. But their kids, they grew up where they raised their food and grubbed out a living. But I guess it's a benefit of the prosperity in this country, but now you've got three generations of people, between 1960 and now, they don't know anything about that.

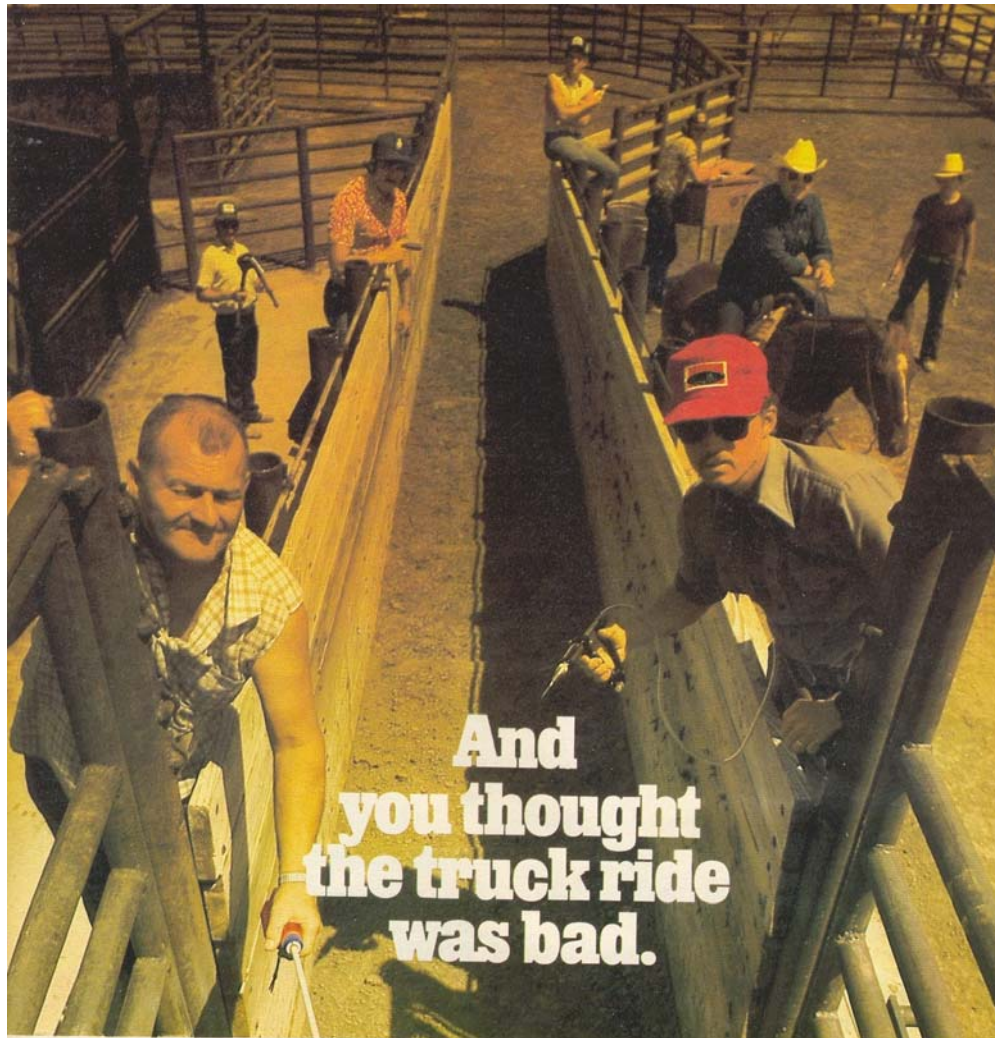
He and his wife then discussed, in a rather comical way, the possible effects of the delegitimization process that has resulted in a population without agroecological knowledge:

Him: The scary thing, if some catastrophe happens, how are these city people gonna get food if they can't go to the grocery store for some?

His wife: They're gonna be huntin' somebody up to help em out.

Him: My neighbor says they'll come out here and kill us (laughing.). He swears, they'll come out and say, 'Look at so and so, look at what he's got. Look at all that.' And they'll come out here and kill ya for it and then they'll be like, 'Now waddawe do with it now.' That's his exact thoughts. 'Well, what do we do now? Now that he's gone, the only guy that knew what to do with it, now that he's gone, what do we do now? We've got all this now. What do we do?'

## Animal Husbandry



You're a calf. You've just been weaned, run through an auction, herded onto a noisy truck, and hauled for hundreds of miles. Stressed and susceptible to shipping fever, now you're faced with *this*.

O.K., you're *not* a calf. But you know how stress can hurt gains. So you'll want to do what you can to offset it....Stress costs you money, and there's no getting away from it. But you can keep from paying more than you have to. Ask your supplier for his feeds containing S 700.

Cyanamid Agricultural Division

Figure 6.4 Livestock Stress Advertisement (Farm Journal ©March 1981)

The traditional intimate relationship between farmer and animals has changed dramatically. Animals no longer provide labor on traditional farms because they have been replaced by mechanized technology. Farmers interact with, and perceive their animals differently. While Ozark farmer-participants consistently stated their affection for the farming lifestyle, and working with animals in particular, some have come to believe in the modern agricultural business model that prioritizes profits and scale over the well-being of animals. Technocratic rationalization convinced them that to compete in the modern agricultural economy, a farmer must increase scale and turn over high numbers of animals consistently. While traditional farmers perceived the alleviation of animal stress as paramount, both for economic and ethical reasons, contemporary farmers engage in practices that increase the stress of their animals. Figure 6.4, the advertisement featured above, portrays the widespread contemporary method of livestock sale; sale barns and livestock auctions, which are commonplace in the study region (Farm Journal ® March 1981).

The agribusiness industry developed confinement operations (CAFOs) that tightly enclose thousands of animals (or more), chicken, hogs, or cattle primarily, and repeated *ad nauseum* in various agricultural media that farmers had to ‘get bigger’ and that CAFOs were the inevitable next step in agricultural progress (see appendix C, image 7). An advertisement in the November 1965 Farm Journal ® explained this inevitability of ‘stress conditions’ for livestock:

TYLAN ® provides a new and powerful antibiotic action against serious diseases that can strike your cattle or hogs.... Unique and created specifically for agriculture, Tylan delivers a swift, positive, hard-hitting antibiotic activity never before available.... Stress conditions under which livestock must be raised today make it easier for disease outbreaks to get started; crowding makes it easier for these infections to spread....

Figure 6.4 also illustrates the agribusiness reformulation of animal stress as an inevitable part of modern agriculture that can only be alleviated through agri-pharm products (see Appendix E).

The primary objective of this strategy was to encourage the consumption of previously unnecessary antibiotics, hormones, and medicated feeds. Traditional farmers raised animals on their land without purchasing feed or pharmaceutical inputs, but as technocratic rationalization spread, and the government supported large-scale operations to make them appear efficient, many small farmers came to believe in the superior efficiency of large-scale operations.

In the late 1950s, an electrician from St. Louis who worked for Sears and Roebuck, visited OMA on vacation with his family. He was so enthralled with the beauty and serenity of the region, and the price of land was so cheap, that he purchased some wooded acreage to build a vacation home. After several years of visiting on holidays, his family decided to move down to their vacation home in the Ozarks permanently; they would become farmers. They followed scientific management protocol in their agricultural endeavors. They focused on one species from the beginning; hogs. While they began with their hogs on the ground, just like local farmers, they constantly ‘improved’ their operation, erecting new and more technologically advanced confinement buildings for the hogs. Now, they are the last CAFO left in the region and they are struggling to survive as an agricultural business. They have maintained their operation despite incredible fluctuations and drops in the prices of hogs, designed by corporate agribusiness to squeeze out all family-run hog farms, and they literally earn only pennies on each hog they produce. They have endured through familial cooperation; approximately five families, all the children of the original couple that moved down, all share in the work-load and they have diversified through heavy equipment contracting and hauling.

Their distinct agricultural trajectory symbolizes the on-the-ground effects of ideological differences between the local population and these transplants, and the local reactions to them provide insights into this ideological encounter between exogenous technocratic rationality and



traditional Ozark worldviews. Local farmers befriended and assisted the ‘citified furriners’ when they first arrived, trading them hogs and cattle for a set of furniture they brought from St. Louis. Local banks loaned them money, expecting them to go bankrupt quickly because of their inexperience as farmers. When I brought up the issue of CAFOs in interviews, local farmer-participants frequently cited this operation, referring to it sometimes with respect, but also with suspicion and a bit of contempt. One diversified, full-time conventional farmer revealed his perception of the local CAFO as an agricultural enterprise; “They’re a special case too. They built an operation from nothing down there, except their finances, I guess. They came in with their money and they were able to do an excellent job of farmi....” He catches himself about to refer to their agricultural operation as ‘farming’ and stops, “...er’, raisin’ hogs. There’s none better around here.” This farmer’s unstated acknowledgement that he does not consider a CAFO to be ‘farming’, illustrates a belief shared by many Ozark farmers. They believe in farming as a noble pursuit that involves cyclical agroecological practices; a true farmer does not merely raise one product, species, or crop; but rather, cultivates the soil, plants a crop, harvests the crop, feeds the crop to her/his animals, family, and neighbors, while s/he simultaneously raises animals from their birth, cares for them, feeds them, and selectively harvests them. As another disillusioned farmer explains; “The true farmer is fading away fast. All you got now is hobby farmers and weekenders, unless it’s a corporation. That’s not true farming, that’s business, that’s all that is, something to make money. I’ve got nothing against making money, but when you take away what this country was built by, then you’re taking away a major part” (Interview 20).

The intergenerational, local farming population has maintained a devotion to the Jeffersonian agrarian tradition and myth. An Old Stock farmer expresses his belief that the family running the local CAFO operation perceives the goal of farming differently; “Well I’m gonna add this,

and I ain't diggin' 'em at all, I'm here to make a living on it. They're there for a different reason, because there ain't no way. But I'll add this, the dad retired from Sears and Roebucks where he was an electrician" (Interview 29). This statement not only stresses the local perception that the CAFO operation is not run by real 'farmers', but also reflects a profound ideological difference in the region, further illustrated in table 6.3 in contemporary perceptions of the traditional farming practice of free range hogs.

Free range hogs used to be extremely prevalent in the region. Within the last two decades, however, they have undergone a rapid abandonment (see appendix C, image 3). I examined farmer-participants perceptions of various farming practices through a TAT cognitive method in which I displayed farm scene pictures and asked them to simply state what came into their mind upon seeing the image. I then coded the responses based on trends in the data. The codes are as follows: 1) personal experience, 2) positive, 3) utilitarian, 4) not here or not now, 5) negative, and 6) economic rationality. Table 7.3 represents participants' coded responses to an image of free range hogs.

Traditional Ozark farmers become especially nostalgic when they see pictures of free range hogs, as indicated by the fact that the responses of almost 22 percent of participants are ranked as '1,2, and 4', which represents personal experience, positive emotion, and no longer present, respectively. Farmers believe that they have been done an injustice by government and agribusiness companies because in the past they raised hogs and earned a relatively fair price. Now, however, because of consolidation by vertically integrated corporations and government subsidies, U.S. farmers lose money raising hogs, unless they can produce feed for nothing. Approximately sixteen percent of the participants responded negatively to the image of free range hogs (1,4, and 5 represents personal experience, not here or now, and negative emotion,

respectively) because they perceive free range animals, as opposed to confinement operations, as an inferior agricultural method that belongs in the past. These farmers believe in technocratic rationality. Table 6.4 further illustrates that contemporary farmers who were not raised by farmers (non-intergenerational) are much more likely to respond negatively to the image of free range hogs. 50 percent of their responses are coded as ‘1,4, and 5’ and ‘negative’ compared with six percent of local, intergenerational farmers.

Table 6.3 Responses to Image of Free Range Hogs<sup>50</sup>

| Response to Free Range Hogs (TAT) | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Personal Experience               | 18        | 35.3    |
| Positive (Emotional)              | 1         | 2.0     |
| Not Here / Not Now (past)         | 5         | 9.8     |
| Negative (Emotional)              | 3         | 5.9     |
| Economic                          | 1         | 2.0     |
| 1, 2, and 4                       | 11        | 21.6    |
| 1, 4, and 5                       | 5         | 9.8     |
| Total                             | 44        | 86.3    |
| Missing                           | 7         | 13.7    |
| Total                             | 51        | 100.0   |

Table 6.4 Responses to Image of Free Range Hogs by Intergenerationality

|                   |     | Perception of Image of free range hogs (TATs) |                      |                           |                      |          |             |             | Total |
|-------------------|-----|-----------------------------------------------|----------------------|---------------------------|----------------------|----------|-------------|-------------|-------|
|                   |     | Personal Experience                           | Positive (Emotional) | Not Here / Not Now (past) | Negative (Emotional) | Economic | 1, 2, and 4 | 1, 4, and 5 |       |
| Raised by farmers | Yes | 18                                            | 0                    | 3                         | 1                    | 0        | 10          | 2           | 34    |
|                   | No  | 0                                             | 1                    | 2                         | 2                    | 1        | 1           | 3           | 10    |
| Total             |     | 18                                            | 1                    | 5                         | 3                    | 1        | 11          | 5           | 44    |

The local CAFO owner sums up the perspective of a farmer steeped in the discourse of technocratic rationality in his response to the image of free range hogs:

Aahhh, the old days, lil’ hogs outside, a little brood house, hay bale for bedding, that for us was about thirty years ago. We built the shacks out for the sows and ran the boars out with the sows and took care of servicing and breeding and now we AI<sup>51</sup> about 90% and keep our sows and our gilts and replenish our herd that way. We got to a plateau and we couldn’t get

<sup>50</sup> ‘Missing’ in the tables refers to ‘no response’ to the image.

<sup>51</sup> AI refers to artificial insemination

beyond that and so we went into PIC (Pig Improvement Corporation) stock and that also makes me think of the erosion we used to have on the dirt lots. The sows, I don't care if you give 'em twenty acres, they can clear that, and if you give 'em two and they'll have everything that's green dead. They chew the bark off the trees, which kills the trees, and I don't care what it is, it could be briars and they'll tear it up. That doesn't happen anymore because in this area in farming, if you're going to do it full time, you have to have a lot of one item. It's the Walmart theory. You market a lot and not a high profit margin. So, you don't have time to play with chickens or some other small animals running around. You really don't have time to do that. You try to professionalize and maximize and use your knowledge of one or two species and normally that's the large animals, hogs or cattle, cuz' this ground works well for it.

The one advantage we had over what you could call the generational farmer, one who had generations of farming behind him, was that when we came in we were not accustomed to farming a specific way. We were used to change, so we constantly updated our methods and let it evolve, whereas the local people were not at all accustomed to change. We used new buildings for farrowing and the other people did it how their father had done it and their grandfather had done it and you still see hogs on dirt out here, but it's still changing yet, and that's probably a thing that will change too. You won't see that much longer. We have gotten used to change and you just work with it, instead of trying to fight it. People want to keep it the way it was, but you can't work with tools that are thirty years old and make it today. It's all about staying on the technological edge.

Due to the CAFO owner's devout belief in technocratic rationality, he perceives his strategy as rational and appropriate. He perceives free range methods as belonging strictly in the past and believes that the only appropriate agricultural strategy involves continuous adoption of the most recent scientific and technological innovations.

Traditional Ozark farmer-participants, on the other hand, perceive CAFOs to be in violation of several tenets of their belief system. First, they accumulate waste in one location, point-source pollution in ecological terms. Second, they create an unnatural situation whereby animals that belong in contact with their ecosystem are forced to exist on an artificial surface, concrete, for their entire (although extremely short) lifetimes. Third, CAFOs do not engage in a diversified approach and thereby preclude sustainability. Fourth, they aim for quantity and therefore become 'too big', and concomitantly lose the quality, not only of the taste of the meat, but also

of the agricultural lifeway. A younger, more modern farmer from a well-respected OMA farm family expresses his thoughts about confinement and the effects on food quality:

Well, the eggs, there's not anybody that don't know that when chickens run outside and pick up bugs and eat grass, the eggs taste the best. They absolutely taste the best, that's just like letting these hogs out on these feed floors, always did say that a hog running out on the dirt will always taste better than that mass produced. They just go through and all kinds of different foods and nutrients. They chew on rocks and everything, sticks, whatever. It's a need. They feel a need for something. I'm not against confinement because we had some hogs confined. I'm not necessarily against confinement at all, if you get big, what do you do? You're gonna have a 1000 sows like the .....s do, and raise 20,000 pigs, you can't have that many hogs running in the country, the EPA would have you shut down. They'd have that many hogs - could you imagine with that many hogs, there wouldn't be a blade of grass nowhere (laughing) (Interview 32).

Most Ozark farmers do not believe that there should be restrictions on farmers, but neither do they believe that a true farmer should amass as many animals as contemporary CAFOs confine in buildings. The previous quote reveals that traditional farmers understand the superiority of animals raised on the land, yet technocratic rationality influences their subjective interpretation. They consistently referred to contemporary, corporate, industrial agriculture as 'too big' and believed that it was a symptom of the profit motive that currently drives agriculture. When shown the TAT image of a cattle feedlot, they responded in various ways (see appendix C, image 7). Some expressed dismay at the scene, relevant to the aforementioned belief that animals should not be amassed in such numbers for health and ethical reasons, but many displayed no negative emotion, simply stating matter-of-factly what they saw.

Responses to the cattle CAFO image summarized in table 6.5 reflect the increasing desensitization to, and acceptance of animal stress as an inevitable component of contemporary agriculture. While some old-time Ozark farmers spoke out against CAFOs, represented by the ~seventeen percent that reacted negatively to the image, many were resigned to the economic rationality of the practices. A farmer responded to the image in an exemplary, matter-of-fact

way, explaining both the marketing and business rationality and irrationality of the CAFO approach:

I see a big feed lot. First, I see a bunch of white cattle, which tells me they ought to be black, from a marketing standpoint. It's been so ingrained with the certified Angus beef and all that. The guy is giving up a lot of profit potential by not having the right kind of cattle there. I see big ag, big money investment, somebody that's bore with a big auger, that's going to try to make a lot of money on each little item. The guy that owns a trucking company and has a thousand trucks, each truck don't make him but 1000 dollars a year, but that's a million dollars. So that's what I see there. He's got a thousand head of cattle and each one may make him ten bucks. Right now he's gonna make 250 dollars, make him rich but this time next year you might be losin' that (Interview 12).

Table 6.5 Responses to Image of Cattle CAFO

| Response to Image of Cattle CAFO |        | Frequency | Percent |
|----------------------------------|--------|-----------|---------|
| Personal Experience              |        | 10        | 19.6    |
| Positive (Emotional)             |        | 2         | 3.9     |
| Not Here / Not Now (past)        |        | 12        | 23.5    |
| Negative (Emotional)             |        | 9         | 17.6    |
| Economic                         |        | 5         | 9.8     |
| 1, 4, and 5                      |        | 1         | 2.0     |
| Total                            |        | 39        | 76.5    |
| Missing                          | System | 12        | 23.5    |
| Total                            |        | 51        | 100.0   |

Another young farmer corroborates the business approach:

Dad and I have been building a commercial cow herd, for, he's been in it for 30 years and I've been helping and building mine for 17. The numbers I own one hundred percent are 30 commercial and 10 registered cows, and those are registered Angus, and dad, 100 percent his, are about 175-200 commercial cows and no registered Angus, and my grandfather, who is elderly, about 88, and we take care of his herd for him, and he maintains about 60 commercial cattle (Interview 19).

While Ozark farmers recognize the business angle and current economic rationality of CAFOs, most believe they violate basic tenets of their traditional knowledge system. As another Ozark farmer responds to the cattle feedlot image:

Again a commercial feedlot, where the cattle are pretty well kept in close quarters. I guess you wonder about the sanitation of a place like that and you wonder about the quality of meat coming out of there. Although that to me looks like a big operation and I

don't know if there would be any fun in it. The people running it wouldn't have fun because you have to be at such a large scale, you're so stretched out trying to meet all your commitments that you couldn't enjoy it (Interview 11).

## **Perceptions of the Sociocultural Farming Environment**

### **Agricultural Extension and Academia**

Traditional Ozark perception of exogenous knowledge has changed dramatically. Although many Old Stock farmers traditionally distrusted formal education, especially the Agricultural Extension Service, many now consider it useful and helpful. Many Old Stock farmers seem unaware of the hostility their ancestors felt toward the first Extension agents, the arrogant outsiders that belittled their 'backwards' ways and beliefs. They currently perceive Extension services as a beneficial and free service that helps 'city' farmers who move into rural areas. The primary reason for this change is the gradual acceptance of Extension as a service rather than the initial reaction that Extension was meddling in local affairs and discrediting local practices. As technocratic rationalization spread throughout rural areas, people have become assimilated into popular U.S. culture; they have come to see themselves and their communities as less isolated and unique and more as part of the 'great nation' USA. Therefore, Ozark farmers, like those in other rural regions, had to accept the federal mandates and programs created on the nation's behalf. A few traditional farmers express discontent and/or hostility towards the Extension Service and their activities, and a few others spoke negatively about the way Extension attempts to force their ideas on farmers, but for the most part farmers believe that Extension is a benevolent force in their community. Table 6.6 presents the general ranking of 'Extension agents' by the farmers-participants.

Table 6.6 Ranking of 'Extension Agents'

| Ranking 'Extension Agents'        | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Strictly Positive (almost all 1s) | 3         | 5.9     |
| Positive w/ outliers (mostly 1-3) | 29        | 56.9    |
| Slightly Positive                 | 7         | 13.7    |
| Slightly Negative                 | 3         | 5.9     |
| Negative w/ outliers (mostly 5-7) | 3         | 5.9     |
| Varied (positive and negative)    | 2         | 3.9     |
| Neutral (couple outliers)         | 4         | 7.8     |
| Total                             | 51        | 100.0   |

Table 6.7 Ranking of 'Extension Agents' by Ancestral Ethnicity

| Ethnicity          | Perception of Extension Agents from S.D. |                                   |                   |                   |                                   |                                |                           | Total |
|--------------------|------------------------------------------|-----------------------------------|-------------------|-------------------|-----------------------------------|--------------------------------|---------------------------|-------|
|                    | Strictly Positive (almost all 1s)        | Positive w/ outliers (mostly 1-3) | Slightly Positive | Slightly Negative | Negative w/ outliers (mostly 5-7) | Varied (positive and negative) | Neutral (couple outliers) |       |
| Old Stock American | 2                                        | 20                                | 3                 | 1                 | 0                                 | 0                              | 2                         | 28    |
| German             | 1                                        | 6                                 | 3                 | 2                 | 3                                 | 1                              | 2                         | 18    |
| N/A non-local      | 0                                        | 3                                 | 1                 | 0                 | 0                                 | 1                              | 0                         | 5     |
| Total              | 3                                        | 29                                | 7                 | 3                 | 3                                 | 2                              | 4                         | 51    |

To my surprise, the German farmer subset was the only one in my study that ranked Extension negatively (see table 6.7). Based on the German predilection for formal education, one would assume that they would view university Extension in a strictly positive light. German farmers who rank Extension negatively have a predominately technocratic worldview and perceive their agricultural practices strictly as a business. They feel that Extension is superfluous because it does not assist them any longer. Extension has become obsolete for the agriculture industry, therefore the government no longer receives pressure from corporate interests to maintain it (Wolf and Wood 1997). It was necessary and useful to agribusiness in the past because it served to spread technocratic rationalization, and therefore, farmer dependence on agricultural inputs. Yet now, commercial farmers feel completely and unreservedly dependent on agribusiness technology to stay out of bankruptcy, and therefore, they rely strictly on



agribusiness for their information (Wolf and Wood 1997). Modern farmers in the study corroborated this point:

There are other places other than Extension that are on the cutting edge now. And you go there. We go to the industry and we worked with people based out of Columbia. There are some folks up there at MU. We go up there to work with veterinarians and their pathology department for animals and it was interesting to work with them (Interview 2).

An older farmer illustrates the more traditional hesitancy to accept outside ideas and confirms the contemporary irrelevance of Extension to modern farmers:

Extension agents are helpful – if you ‘ve got enough sense to ask the right things and not pay attention all the time. Yeah, we’ve used ‘em. They’ve given me advice, I wouldn’t say it’s good, but it all depends on the guy. There’s ... a guy. He’s not really an agent. He helps these small farmers supposedly, and it has to be city farmers, one that’s in the business ain’t really gonna, you can get more information from the industry and such than from them (Extension). They have to make a job for themselves.

“So, they’re not really useful to the large-scale farmer?”

No, no, he goes to the feed store or corporation. I’m not sayin’ they all do that, but that’s where most the information comes from. The people sellin’ the feed, sellin’ the products know more than the Extension. That’s the deal of Extension, they’ve got a place, I guess, but....They used to be depended on – not very much anymore (Interview 3).

Once technocratic rationality takes hold, farmers become unabashedly dependent upon agribusiness, not only for inputs, but also for knowledge.

Most farmers ranked ‘Extension Agents’ favorably on the SD, but in-depth interviews revealed a more nuanced perception of University Extension and formal education in general. Traditional farmers gleaned information from Extension and did not haphazardly apply their suggestions (Rhoades 1990). A Baptist farmer-preacher in the region symbolizes the traditional farmer perspective:

“Did you work with Extension?”

No, nope –I’ve never fooled with any farm deals that they had because most of ‘em didn’t coincide with what I wanted to do. One guy come here and wanted to go in my fields and take soil test and I say, ‘Why!?’ He said, ‘Well, we’re trying to compare.’ I

said, 'No, if it's something the government's doing you just don't take no soil test off mine.' And he said, 'Well, you'll have to.' And I said, 'I don't have to! I'm payin' taxes on this and you just stay out of there!' Then they come back and they want to know how much hay I cut off this acre and that acre and how much could I have cut if I hadn't a pastured it. I said, 'I don't see that that's any of your business.' And they said, 'Well, we'll have Mr. so and so come see you and you'll pay a fine or go to jail.' And I said, 'I'm ready, you send 'em.' And I haven't seen any of 'em since. But, that's just exactly what they told me (Interview 33).

While traditional Ozarkers harbored hostility towards exogenous, dominating knowledge systems, contemporary farmers' criticism is more tempered and mild. Farmers frequently cite examples of friends, neighbors, or relatives who engaged in modern agricultural endeavors and failed, being forced into bankruptcy and out of farming altogether. When farmers adopted industry recommendations of high investment, input-intensive agricultural approaches, their operations usually failed. Examples of modern failure reinforced traditional beliefs in the inferiority of exogenous knowledge and its application in the unique Ozark agroecosystem. The following account related by an Old Stock farmer colorfully depicts the presumptuousness of the exogenous knowledge system, the inappropriateness of modern approaches on the rugged Ozark landscape, and the concomitant reinforcement in traditional Ozark farmers' minds that 'newfangled' ideas were not superior to their time-tested, local agricultural knowledge:

"Did you work with Extension?"

No, not much. They had book learnin' and I was always on the....well, I ain't throwin' off on nobody that's got a education, you got to have it now, but they had a lot of ideas that just didn't seem to work. That nephew of mine, ... he went to the University of Missoura for 3 or 4 years. He got a degree in agriculture. Boy, he come back and he was gonna cut a fat hog. He wanted me and my brother and both of us to go in with him and form a corporation and all this and all that and I thought about it a little bit and I told him, 'Well, I tell you what, I'm just gonna wait a little bit and see how things go.' In about 5 years he went under. I'm telling you that thing was big money. But he couldn't sweat it out of this ground. This ground down here isn't heavy enough, good enough, to grow enough bushels per acre to compete.... There was a lot of 'em that went under. They bought a lot of stuff and then they couldn't make the payments. The interest was pretty high then and the interest just ate em up.

"What kept you out of that? Did you just have a gut feeling?"

I just had a gut feeling that the way he was talking, he was gonna try to get too big too fast, and the reason things like that don't work, well, my brother was kind of in with it. He managed, he had his whole place in it he'd had all his life, that was his son, and they was in it together and he finally, when he seen what was gonna happen, he managed to get into that corporation and get his house and five acres of land out of the corporation and back in his name and that's all he ended up with. He lost what he had worked and saved up all his life. He lost all his land (Interview 28).

### **Modern Agriculture: Industrial Equipment and Agrichemicals**

“If they never made a tractor any bigger than the M International or A John Deere, the farmer would never have gotten in trouble.”  
“Why do you say the farmer got in trouble?”  
“Well, he just got too big, too big” (Interview 29).

This quote summarizes a common viewpoint among Ozark farmers regarding conventional, modern agriculture in the United States. They emphasize that it is just ‘too big’ or too expensive. Many believe that the scale required to participate in contemporary, commercial agriculture precludes Ozark farmers because it is inappropriate for their landscape. As one farmer responded to the image of a combine (see appendix C, image 2); “Whoooeey. That’s a hundred and thirty-thousand dollar combine. That’s not for this country.” Another farmer corroborated:

A lot of money, a lot of money invested in a piece of machinery. Big time agriculture as a business. The way things are now compared to the way they would have been years ago. There’s a lot of technology involved in that piece of machinery. That’s a \$100,000 dollar piece of equipment. It’s another part of the world, away from where we live (Interview 12).

Table 6.8 summarizes farmers’ responses to the TAT image of a modern combine. Although many believe that combines do not belong on Ozark farms, as exemplified by the 48.8 percent whose responses were coded as ‘not here/not now’, fourteen of fifty-one respondents spoke of combines from personal experience.

Table 6.8 Responses to Image of Combine

| Response to Image of Combine (TAT) | Frequency | Percent |
|------------------------------------|-----------|---------|
| Personal Experience                | 14        | 27.5    |
| Positive (Emotional)               | 3         | 5.9     |
| Not Here / Not Now (past)          | 21        | 41.2    |
| Negative (Emotional)               | 1         | 2.0     |
| Economic                           | 1         | 2.0     |
| 1, 2, and 4                        | 2         | 3.9     |
| 1, 4, and 5                        | 1         | 2.0     |
| Total                              | 43        | 84.3    |
| Missing                            | 8         | 15.7    |
| Total                              | 51        | 100.0   |

Despite traditional frugality and conservatism, some farmers purchased and utilized combines and other industrial agricultural equipment. Many farmers currently perceive combines as inappropriate for the Ozark landscape, but others explain that the varied topography, which includes vast expanses of flat pasture and cropland, make combines useful for the harvest. Ozark farmers who own combines typically purchase them used and are especially knowledgeable mechanics. Farmers who now speak of the inappropriateness of combines in the Ozarks frequently hired their services to harvest their grain or owned a combine in the past. A combine-owner explains; “When I turned 14 we had two combines and we did a lot of custom work. We combined over 3000 acres with two of those combines a year. Combines were not common at that time, and there was a lot of grain being produced in the past, so they were in high demand” (Interview 27).

Ozark farmers are bitter that they can no longer participate in the U.S. agricultural system. When they view an image of a combine, they are torn. They simultaneously see a symbol of farming and large-scale agriculture, the embodiment of that which restricts their participation in farming as a livelihood. They also see that which indebted either themselves,

their friends, and/or their neighbors, and drove some local farmers so far into bankruptcy that they had to abandon farming altogether.

Farmers invariably referred to the use of agrichemicals as a ‘necessary evil’, which presents two distinct, discursive elements that require analysis. First, ‘necessary’ represents the influence of technocratic rationalization. Farmers now believe that agrichemicals are necessary, whereas in the past, farmers did not use, nor need, agrichemicals to produce sufficient food. Secondly, ‘evil’ illustrates their belief that synthetic products, both because of their possible damage to the natural environment and their prohibitive cost, contrast with their traditional value system of frugality and reverence for the natural world. Table 6.9 represents farmers’ responses (coded by the researcher) to an image of an agrichemical spray rig spraying a field (see appendix C, image 6). The responses are varied; ~26 percent spoke of personal experience with agrichemicals, ~36 percent stated that they were not appropriate in the Ozarks because they do not grow monoculture crops that require them, and ~29 percent spoke negatively about agrichemical use.

Table 6.9 Responses to Image of Agrichemical Spray

| Image of Agrichemical Spray (TAT) | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Personal Experience               | 11        | 21.6    |
| Not Here                          | 15        | 29.4    |
| Negative (Emotional)              | 12        | 23.5    |
| Economic                          | 2         | 3.9     |
| 1, 2, and 4                       | 1         | 2.0     |
| 1, 4, and 5                       | 1         | 2.0     |
| Total                             | 42        | 82.4    |
| Missing                           | 9         | 17.6    |
| Total                             | 51        | 100.0   |

Many farmers spoke strictly from personal experience and attached little emotion to the image, whereas others spoke of negative experiences, such as the death of loved ones from excessive exposure to agrichemicals or leakage into their wells. Regardless of their experiences,

most intergenerational farmers perceived agrichemicals as useful. Because given the right circumstances, such as a serious infestation that threatened an entire crop, agrichemicals would come in extremely handy. As Table 6.10 indicates, the majority of Ozark farmers rank agrichemicals as ‘useful,’ with ~45 percent ranking them as ‘very useful’ and another ~35 percent ranking them as ‘somewhat useful’. Only seven of 51 respondents, or ~14 percent, rank agrichemicals as ‘useless’. Table 6.11 illustrates that four of these seven respondents who perceive agrichemicals as ‘useless’, were not raised by farmers. Four of twelve, or ~33 percent of non-intergenerational farmers perceive agrichemicals as very useless, compared to less than three percent of intergenerational farmers. Only one of the 28 Old Stock farmers rank agrichemicals as ‘useless’ and 25 of 28 rank them as useful. These numbers indicate that Old Stock farmers in the Ozarks, especially, in addition to Ozark farmers raised in a farming lifestyle, have learned to regard everything, even that which they may consider ‘evil,’ as potentially useful, whether it must be used regularly or not.

Table 6.10 Ranking of Agrichemical Utility

| Rank Agri-Chemical Utility       | Frequency | Percent |
|----------------------------------|-----------|---------|
| Chemicals Very Useful (1)        | 23        | 45.1    |
| Chemicals Somewhat Useful (2,3)  | 18        | 35.3    |
| Chemicals Neutral (4)            | 3         | 5.9     |
| Chemicals Somewhat Useless (5,6) | 2         | 3.9     |
| Chemicals Very Useless (7)       | 5         | 9.8     |
| Total                            | 51        | 100.0   |

Table 6.11 Ranking of Agrichemicals by Intergenerationality and Ethnicity

|                   |           |                    | Perception of utility of chemical fertilizers and pesticides based on Semantic Differentials |                                 |                       |                                  |                            | Total |
|-------------------|-----------|--------------------|----------------------------------------------------------------------------------------------|---------------------------------|-----------------------|----------------------------------|----------------------------|-------|
|                   |           |                    | Chemicals Very Useful (1)                                                                    | Chemicals Somewhat Useful (2,3) | Chemicals Neutral (4) | Chemicals Somewhat Useless (5,6) | Chemicals Very Useless (7) |       |
| Raised by farmers |           |                    |                                                                                              |                                 |                       |                                  |                            |       |
| Yes               | Ethnicity | Old Stock American | 14                                                                                           | 9                               | 2                     | 0                                | 1                          | 26    |
|                   |           | German             | 6                                                                                            | 4                               | 0                     | 2                                | 0                          | 12    |
|                   |           | N/A non-local      | 0                                                                                            | 0                               | 1                     | 0                                | 0                          | 1     |
|                   |           | Total              | 20                                                                                           | 13                              | 3                     | 2                                | 1                          | 39    |
| No                | Ethnicity | Old Stock American | 2                                                                                            | 0                               |                       |                                  | 0                          | 2     |
|                   |           | German             | 1                                                                                            | 4                               |                       |                                  | 1                          | 6     |
|                   |           | N/A non-local      | 0                                                                                            | 1                               |                       |                                  | 3                          | 4     |
|                   |           | Total              | 3                                                                                            | 5                               |                       |                                  | 4                          | 12    |

### Traditional Knowledge: Lunar Agricultural Calendars (Signs)

Traditional farmers have maintained openness to all potential sources of knowledge and resources because they have experienced hardship and strive to avoid it any way possible. Anything that alleviates their burden is considered potentially useful, as has been seen with the examples of wild plants and agrichemicals. Contrary to this open knowledge system is technocratic rationality, which makes obsolete any options, knowledge or resources, that originate outside of it (Habermas 1986, Appadurai 1990). The young farmer / agriculture teacher, J.R., whose father studied agriculture at the University of Missouri, related a story that juxtaposes this traditional, open belief system with the closed technocratic ideology. I asked him, “Has anyone ever tried to teach you any of these Ozark folk wisdoms? Like did your grandpa castrate by the signs?” He responded:

My grandmother did, so grandpa did whatever grandma said. So, yeah, they always castrated by the sign and dehorned by the sign and weaned by the sign and dad and I always thought it was a bunch of bunk. Then, a few years ago. [He pauses, thinking of how to explain.] Well, our time is very valuable, so we just do it whenever we both have a free weekend. Well, we used to. We lost a couple and grandpa said; “That’s because you didn’t do it by the signs.” So, ever since then, we’ve done it by the sign and we haven’t lost anything.

J.R. is a modern farmer. He believes in technocratic rationality. He farms as a business and as a lifeway. His father underwent technocratic rationalization because the agricultural

modernization movement was in full swing when he attended the university and then he indoctrinated his son. Despite their belief in science and technology as agricultural guides, the fact that a rooted, accepted alternative existed within their community forced them to heed the agroecological wisdom of their ancestors, despite the fact that technocratic rationality considered it ‘bunk’. Ozark non-farmers think that the ‘signs’ exist strictly in memory, in the traditional ‘backwards’ past of the region, and similar to J.R. before his past caught up to him, that they are ‘bunk’. Ozark farmers, however, believe in the signs (see Tables 6.12 and 6.13).

Table 6.12 Ranking of Utility of the ‘Signs’

| Ranking utility of the 'Signs' | Frequency | Percent |
|--------------------------------|-----------|---------|
| Signs Very Useful (1)          | 22        | 43.1    |
| Signs Somewhat Useful (2,3)    | 15        | 29.4    |
| Signs Neutral (4)              | 11        | 21.6    |
| Signs Somewhat Useless (5,6)   | 2         | 3.9     |
| Signs Very Useless (7)         | 1         | 2.0     |
| Total                          | 51        | 100.0   |

Table 6.13 Ranking of Utility of the ‘Signs’ by Intergenerationality and Ethnicity

|     |           |                    | Perception of Traditional Knowledge Utility Based on Semantic Differentials |                             |                   |                              |                        | Total |
|-----|-----------|--------------------|-----------------------------------------------------------------------------|-----------------------------|-------------------|------------------------------|------------------------|-------|
|     |           |                    | Signs Very Useful (1)                                                       | Signs Somewhat Useful (2,3) | Signs Neutral (4) | Signs Somewhat Useless (5,6) | Signs Very Useless (7) |       |
| Yes | Ethnicity | Old Stock American | 16                                                                          | 6                           | 4                 | 0                            | 0                      | 26    |
|     |           | German             | 4                                                                           | 6                           | 0                 | 1                            | 1                      | 12    |
|     |           | N/A non-local      | 0                                                                           | 0                           | 1                 | 0                            | 0                      | 1     |
|     | Total     |                    | 20                                                                          | 12                          | 5                 | 1                            | 1                      | 39    |
| No  | Ethnicity | Old Stock American | 1                                                                           | 1                           | 0                 | 0                            |                        | 2     |
|     |           | German             | 1                                                                           | 0                           | 4                 | 1                            |                        | 6     |
|     |           | N/A non-local      | 0                                                                           | 2                           | 2                 | 0                            |                        | 4     |
|     | Total     |                    | 2                                                                           | 3                           | 6                 | 1                            |                        | 12    |

They believe in them because they have utilized them throughout their lifetimes and know their efficacy. Table 6.12 illustrates Ozark farmers’ devout belief in the utility of the lunar calendar to schedule agricultural activities. Table 6.13 indicates that only farmers who do not believe in the ‘signs’ tend to be non-intergenerational, German farmers. No Old Stock



farmers rank the 'signs' as useless and no intergenerational farmers rank them as 'very useless'. Over half of the intergenerational farmers perceive the signs as 'very useful' compared to approximately sixteen percent, two of twelve, non-intergenerational farmers. Through experience intergenerational farmers know that following the signs makes weeding easier, weaning and castrating less stressful for their animals, etc., which results in less dependence on outside sources. Self-sufficiency and independence have been the most important values of Old Stock Ozarkers, which explains their continued belief in the 'signs'. German Ozark farmers, on the other hand, believed in science and typically rejected traditional Old Stock knowledge as backwards folklore. The example of J.R. and table 6.13 demonstrate that the existence of an effective traditional method changed the minds of Ozark German farmers, because over 80 percent of intergenerational German farmers rank the 'signs' as useful.

### **Perceptions of Historical Farming Environment**

The historical farming environment refers to practices, beliefs, and events that exist in the traditional agricultural history of the region. Farmers' perceptions of the historical farming environment provide an opportunity to examine a fundamental tenet of rationalization theory. Farmers who are influenced by technocratic ideology will lean toward a perception of obsolescence regarding traditional practices and beliefs (McCarty 1978, Kreckel 1985, Habermas 1986). The opportunity to employ and/or return to traditional ways becomes non-existent through technocratic rationalization. Documentation of farmers' perceptions of traditional agrarian lifeways and beliefs indicates the degree to which farmers have engaged in, been influenced by, or resisted technocratic rationalization.

## Plowing with Animals

An Old Stock farmer made an indicative, lucid statement while filling out the semantic differential, ‘Plowing with Animals’, when he said, “Well, if gas got expensive enough, as it’s a goin’, a gentle horse, a good work horse, would come in right handy” (Interview 38). This traditional openness to options contrasts with the technocratic rationality perspective that perceives only ‘modern’ technology as useful. Table 6.14 presents intergenerational farmers’ rankings of the utility of the traditional, abandoned practice of plowing fields with animals, with approximately 50 percent ranking the practice as useful. Comparatively, intergenerational Old Stock farmers rank ‘Plowing with Animals’ as more ‘useful’, with ~42 percent ranking it as ‘very useful’ compared to ~15 percent of German and non-local farmers.

Table 6.14 Ranking of ‘Plowing With Animals’ Utility by Ethnicity and Intergenerationality

| Raised by farmers |           |                    | Perception of Utility of Plowing w/ Animals based on Semantic Differentials |                       |             |                        | Total |
|-------------------|-----------|--------------------|-----------------------------------------------------------------------------|-----------------------|-------------|------------------------|-------|
|                   |           |                    | Very Useful (1)                                                             | Somewhat Useful (2,3) | Neutral (4) | Somewhat Useless (5,6) |       |
| Yes               | Ethnicity | Old Stock American | 11                                                                          | 7                     | 7           | 1                      | 26    |
|                   |           | German             | 2                                                                           | 5                     | 4           | 1                      | 12    |
|                   |           | N/A non-local      | 0                                                                           | 1                     | 0           | 0                      | 1     |
|                   | Total     |                    | 13                                                                          | 13                    | 11          | 2                      | 39    |
| No                | Ethnicity | Old Stock American | 1                                                                           | 0                     | 1           |                        | 2     |
|                   |           | German             | 1                                                                           | 4                     | 1           |                        | 6     |
|                   |           | N/A non-local      | 1                                                                           | 0                     | 3           |                        | 4     |
|                   | Total     |                    | 3                                                                           | 4                     | 5           |                        | 12    |

Table 6.15 presents the local farmer ranking of the helpfulness of ‘Plowing with animals’. While approximately 22 percent perceive the practice as ‘very helpful’, approximately 37 percent rank the practice as either ‘neutral’ or ‘harmful’. Similarly, there are varied rankings of the traditional practice overall, as evidenced by figure 6.5. When compared with the fact that over 80 percent rank agrichemicals as useful, as seen in table 6.10, the influence of technocratic rationality in the contemporary farmer population becomes more evident. Agrichemicals are a modern technology that originated within the technocratically rational modern knowledge

system, therefore they have been touted in myriad propaganda as beneficial and useful. Whereas draft animals, a traditional technology used in the past and outside the modern technocratic knowledge system, has been denigrated in such media, and is therefore perceived quite differently in terms of use and potential.

Table 6.15 Ranking of 'Plowing With Animals' as Helpful or Harmful

| Ranking "Plowing with Animals" | Frequency | Percent |
|--------------------------------|-----------|---------|
| Very Helpful (1)               | 11        | 21.6    |
| Somewhat Helpful (2,3)         | 21        | 41.2    |
| Neutral (4)                    | 13        | 25.5    |
| Somewhat Harmful (5,6)         | 5         | 9.8     |
| Very Harmful (7)               | 1         | 2.0     |
| Total                          | 51        | 100.0   |

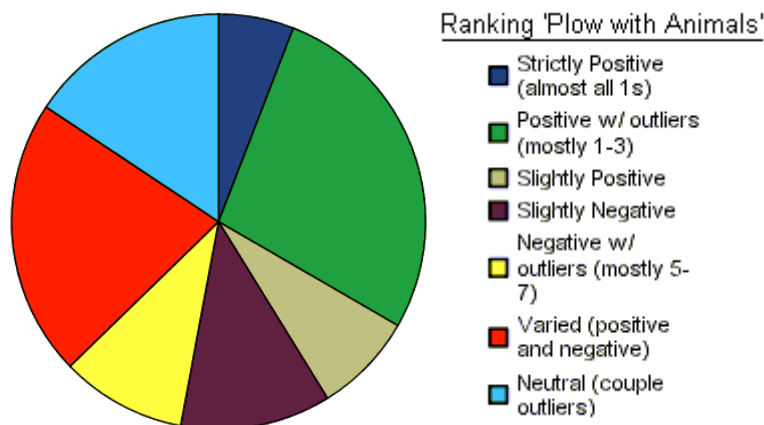


Figure 6.5 Ranking of 'Plowing with Animals'

## Free Range Chicken Flock

### Letters to FARM JOURNAL ® March 1960

#### Response to "Is Mom's Flock a Dead Dodo?" (January 1960)

"Sure want to disagree with the fellow who says the small flock business doesn't pay. Our 118 chickens took care of groceries, feed, church collections, bought wallpaper for two rooms. Many times we sold eggs for 19 cents a dozen. The big fellows say you can't get along on a few chickens, nor buy a farm unless you've thousands of dollars. Well, maybe they couldn't, but we little guys know it can be done."

Only about half the interviewed farmers keep free range chickens. The traditional practice has gone by the wayside for several reasons; the extremely low price of store-bought eggs, the increased predation of chickens by raccoons, coyotes, foxes and other predators, and the loss of knowledge related to their maintenance, killing, and preparation. When I showed one farmer the TAT image of a girl feeding free range chickens (see appendix 1.3, image 1), he summed up the most common explanation farmers had for abandoning the practice:

Feeding chickens, yep, we always used to have a small flock of chickens, 20 to 30 chickens every year. It's only been 5 or 6 years since we quit having them. They were basically for eggs. They were a nuisance to run wild and it's too much work to keep them penned up and eggs don't cost that much.

The overwhelming majority commented on their personal experiences with similar practices; over 80 percent commented about personal experience, with over 30 percent speaking nostalgically of the practice (see Table 6.16).

Table 6.16 Responses to Image of Girl Feeding Free Range Chickens

| TAT image of child feeding chickens | Frequency | Percent |
|-------------------------------------|-----------|---------|
| Personal Experience                 | 20        | 39.2    |
| Positive (Emotional)                | 2         | 3.9     |
| Not Here / Not Now (past)           | 7         | 13.7    |
| 1, 2, and 4                         | 16        | 31.4    |
| 1, 4, and 5                         | 3         | 5.9     |
| Total                               | 48        | 94.1    |
| Missing                             | 3         | 5.9     |
| Total                               | 51        | 100.0   |

Many farmers reminisced about the culture and enculturation process attached to the practice. An Old Stock farmer insightfully related; "I see that they're letting that kid know that she can be helpful. You can tell that she enjoys watching them pick that up off the ground" (Interview 29). This response illustrates that traditional agriculture was not merely a business or a way to provide food for the family, it was a way to enculturate and educate children about the necessities and values of the agrarian lifeway. Such practices taught children the value of hard

work and the source of their meals. Farmers cite the disintegration of these two particular agrarian values more than any others as the most tragic outcomes of modernization.

Technocratic rationalization convinces farmers that traditional agricultural practices, such as free range chickens, are irrational and outmoded because they do not allow the sufficient scale and control for a business operation. A non-local, non-intergenerational farmer illustrates the technocratically rational response to the image; “We’ve seen that. That was part of it. That there is an experience that I’m glad has passed. We survived it and we did well at it, but there’s much better ways of doing it than doing it out (on the ground) where you have no control” (Interview 45). Such a response, however, was an anomaly, with the majority reacting positively and experientially (see Table 6.16). Despite the mainstream technocratic message, that the practice of free range chickens is irrational, the eggs from free range chickens continue to be in high demand, especially because the practice has become rare in the region. An Old Stock farmer-preacher who continues to keep free range chickens explains; “That’s changed in the last few years. Nobody has any chickens in this part of the country anymore. People beg us for eggs like they was gold, constantly say, ‘if you got any eggs, we want em.’” (Interview 33). Rural people demand free range eggs because they can taste and see a significant difference between store-bought eggs and those from free range farmers’ flocks<sup>52</sup>. Knowledge or awareness accrued through experience, rather than through book-learning or propaganda, leaves an indelible mark on one’s perceptions. As Berkes (1999) and Ingold (2000) propose, perception forms through experience with the environment, and in this case, because most the farmers have experienced the traditional practice (and rural folks have tasted free range eggs), their sensory experience

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<sup>52</sup>Once you eat a free range egg off the farm, there is no going back. The yolk is an extremely dark orange and the taste is much more rich than any store bought conventional egg because of the varied diet. County Farm Supply stores and local farmers that still have free range chickens have waiting lists for free range eggs because so many locals want them.

overrides the influence of ideology on their perception. Despite the technocratically rational message that the practice of free range chickens is irrational, farmers' experiences remain paramount in their perceptions.

### **Traditional vs. Modern Perceptions and Practices**

Compared with modern farmers, traditional farmers maintain a more open knowledge and belief system that perceives everything as potentially useful. Tables 6.17 through 6.22 illustrate the discrepancy between traditional and modern Ozark farmers and their respective perceptions of both agrichemicals, representative of modern agriculture, and plowing with animals and free range hogs, representative of traditional farm practices. Table 6.17 presents farmers' modern practices and crosses it with their perception of the utility of agrichemicals. Five of the 28 farmers who engage in the least modern practices are neo-traditional MOA members and therefore do not represent the traditional Ozark worldview. Therefore, nineteen of 23 (~83%) traditional Ozark farmers who engage in 'none or limited' modern agricultural practices rank agrichemicals as '(very) useful.' Similarly, when you juxtapose this with table 6.18, traditional practices by agrichemical utility, farmers who engage in the most traditional practices perceive agrichemicals as most useful, with seventeen of twenty, or 85% of traditional farmers ranking agrichemicals as 'useful'. Traditional farmers do not exclude modern practices from their possible repertoire even though they do not regularly use them, because a situation could arise when they would need them (Scott 1998:264). They perceptually leave their options open. Scott (1998:264) identifies a shortcoming of agronomy as its 'inability to recognize or incorporate knowledge created outside its paradigm.'

Table 6.17 Modern Farm Practices by Ranking of Agrichemical Utility

|                       |                              | Perception of utility of chemical fertilizers and pesticides based on Semantic Differentials |                                 |                       |                                  |                            | Total |
|-----------------------|------------------------------|----------------------------------------------------------------------------------------------|---------------------------------|-----------------------|----------------------------------|----------------------------|-------|
|                       |                              | Chemicals Very Useful (1)                                                                    | Chemicals Somewhat Useful (2,3) | Chemicals Neutral (4) | Chemicals Somewhat Useless (5,6) | Chemicals Very Useless (7) |       |
| Modern Farm Practices | None or limited              | 8                                                                                            | 11                              | 3                     | 1                                | 5                          | 28    |
| Condensed             | 1-2 Modern Practices         | 10                                                                                           | 5                               | 0                     | 0                                | 0                          | 15    |
|                       | More than 2 Modern Practices | 5                                                                                            | 2                               | 0                     | 1                                | 0                          | 8     |
| Total                 |                              | 23                                                                                           | 18                              | 3                     | 2                                | 5                          | 51    |

Table 6.18 Traditional Farm Practices by Ranking of Agrichemical Utility

|                            |                                 | Perception of utility of chemical fertilizers and pesticides based on Semantic Differentials |                                 |                       |                                  |                            | Total |
|----------------------------|---------------------------------|----------------------------------------------------------------------------------------------|---------------------------------|-----------------------|----------------------------------|----------------------------|-------|
|                            |                                 | Chemicals Very Useful (1)                                                                    | Chemicals Somewhat Useful (2,3) | Chemicals Neutral (4) | Chemicals Somewhat Useless (5,6) | Chemicals Very Useless (7) |       |
| Traditional Farm Practices | No Traditional Practices        | 4                                                                                            | 4                               | 0                     | 0                                | 1                          | 9     |
| Condensed                  | 1 Traditional Practice          | 2                                                                                            | 1                               | 0                     | 0                                | 1                          | 4     |
|                            | 2 or 3 Traditional Practices    | 9                                                                                            | 4                               | 1                     | 1                                | 3                          | 18    |
|                            | 4 or more Traditional Practices | 8                                                                                            | 9                               | 2                     | 1                                | 0                          | 20    |
| Total                      |                                 | 23                                                                                           | 18                              | 3                     | 2                                | 5                          | 51    |

Table 6.19 Modern Farm Practices by Response to Plowing with Draft Horse Image

|                       |                              | Perception of image of man plowing with draft horses (TATs) |                      |                           |             |             | Total |
|-----------------------|------------------------------|-------------------------------------------------------------|----------------------|---------------------------|-------------|-------------|-------|
|                       |                              | Personal Experience                                         | Positive (Emotional) | Not Here / Not Now (past) | 1, 2, and 4 | 1, 4, and 5 |       |
| Modern Farm Practices | None or limited              | 6                                                           | 5                    | 5                         | 9           | 0           | 25    |
| Condensed             | 1-2 Modern Practices         | 2                                                           | 1                    | 8                         | 2           | 1           | 14    |
|                       | More than 2 Modern Practices | 0                                                           | 0                    | 6                         | 0           | 0           | 6     |
| Total                 |                              | 8                                                           | 6                    | 19                        | 11          | 1           | 45    |

Table 6.20 Traditional Farm Practices by Response to Plowing with Draft Horse Image

|                            |                                 | Perception of image of man plowing with draft horses (TATs) |                      |                           |             |             | Total |
|----------------------------|---------------------------------|-------------------------------------------------------------|----------------------|---------------------------|-------------|-------------|-------|
|                            |                                 | Personal Experience                                         | Positive (Emotional) | Not Here / Not Now (past) | 1, 2, and 4 | 1, 4, and 5 |       |
| Traditional Farm Practices | No Traditional Practices        | 0                                                           | 1                    | 7                         | 0           | 0           | 8     |
| Condensed                  | 1 Traditional Practice          | 0                                                           | 0                    | 3                         | 0           | 0           | 3     |
|                            | 2 or 3 Traditional Practices    | 3                                                           | 2                    | 6                         | 3           | 0           | 14    |
|                            | 4 or more Traditional Practices | 5                                                           | 3                    | 3                         | 8           | 1           | 20    |
| Total                      |                                 | 8                                                           | 6                    | 19                        | 11          | 1           | 45    |

Table 6.21 Modern Farm Practices by Response to Free Range Hog Image

|                       |                              | Perception of Image of free range hogs (TATs) |                      |                           |                      |          |             |             | Total |
|-----------------------|------------------------------|-----------------------------------------------|----------------------|---------------------------|----------------------|----------|-------------|-------------|-------|
|                       |                              | Personal Experience                           | Positive (Emotional) | Not Here / Not Now (past) | Negative (Emotional) | Economic | 1, 2, and 4 | 1, 4, and 5 |       |
| Modern Farm Practices | None or limited              | 10                                            | 1                    | 2                         | 0                    | 1        | 8           | 1           | 23    |
| Condensed             | 1-2 Modern Practices         | 6                                             | 0                    | 3                         | 1                    | 0        | 2           | 2           | 14    |
|                       | More than 2 Modern Practices | 2                                             | 0                    | 0                         | 2                    | 0        | 1           | 2           | 7     |
| Total                 |                              | 18                                            | 1                    | 5                         | 3                    | 1        | 11          | 5           | 44    |

Table 6.22 Traditional Farm Practices by Response to Free Range Hog Image

|                            |                                 | Perception of Image of free range hogs (TATs) |                      |                           |                      |          |             |             | Total |
|----------------------------|---------------------------------|-----------------------------------------------|----------------------|---------------------------|----------------------|----------|-------------|-------------|-------|
|                            |                                 | Personal Experience                           | Positive (Emotional) | Not Here / Not Now (past) | Negative (Emotional) | Economic | 1, 2, and 4 | 1, 4, and 5 |       |
| Traditional Farm Practices | No Traditional Practices        | 1                                             | 0                    | 0                         | 1                    | 0        | 1           | 3           | 6     |
| Condensed                  | 1 Traditional Practice          | 0                                             | 1                    | 1                         | 1                    | 0        | 0           | 0           | 3     |
|                            | 2 or 3 Traditional Practices    | 4                                             | 0                    | 4                         | 1                    | 1        | 5           | 1           | 16    |
|                            | 4 or more Traditional Practices | 13                                            | 0                    | 0                         | 0                    | 0        | 5           | 1           | 19    |
| Total                      |                                 | 18                                            | 1                    | 5                         | 3                    | 1        | 11          | 5           | 44    |

Tables 6.19 through 6.22 lend more weight to the argument that modern farmers have limited opportunities compared with traditional ones because they perceive only modern technology as useful in the present and future, while traditional farmers perceive everything as potentially useful (Appadurai 1990). In the responses to images of a man plowing with a draft horse and free range hogs, farmers who engage in modern practices typically responded that the practices were of the distant past and would not return; ‘that doesn’t happen anymore’ (Interview 2). As table 6.19 illustrates, 70 percent of farmers who engage in one or two modern practices and one hundred percent of those who perform more than two modern farm practices responded that plowing with animals is a thing of the past. On the other hand, 80 percent of farmers who engage in no modern practices responded positively and/or experientially to the image. Similarly, table 6.20 indicates that farmers who engage in no traditional practices see plowing with animals strictly as a thing of the past, while those who engage in the most traditional practices regarded the image nostalgically and experientially. Regarding the image of free range hogs, modern farmers more commonly responded to the image as a negative activity from the



past that should no longer exist (1,4, and 5). Farmers who perform the least modern practices spoke nostalgically from personal experience about the traditional practice and, as seen in table 6.22, the same is true for 77% of farmers who engage in at least two traditional practices. Farmers who engage in four or more traditional farm practices speak about free range hog farming strictly from experience and only one of nineteen spoke at all negatively about the traditional practice. Traditional Ozark agriculture consists of an openness to all sources of possible utility, a hybrid farming system that integrates diverse agricultural strategies, and an awareness that the farm must sustain not only the present generation but future ones also.

### **Religion and Ethnicity**

“It is certain that when money clinks in the money chest,  
greed and avarice can be increased;  
but when the church intercedes, the result is in the hands of God alone.”

- Martin Luther (1517) *The Ninety-Five Theses*

“There’s a rule that never faileth, You will always find it true.  
Where the dollar rules the pulpit, There the Devil rules the pew” (Robertson 1950:115).

- 1930’s ‘Old Time’ Protestant Folksong

### **Old-Time Protestantism**

Why have some Ozark farmers retained traditional perceptions of their farming environments while others have succumbed to discursive strategies encouraging technocratic rationality as an agricultural guide? While specific experiences contribute to farmers’ suppression and/or rejection of technocratic ideology as a significant influence, experience in and of itself does not suffice as an explanatory variable because technocratically rational farmers share similar experiences with those who maintain traditional perceptions. Religion and ethnicity have emerged as salient variables that explain Ozark farmers’ resistance to technocratic ideology and their maintenance of traditional perceptions.

Old-Time Protestant denominations, Baptist and Methodist, which remain dominant in the Ozark region, assert that no authority should interpret the bible for an individual. Rather, each believer should come to their own subjective interpretation. Rooted in Luther's exposure of Catholic corruption, traditional Ozark Protestants have rejected the authority of exogenous knowledge systems, including science, as a replacement for religion as the guide to animal and plant husbandry. These Old-Time conservative Protestant religions differ most noticeably from their 'liberal' Protestant counterparts in their adamant rejection of greed and excessive wealth accumulation and their belief in the literal interpretation of the bible as the 'word of God' (Abrams 2001, Balmer and Winner 2002). The two quotes above, from Luther in 1517 and the excerpt from a 1930's 'Old-Time' Protestant folk song, depict the continuity of the Old-Time Protestant belief that excess accumulation and greed corrupt and should be avoided.

Such a belief resonates with the local Ozark tendency to regard contemporary industrial agriculture, which relies on large-scale operations and an accumulation of capital, with skepticism and antipathy. Old-Time Protestant farmers believe in temperance and moderation, which they learn from their subjective interpretation of the bible, and they apply it to their agricultural practices. A Baptist farmer relates:

Alcohol is a deadly poison, but you drink a little bit of it and it's a stimulant. You got a calf out here that's about to freeze to death and you give him a shot of whiskey and it'll warm him up and stimulate him, but you give him too much, he's dead. Everything in nature is that way (Interview 37).

Although Baptists do not believe in the consumption of alcohol, they recognize its utility and employ its use in strict moderation when necessary (and out of sight at times also, so I'm told).

The Old-Time Protestant rejection of outside authority strengthens traditional perceptions and practices based in experience. Table 6.23 illustrates the strong relationship between fundamentalist Protestantism and traditional agriculture, with 95.4 percent of Baptists and

Methodists engaging in at least two traditional agricultural practices and approximately 64 percent practicing four or more. Similarly, approximately 60 percent of Baptist and Methodist farmers rank ‘Planting by the signs’ as ‘very useful’ compared to only about 30 percent of all other religious affiliations. Old-Time Protestant farmers have retained belief in the utility of traditional practices, exemplified by their ranking of the utility of wild plants, plowing with animals, and planting by the signs, as illustrated in tables 6.24, 6.25, and 6.26 respectively. Approximately 77% of Baptist and Methodist farmers rank wild plants as at least ‘somewhat useful’ and none of them consider wild plants useless, an indicator of technocratic rationalization. The only farmers who rank wild plants as ‘useless’ belong to other Christian denominations or have no religious affiliation whatsoever. Table 6.25 solidifies the argument that Old-Time Protestants have retained belief in the efficacy of traditional ways, even those that are completely out of practice. Over half the Baptist and Methodist farmers rank ‘Plowing with Animals’ as ‘very useful’ compared to approximately 17 percent of all other farmers. Similarly, no Old-Time Protestants consider the practice useless, whereas ten percent of all other farmers rank it as at least ‘somewhat useless.’

Table 6.23 Religion by Traditional Farm Practices

|           |                       | Traditional Farm Practices Condensed |                        |                              |                                 | Total |
|-----------|-----------------------|--------------------------------------|------------------------|------------------------------|---------------------------------|-------|
|           |                       | No Traditional Practices             | 1 Traditional Practice | 2 or 3 Traditional Practices | 4 or more Traditional Practices |       |
| Religion  | Baptist and Methodist | 1                                    | 0                      | 7                            | 14                              | 22    |
| Condensed | Other Christian       | 5                                    | 1                      | 6                            | 1                               | 13    |
|           | No Organized Religion | 3                                    | 3                      | 5                            | 5                               | 16    |
| Total     |                       | 9                                    | 4                      | 18                           | 20                              | 51    |

Table 6.24 Religion by Ranking of ‘Wild Plant’ Utility

|           |                       | Perception of Wild Plant Utility based on Semantic Differentials |                                         |                            |                                          |                                    | Total |
|-----------|-----------------------|------------------------------------------------------------------|-----------------------------------------|----------------------------|------------------------------------------|------------------------------------|-------|
|           |                       | Wild Plants<br>Very Useful<br>(1)                                | Wild Plants<br>Somewhat<br>Useful (2,3) | Wild Plants<br>Neutral (4) | Wild Plants<br>Somewhat<br>Useless (5,6) | Wild Plants<br>Very<br>Useless (7) |       |
| Religion  | Baptist and Methodist | 7                                                                | 10                                      | 3                          | 1                                        | 1                                  | 22    |
| Condensed | Other Christian       | 2                                                                | 4                                       | 2                          | 4                                        | 1                                  | 13    |
|           | No Organized Religion | 6                                                                | 5                                       | 4                          | 1                                        | 0                                  | 16    |
| Total     |                       | 15                                                               | 19                                      | 9                          | 6                                        | 2                                  | 51    |

Table 6.25 Religion by Ranking of ‘Plowing with Animals’ Utility

|           |                       | Perception of Utility of Plowing w/ Animals based on Semantic Differentials |                          |             |                           | Total |
|-----------|-----------------------|-----------------------------------------------------------------------------|--------------------------|-------------|---------------------------|-------|
|           |                       | Very<br>Useful (1)                                                          | Somewhat<br>Useful (2,3) | Neutral (4) | Somewhat<br>Useless (5,6) |       |
| Religion  | Baptist and Methodist | 11                                                                          | 6                        | 4           | 1                         | 22    |
| Condensed | Other Christian       | 1                                                                           | 9                        | 3           | 0                         | 13    |
|           | No Organized Religion | 4                                                                           | 2                        | 9           | 1                         | 16    |
| Total     |                       | 16                                                                          | 17                       | 16          | 2                         | 51    |

Table 6.26 Religion by Ranking of ‘Planting by the Signs’ Utility

|           |                       | Perception of Traditional Knowledge Utility Based on Semantic Differentials |                                   |                      |                                    |                           | Total |
|-----------|-----------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------|------------------------------------|---------------------------|-------|
|           |                       | Signs Very<br>Useful (1)                                                    | Signs<br>Somewhat<br>Useful (2,3) | Signs<br>Neutral (4) | Signs<br>Somewhat<br>Useless (5,6) | Signs Very<br>Useless (7) |       |
| Religion  | Baptist and Methodist | 13                                                                          | 6                                 | 3                    | 0                                  | 0                         | 22    |
| Condensed | Other Christian       | 2                                                                           | 4                                 | 5                    | 2                                  | 0                         | 13    |
|           | No Organized Religion | 7                                                                           | 5                                 | 3                    | 0                                  | 1                         | 16    |
| Total     |                       | 22                                                                          | 15                                | 11                   | 2                                  | 1                         | 51    |

Table 6.27 Religion by Response to Image of Girl Feeding Free Range Chickens

|           |                       | Perception of Image of suburb girl feeding free range chickens (TATs) |                         |                              |             |             | Total |
|-----------|-----------------------|-----------------------------------------------------------------------|-------------------------|------------------------------|-------------|-------------|-------|
|           |                       | Personal<br>Experience                                                | Positive<br>(Emotional) | Not Here / Not<br>Now (past) | 1, 2, and 4 | 1, 4, and 5 |       |
| Religion  | Baptist and Methodist | 10                                                                    | 1                       | 3                            | 7           | 0           | 21    |
| Condensed | Other Christian       | 7                                                                     | 0                       | 2                            | 2           | 2           | 13    |
|           | No Organized Religion | 3                                                                     | 1                       | 2                            | 7           | 1           | 14    |
| Total     |                       | 20                                                                    | 2                       | 7                            | 16          | 3           | 48    |

## Old Stock American

Ethnicity has emerged as an explanatory variable in farmers’ agricultural decision-making and practices and helps explain the continuity of traditional beliefs and practices

(Salamon 1987, Rogers 1987, Barlett 1993, Netting 1974, 1993). Old Stock Americans moved to the Ozarks from Appalachia because they wanted an isolated retreat biophysically similar to their homeland and outside the ‘pecuniary calculus,’ authority, and pretensions of mainstream U.S. society (Goldschmidt 1947). They homesteaded the region and became intimately familiar with the agroecology of the region. Their Appalachian and Old World beliefs and practices translated well to the Ozark ecosystem. Their misanthropy towards outside authority dovetails with Old Time Protestantism and plays a large role in their rejection of technocratic rationalization and maintenance of traditionalism.

Table 6.28 illustrates that Old Stock Americans, more than other ethnic groups, believe in the utility of the signs. The only Ozark farmers who disbelieved in the efficacy of the signs were of German descent, while ~85 percent of Old Stock Americans rank them as at least ‘somewhat useful’ and sixty percent consider them ‘very useful’. This contrasts with ~21 percent of the rest of farmers ranking the signs as ‘very useful’. The continuity of traditional practices among Old Stock Americans is striking, with ~ 90 percent engaging in at least two traditional farm practices and over half in at least four, compared to ~56 percent and ~21 percent of non-Old Stock Americans respectively (see table 6.29).

Table 6.28 Ethnicity by Ranking of ‘Planting by the Signs’ Utility

|           |                    | Perception of Traditional Knowledge Utility Based on Semantic Differentials |                             |                   |                              |                        | Total |
|-----------|--------------------|-----------------------------------------------------------------------------|-----------------------------|-------------------|------------------------------|------------------------|-------|
|           |                    | Signs Very Useful (1)                                                       | Signs Somewhat Useful (2,3) | Signs Neutral (4) | Signs Somewhat Useless (5,6) | Signs Very Useless (7) |       |
| Ethnicity | Old Stock American | 17                                                                          | 7                           | 4                 | 0                            | 0                      | 28    |
|           | German             | 5                                                                           | 6                           | 4                 | 2                            | 1                      | 18    |
|           | N/A non-local      | 0                                                                           | 2                           | 3                 | 0                            | 0                      | 5     |
| Total     |                    | 22                                                                          | 15                          | 11                | 2                            | 1                      | 51    |

Table 6.29 Ethnicity by Traditional Farm Practices

|           |                    | Traditional Farm Practices Condensed |                        |                              |                                 | Total |
|-----------|--------------------|--------------------------------------|------------------------|------------------------------|---------------------------------|-------|
|           |                    | No Traditional Practices             | 1 Traditional Practice | 2 or 3 Traditional Practices | 4 or more Traditional Practices |       |
| Ethnicity | Old Stock American | 1                                    | 2                      | 10                           | 15                              | 28    |
|           | German             | 6                                    | 1                      | 6                            | 5                               | 18    |
|           | N/A non-local      | 2                                    | 1                      | 2                            | 0                               | 5     |
| Total     |                    | 9                                    | 4                      | 18                           | 20                              | 51    |

Old Stock American and Old-Time Protestant farmers have maintained traditional perceptions of farming environments because their belief systems inherently disallow exogenous ideologies to override their experience-based knowledge. They have in effect preserved their ability to perceive the ‘affordances’ of their environment (Michael and Still 1992). Ozark farmers who maintain traditional, open knowledge systems retain the option of returning to traditional agricultural practices, whereas those who succumb to the closed technocratic ideology, because of the inherent obsolescence of traditional practices, have no options but that which modern science proffers (Appadurai 1990, Dove 1999). Dove (1999:60) contrasts a traditional agricultural system that preserves traditional knowledge and varieties *in situ* with the technocratic rationalization inherent in the development paradigm:

In contrast, the “disappearing” approach of the Western developmental paradigm leaves a false image of an agriculture without history, and thus without alternatives. The denial of alternatives is very much in keeping with the underlying rationale of this developmental paradigm, which is highly deterministic. The tribal pattern retains and celebrates this history, thereby transcending the present.

## Chapter 7

### THE POLITICS OF PERCEPTION:

#### DEPENDENCE, RESIGNATION, OR COLLABORATIVE RESISTANCE

“As an existing society is increasingly endangered by its internal tensions, the energies spent in maintaining an ideology grow greater and finally the weapons are readied for supporting it with violence. The more the Roman Empire was threatened by explosive inner forces, the more brutally did the Caesars try to revitalize the old cult of the State and to restore the lost sense of unity. The ages which followed the Christian persecutions and the fall of the Empire supply many other frightful examples of the same recurring pattern. In the science of such periods the ideological dimension usually comes to light less in its false judgments than in its lack of clarity, its perplexity, its obscure language, its manner of posing problems, its methods, the direction of its research, and, above all, in what it closes its eyes to.”

- Horkheimer (1972) *Notes on Science and the Crisis*

The mass of men lead desperate lives of quiet desperation.

What is called resignation is confirmed desperation....

But it is characteristic of wisdom not to do desperate things...

...it appears as if men had deliberately chosen the common mode of living  
because they preferred it to any other.

Yet they honestly think there is no choice left.

But alert and healthy natures remember that the sun rose clear.

- Henry David Thoreau (1854) *Walden*

### Introduction

Technocratic ideology effectively influences farmers' perceptions and practices because the bureaucratic institutions that establish rules and regulate the actions of farmers within an industrialized state function within technocratic rationality. United States agricultural policy since the onset of industrialization has been guided strictly by such logic. Due to the focus on uniformity, scale, and reductionism, technocratically-guided policy typically results in the neglect of diversity and the demise of smallholder approaches. This chapter discusses the

discursive politics of USDA and presents specific examples of the perceptual effects of both USDA discourse and policy on OMA farmers.

## **Politics of Perception**

### **Agricultural Institutions**

The Mad Cow (BSE) case in Washington state and USDA's subsequent actions reveal the ability of institutions and bureaucracies to control the flow of information and public perception. USDA strives to convince the public that U.S. meat is sufficiently regulated and therefore safe, however, they receive industrial kickbacks to prevent extensive regulation (Mattera 2004). While initial reports of the Mad Cow case indicated that the cow was a 'downer' from Canada that was inspected because she was injured, this was a contrivance. Public concern was substantial, but industry refused to allow this case to precipitate changes in current regulations, such as testing of a higher percentage of U.S. cattle or country-of-origin-labeling (COOL) (Kremer 2003, Canon 2004, Mattera 2004). A USDA investigation of the case concluded within seven weeks that there was no further threat, yet failed to locate approximately two-thirds of the 80 cattle that were imported with the infected Holstein cow (Mattera 2004:16). Subsequently, the truth came out.

Alan Guebert, (2004) a free-lance agricultural journalist / farmer, comically summarizes the Mad Cow cover-up in his syndicated agriculture column, *The Final Word*;

And now for the latest ricochet from the gang that has yet to shoot straight. Contrary to ardent claims made by USDA, three eyewitnesses at the Moses Lake, WA slaughter plant where America's single mad cow was discovered say the animal walked to its demise Dec. 9. In short, the tallwalker USDA has repeatedly labeled as a downer was, in fact, walking tall when it was put down, according to the trucker who hauled the cow to the plant, the plant technician that actually killed the animal and the plant's co-manager. If true, the information means one of two things: either the USDA covered up the actual events surrounding the BSE cow or the Washington state downer cow pulled off the greatest comeback since the 1969 New York Mets.



The news of the Lazarus-like downer, reported by the Associated Press and the Washington Post Feb. 18, first surfaced in an 18-page affidavit from Tom Ellestad, co-manager of Vern's Moses Lake Meats, to the Government Accountability Project, a Washington, D.C. watchdog group. According to Ellestad affidavit, "The BSE-positive cow was not a downer." Before the affidavit landed on page 2 of the Post, however, it landed at the House Committee on Government Reform, Congress's government watchdog. Committee Chairman Tom Davis, R-VA, and Ranking Minority Member Henry Waxman, D-CA, said the new information, if accurate, means "USDA's (BSE) surveillance system may need to be significantly expanded." In an 11-page, highly detailed Feb. 17 letter to USDA boss Ann Veneman, the congressmen noted that the affidavit held "serious implications for both the adequacy of the national BSE surveillance system and the credibility of the USDA."

...What's going on here? First, more evidence has now surfaced that USDA simply was lucky--or unlucky, given your point of view--in catching the Washington State BSE-cow. The animal wasn't tested because it was a downer; it was tested out of pure chance. In fact, Ellestad's affidavit claims the Moses Lake slaughterer had stopped accepting downer cows in Feb. 2003. Moreover, according to Ellestad, a Washington state official told him on Jan. 19, 2004, that the cow had never been a downer cow. Indeed, claimed the meatpacker, the official had noted the cow had "walked through the milking barn 3 or 4 days ..." after calving in late November. It now appears that the cow was tested, according to the Davis-Waxman letter, because the Ellestad slaughterhouse "was initially asked to participate in USDA's BSE surveillance program around June 2003. USDA offered ten dollars for every sample taken from downer cattle up to a total of 1,000 samples." However, Ellestad declined the generous USDA offer because--quite simply--the slaughterhouse did not accept downer cows. But USDA was insistent, Ellestad is quoted in the Davis-Waxman letter, because "they were having real difficulty getting plants to sample and that they were having difficulty getting the number of brain stem samples that they were expected to get." According to Ellestad, "USDA was so needful of getting samples, that they backed away from the requirement that tested animals be downers and eventually, a modified contract was offered to us." (Emphasis added by Davis and Waxman in the letter to USDA's Veneman.)

Holy cow....Even more remarkable--and against unfathomable odds--a BSE-positive animal walks into the Moses Lake slaughterhouse Dec. 9 and is tested before ascending to hamburger heaven. Two weeks later, USDA claims the animal was a downer despite an already clear line of established evidence to the contrary. Ever loyal Annie, however, stuck to her guns. On Feb. 19, Veneman maintained the cow was a downer. This is not at all surprising. The current gang at USDA, like the gang at the White House, seem almost pathological in their belief that the public and the press must disprove their lies before they admit the truth.

This lengthy excerpt characterizes the extent of USDA misinformation campaigns designed to conceal the inherent contradictions and problems in the agro-industrial complex.

Once these revelations surfaced there was some public outcry, but there was relatively minor media coverage of such blatant concealment and transgression on the part of a government institution<sup>53</sup>. Under public pressure, USDA reluctantly increased testing, but ‘resisted the more aggressive measures that were widely advocated outside the Department and the beef industry’ (Mattera 2004:16). USDA continued to refute evidence that the passage of a COOL law would help soothe tensions with international export markets and ease consumer concerns about the presence of BSE in foreign beef<sup>54</sup> (Kremer 2003, Mattera 2004). Russ Kremer (2003), Missouri Farmers’ Union leader, has explained to USDA officials that the COOL law included in the 2002 farm bill could benefit independent farmers and ranchers by requiring grocery stores to label fresh meats, fish, fruits, vegetables and peanuts with the country in which it was born, grown, and processed. On May 6, 2003, at a related USDA hearing in Missouri, Kremer explains:

Country-of-origin labeling provides U.S. producers, as well as those from other countries, with a mechanism that allows for product differentiation in the marketplace. This is really no different than the retail product differentiation sought by processors and retailers when they label or brand products as a means to gain acceptance and loyalty and increase their share of the market. As an independent agriculture producer, I am offended by the scare tactics that large agribusinesses are using to deter farmers and ranchers from supporting this beneficial law. Many producers have received threats of third-party verification from meatpackers. There is nothing in the country-of-origin labeling law that requires third-party verification or burdensome audit trails.

USDA and other federal agriculture institutions have created an aura around COOL laws that is designed to scare farmers. Farmers are worried about more restrictions and requirements. Small farmers cannot afford to have more impositions or they will have to go out of business. When they are told that a COOL law requires veterinarian verification or registration implants that identify their animals as U.S. beef, they are rightly concerned and adamantly opposed. Yet, as

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<sup>53</sup> I learned of the deceit on agricultural websites and encountered relatively few articles in the major news media regarding the extent of the cover-up.

<sup>54</sup> Japan and South Korea import significant amounts of beef from the United States and at the time they required BSE testing and certification such as COOL labeling to resume imports. Similarly, consumer surveys indicated a preference for labeling that would verify the country of origin.

Kremer points out, these are political strategies to protect the industry. Philip Mattera (2004:16) illustrates this complicity in USDA Inc.: How Agribusiness Has Hijacked Regulatory Policy at the U.S. Department of Agriculture:

...Tyson, Cargill, and Swift – which have large meatpacking and production operations in Canada, Australia, Argentina and other countries – did not want to identify the source of the meat they sold to consumers. USDA, as a result, adamantly refused to change its position on labeling.

If COOL laws are passed, it will substantially hurt the financial bottomline for industrial agribusiness and provide small U.S. ranchers and cattle farmers an advantage. Therefore, not only have they lobbied USDA to ensure that COOL laws are not passed, they have gone on a media offensive targeting farmers' perceptions of the laws.

OMA farmers were invariably concerned about COOL laws. It was the number one political issue I stumbled upon when I began my interviews. They were extremely concerned that such legislation would be the end of the independent, small cattle farmer in the United States. A part-time farmer who works at the local sale barn represented local hostility to the law:

I may be trying to farm too much in the past but I believe that I have to work for every cent I earn, and there ain't no sense giving any away. That's what galls me about this COOL labeling law. They're wanting you to verify your beef as bred in the USA, in the state of Missouri, raised here, shipped from here, and the paper trail goes on to the slaughter house. But who's gonna pay for all that? It's the little man. It's not the big man, because the paper trail's already gonna be there. We have to have each and every calf that's born verified. If you're like mine, you leave your bull in there all year, just one trip of getting a vet, that's 350 dollars just in service cost. Just for him to come down and say, 'yeah, that calf's sucking that cow' – that's ridiculous.

...There's no doubt about it, they done the small hog man something dirty. But, they can look back and criticize the beef man, because the small beef man's time's coming too. They're gonna push him out. In fact, if they don't come up with something on this COOL law, the new law supposed to come out in Sept, for first 2004, if they don't get their heads out of their butts, I think I'm gonna sell out in October. There's no guidelines for us to go by and they're saying that if you're found to be in non-compliance of the law, that you can be fined up to 10,000 dollars. How you gonna comply if you don't know what they want done? Patton Junction (local sale barn) already said that if something isn't done about it, and it goes into effect – they're shuttin it down because they don't

want the hassle and you can't blame 'em because they have to keep track of every hoof that comes through that barn.

"Maybe they're trying to get rid of all the salebarns?"

That's a possibility. Because then they'd have to go straight to the stockyards. But, they ought to realize that St. Louis (stockyards) couldn't stand up to the times. You know they closed the St. Louis stockyards and Kansas City is runnin' about half of what it did back in the '40s, so they ought to realize that that's not the avenue to go, but what's the packer to do, send his truck right to everybody's farm, with portable scales to pick up their stock? Farmer's not gonna sell by the head unless he's absolutely forced to. And I think he'll get out before he's forced to do that, because there's too much to be made by the pound. You know as well as I do, that the packer's not gonna sell it by the head. They go by pound....

I believe on this instance, they're gonna have to get a leader first, somebody to get the ball rolling. Who we got on our side? Sure, all the farmers, but who's gonna speak for the farmers? We need a lobbyist. To me a politician is about the crookedest person on the face of this earth. They'll tell you one thing and then they'll turn around and do another – whatever's best for them or their party (or their corporate backers.) WE need somebody that's there for the farmers. We need a farmer to do it. This rancher that proposed this law, I don't know what he was thinking. Maybe because he was on the Canada border and he thought they was cheatin' him out of prices or whatever. If he had a beef up there, that's them, why slam the rest of the country? Get the guys that are bringing in the imports – that's where they need to start. FUBAR.

"Yeah, it is. That will be in my report. (He laughs.) Anonymous of course. That's the state of cattle today."

Times are drawing a lot closer to it. If they would just come out and say that we need each individual to eartag their pairs and we will take the farmer's word that that calf is from that cow. Grandfather the cattle in and the herds, because I don't know where all my cattle are from, I've got cows from Tennessee, Illinois, Arkansas, so just grandfather the cows in, take the farmer's word, and start documenting the calves and then I wouldn't have a problem.

"There's no way they can try and make you lose on every single animal you have."

As it stands now, that's the way it's looking. I guess I could wait 'til they are all born, but the one's born now will already be gone by July. It's like beating a dead horse. There's no end to it. It's like any other law. You gotta live with it or put up or shut up. The law's passed. It's definitely passed. I get the *Strober's Journal* and I get this *Farm Journal* Magazine and they're talking about going back into the law and revising it. In the *Grober's*, it was one of the magazines, it projected a loss for the beef industry of 63 billion dollars....According to the Extension lady, every fish that's sold on the market has to be labeled – country of origin – including fish caught in ocean. You tell me how the

hell they're gonna do that – 'it just crossed the border' – according to her that's the way it's wrote up. These fish farmers – can you imagine documenting that?– 'yeah, there's a hundred thousand catfish in that pond – this is their dad.' That's the stupidest thing I've ever heard of – you tell me how that's not country of origin. This is a landlocked area, what'd he do, swim down from Canada and get in my pond – what a bunch of retards (Interview 20).

The frustration and anger is evident. The salient element is the degree to which he is convinced that the law will negatively affect him as a cattle farmer, when really, as he intelligently contemplates, the companies importing beef and cattle will be the ones affected<sup>55</sup>. His passion and belief is a testimony to the efficacy of livestock industry public relations strategies designed to influence farmers' perceptions. Not only do farmers receive boogeyman stories about the COOL law through agricultural media outlets such as magazines, they also are given (mis)informative reports about the laws by Agriculture Extension and Soil and Water Conservation agents.

There are extensive institutional misinformation campaigns coordinated to protect industry through an alienation of the public from the means of interpretation (Friedrich 1989, Nestle 2003). Following the BSE outbreak and related scandals, USDA further exposed their collusion with industry by attempting to control the public and farmers' perceptions in two separate, but connected incidents. First, Creekstone Farms Premium Beef LLC, a small beef processing company in Arkansas City, Kansas that focuses on premium exports to international markets, spent more than \$500,000 and hired seven chemists and biologists to install its own BSE testing laboratory. Creekstone took these drastic measures in order to re-establish their

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<sup>55</sup> That is, if, as Kremer has recommended, the government utilizes the existing country-of-origin labeling programs -- such as those used by 35 U.S. trading partners, the state of Florida, and USDA's voluntary rules -- as models for the new law. According to Kremer, information already collected through U.S. processing, distribution and marketing systems for imported agricultural products could also be used. The Farmers Union also supports allowing those farmers and ranchers who solely produce U.S. products to self-certify.

international market with Japan, one of their main clients, who demanded BSE testing of every animal prior to renewing their contract (Canon 2004, Mattera 2004, New York Times 2004).

USDA refused to allow Creekstone to test their animals.

As time passed, other small beef processors, Missouri Valley Natural Beef in Chamois, Mo. and Gateway Beef cooperative, Granite City, Ill., demanded to be allowed to test their animals. These small processors were forced into a holding pattern<sup>56</sup>. They had animals that needed to be processed, that were costing them in feed and income, and their foreign markets demanded BSE testing before they would purchase the animals. The USDA maintained that their policy of limited testing, random checks on cattle more than 30 months old, was the appropriate response. Agriculture Department spokesman Ed Loyd stated: “We want our testing to be for animal health surveillance rather than for marketing reasons....You're implying to consumers, ‘We've tested this, so this is BSE-free, this is safer than beef that hasn't been tested.’ ...There's no scientific basis for that” (Canon 2004). As the Loyd quote reveals, USDA wants to protect the large-scale, industrial livestock corporations, such as Excel Corp., ConAgra Beef Co., National Beef Packing Co. and Tyson Fresh Meats Inc., who ‘crank out most of the meat most Americans eat most of the time.’ These companies ‘back the Agriculture Department on its assumption that letting one company test all its cattle could force all packers to test all cattle — adding \$1 billion a year to packing costs without scientific reason’ (Canon 2004). USDA cites

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<sup>56</sup> Excerpt from MO Farmers’ Union statement, April 23, 2004: “‘It is costing us \$60,000 per month based on the order we had with Japan before BSE hit. We would like to be able to test all of our cattle and reopen our market with them,’ said Robbie Meyer, cattle producer and president of Gateway Beef. ‘100 percent BSE testing could be our survival kit.’ Gateway Beef’s unique processing plant has drawn attention of major overseas markets. Gateway is the only prime Certified Angus Beef plant in the nation. Gateway just completed a \$250,000 cooling and cutting room in their plant eight days before BSE was detected in Washington State. They had already secured orders with Japanese consumers before borders closed to US beef. Japan was not the only overseas market paying attention to Gateway’s quality prime beef. Customers in Europe want hormone-free beef and Gateway was willing to provide it. Before the case of BSE was found in the US, they were close to becoming a verified hormone-free beef plant. This verification would place them in compliance with the European Union to sell hormone-free beef to customers

‘science’ to justify increased consolidation and the demise of small-scale processors who focus on sustainable beef. The Missouri Farmers’ Union statement released in response to the USDA decision sums it up:

**JEFFERSON CITY, MO** (April 23, 2004) – With breath held in anticipation, small packing plants across the nation exhaled sharply and explicitly when USDA denied Creekstone Farms Premium Beef from testing all of their cattle for bovine spongiform encephalopathy (BSE). Small packing plants knew this decision could potentially place them on the auction block for giant packers to snatch up for even more consolidation.

USDA assuages the public through the guise of technocratic rationality, stating that farmers and ranchers, ‘the cattle industry,’ could be unscientifically negatively affected if they tested all animals for BSE or passed COOL laws. The second example of USDA ineptitude and industrial cover following the BSE revelation illustrates that insufficient regulatory policies serve only to increase potential BSE problems in the United States and to hide such a fact from the public to ensure livestock consolidation. The New York Times, in an article on May 8, 2004 entitled, *More Mad Cow Mischief*, reported that USDA refused to examine a cow that collapsed and had evidence of neurological problems (considered BSE indicator) at the Lone Star Beef slaughterhouse in Texas. According to the report, “The department's own inspectors at the site wanted to take a brain sample for testing but were overruled by their regional office.” The animal was apparently removed from the production line, but was shipped to an animal feed processing plant, an incomprehensible move considering that it could trigger the spread of BSE. USDA stance uses the concept of science as a justification for their actions, as a linguistic and propagandistic sleight of hand that numbs the interpretive ability of the public.

OMA farmers regurgitated the same arguments touted by USDA, the livestock industry, and the National Cattlemen’s Beef Association (NCBA). They believed the rationale as they

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throughout Europe. USDA was in the process of verifying Gateway’s beef producers as raising hormone-free cattle, but after December 23, a hold was placed on the verification progress.”

read it in their agricultural media outlets. They frequently berated the media for talking to such an extent about the BSE case and hoped that it would ‘die down’ because they were worried that overall cattle prices would drop because of decreased demand. They adamantly opposed increased testing of cattle for fear that another case may be discovered and thereby reduce the price they receive on their animals.

I did not see the ‘problem’ of Mad Cow as a problem for these farmers, who engage in free range practices that do not foster BSE. So, I asked a farmer who runs a small butcher shop on his land, ‘Are you getting more for the animals because of the BSE scare?’ He was a little surprised at the question, so I clarified, explaining that he could probably get a higher price because his animals are raised from birth to death on his farm and are therefore definitely free of BSE. He then explained that one of his customers who regularly purchases a beef from him for her family had called and asked a similar question. OMA farmers do not perceive their animals as different from those on the larger market and therefore do not consider regulatory differentiation as something that would comparatively favor them over large-scale industry. The agricultural media, institutions, and Farm Bureau play no small role in creating this perception of commonality with industry rather than with concerned consumers and environmentalists.

### **Obstructing Collaboration**

“Do I feel there is a future in the twenty-first century for agriculture?

Yes, I do. The young farmers of tomorrow will face adversities that we cannot possibly envision. They will need to cope with the weather, environmental activists, animal welfare activists, new plant and animal diseases, a national conservation program, government programs or the lack of them, foreign trade, promotion, marketing, and many other variables.”

- Jo Ann Vogel (1983:211) in *Managing Human Resources*

Farmers are unhappy with the current situation. They know that there are deceitful and collusive activities occurring within and between government institutions and industry.



Resistance has been thwarted because of politics of perception, through the control of information that farmers receive (Kile 1948, Friedrich 1989). Patterson (1994:234) describes the role of power in relation to the subversion of perception; "...power operates not only in the arenas of agenda setting and decision making, but also in ways that shape and modify the perceptions of the powerless about the nature and extent of inequalities, that subvert their interests, and that ultimately limit their capacity for political action." One specific strategy employed by industry to prevent farmer resistance has been the use of media and institutions to establish perceptions that effectively block interrelations and communication between farmers and environmentalists (Monks et al. 2000).

The introductory quote from Jo Ann Vogel's (1983) Philip Morris-funded article, *Managing Human Resources*, illustrates the effect of technocratic rationalization through industry propaganda. Vogel (1983:211) believes that environmental groups, animal welfare activists, and conservation programs are the enemy of agriculture. She believes that people and organizations that are concerned with the health of the environment, the well-being of animals, and the conservation of nature are going to try to deprive farmers of their livelihood. Does this make any sense? It does if you are an industry that has achieved dominance through technocratic rationalization. It also represents a primary discursive and propaganda strategy employed by industry to prevent the collaboration of distinct entities that want to save the small farm in the United States from agribusiness consolidation.

Vogel is the 'first vice-president of American Agri-Women' and a farmer. From my reading of her article, she appears to be genuinely concerned about the future of farming in the United States. She believes that a farmer must re-orient him/herself to the conceptualization of farm operations as a business. She goes so far as to say, "In passing our farm operation on to our

children we have decided to deal with them as if they were strangers. Every step of the business transaction will be legal and fully understood by each party, for their protection as well as ours” (Vogel 1983:211). How can a farmer become so detached that they look upon their own children as strangers? This example demonstrates the degree to which technocratic rationalization has encouraged farmers to perceive their farming environments, including their children, from an objectivist viewpoint. It is the ultimate science, so detached that there can be no emotion. Emotion is the enemy of technocratic rationality and therefore, according to such logic, the enemy of farmers. Environmental and human rights activists exemplify irrational and unscientific emotion.

Each state Farm Bureau releases agenda statements to their members every week, month, or year depending on the location and the perceived necessity for mobilizing opposition to environmental legislation. These Farm Bureau Policy Development Guides systematically present ‘the issues’ that their farmer-members need to be aware of and explicitly demarcate the Farm Bureau stance, strategy, and scientific evidence on their side. These guides illustrate why it is in Farm Bureau farmer-landowner-members’ interests to mobilize against legislative and environmental movement infringements on their rights to harvest natural resources, apply agrichemicals, etc. The booklets are divided into three general sections: Agricultural Production Issues, Environmental and Labor Issues, and Government and Budgetary Issues. These issue statements address both state-centered and national-level issues and provide announcements from both AFBF and the appropriate state federation. In the 2004 Tennessee Farm Bureau Federation (TFBF) guide section entitled, *Forests: Private Property or Public Resource*, the TFBF declared:

...complacency is exactly what environmental groups are hoping to accomplish. Anyone following Farm Bureau issues knows the names: Save Our Cumberland Mountains (SOCM),

Dogwood Alliance, Clean Water Network, Sierra Club and other groups. Farm Bureau members expect that by the time the legislature adjourns, Farm Bureau, Tennessee Forestry Association, and the other forest industry groups will successfully fight off damaging legislation. Thankfully, that has been the case in the legislature over the years but outside of the General Assembly that is not the case. Environmental activist groups have slowly and methodically related their philosophy to the public. This philosophy is that forests belong to the citizens of the state. Non-farm, non-timber landowner citizens agree with that message and they are contacting their elected officials in increasing numbers....

Governor Bredesen received a letter signed by 58 “scientists” on staff with every major state and private university in the state. On face value this letter was an impressive piece of work with a distinguished list of signers portraying a rare event in the state’s scientific community is joined in calling for action. In reality, this letter was a mockery of science....These 58 scientists cited no research, no credible evidence, no use of the scientific method or any other valid reason why the governor should act....These scientists were duped by a small environmental group and one or two professors with ties to their organization. The driving force behind this movement is SOCM. Their relentless pursuit of severely regulating forest landowners, forest products industries and loggers has only strengthened over the past ten years....They have new tactics, new strategies and have courted new partners in their legislative activities. One such partner is the Natural Resources Defense Council (NRDC) located in New York....The NRDC is a known enemy to modern agriculture...

**Sound Science** - There is no credible study to support the position of SOCM, NRDC or any other environmental group calling for more controls over timber harvesting. Their views are purely based on aesthetics and not on any conclusive evidence. The forest industry side can point to several valid studies to prove Tennessee’s forests are more plentiful and healthy than any time in recent history.

.... The philosophies and actions supported by these environmental activist groups are contrary to the foundational policies of Farm Bureau. If environmental activist groups can have a say in when, where and how timber can be harvested and to whom it may be sold then anyone who farms the land can be the next target of their public policy “crosshairs.” (Farm Bureau 2004:24).

The Issue ... Two environmental groups, Save Our Cumberland Mountains (SOCM) and People Insisting On Their Children’s Health (PITCH), advocated legislation that would have placed strict guidelines on farmers, commercial pesticide applicators and aerial applicators. This legislation brought to lawmakers an extremely emotional and fear driven issue that was less about the facts than it was about populist attitudes toward pesticides. Once it came before the legislature, lawmakers who were not familiar with farming practices and the need for pest control products were more apt to agree with the environmental community and their claims.

Both SOCM and PITCH argued that crop dusters were spraying chemicals on houses and residents while out in their yards. They said that drift from spraying fields would damage property, cause health problems in children and hurt pets. These groups brought personal

testimony from individuals who claimed they and their young children suffered long term health effects from planes spraying directly over their house. This placed anyone who opposed their legislation as being sided with “big farming” instead of caring about the people.

Background - Aerial application of pesticides is not a new practice. Actually crop dusting can be traced back to a single experiment on August 3, 1921...Nationwide roughly 21 million acres of cropland were being treated with airplanes by 1958....the chemical used to treat these crops is Malathion which is an extremely safe organophosphate even by EPA's standards....

...Proponents of the legislation failed to point out that application of pesticides is currently regulated on both the federal and state level. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires a farmer or commercial applicator to follow label guidelines. Labels on pesticides contain a very diverse set of application guidelines that apply to all types of application methods....

Farm Bureau Agricultural Chemicals Policy (Partial Policy). We oppose any regulations that would require a permit before application of a chemical for crop protection. We oppose curtailment of the proper use of agricultural chemicals, unless further research and scientific data detects that injury to health and well being would result (Farm Bureau 2004:27-29)

The salient aspects of this excerpt are threefold; 1) the portrayal of ‘science’ as a legitimate justification for any actions, 2) the stress placed on government legislation of agrichemicals that requires no enforcement as sufficient, and 3) the positioning of environmental and human/animal rights groups as the farmers’ enemy. The first two rationalization arguments cast the concerns of the public as ‘extremely emotional and fear driven’ and therefore irrational. The positioning or discursive labeling of human and environmental rights groups as the farmers’ enemy represents a strategic obstruction.

I first began to notice the industrial rationalization strategy of collaborative obstruction when I was interviewing a local county Farm Bureau President. He is a traditional family farmer who has a diversified farm with animals, crops, and gardens. He genuinely cares for his animals. He even has a milk cow named Buttercup who hangs out around the house and plays with humans like a dog. She was a bottle-raised calf so she is extremely accustomed to human

interaction. During the first interview at his farm she surprised me when she began to nudge and push me and rummage through my backpack with her nose. He adamantly disagrees with industrial agriculture and works with local Farm Bureau members to improve his community and protect family farms. A serious issue arose during our discussion regarding a controversial event that occurred in Missouri.

Rural communities around the country, including Missouri, have had to deal with an increasing problem, the spread of factory farms (CAFOs) that produce hundreds of thousands of hogs every year and create point source pollution that threatens the health of local residents. In the early 1990s, three north Missouri counties were overtaken by Premium Standard Farms (PSF) confinement hog operations. When one of the communities first heard that PSF planned to build an 80,000-hog factory just outside their community, they contacted PSF and explained that they had no interest in a mega-hog factory there. PSF proceeded, so they in turn passed zoning laws to prevent the establishment of the hog factory. PSF responded with a lawsuit for \$7.9 million, claiming their ‘corporate property rights’ were violated by the zoning laws. The Missouri Supreme Court ruled in 1997 that the local township had no authority to impose zoning regulations on farm buildings (Monks et al. 2000). Subsequently, PSF hog factories have been identified by the Environmental Protection Agency (EPA) as major environmental polluters; EPA assistant administrator Robert Perciasepe reported to the Senate Committee on Agriculture:

PSF operates 15 hog farms in Mercer, Putnam and Sullivan counties in northern Missouri. The Whitetail Hog Farm alone raises 1.6 million hogs each year, approximately two percent of the national total. The 15 operations generate 31 times more wastewater each year than a city the size of Columbia, Missouri. From August through December in 1995, seven separate incidents at Premium Standard Farms in northern Missouri released hog urine and manure into northern Missouri waters. Six of the releases totaled more than 55,000 gallons. The Department of Natural Resources reported that more than 178,000 fish in Spring Creek, Mussel Fork Creek and Blackbird Creek were killed, and the Department of Conservation indicated that the spills killed all aquatic life along miles of Missouri’s waterways. On December 26, 1995, at the Whitetail Hog Farm, a crack in a

pipe designed to carry waste from a hog-raising building to a sewage lagoon released more than 35,000 gallons of wastewater. The wastewater flowed into nearby Blackbird Creek, killing fish and flowing into neighboring farmland. In addition to these waste containment problems, in January, 1996, state inspectors reported a widespread pattern of improper animal waste disposal at Premium Standard Farms. Missouri's Department of Natural Resources cited Premium Standard for failing to comply with permit requirements for land application of wastewater at all of its 15 farms. State inspectors determined that Premium Standard's wastewater flow was about 10 million gallons more than the approved maximum flow of 84 million gallons. In addition, the Department of Natural Resources found that one of the August, 1995, fish kills had been caused by improper land application at Premium Standard's Green Hills Farm" (Monks et al 2000: 21).

PSF factory farms are destroying the quality of life and imposing health threats on rural Missouri communities and farmers, including Farm Bureau members. Yet, Farm Bureau maintains a pro-industry stance. In 1993, MFBF lobbied for the legislation that allowed the corporate farms to move into Missouri in the first place. The legislature revisited the same issue in 1998, and Missouri Farm Bureau (MFBF) ensured, through their support, an extension of the 1993 law that allowed CAFOs to continue to operate in Missouri, and to expand. MFBF fights stricter odor regulations and other legislation that would restrict the abilities of CAFOs to pollute. Farm Bureau strategically garners support of their pro-industry position from their farmer members by convincing them that environmental groups and institutions want to remove and infringe on farmers' property rights (Monks et al. 2000). Farm Bureau opposes state and federal environmental regulatory and conservation institutions and convinces farmer-members that they are their enemy because these regulatory bodies are the entities that expose and attempt to restrict the misdeeds of the agribusiness industry. And as Monks et al. (2000) reveal in *Amber Waves of Gain: How the Farm Bureau is Reaping Profits at the Expense of America's Family Farmers, Taxpayers, and the Environment*, Farm Bureau has a vested interest through stockholding, ownership, and high-ranking positions in myriad forms of agribusiness industry, including PSF.

When the issue of Missouri PSF factory farms and their environmental transgressions came up in the aforementioned interview with a local county Farm Bureau President, he adamantly denounced the unscrupulous, avaricious, and environmentally-degrading practices of PSF. Yet, he had no idea that Farm Bureau had a financial investment and played a role in the legislation that allowed PSF to invade these counties. An excerpt from the interview reveals the nuances of Farm Bureau's propaganda strategies with their farmer-members:

“Regarding the Farm Bureau approach and stance on corporate farms, CAFOs?”

(exhales loudly and shakes his head) We have in the past, it's more or less a case-by-case issue. We were really upset, all of Farm Bureau was. It must have been 5 years or more ago when Premium Standard Farms went into north Missouri and forced through some legislation, snuck it through, allowing them to do it and they own just about two or three counties up there. They just bought up these counties. We were very, very upset about that.

“What can you do? Obviously they snuck the legislation through Missouri house and senate, but is it also on a more national scale?”

Yeah. 'Bout all you can do is lobby against it and try to persuade your legislators.

“Does Farm Bureau carry some weight to stop that stuff? Missouri is an agricultural state.”

Yes, from what I hear, quite a bit. It's not unusual at all to have a Farm Bureau meeting, our annual meeting was in Tan-Tar-A in the Lake of the Ozarks and we had two state Senators speaking and four or five at the meeting, Congressmen that was.

“Are there other examples or issues like this Premium Standard Farms where all the farmers are mad about some large corporate farm interest?”

Yeah, and we're all the time angry with DNR, (Department of Natural Resources) just about for everything I mean.

“Can you give me an example? I know the granite thing was an example, but others?”

Okay, you're not supposed to take gravel out of your own creek unless it's above the water line.

“So they're actually messing with people about this? “

Trying to at least. It's kinda hard to get a jury to convict anybody, but, they've been big battles some places in the state about log jams building up in the creeks and the EPA or DNR not allowing the log jams to be cleaned out. See what that does is jam it up and then the water spreads out around it and out on your fields.

"They won't let you remove the log jams? Why, because it's beaver habitat or something?"

No, they say it's natural....But if it's not a navigable stream, then you can own that water then, and can clear out the stuff.

The topical shift during this conversation emerges as significant. Obviously, he has no idea that Farm Bureau as an organization facilitated the PSF takeover, which represents deceit at some level on the part of the state and/or federal Farm Bureau Association, but the manner in which he reassigned his ire illustrates the extent that Farm Bureau propaganda affects farmers' perceptions. At the beginning of this excerpt he was visibly upset at the idea of corporate factory farms displacing rural residents and farmers, but when asked to elaborate on other corporate farm 'issues' 'where all the farmers are mad,' this concept of farmers being mad mentally triggered DNR and EPA rather than corporate agribusiness. Farm Bureau members frequently cited this legislation regarding the clearing of river gravel from waterways on their land, but just as he stated, these 'battles' have gone on in some other part of the state. State Farm Bureau literature highlighted this property rights violation as a major state issue. Yet, the farmers all admitted that they personally knew of no DNR or EPA agent who had ever harassed anyone or attempted to enforce this law in OMA. Farm Bureau propaganda that stresses property rights, and pits environmental groups that attempt to infringe on these rights as the enemy, effectively influences farmers' perceptions of who restricts their ability to farm. Instead of being angry about corporations precluding small farmers' ability to farm, Farm Bureau members direct their anger at environmentalists.



Despite these attempts by Farm Bureau and others to prevent collaboration between farmers and environmentalists, environmentalists are reaching out to family farmers and trying to clearly illustrate how their values and interests are linked (Monks et al. 2000). Small family farmers represent the traditional values that neo-traditional environmental groups want to sustain and farmers are beginning to realign themselves. There have been a number of recent media exposés that reveal at least some of the contradictions and the power of the AFBF despite the fact that farmers make up much less than two percent of the population<sup>57</sup> (CBS 2000). As a result of media exposure, farmers are also beginning to see the Farm Bureau for what it is and avoid its' politics of perception. Monks et al. (2000:20) illustrate a number of examples of Missouri farmers abandoning Farm Bureau stances on legislative issues and standing up for the environment. One story, set in rural Bethany, Missouri, demonstrates:

...the imperiled Topeka shiner, a tiny minnow that can live only in cool, clear-running streams and cannot tolerate pollution. At a 1998 U.S. Fish and Wildlife Service hearing in Bethany, Missouri, Farm Bureau lobbyist Dan Cassidy testified against a proposal to add the shiner to the federal endangered species list. Listing the minnow could require farmers to take special care to keep sediments, pesticides, manure and other pollutants out of the water.

The Farm Bureau had alerted its members, and dozens of farmers showed up at the hearing. "Cassidy had this big old Cheshire-cat grin on his face when he saw all of these farmers come filing into the room," recalls one farmer who attended. Cassidy testified first, arguing that the listing would lead to onerous and burdensome regulations that could put family farmers out of business. But then farmer after farmer got up to say that the Farm Bureau did not speak for the farmer.

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<sup>57</sup> CBS News released a report on April 17, 2000 that stated: "The Farm Bureau, the non-profit, tax-exempt organization which calls itself the "voice of agriculture," is a rural institution known to family farmers across the U.S. But many farmers will learn on 60 Minutes this Sunday that in recent years, while tens of thousands of farmers are sinking in debt, the association they support with their annual dues has been building a for-profit business empire worth billions. And, it is investing millions of dollars in some of the same giant agribusiness corporations the Farm Bureau's members say are driving them out of business....The Farm Bureau has many for-profit interests outside of traditional farming. Its Iowa chapter alone owns and operates a \$3.5 billion insurance and financial services company that is traded on the New York Stock Exchange. That company, FBL Financial Group, gave thousands of stock options to its directors, including the presidents of 14 state Farm Bureaus.

According to a head count taken by the Sierra Club, 69 of the 87 farmers and rural residents at the meeting disagreed with Cassidy and supported listing the shiner. Martha Stevens, who has farmed for 45 years and is nearing retirement, says she is proud that Topeka shiners still survive in northern Missouri streams. “It means we’ve been doing something right,” she says. “If the water kills the fish, it can’t be good for us. The Topeka shiner is a darn good indication of when your water is polluted, and I believe we ought to be able to coexist and not pollute to the point that it destroys them and eventually destroys us.” Stevens says the degree of support for listing the Topeka shiner appeared to take the Farm Bureau men by surprise, but if they had been paying attention to the concerns of small farmers, she says, the bureau would have realized that family farmers see pollution from big agribusiness as a far greater threat than government regulation.

Missouri farmers are joining and creating environmental groups and movements to fight factory farms. As PSF continues to pollute, a group called Citizens’ Legal Environmental Action Network (CLEAN) has emerged in Missouri to legally protect rural communities from confinement operations (Monks et al. 2000). The lack of similar mobilization and collaboration between environmentalists and farmers in my research area attests to the abilities of industry to construct perceptual barriers to collaboration between environmental groups and farmers.

### **Controlling Interpretation**

As the contradictions of industrial agriculture, and the bureaucratic rationalization strategies that hide them, have become increasingly exposed, resistance to agro-industrial domination has grown among farmers, academics, consumers, and environmentalists. In response, the government has become more vigilant in their attempts to control information. President Lincoln referred to the USDA as the ‘people’s department,’ because it protected the farming majority, but opponents consider it the agribusiness protector now (Mattera 2004). USDA has always had ‘embedded’ agriculture reporters with offices in USDA buildings so that they can quickly relay information to farmers regarding government reports, last minute press conferences, and breaking news that could affect production decisions (NAAJ 2003). In a stark break with tradition, USDA has begun to impose restrictions on press access to USDA meetings and to

‘manage news’ rather than allow reporters to interpret events and report on them for themselves (Schuff 2003).

Two unprecedented events, which have agriculture journalists enraged, reveal this shift in political strategy regarding interactions with the media and the dissemination of agricultural information. The first event occurred on May 5, 2003 in USDA headquarters in Washington D.C. and involved a confrontation between USDA Press Secretary Alisa Harrison and several agriculture beat reporters who have offices inside USDA. The second incident, which has created even more concern among reporters, was USDA's explicit scheme to ‘manage news’ at the Ministerial Conference on Science and Technology in Sacramento, California June 23-25, 2003 (Schuff 2003). As a result of these two incidents, two Iowa senators, Senate Finance Committee Chairman Charles Grassley (R, Iowa) and U.S. Sen. Tom Harkin (D, Iowa), in addition to the professional journalist association, North American Agricultural Journalists (NAAJ), have demanded an explanation for USDA’s shift in media policy (see appendix I). Grassley specifically stated in an open letter to the Secretary of Agriculture; "I am discouraged that the U.S. Department of Agriculture would take any action to seemingly limit what has been considered traditional access by the press at the Department of Agriculture" (Schuff 2003).

The first event involved three reporters, Sally Schuff, Feedstuffs; Bill Tomson, OsterDowJones; and Richard Cowan, Reuters, who were interviewing lobbyists and USDA officials after a closed-door meeting on Mexico-U.S. agriculture relations when Harrison confronted them. Harrison told the reporters that she would revoke their USDA building passes or "call your editors" if they attempted future stake-outs of "closed press" meetings in USDA buildings. Harrison later explained that she was following rules established before her arrival, but USDA beat reporters, current and retired, explain that her action is a ‘sharp departure from a

tradition of open news coverage...’ (Schuff 2003). U.S. Sen. Tom Harkin (D, Iowa) publicly denounced the event at a Senate Agriculture Committee hearing, demanding a full review and response from Veneman. He specifically defended traditional press access at USDA and stated that he was ‘particularly concerned that Washington lobbyists received information that USDA refused to make public’ (Schuff 2003).

At the Ministerial Conference on Science and Technology, USDA denied reporter access to delegates for interviews, refused entry to some official sessions, and required a government escort in most interaction. According to Sally Schuff, the reporter accosted by Harrison:

Reporters were not permitted to attend official receptions, nor were they permitted access to delegates in the hallways, except during one coffee break. Instead, webcasts and video broadcasts of speakers were available in the press room, along with press releases and PowerPoint copies. While such materials are welcome background, they are no substitute for live and unfettered reporting. Protests from reporters did not change limited access. On the first day, USDA said it would limit attendance at breakout sessions to no more than three reporters because of a shortage of meeting-room space. There were more than 50 unclaimed seats in the session I attended....In one of the most striking restrictions, reporters were not allowed to ride escalators or elevators in the Sacramento Convention Center without an escort by police or a USDA official. Reporters were singled out at the base of the main escalator-by their press badges-and directed to four flights of stairs to the press room.

While USDA provides webcasts and video broadcasts to reporters, as Schuff points out, reporter access to delegates and sessions are ‘often the only way the public can know who attended the meeting and, in general terms, what was discussed’ (2003).

Reporter access, however, continues to diminish. In response to a letter from NAAJ President Jerry Perkins that expressed concern over increasing restrictions on press access, USDA Press Secretary Harrison sent NAAJ a letter that touts ‘currently available technologies’ on their website, ‘television and radio studios,’ and ‘transcripts of most open press events’ as the ways to ‘make information easier to find’ (see appendix I for copies of both letters). Harrison then cites ‘homeland security communication’ as the ‘top of our priority list’ and once again

mentions the USDA website as the place to go for information. USDA does not want the media to have direct access to meetings between industry and government. Rather, they expect the public to access agricultural information through television, radio, or online broadcasts that USDA controls. USDA decides exactly what information the public receives or does not receive and how that information is presented. Information that flows to the public will be siphoned through a technocratic rationalization filter justifying their policy and regulation decisions.

### **Obstructing Tradition**

United States organic food legislation precludes many small traditional farmers from participating and declaring themselves ‘organic’ farmers (Schmelzer 1998, Allen and Kovach 2000). USDA owns the term ‘organic’ and can legally pursue any farmer who publicly describes their products as ‘organic’ if they are not a certified organic grower. To become an organic farmer in the United States there is a rigorous testing regime, annual fees, and extensive paperwork (Allen and Kovach 2000). These requirements present obstacles to poor farmers who practice organic farming, but cannot afford the time for book-keeping or the money for organic registration (Schmelzer 1998, Allen and Kovach 2000, Vos 2000). OMA farmers who are members of the Missouri Organic Association (MOA) are not certified organic because of this.

Michael Pollan (1998) explains in *Playing God in the Garden* that USDA makes it too difficult to go organic. Besides difficulties obtaining certification, he addresses misinformation campaigns that preclude more widespread adoption of ‘organic’ methods and public consumption of organically-grown products. While organic farmers can grow as much food compared with conventional agrichemical intensive agriculturists, and pay less in inputs per acre, the media tells farmers that ‘you can’t feed the world in organic’ (Pollan 1998). Besides this ‘organic’ myth, USDA has a tacit policy to avoid discussions of differences in food quality and

safety that may be a function of how food is grown and processed. Pollan (1998:28) states; “The Department made a political decision when they finalized the national organic rule; they declared that ‘organic’ food was not nutritionally superior or safer than conventional food, even though there is solid evidence suggesting otherwise.” This decision in no small part caters to industrial agribusiness (Pollan 2001). Patricia Allen and Martin Kovach (2000) reveal the complex, contradictory, and dynamic contours of USDA organic agriculture in *The Capitalist Composition of Organic: The Potential of Markets in Fulfilling the Promise of Organic Agriculture*. They explain that through the reduction of organic standards that facilitate the industrialization of organic agriculture and large-scale corporate entry into what was a strictly small-market niche, traditional farmers have less opportunity in ‘organic’ (Schmelzer 1998, Allen and Kovach 2000, Pollan 2001).

OMA cattle farmers are, for the most part, ‘organic,’ in that they raise animals without hormones or antibiotics and they do not spray their pasture with any agrichemicals. Yet, most local farmers dismiss the organic movement as a fancy city creation that does not reflect or understand real farm life. This perception comes from agriculture propaganda that reinforces dichotomies that serve to distance small farmers and concerned consumers; city vs. country, red vs. blue, and farmer vs. environmentalist (see Hurst 2002). Traditional Ozark farmers who could receive higher prices for their products because they raise their animals without antibiotics, hormones, and chemicals, do not seek out markets, nor organic certification, because legislation and propaganda obstructs them. As Worster (1984) stresses, the original agrarian myth continues in the United States; the public still romanticizes farming and believes that what is good for farmers is good for the country. He proposes that ‘good’ farming, that which makes people healthier, society more just, and preserves ecological relations, can serve as a catalyst to

the reorientation of agrarian values in the public at large. Once farmers see through the propagandistic filters pitting them against their urban neighbors, the interlinking of a concerned public with Worster's (1984) 'good' farming, represented by traditional farmers, can allow U.S. farming to overcome the industrial impasse.

### **Collaborative Resistance**

"I've got my pitchfork ready. It says: 'Reserved for the Revolution.'"

- Ozark Mineral Area Farmer

"If you would have told me six years ago that I would have a meeting with Sierra Club, I would have told you, 'you are totally off your rocker.'"

- Missouri Farmer (Monks et al. 2000)

Traditional and neo-traditional farmers continue to engage in smallholder, sustainable agriculture despite the impositions of industry. Conventional farmers are angry because of their dependence and poverty. Consumers more than ever want healthy, socially and environmentally just food and are willing to pay for it. Rural sociology, Agricultural Extension, and many agriculture departments now recognize the influence that industry had on their research and outreach (Lionberger 1960, Hobbs 1980). Environmentalist groups continue to demonstrate that they represent the values of farmers, the protection of community and land for future generations (Monks et al. 2000). The ground is fertile for collaborative resistance.

### **Neo-Traditional and Sustainable Agriculture**

Traditional values persist in the Ozarks. The neo-traditional agricultural movement; including but not limited to the sustainable agriculture movement, the Fair Trade and Slow Food movements, and numerous other diverse environmental and social justice groups, encourages a return to the communal solidarity of the United States' agrarian past. The existence and proliferation of neo-traditional groups and media romanticizes and reinforces agrarian traditions. When I visited one old-time, traditional Ozark farmer, Jim, he showed me his latest innovation;

he attached cattle panels to the ground and then rounded them so that they formed a sort of shelter. He then grew beans up and over them as a trellis. He placed cardboard or old carpet on the inside to keep weeds down. Jim explained that the beans climb and cover the entire panel and you can sit underneath the trellis in the heat of the summer and be completely shaded while you harvest beans. I had seen the exact same practice at another farmer's field who was a member of MOA. Turns out they both had read about the innovation in the *Mother Earth News*, a neo-traditional, organic farming / living magazine. I was surprised that Jim, the old-time traditional farmer, read *Mother Earth News*. I asked him how he got into such literature. He then related an interesting story.

A few years ago he was in a neighboring Ozark town where his wife's family resides. He was driving down their country road when a man waved at him, requesting his assistance. The lost 'furriner' was a reporter from *Mother Earth News* who was trying to find a local farmer who was a friend of Jim's in-laws. The reporter explained to Jim that he was looking for the farmer to conduct an interview for a story he was doing on the use of mules as draft animals for plowing and skidding logs. Jim directed the reporter to the farmer's house and asked when the article would come out; the prospect of an article about a friend and his mules piqued Jim's interest. Jim later located the article about his family friend and enjoyed the contents of the magazine, which celebrated his traditional lifeways. Since that encounter, Jim has subscribed to *Mother Earth News* and implemented some of its farming and gardening ideas.

Traditional farming strategies have become an *en vogue* topic among sustainable agriculture circles. The same practices that were pushed out of practice by industry-oriented Extension and rural sociology are now being encouraged by sustainable agriculture-oriented Soil and Water Conservation Departments, rural sociologists, Agricultural Extension agents, and



Master Gardener programs (Lionberger 1960, Leagans and Loomis 1971, Rasmussen 1989). Traditional practices are frequently presented as ‘new’ ideas that originated in contemporary sustainable agriculture research situations. The farmers and farming cultures that originally developed these practices are not mentioned in relation to their innovative methods. Rather, because technocratic rationality epistemologically destroys the past, proponents of recycled traditional methods either conveniently omit and/or genuinely have no idea that these practices originated among traditional farm populations (Rhoades 1989).

In OMA, two specific examples illustrate the irony of traditional farm methods that were commonly practiced only two generations ago and still exist in remote Ozark locations being (re)introduced as new scientific innovations. Mr. Redinger, the dairy farmer discussed earlier, has turned to employment with the local soil and water conservation department. He related how the Soil and Water Conservation Department pays for him to attend scientific lectures, conferences, and demonstrations that may be useful in his relations with farmers. He has attended two intensive grazing schools put on by University of Missouri agricultural scientists. The ‘intensive grazing school’ educates farmers on the use of goats for clearing overgrown farms to make them suitable for cattle. The exact same practice was related by several traditional Old Stock farmers who learned the practice from their parents and grandparents who always used goats to clear poisonous plants and overgrown regions of their farms. Many local farmers abandoned the practice because there was not a market for goats and they ‘upgraded’ to mowing equipment and herbicides to clear the areas. Now that Mid-Eastern and Hispanic populations have created an increased demand for goat meat in the United States, local farmers, encouraged by Extension, see goats as an attractive option and are returning to the traditional use of goats to clear land.

Another example of the co-option and re-introduction of traditional practices as new innovations by the scientific community involves rotational grazing. Rotational grazing has recently received a lot of press and attention among livestock farmers and researchers and Extension and Soil and Water Conservation agents give classes to local farmers to teach them how to implement the method on their farms (Barry 1998, Ostrom and Smith 2000). For farmers to receive cost-share assistance on fence and pond building on their farms, they are required to engage in a Soil and Water Conservation approved form of rotational grazing. Many farmers believe that it is a scientific creation and a distinct departure from local traditional livestock management. But, the local Extension agent, who grew up in the region and has farmed all his life, explains that rotational grazing is nothing new in OMA. When asked if he sees a difference between the mindset of city people who buy acreage in the area and local farmers who have farmed all their lives, he responded:

Well, in a way it might be sort of the same, but it's different because a lot of the people moving here are more ecologically-minded and want to take care of the land and preserve. Where the local farmers are like; 'How can I make another dollar off this farm? We're tryin' to make a livin' and add to our income. How can I do that?' Maybe not necessarily looking at future long-term impact, just tryin' to get by now, because that is the most critical, important thing right now.

But if you go farther back in the farmer generations, I think you had more care for the land then too. I guess probably around WWII, when we first started gettin' into chemical fertilizers, or after WWII, then you got into this production mindset of how much can we produce? What can we add? But before that, they had to make due with what they had on the farm. So they recycled nutrients a lot, used their manure to fertilize. They talk about this rotational grazing being this new big thing, but the people did it already back then because they knew that it worked. Then they kind of got away from it when you found out that you could take out all your fences and throw fertilizer on it to make it grow. So the circle's coming around again.

This form of agricultural co-option by the scientific community is nothing new. Rhoades (1984, 1989:6) documented similar cases in the Andes and India:

... much technology promoted by development agencies may have been learned from farm people, directly or indirectly. An anthropologist at the International Rice Research Institute who compiled a list of technologies on offer from the Institute found that 90 percent of those being promoted had been derived from Asian farmers.

Farmers develop innovative, sustainable practices that fit their landscape. Scientists then test and tinker and corroborate that the practices work and then take the credit (Rhoades 1984).

### **Religion and Resistance**

“And having food and clothing, with these we shall be content....  
For the love of money is a root of all *kinds of* evil, for which some have strayed from  
the faith in their greediness, and pierced themselves through with many sorrows.”  
- Timothy 6:8,10 *The New Testament*

An OMA Baptist Farmer-Preacher becomes embittered against university scientists who claim they know more about farming than he does. He despises the fact that scientists tell farmers that they do not know how to work with animals and plants, that only science can discern the appropriate agricultural approach. During our interview, we were discussing the lunar signs. He commented that people were not following them like they used to and I asked why. His wife interjected something to the effect of; “We gotta believe these scientists. Instead of following this stuff (the signs), people think they gotta believe what the scientists say, instead of what they know.’ The farmer-preacher then responded:

We have come to the place where people believe that we’re the most knowledgeable and most smartest people in the world. The scripture very clearly says that they’re ever learning, never coming to the knowledge of the truth. The truth is God created all these things and he gave man knowledge enough to operate, but we have drifted from the knowledge to education. That was a bad word. There’s a difference between knowledge and education. We’ve learned a lot of things, we can do a lot of things, and people believe in all these things that we’ve learned to do, but the original way of doing things is gone.

He believes farmers should pay attention to nature, God’s creation, for cues as to how to farm, not scientists. Religion encourages Ozark farmers to resist technocratic rationalization. Baptist

and Methodist farmers primarily rely on their subjective interpretations of agroecological phenomena, the affordances of their environments, to make agricultural decisions.

Religion contributes to an explicit, outspoken resistance to the agroindustrial complex. The Catholic Church, through the Social Concerns Office, Diocese of Jefferson City, Missouri and the Missouri Center for Rural Ministries have teamed up with various neo-traditional farm groups, including sustainable agriculture proponents from the University of Missouri, to establish an annual 'Rural Life Day.' This conference focuses on the role of religion in agriculture and showcases sustainable examples of agriculture and the negative repercussions of industrial agriculture. Speakers range from Missouri farmers and preachers to professors. John Ikerd, Professor Emeritus at the University of Missouri in Columbia, MO, gave a talk entitled *Sustainable Agriculture: The Faithful Alternative*<sup>58</sup> at Rural Life Day on December 1, 2001 that emphasizes the connection between subjective interpretation (common sense) and sustainable agriculture. He proposes that a reverence for nature as sacred rather than something to be controlled needs to return to the forefront of agricultural thought:

The road to a more sustainable human society, like the road to a more sustainable agriculture, must begin with a return to common sense. This is not a call to return to superstition and mysticism, but to return to the spiritual and sacred. This is not a call to embrace the irrational, but a return to what we know to be true. Plato didn't consider it irrational to believe in the existence of an unknowable "form" of pure knowledge. Einstein didn't consider it irrational to try to understand the order of the universe by asking, "how might God have designed it to work?" It is not unscientific to believe that God gave us all a common sense of right and wrong or truth and falsehood, it's just against the current conventional wisdom. The call for sustainability is a call to embrace the science of understanding while rejecting the science of manipulation and control. It is a call to challenge the conventional wisdom that "man can be his own God," to reclaim the sacred, and to return to our common sense.

A return to common sense is an acknowledgement of the existence of a higher order of things of which we are a part. It is an acknowledgement of the interconnectedness of all things in a web of life defined by a set of inviolate laws of nature, including human nature, to which we

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<sup>58</sup> John Ikerd (2001) has a paper based on the talk entitled: *Reclaiming the Sacred: Sustainable Farming as a Metaphor for Sustainable Living*.

must conform. It is an acknowledgement that we are not our own God, nor can we ever be our own God. Instead, we are a part of God's creation and the purpose and meaning of our lives is defined by our place in the order of that creation. We can never acquire pure knowledge through observation, because it exists only in the abstract. While observations of examples of reality may be useful, our only source of true knowledge must come through intuition and insight – through our common sense.

This research corroborates Ikerd's (2001) statements, because his common sense represents Ingoldian and Gibsonian 'affordances.' When farmers consider themselves 'part of God's creation,' part of the environment, they recognize agroecological affordances and farm in accordance with them. While Ikerd (2001) sees sustainable farming as a metaphor for sustainable living, a proposition with which I agree, firmly entrenched technocratic filters perceptually remove many farmers (and the public) from their environment and encourage them to control through technology, rather than work with nature through common sense.

I regard Ikerd and his widespread dissemination of common sense as a metaphor for the necessary route that lies ahead for the sustainable agriculture movement. Ikerd is an academic who has come to these conclusions through extensive research and experience with farmers, students, politicians, and rural communities. He speaks at myriad conferences, in the classroom, at farmer demonstrations, has articles available to the public online, and coordinates with and writes in the quarterly periodical of the Missouri Organic Association, in addition to many other progressive endeavors. The manner in which he communicates with the grassroots on many levels poses a serious problem for industrial propagandists. His message is one of common sense; theirs is one of obfuscation. But their budget is infinite and their public relations barrage extremely effective.

## **Conclusions**

Contemporary Ozark agricultural diversity represents resistance and resignation; propaganda and policy. Traditional farmers have persevered because of conservative religious

and cultural influences on their worldview that prevent technocratic filters from displacing their perceptions. But most farmers in the United States have been technocratically rationalized and forced to resign from farming. Industry no longer feels the need to court the diverse agricultural sectors of the academy like it did in the past when it strove to alter farmers' conservative perceptions of technology. Untainted agricultural research now demonstrates the contradictions within the modern agro-industrial paradigm (Stull et al. 1995, Thu and Durrenberger 1998). As the studies build up and the proponents of traditional, sustainable farm systems multiply, traditional and neo-traditional farmers are emboldened and the public becomes more aware. But, as in the OMA case, frequently these studies do not reach the farmers. There is a substantial need for collaborative resistance to the agro-industrial complex. Farmers remain alienated from their interpretations and unaware of their agricultural alternatives (Jay 1973, Friedrich 1989, Appadurai 1990, Dove 1999, Sponsel 2001).

Escobar (1998) proposes that 'cultural politics' lead to the creation of an alternative view of development and social practice in defense of nature and culture. Along these lines, the confluence of an increasingly disseminated environmental discourse, a more politically astute and aware rural population, and a narrowing concentration of the food supply, could result in a more explicit defense and widespread engagement in traditional sustainability (Brosius 1999, Escobar 1996, 1998). It would also render technocratic rationality propaganda useless because farmers would perceptually resituate themselves within their environment and rely primarily on their subjective interpretations of agroecological affordances. The process of collaborative resistance also represents Escobar's (1999) 'cultural hybridization,' a form of identity production that consists of the incorporation of extra-local ideas and strategies, which strengthens the 'local' by opening up possibilities. As neo-traditional elements reinforce traditions, farmers could

continue or revert back to more traditional sustainable farm practices, while integrating extra-local methods and ideas that allow them to more efficiently utilize their agroecosystem (Rhoades 1989, Richards 1996). Old Stock and Old-Time Protestant farmers in the Ozarks who have endured the modernization process have emerged with opportunity on their side (Appadurai 1990, Dove 1999). As studies continue to reveal the negative social and environmental impacts of industrial agriculture and consumers demand 'clean' food free from agrichemicals, traditional sustainability may reemerge as the agriculture of the future.

### **Future Directions**

“A more appropriate image of contemporary anthropology would be that of a former convict scratching his or her head in the open air, liberated from the Platonian cave, puzzled by the ruins of the prison house – its perceptual illusions, its strict code of conduct, and its bizarre architectural design. Not only must such ex-prisoners wonder, in Kafkaesque fashion, why they were locked up in the first place and how they eventually got out, but more importantly, how they could possibly enjoy the new freedom in the apparent absence of idealist agenda but faced with unavoidable materialist constraints and an ecological crisis.”

- Gisli Palsson (1996:78-9)

While this study has focused on the relationship between farmers' perceptions and the abandonment of traditional, sustainable agriculture throughout the United States, it has uncovered the need for more research that examines the on-the-ground implications of individual USDA regulations. The public needs to be substantially and systematically disabused of the notion that small farms are less efficient than industrial agribusiness. Also, more research needs to disclose the irrationality of regulations that preclude farmers from selling animals or crops to local butchers and grocery stores. Why can a farmer not sell a beef cow to his local butcher? Local farmers raise superior cattle, however their communities rarely get to taste the neighboring farm's product. Because of regulations that benefit large cattle operations, their cattle are not purchased by local butchers and sold to local people. They are shipped out. I have seen excellent cattle continuously shipped off from OMA to slaughterhouses in other states. While

that high quality, hormone- and antibiotic-free meat is sold as high-end premium cuts to fancy restaurants or city grocery stores, local grocery stores carry sub-standard beef from a slaughterhouse. The slaughterhouse sells inferior animals back to the farmers' community as an equivalent product. This occurs because the cattle industry sets a standard price for all beef cattle. But all cattle are not the same.

This is just one example of the irrationality of contemporary USDA legislation and the extreme need for its re-evaluation by non-industrial researchers. Small, local farmers and rural communities would all benefit if local animals were sold to local butchers, however, regulations that make sense only to corporate interests stand in the way. Besides the wastefulness of sending local cattle far away, costing enormous amounts in transportation costs and bureaucratic red tape, the health aspects are obvious. Instead of eating 'organic' meat, poor rural communities end up with the hormone and antibiotic-laden animals from feedlots. The boom in organic agriculture demonstrates a public concern about their health and the treatment of animals, and therefore confers a higher price on beef and other foods demonstrated to be of USDA's 'organic' designation. Yet, OMA farmers' cattle fetch the same price as the relatively poor quality animals coming out of enormous feedlots.

This research has shown the effects of farmers' perceptions and national policy on farming practices and has detailed the way in which government regulations have consistently facilitated the displacement and eradication of small farmers by an inefficient, unscrupulous agricultural system that denies cultural identities and livelihoods in the name of profit (Magdoff et al. 2000). More research must be done to reveal the deficiencies in a governmental organization that was founded in defense of precisely the cultural identity it destroys (Mattera 2004). As the family farm goes, so goes the idyllic rural life so many envision (Ikerd 2001).



The applied sciences of agriculture were relatively transparent in the past because there was an underlying belief in the benevolence of their development project (Leagens and Loomis 1971, Rhoades 2005). But now public relations campaigns are clandestine and inaccessible, hidden from the public through legislation protecting companies' privacy. The public relations trade went almost completely underground around the 1930's and '40's when industry realized that their perception-controlling strategies would be looked upon unfavorably by those whose worldview was being altered (Herman and Chomsky 1988, Stauber and Rampton 1995). The United States founding fathers and subsequent propaganda researchers explicitly forewarned about the power inherent in perception control and the disastrous consequences if the public becomes unaware or complacent about negative propaganda (Jefferson 1801, Childs 1940, Christenson and McWilliams 1962).

Further ethnoecological and social psychological research needs to examine perceptual influence and control in connection with industrial public relations campaigns and the possible repercussions. This story of perceptual influence strategies and United States farmers represents an excellent moral for future technology implementation. Just as traditional Ozark farmers approached the modern experiment with skepticism and precaution, a culturally ingrained precautionary principle so to say, the general public must understand that blind faith in technology and science results in serious mistakes. If the modern conundrum, and cases such as multiflora rose, have taught us anything, it is that more research should be done before biotechnological introductions create unforeseen, unfathomable effects. Even pure vision is short-sighted. The lessons of the past, the failures and successes, must remain ubiquitous in the present and future to ensure that we do not revisit past mistakes at even more disastrous levels.

### **To the Dead Poor Man**

...Oh, our poor poor man,  
he will not know what to do with so much sky.  
Can he plow it or sow it or harvest it?  
...Now it dawns on us we are taking on  
all that we never gave him, and now it is late...

-- Pablo Neruda (1975) *Fully Empowered*

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## Appendix A

### Survey Questions

All of the information in this survey and in the interview will remain anonymous and confidential and will not be used for anything except research purposes. If you feel uncomfortable answering any questions you may skip them. If a question does not apply to your case, simply put an X in the blank. Thank You. If you have any questions, please contact the researcher, Brian Campbell, at 573-546-3502.

1. How old are you? \_\_\_\_\_
2. How long have you been farming? \_\_\_\_\_
3. Do you own your land? Rent? \_\_\_\_\_
4. How long have you lived here? \_\_\_\_\_
5. How much land do you have in acres? \_\_\_\_\_
6. Religion? \_\_\_\_\_
7. Another occupation besides farming? What is it? \_\_\_\_\_
8. Have you had another occupation in the past or do you plan to? \_\_\_\_\_
9. Annual household income? \_\_\_\_\_
10. What kind of farming do you engage in? \_\_\_\_\_
11. Do you have livestock? If so, what kind, how many? \_\_\_\_\_
12. Have you had animals of any sort in the past? What kind, \_\_\_\_\_
13. Do you grow vegetables (anything)? \_\_\_\_\_
14. For market? \_\_\_\_\_
15. To eat at home? \_\_\_\_\_
16. What do you grow? \_\_\_\_\_
17. Do you use chemical fertilizers? \_\_\_\_\_
18. Manure? \_\_\_\_\_
19. Do you use insecticides? Which ones? \_\_\_\_\_
20. Fungicides? Which ones? \_\_\_\_\_
21. Herbicides? Which ones? \_\_\_\_\_
22. Where do you get your chemical inputs? \_\_\_\_\_
23. Who do you sell your product to? \_\_\_\_\_

## **Appendix B**

### **Semi-Structured Interview Guide**

1. Do you know the history of your farm?
2. How did you learn to farm? (did your parents or other relatives teach you?)
3. What did your parents or other relatives teach you about farming or working the land?
4. What kind of changes has this farm undergone?
5. Have you changed the way you farm?
6. Can you give me examples of changes you have made on the farm and tell me why you made those changes?
7. Where do you get information about farming now? Before?
8. Do you get any farming magazines or publications? Which Ones? Since when?
9. Do you speak with extension agents about farming?
10. Do you take their advice and apply it to your farm?
11. Do you read/use the Farmers' Almanac? How do you use it?
12. How do you think farming has changed in this region? Why has it changed?
13. Why do you farm?
14. Does the bible/your religion tell you how to farm?
15. Do you have livestock? If so, what kind, how many?
16. What do you do with the waste?
17. Do you or other farmers use some as fertilizer?
18. Do you use growth hormones? Any other treatments for your animals?
19. When did you begin using hormones? Why? Where did you learn about them? Where do you get them?
20. Do you grow vegetables? For market? For household consumption?
21. What do you grow?
22. What types of fertilizer do you use? Manure?
23. Do you use insecticides? Which ones?
24. Fungicides? Which ones?
25. Herbicides? Which ones? Where do you get them?
26. How have prices changed and affected your production and decisions?
27. Do you practice soil conservation?
28. What do you do to prevent erosion?
29. How is your soil? How would you describe it?
30. Do you practice crop rotation ?
31. Do you use cover crops?
32. Who do you sell your product to?
33. What is your busiest time of year?
34. Can you describe your farming process or schedule from beginning to end — for example what is required of you from month to month> -- what is your typical year like in terms of farming work?

## Appendix C

### Thematic Apperception Test (TAT) Images

Image 1.



Image 2.



Image 3.



Image 4.



Image 5.



**Image 6.**



**Image 7.**



## Appendix D

### Semantic Differential (SD)

#### Wild Plants

1    2    3    4    5    6    7

|           |  |  |  |  |  |  |  |           |
|-----------|--|--|--|--|--|--|--|-----------|
| Easy      |  |  |  |  |  |  |  | Hard      |
| Good      |  |  |  |  |  |  |  | Bad       |
| Helpful   |  |  |  |  |  |  |  | Harmful   |
| Strong    |  |  |  |  |  |  |  | Weak      |
| Clean     |  |  |  |  |  |  |  | Dirty     |
| Exciting  |  |  |  |  |  |  |  | Boring    |
| Warm      |  |  |  |  |  |  |  | Cold      |
| Useful    |  |  |  |  |  |  |  | Useless   |
| Rich      |  |  |  |  |  |  |  | Poor      |
| Smart     |  |  |  |  |  |  |  | Stupid    |
| Fast      |  |  |  |  |  |  |  | Slow      |
| Important |  |  |  |  |  |  |  | Petty     |
| Beautiful |  |  |  |  |  |  |  | Ugly      |
| Permanent |  |  |  |  |  |  |  | Temporary |
|           |  |  |  |  |  |  |  |           |



## Appendix E

### Agricultural Media (Farm Journal ®) Advertisements

1. March 1960



**"OUR FARM IS OUR INSURANCE"**

Who's kidding who? In the old days, the farm was often all the insurance a man needed. But times have changed. Nowadays life is more complicated, especially in the financial sense.

Today when a farmer dies, his family's greatest need is for immediate cash. They may need money for hospital and doctor's bills, estate and inheritance taxes, probate costs, and the executor's fee. There are usually other debts for new equipment, loans and a mortgage to pay off.

Rarely can a farm provide this "crop" of ready cash without being sold piecemeal—and often at depressed prices. But life insurance can do the job.

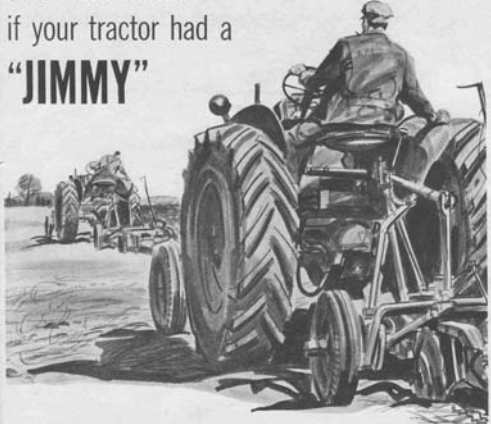
Setting up an insurance program that provides the cash when your family needs it most is a service your Prudential Agent would like to discuss with you. He's a real "pro" in all aspects of life insurance, particularly as they relate to farmers.

Welcome him when he calls.

THE PRUDENTIAL INSURANCE COMPANY OF AMERICA

2. March 1960

**YOU** wouldn't need that extra hand if your tractor had a **"JIMMY"**



With a GM Diesel in your tractor you'll get more work per man-hour, cut your labor costs. A recent test showed a "Jimmy"-powered tractor could plow 40 acres while another Diesel plowed 31%. GM Diesel sets the standard of Diesel productivity.

You can get a GM Diesel now in JOHN DEERE, MASSEY-FERGUSON and OLIVER tractors or ask your dealer.

**GM DIESEL**  
DETROIT DIESEL ENGINE DIVISION  
GENERAL MOTORS, DETROIT 26, MICH.

In Canada: CHRYSLER, MONTREAL, QUEBEC, LONDON, TORONTO  
Parts and Service Stations

3. March 1960

**WHAT AN ANTIBIOTIC IN FEED CAN DO FOR YOU**  
*The story of Aureomycin.*



This report tells what antibiotics will do for you on your farm.

Shown above is the report "WHAT AN ANTIBIOTIC IN FEED CAN DO FOR YOU." By now, you have probably removed the original and plan to keep it for profitable use. If you want additional copies, get in touch with your feed manufacturer or feed dealer. American Cyanamid Company, Agricultural Division, New York 20, N. Y. **AUREOMYCIN** is American Cyanamid Company's trademark for chlortetracycline.

**CYANAMID**  
**AUREOMYCIN**  
IN FORMULA FEEDS

4. March 1960

**BIG NEWS FROM NEW HOLLAND FOR 1960**

**Now...True versatility**

**comes to bale handling**

**with New Holland's New BALE CARRIER!**

The new, low-cost New Holland "121" Bale Carrier cuts labor 50 to 75%. Makes one of your toughest chores a breeze!

Goose together like a child's building set. You start with the 18-foot, low unit and hook on 8-foot sections up to 98 feet. Operates from one end! A tug of a rope and the exclusive Bale Lifter—control location and direction of bale discharge from the safety of the rear floor or outside the barn!

The "121" Bale Carrier has so many all-new features—you've got to see it to believe it! And all at a low, low price! See your New Holland dealer today. Or write New Holland Machine Company, Division of Sperry Rand Corporation, New Holland, Pa.

**NEW HOLLAND**

5. March 1960



**Other companies  
are now making nylon tractor tires.  
If you don't believe they're good,  
just ask their design engineers.**



**BFG has been making nylon tractor tires  
for over four years.  
If you don't believe they're good,  
just ask your neighbors.**

Nothing wrong with design engineers. B.F. Goodrich has some of the best. But when you're thinking of buying new tractor tires, and you'd like to get the extra value of a nylon cord body, we'd just as soon have you ask your neighbors about our Nylon Power-Grip. They've used them long enough to know they're good.

For example, take Vincent Welsh, near Matson, Illinois. He has this to say about the BFG Nylon Power-Grip: "I get dependable performance from them, and good service from the local B.F. Goodrich dealer."

What's more, Mr. Welsh and you get a real break on price with Nylon Power-Grip. They cost less than most tires made without nylon.

So, check out the whole deal with the man at your BFG Farm Tire Service Center. You can get a big trade-in allowance on your present tires. Crop Payment Plan terms, if you want them. On-the-farm service when you need it. And our design engineers will keep right on working for you... and your neighbors. B.F. Goodrich Tire Company, Akron, Ohio 44316.



**The Tough Breed of Tire**

6. November 1965

### Europe for sale.

15 days in 6 countries for \$477, everything included.

Look at what BOAC's offering you on the full Premier Vickers Viscount. From London to Paris, Rome, Athens, Frankfurt, Zurich, Geneva, Amsterdam, and back to London. For just \$477, everything included. Most you, everything yours. Your round trip air fare from New York, hotels, meals, tips, taxes, and ground transportation, and all other transportation costs. Every one and every one.

If you have a little more time, we'll take you to the 17-day tour of the Holy Land. \$1775 gets you everything for the five-year tour. You'll see the Holy Land, Jerusalem, Bethlehem, Haifa, and more. You'll see the Holy Land, Jerusalem, Bethlehem, Haifa, and more. You'll see the Holy Land, Jerusalem, Bethlehem, Haifa, and more.

**BOAC**  
BRITISH OVERSEAS AIRWAYS CORPORATION

### If you've ever wanted to Visit the Holy Land

FARM JOURNAL will take you next February

FARM JOURNAL's trip to the Holy Land every winter has become an institution. Six times now we have organized groups of farm and country-town people to visit this historic spot (plus adjoining countries), and each year the party has grown larger. Next winter we'll take two groups, one leaving New York Feb. 14, the other Feb. 24.

If you've ever thought of visiting the lands of the Bible, why not go with us? We've never had a better itinerary—one we've perfected over the years. In just 17 days, traveling by modern fast jets, you'll see all the high spots. You'll miss some cold winter weather back home, enjoy the warmth of the eastern Mediterranean sun-land, and be back home before spring work starts.

We can scarcely begin to tell you of the wonderful things you'll see, but here are some:

Jerusalem—"The Golden," to many the holiest city in the world, surely one of its most historic. Although the walls have been razed by invading armies a half dozen times (and rebuilt as many) they still stand. You'll see the Golden Gates, through which Jesus passed on Palm Sunday. You'll walk the very spot where Solomon's Temple stood, see the Antonia where Jesus stood trial before Pilate, Herod's citadel where He was taken, the Via Dolorosa up which He carried His cross, the Garden of Gethsemane, the Mount of Olives.

You'll visit Bethlehem, Jericho, the Jordan River, the Dead Sea, Nazareth, the Sea of Galilee, the site of Capernaum, the hill where the Sermon on the Mount was preached. You'll travel the road by which Jesus "ascended up to Jerusalem."

And that's just the Holy Land! Coming and going you'll visit fabulous Egypt, see Damascus and Baalbek and Beirut, stop in Athens. Think of it, and for only \$1191 (with optional side trips extra).

You'll be with competent tour conductors and expert guides, who'll take care of every arrangement, see that you don't have a thing to worry about. Send for our free brochure and let us tell you more, then start planning to go!

Travel Dept.  
Farm Journal  
P.O. Box 476  
Philadelphia, Pa. 19105

Please send me further information on your Holy Land Tour.

Name (Mr., Mrs., Miss) \_\_\_\_\_

Address \_\_\_\_\_

7. November 1965



**Alvin Heister, Lecky, Ohio**  
Heister with Sohigro dealer, Vince Kable. "Before picking I had 18 bushels corn. We side-dressed with Sohigro 27-0-0 nitrogen fertilizer. The fertility program with Sohigro made a difference of about 30 bushels per acre and the carry-over helps me get 40 bushels more."



**William Ross, Emporia, Kansas**  
Ross with Sohigro dealer, Dick Weaver. "What I like about Sohigro urea is that certain weather has less effect on my end yield. This is the stuff to use if you really want something to stay with you."



**Johnny Brown, Table Rock, Nebraska**  
Brown with Sohigro dealer, Paul Stewart. "For the past few years we have used Sohigro fertilizer in a half fertilizer program. Yield increases have been outstanding. This year's crop is better than all the years we've had and this has been a bad year with both drought and extremely hot weather."

### "Sohigro brought me through in a dry year"

Good management and the help of Sohigro fertilizer specialists helped Alvin Heister, Johnny Brown and William Ross grow profitable crops in spite of a dry year. 120 bushel corn, 95 bushel sorghum, better-than-average wheat. Proper use of Sohigro supplemental nitrogen made the big difference. Sohigro nitrogen—applied at the proper rate—can save off drought an extra two weeks.

Farmers such as these are setting a new pace. Within a few years, they may be looking at 150-200 bushel corn, 125 bushel sorghum and 60 bushel wheat or better.

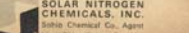
Now is the time to pave the way for big yields this year. Top dress wheat and pastures with Sohigro nitrogen. Flow down Sohigro for corn and other row crops. Be sure to put on enough to take full advantage of the moisture you have.

Your Sohigro supplier can help you move up to a higher level of crop production. He knows soils and crops in your area. His recommendations are based on your soil tests, seed, planting rate, yield goals and other factors. In short, he is a top yield specialist. And when you are shooting for top yields, it pays to work with a man who knows.

Your Sohigro supplier can provide you with nitrogen in every form—liquid or dry. See him now and let him help you plan this year's crops.



**ENERGIZE WITH SOHIGRO**



**SOLAR NITROGEN CHEMICALS, INC.**  
Sohigro Chemical Co., Agent  
Lima, Ohio • Kansas City, Mo.



8. May 1964

## How many of these good management practices do you use with your baby pigs?

A quiz for pork producers who love their way of life on the family farm and are determined to succeed.

by Tom Staley  
Dean of the  
Professional Advisors

All of us know that a good start goes a long way toward assuring a good finish. A good start always involves taking care of many little details from the very beginning. This is true whether you're building a house, raising a son, or producing pork.

If a builder loves his work, he'll build good houses because he'll find the energy to take care of all the details that are essential to starting a solid foundation. The same thing applies to a pork producer.

Now, we at Professional Feeds have specialists on our staff who have made a careful study of how to get baby pigs off to a fast, healthy start in life.

From these efforts, we have developed a program that we enthusiastically recommend to pork producers who are interested in raising healthy pigs that will be good doers throughout their life. We found that nursing pigs, when creep-fed our Professional Pig Kines, gained, on the average, 5 pounds more per pig than baby pigs not creep-fed. And they continued to gain faster after weaning, too! We call this our Professional Program of Care and Kines. Check below how many of these proven profitable practices you follow:

**Wash farrowing quarters** thoroughly with a detergent. Let quarters remain closed 3 days to break any disease cycle. Then disinfect and let dry before moving in sows. Disinfection is best applied with high pressure sprayer.

Do You? Yes ☐ No ☐

**Wash sows** with mild soap or kerosene thoroughly with a stiff brush before moving to the farrowing quarters to remove dirt and worm eggs. Disinfect and treat sows thoroughly for lice at the same time.

Do You? Yes ☐ No ☐

**Resist the sow's feed** before farrowing. Increase the sow's feed gradually after farrowing until on a full feed by the 7th day. This helps prevent mastitis and other troubles common in the baby-pigs during this vital period.

Do You? Yes ☐ No ☐

**Vital job on the first day** after farrowing is cleaning and bathing. These baths can lower the sow's udder or rub other pigs. Eat fresh baby piglets, if at all time. Ear-matched pigs can be identified throughout their lives.

Do You? Yes ☐ No ☐

**FREE Sample of Pig Kines** Just go to your local Professional Feeds Dealer and ask him for a free sample of Pig Kines! If there is not a dealer nearby, your present feed dealer can get a sample for you by writing to me on his business stationery. If your dealer doesn't know of this offer, you might show him this page.

**PROFESSIONAL FEEDS**

**FREE Sample of Pig Kines** Just go to your local Professional Feeds Dealer and ask him for a free sample of Pig Kines! If there is not a dealer nearby, your present feed dealer can get a sample for you by writing to me on his business stationery. If your dealer doesn't know of this offer, you might show him this page.

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**PROFESSIONAL FEEDS**

9. February 1965

## NEW HEALTH SAFEGUARD FOR SHIPPED CATTLE. At the first sign of shipping stress, act fast with new TYLAN, the antibiotic treatment against shipping fever, pneumonia, foot rot, and other costly cattle diseases.

Shipping fever can cut deep into cattle profits. Gentle injections of new Tylan work well in controlling important causes of shipping fever and other Tylan-sensitive diseases. The new antibiotic action of Tylan is specific—it is not a shotgun cure-all treatment. Buy Tylan from the convenient Elanco self-service display. Look for it at your dealer's. Address inquiries to 1124 Harvey Street, Omaha, Nebraska.

Helping you to healthier profits through healthier farm animals!

ELANCO PRODUCTS COMPANY  
A Division of Eli Lilly and Company

10. February 1965

## SOIL INCORPORATION hottest thing in weed killing

ST CHARLES E. BALL, of Farm Journal's Field Staff

Mixes in the weed killer. Tenka and bolon mount on the tractor to apply Tylan spray; the disk and spike-tine harrow work it into the soil. Elmo Grading, Hase Co., Tex., incorporated some Elanco trial plots in '64, will "go all the way" in '65. Photo by E. Ball.

■ So often has a practice caught on so fast as soil incorporation of weed killers did last year. Farmers east of the Mississippi treated more than one million acres of corn in 1964, soybeans and groundnuts the idea across the Midwest, and Midwest farmers moving to soil-incorporated weed killers for sugar beets.

This year, incorporation will become even more widespread. Results were excellent in 1964, and in 1965, Tylan, one of the new weed killers adapted to soil incorporation, is now cleared for use on all soybeans except those grown for hay.

"We'll treat all our soybeans—about 120 acres this way in 1965," says Abe Carter, Montgomery County, Ind. (photo, right).

Other soybean and groundnut who tried Tylan in 1964 are just as enthusiastic. "It really knocked out the weeds," says Curt Bradley, Calumet County, Ill. "A lot of people came by to look at our field. We cultivated all our soybeans only once, usually to clean out volunteer corn. Unweeded beans filled in with giant foxtail—made 30 lbs. per acre. Our treated beans averaged 45."

Bradley pulled a disk and drag behind his broadcast sprayer to incorporate the chemical on 50 acres of soybeans that he grew for certified seed.

In the West, farmers are working Stauffer Chemical Company's Tylan or Tylan and Monomethyl Amides into the soil to clean out weeds in sugar beets.

"We believe we're killing about 50% more weeds by power-incorporating Tylan and Avadex," reports Ed Schmitt, head of Great Western Sugar Company's weed research.

In 1964, Schmitt got his best results by incorporating a combination of the two chemicals 15 inches deep. Two brand new chemicals, Amadex and Pyramin, and Pyramin's 120-242 worked best when incorporated 1 to 1½ inch deep in his dry, irrigated soil.

Farmers and scientists alike say that incorporation keeps more weeds, lets you use lower rates and protects the chemical against weather.

"Most farmers get more than 95% control of weeds and grass with Tylan in 1964, except where they failed to incorporate thoroughly," says R. J. Baker of Elanco Products Company, Indianapolis, Ind., maker of the chemicals. It says giant foxtail, crabgrass, ragweed and about 25 others, but doesn't get Chinese tallow tree or nutcracker-grass weeds such as nutcracker and nutcracker.

For best results, Elanco is advising recommend that implement and its horsepower be set to run two to four inches deep. These tests show that power-driven tools such as rotary tillage that go two to three inches deep do the most thorough mixing job. The next best job—especially for deep, broadcast incorporation—comes from pulling a disk and a spike-tooth drag immediately behind the sprayer.

One advantage of soil incorporation is that you can cultivate later. (Continued on page 37)

11. November 1965

## SCIENTIST

He researches nitrogen and protein phosphorus and potash.

Does battle with aphids and alfalfa weevils, resistant rootworms.

He probes tomorrow, while planting today.

He knows the heartache of failure—the satisfaction of success, for he is a world of hybrid crops and irrigation—on farm elevators and air-lift silos.

Within these pages he finds information and products that help to bring the future a little bit closer.

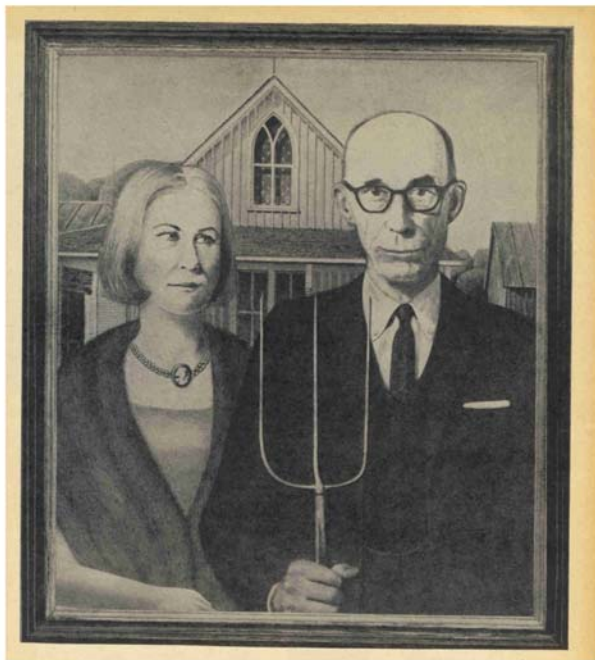
He is forever comparing, experimenting, trying—and he reads this magazine, just as you do.

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Photo by E. Ball.



12. February 1965



13. March 1981



14. March 1981

**Roundup. Because it works, and because it's worth it.**



You're a farmer, and you're also a businessman. So you hate to see weeds competing with your crop for moisture and nutrients. And you know that when you control those weeds, you can make more money than when you don't.

That's why Roundup® herbicide belongs in your weed control plans. Roundup can help you as a farmer, and as a businessman.

**Nothing works like Roundup against stubborn emerged weeds.** Roundup controls them above and below ground—including their roots. So treated weeds can't grow back. What's more, Roundup leaves no crop-damaging carryover.

As a farmer, you'll like the fact that Roundup controls many annual and perennial weeds—even the ones other methods may miss. Including tough weeds like rhizome johnsongrass, bermudagrass, pigweed and ragweed.

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**TRAMISOL®**



**Because it all comes down to the payoff.\***

**The Payoff:**

|           | Feed saved per pig |
|-----------|--------------------|
| Tramisol® | 51 lbs.            |
| Algenol™  | 27 lbs.            |

You're looking at the Tramisol Payoff. More feed saved per pig than the next-best selling dewormer. A lot more. That's because Tramisol® levamisole kills more major worms. And that means a better return on every deworming dollar you spend. It's no wonder that through good times and bad, more hog producers buy Tramisol than any other dewormer. Go for the best deworming protection money can buy. Go for the Tramisol Payoff. *Tramisol®. It pays off better because it works better.*

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16. March 1981



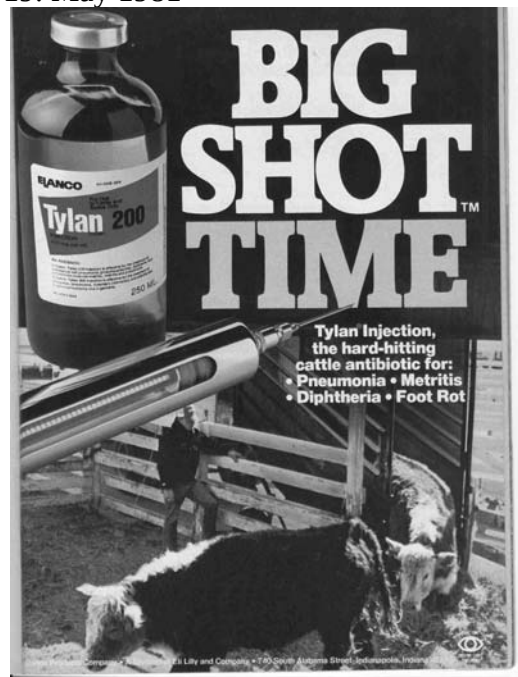
17. March 1981



18. March 1981

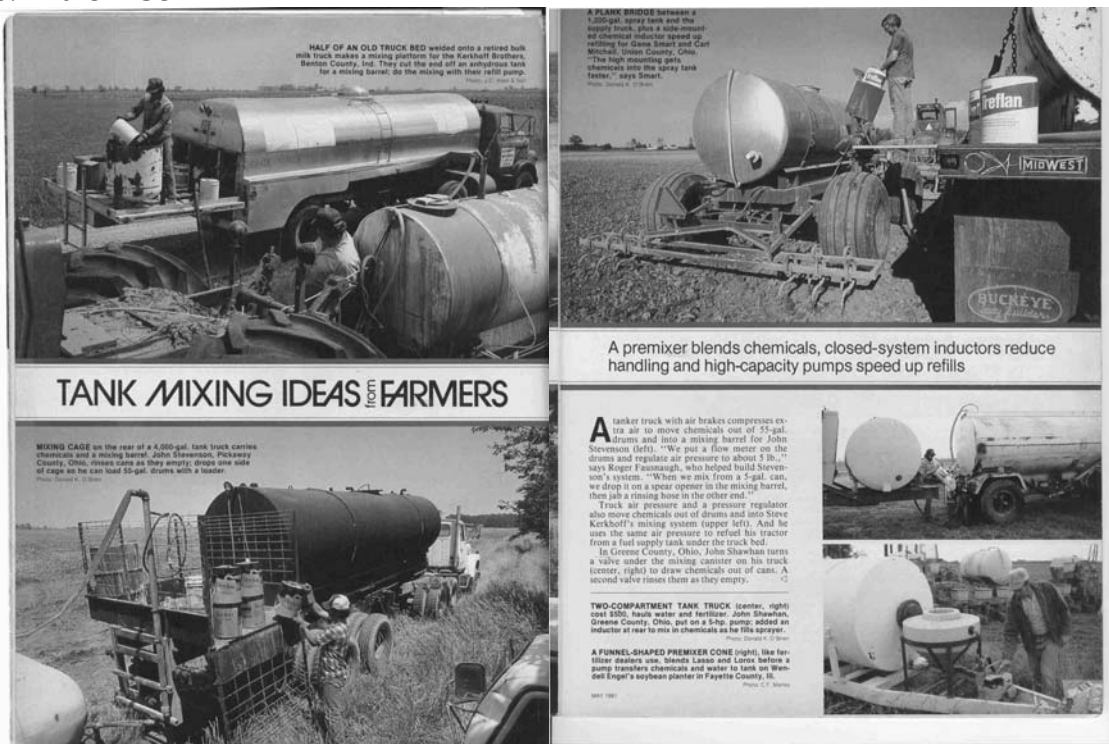


19. May 1981





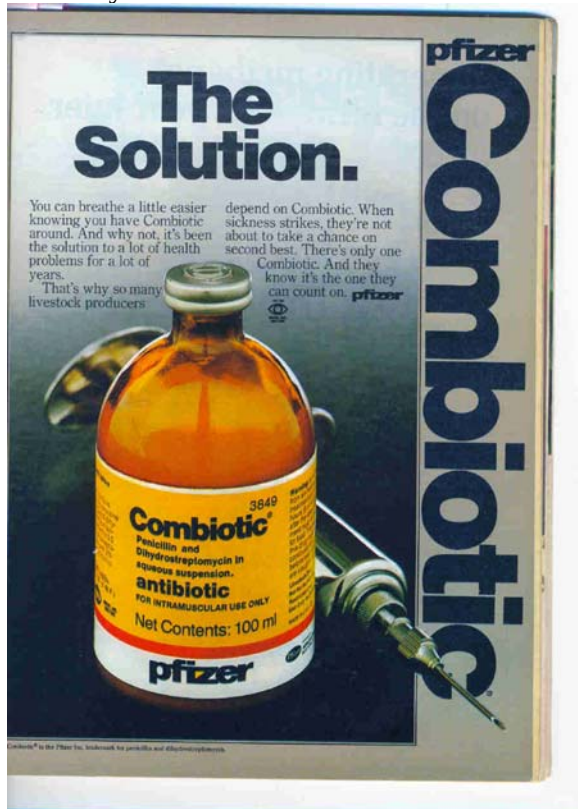
20. March 1981



21. March 1981



22. May 1981



## Appendix F

### Farm Statistics from Ozark Mineral Area Counties

| <b>Iron County</b>                     |                       |                                |                          |                                                     |
|----------------------------------------|-----------------------|--------------------------------|--------------------------|-----------------------------------------------------|
| <b>Farm Numbers, Acreage and Value</b> |                       |                                |                          |                                                     |
| Year                                   | Number<br>of<br>Farms | Land<br>In<br>Farms<br>-acres- | Avg. Size<br>of<br>Farms | Value of<br>Land & Bldgs<br>per Acre<br>- dollars - |
| 1850                                   | NA                    | NA                             | NA                       | NA                                                  |
| 1880                                   | 624                   | 87,624                         | 140                      | 8.78                                                |
| 1900                                   | 880                   | 102,284                        | 116                      | 9.66                                                |
| 1910                                   | 926                   | 112,413                        | 121                      | 13.63                                               |
| 1920                                   | 929                   | 114,193                        | 123                      | 28.05                                               |
| 1930                                   | 899                   | 108,183                        | 120                      | 25.01                                               |
| 1940                                   | 1,205                 | 115,795                        | 96                       | 19.19                                               |
| 1945                                   | 1,105                 | 127,584                        | 116                      | 33.05                                               |
| 1954                                   | 752                   | 125,854                        | 167                      | 37.53                                               |
| 1959                                   | 504                   | 95,515                         | 190                      | 41.93                                               |
| 1964                                   | 465                   | 103,645                        | 223                      | 67.93                                               |
| 1969                                   | 294                   | 73,170                         | 249                      | 126.31                                              |
| 1974                                   | 288                   | 69,644                         | 242                      | 275.00                                              |
| 1978                                   | 306                   | 66,129                         | 216                      | 489.00                                              |
| 1982                                   | 301                   | 64,073                         | 213                      | 582.00                                              |
| 1987                                   | 286                   | 67,015                         | 234                      | 453.00                                              |
| 1992                                   | 284                   | 68,596                         | 242                      | 585.00                                              |
| 1997                                   | 274                   | 62,537                         | 228                      | 936.00                                              |

NA-Not available.

Source: U.S. Census of Agriculture

**Iron County  
Livestock on Farms**

| Year | All<br>Cattle | Beef<br>Cows<br>- number of head - | Milk<br>Cows | All Hogs<br>& Pigs /1 | Sheep &<br>Lambs /2 |
|------|---------------|------------------------------------|--------------|-----------------------|---------------------|
| 1850 | NA            | NA                                 | NA           | NA                    | NA                  |
| 1880 | 4,186         | NA                                 | 1,608        | 11,926                | 2,993               |
| 1900 | 8,245         | NA                                 | 2,456        | 8,446                 | 3,075               |
| 1910 | 7,438         | NA                                 | 2,446        | 5,956                 | 2,380               |
| 1920 | 9,700         | NA                                 | 2,100        | 5,000                 | 1,300               |
| 1930 | 7,900         | NA                                 | 2,200        | 3,900                 | 1,700               |
| 1940 | 9,700         | NA                                 | 2,200        | 6,900                 | 1,900               |
| 1950 | 9,700         | NA                                 | 2,300        | 5,000                 | 500                 |
| 1960 | 9,800         | NA                                 | 600          | 4,900                 | 300                 |
| 1970 | 11,200        | NA                                 | 200          | 4,000                 | 22                  |
| 1980 | 12,300        | 5,900                              | 100          | 3,700                 | NA                  |
| 1985 | 11,500        | 5,400                              | 50           | 1,300                 | NA                  |
| 1990 | 10,500        | 4,700                              | 50           | 600                   | NA                  |
| 1991 | 10,300        | 5,000                              | 3/           | 700                   | NA                  |
| 1992 | 10,600        | 5,100                              | 3/           | 600                   | 369                 |
| 1993 | 11,800        | 5,300                              | 3/           | 500                   | NA                  |
| 1994 | 12,300        | 5,800                              | 3/           | 500                   | NA                  |
| 1995 | 11,700        | 5,500                              | 3/           | 400                   | NA                  |
| 1996 | 12,100        | 5,800                              | 3/           | 500                   | NA                  |
| 1997 | 12,500        | 5,500                              | 3/           | 400                   | NA                  |
| 1998 | 9,900         | 5,000                              | 3/           | 500                   | NA                  |
| 1999 | 10,100        | 5,100                              | 3/           | 500                   | NA                  |

1/ December 1 previous year beginning 1970.

2/ Census years only.

3/ Less than 50 head.

NA-Not available.

Source: Missouri Agricultural Statistics Service

**Iron County  
Wheat Production**

| Year | Harvested<br>-acres- | Yield<br>-bu/acre- | Production<br>-bushels- |
|------|----------------------|--------------------|-------------------------|
| 1850 | NA                   |                    |                         |
| 1879 | 5,526                | 9.0                | 49,521                  |
| 1899 | 2,264                | 9.4                | 21,170                  |
| 1909 | 2,030                | 11.9               | 24,077                  |
| 1920 | 4,680                | 8.3                | 38,900                  |
| 1930 | 900                  | 11.1               | 9,960                   |
| 1940 | 1,500                | 13.2               | 19,840                  |
| 1950 | 3,200                | 18.0               | 57,700                  |
| 1960 | 100                  | 20.0               | 2,000                   |
| 1970 | 100                  | 37.0               | 3,700                   |
| 1980 | 100                  | 35.0               | 3,500                   |
| 1985 | 150                  | 30.0               | 4,500                   |
| 1990 | *                    |                    |                         |
| 1991 | *                    |                    |                         |
| 1992 | *                    |                    |                         |
| 1993 | *                    |                    |                         |
| 1994 | *                    |                    |                         |
| 1995 | *                    |                    |                         |
| 1996 | *                    |                    |                         |
| 1997 | *                    |                    |                         |
| 1998 | *                    |                    |                         |

\* Less than 500 acres planted.

NA-Not available.

Source: Missouri Agricultural Statistics Service

**Madison County**  
**Farm Numbers, Acreage and Value**

| Year | Number<br>of<br>Farms | Land<br>In<br>Farms<br>- acres - | Avg. Size<br>of<br>Farms | Value of<br>Land & Bldgs<br>per Acre<br>- dollars - |
|------|-----------------------|----------------------------------|--------------------------|-----------------------------------------------------|
| 1850 | NA                    | 55,044                           | NA                       | 6.74                                                |
| 1880 | 1,158                 | 134,440                          | 116                      | 7.50                                                |
| 1900 | 1,163                 | 147,711                          | 127                      | 10.14                                               |
| 1910 | 1,168                 | 138,484                          | 119                      | 17.14                                               |
| 1920 | 1,046                 | 136,210                          | 130                      | 28.00                                               |
| 1930 | 985                   | 134,629                          | 137                      | 24.48                                               |
| 1935 | 1,049                 | 137,590                          | 131                      | 14.47                                               |
| 1940 | 949                   | 131,687                          | 139                      | 18.33                                               |
| 1945 | 921                   | 141,323                          | 153                      | 20.81                                               |
| 1950 | 945                   | 149,297                          | 158                      | 32.79                                               |
| 1954 | 846                   | 144,536                          | 171                      | 34.21                                               |
| 1959 | 607                   | 127,470                          | 210                      | 49.43                                               |
| 1964 | 451                   | 112,425                          | 249                      | 77.05                                               |
| 1969 | 433                   | 106,371                          | 246                      | 114.85                                              |
| 1974 | 394                   | 108,143                          | 274                      | 229.00                                              |
| 1978 | 431                   | 114,141                          | 265                      | 437.00                                              |
| 1982 | 432                   | 111,000                          | 257                      | 535.00                                              |
| 1987 | 410                   | 111,007                          | 271                      | 455.00                                              |
| 1992 | 380                   | 111,549                          | 294                      | 619.00                                              |
| 1997 | 386                   | 110,092                          | 285                      | 707.00                                              |

NA-Not available.

Source: U.S. Census of Agriculture

**Madison County  
Livestock on Farms**

| Year | All Cattle | Beef Cows<br>-number | Milk Cows<br>of head- | All Hogs<br>& Pigs /1 | Sheep &<br>Lambs /2 |
|------|------------|----------------------|-----------------------|-----------------------|---------------------|
| 1850 | 4,697      | NA                   | 1,743                 | 17,703                | 4,933               |
| 1880 | 6,328      | NA                   | 2,209                 | 17,833                | 3,848               |
| 1900 | 8,997      | NA                   | 2,649                 | 13,971                | 4,751               |
| 1910 | 9,040      | NA                   | 3,187                 | 9,152                 | 4,147               |
| 1920 | 10,900     | NA                   | 2,400                 | 7,700                 | 3,300               |
| 1930 | 9,800      | NA                   | 2,300                 | 5,500                 | 3,300               |
| 1940 | 11,900     | NA                   | 1,600                 | 9,800                 | 3,300               |
| 1950 | 10,800     | NA                   | 2,200                 | 9,000                 | 900                 |
| 1960 | 11,900     | NA                   | 900                   | 8,800                 | 500                 |
| 1970 | 16,100     | NA                   | 100                   | 12,600                | 109                 |
| 1980 | 17,400     | 8,200                | 100                   | 15,400                | NA                  |
| 1985 | 18,700     | 8,500                | 50                    | 13,600                | NA                  |
| 1990 | 20,300     | 9,100                | 50                    | 12,300                | NA                  |
| 1991 | 20,300     | 9,600                | 50                    | 13,500                | NA                  |
| 1992 | 20,500     | 9,900                | 3/                    | 12,400                | 163                 |
| 1993 | 19,800     | 9,900                | 3/                    | 11,400                | NA                  |
| 1994 | 19,700     | 10,500               | 3/                    | 9,700                 | NA                  |
| 1995 | 18,600     | 9,900                | 3/                    | 7,400                 | NA                  |
| 1996 | 19,000     | 9,800                | 3/                    | 6,500                 | NA                  |
| 1997 | 18,500     | 10,000               | 3/                    | 4,500                 | 210                 |
| 1998 | 18,700     | 8,900                | 50                    | 8,100                 | NA                  |
| 1999 | 19,000     | 9,100                | 3/                    | 7,700                 | NA                  |

1/December 1 previous year beginning 1970.

2/Census years only.

3/Less than 50 head.

NA-Not available.

Source: Missouri Agricultural Statistics Service



**Madison County  
Wheat Production**

| <b>Year</b> | <b>Harvested<br/>-acres-</b> | <b>Yield<br/>-bu./acre-</b> | <b>Production<br/>-bushels-</b> |
|-------------|------------------------------|-----------------------------|---------------------------------|
| 1850        | NA                           |                             | 11,439                          |
| 1879        | 9,153                        | 8.1                         | 73,691                          |
| 1899        | 9,289                        | 13.3                        | 123,870                         |
| 1909        | 6,000                        | 17.4                        | 104,263                         |
| 1920        | 6,360                        | 11.1                        | 70,540                          |
| 1930        | 1,400                        | 13.5                        | 18,870                          |
| 1940        | 1,700                        | 14.9                        | 25,300                          |
| 1950        | 2,200                        | 13.8                        | 30,300                          |
| 1960        | 500                          | 22.6                        | 11,300                          |
| 1970        | 600                          | 32.0                        | 19,200                          |
| 1980        | 600                          | 37.5                        | 22,500                          |
| 1985        | 400                          | 27.5                        | 11,000                          |
| 1990        | *                            |                             |                                 |
| 1991        | *                            |                             |                                 |
| 1992        | *                            |                             |                                 |
| 1993        | *                            |                             |                                 |
| 1994        | *                            |                             |                                 |
| 1995        | *                            |                             |                                 |
| 1996        | *                            |                             |                                 |
| 1997        | *                            |                             |                                 |
| 1998        | *                            |                             |                                 |

\* Less than 500 acres planted.

NA-Not available.

*Source: Missouri Agricultural Statistics Service*

**St. Francois County  
Farm Numbers, Acreage and Value**

| Year | Number<br>of<br>Farms | Land<br>In<br>Farms<br>-acres- | Avg. Size<br>of<br>Farms | Value of<br>Land & Bldgs<br>per Acre<br>- dollars - |
|------|-----------------------|--------------------------------|--------------------------|-----------------------------------------------------|
| 1850 | NA                    | 69,967                         | NA                       | 5.35                                                |
| 1880 | 1,257                 | 183,292                        | 146                      | 10.34                                               |
| 1900 | 1,277                 | 207,685                        | 163                      | 17.39                                               |
| 1910 | 1,243                 | 182,970                        | 147                      | 25.59                                               |
| 1920 | 1,266                 | 182,974                        | 145                      | 40.81                                               |
| 1930 | 1,393                 | 164,323                        | 118                      | 44.76                                               |
| 1935 | 1,598                 | 160,637                        | 101                      | 28.73                                               |
| 1940 | 1,473                 | 158,175                        | 107                      | 34.71                                               |
| 1945 | 1,471                 | 169,646                        | 115                      | 34.97                                               |
| 1950 | 1,201                 | 155,453                        | 129                      | 57.66                                               |
| 1954 | 1,185                 | 178,565                        | 151                      | 69.27                                               |
| 1959 | 908                   | 150,631                        | 166                      | 90.50                                               |
| 1964 | 907                   | 152,735                        | 168                      | 109.34                                              |
| 1969 | 703                   | 133,900                        | 190                      | 175.25                                              |
| 1974 | 616                   | 113,996                        | 185                      | 365.00                                              |
| 1978 | 666                   | 119,650                        | 180                      | 735.00                                              |
| 1982 | 729                   | 122,112                        | 168                      | 785.00                                              |
| 1987 | 681                   | 121,796                        | 179                      | 805.00                                              |
| 1992 | 693                   | 116,910                        | 169                      | 1,026.00                                            |
| 1997 | 649                   | 112,842                        | 174                      | 1,254.00                                            |

NA-Not available.

Source: U.S. Census of Agriculture

**St. Francois County  
Livestock on Farms**

| Year | All<br>Cattle | Beef<br>Cows | Milk<br>Cows     | All Hogs<br>& Pigs /1 | Sheep &<br>Lambs /2 |
|------|---------------|--------------|------------------|-----------------------|---------------------|
|      |               |              | -number of head- |                       |                     |
| 1850 | 4,095         | NA           | 1,558            | 14,872                | 4,153               |
| 1880 | 9,215         | NA           | 3,184            | 20,231                | 8,848               |
| 1900 | 13,021        | NA           | 3,480            | 12,971                | 3,547               |
| 1910 | 10,033        | NA           | 3,779            | 8,582                 | 3,160               |
| 1920 | 13,000        | NA           | 3,700            | 10,500                | 2,700               |
| 1930 | 14,000        | NA           | 4,700            | 8,100                 | 2,100               |
| 1940 | 16,400        | NA           | 3,800            | 12,600                | 2,900               |
| 1950 | 15,300        | NA           | 4,200            | 10,000                | 500                 |
| 1960 | 20,400        | NA           | 2,200            | 9,900                 | 900                 |
| 1970 | 20,600        | NA           | 1,200            | 9,500                 | 337                 |
| 1980 | 28,300        | 13,000       | 1,100            | 9,900                 | NA                  |
| 1985 | 26,600        | 11,500       | 900              | 5,300                 | NA                  |
| 1990 | 24,800        | 12,100       | 600              | 3,700                 | NA                  |
| 1991 | 25,800        | 12,700       | 500              | 3,700                 | NA                  |
| 1992 | 26,000        | 13,100       | 600              | 3,400                 | 289                 |
| 1993 | 25,700        | 12,100       | 400              | 2,900                 | NA                  |
| 1994 | 26,700        | 12,800       | 400              | 2,700                 | NA                  |
| 1995 | 25,200        | 12,000       | 400              | 2,900                 | NA                  |
| 1996 | 25,100        | 12,300       | 350              | 2,100                 | 235                 |
| 1997 | 24,000        | 11,500       | 300              | 1,000                 | NA                  |
| 1998 | 22,500        | 12,100       | 350              | 1,200                 | NA                  |
| 1999 | 22,500        | 12,100       | 350              | 1,100                 | NA                  |

1/ December 1 previous year beginning 1970.

2/ Census years only.

NA-Not available.

Source: Missouri Agricultural Statistics Service

**St. Francois County  
Wheat Production**

| Year | Harvested<br>-acres- | Yield<br>-bu/acre- | Production<br>-bushels- |
|------|----------------------|--------------------|-------------------------|
| 1850 | NA                   |                    | 14,741                  |
| 1879 | 16,116               | 10.1               | 163,350                 |
| 1899 | 13,100               | 11.3               | 147,890                 |
| 1909 | 8,114                | 13.1               | 106,180                 |
| 1920 | 8,460                | 14.1               | 118,890                 |
| 1930 | 5,840                | 13.0               | 75,920                  |
| 1940 | 4,800                | 16.3               | 78,240                  |
| 1950 | 5,500                | 13.8               | 75,800                  |
| 1960 | 600                  | 32.0               | 19,200                  |
| 1970 | 800                  | 40.0               | 32,000                  |
| 1980 | 1,800                | 40.8               | 73,500                  |
| 1985 | 2,600                | 27.6               | 71,700                  |
| 1990 | 1,300                | 37.2               | 48,300                  |
| 1991 | 600                  | 30.3               | 18,200                  |
| 1992 | 650                  | 35.8               | 23,300                  |
| 1993 | 300                  | 38.7               | 11,600                  |
| 1994 | *                    |                    |                         |
| 1995 | *                    |                    |                         |
| 1996 | *                    |                    |                         |
| 1997 | 800                  | 40.0               | 32,000                  |
| 1998 | 600                  | 41.8               | 25,100                  |

\* Less than 500 acres planted.

NA Not Available

Source: Missouri Agricultural Statistics Service

## Appendix G

### Missouri Conservation Department Recommendations for Multiflora Rose Control

(<http://www.missouriconservation.org>)

#### Control Recommendations

##### Recommended Practices in Natural Communities of High Quality

Pulling, grubbing, or removing individual plants from the soil can only be effective when all roots are removed or when plants that develop subsequently from severed roots are destroyed. These approaches are most practical for light, scattered infestations.

In fire-adapted communities, a routine prescribed burn program will hinder invasion and establishment of multiflora rose.

Research indicates that 3-6 cuttings or mowings per growing season for more than one year can achieve high plant mortality. Such treatment may need to be repeated for 2-4 years. Increased mowing rates (+6 per season) did not increase plant mortality. In high quality communities, repeated cutting is preferred over mowing, because repeated mowing will damage native vegetation as well as multiflora rose.

Cutting stems and either painting herbicide on the stump with a sponge applicator (sponge-type paint applicators can be used) or spraying herbicide on the stump with a low pressure hand-held sprayer kills root systems and prevents resprouting. Roundup herbicide (a formulation of glyphosate) has been effective in controlling multiflora rose when used as a 10-20% solution and applied directly to the cut stump. Although the Roundup label recommends a higher concentration for cut-stump treatment (50-100%), this lower concentration has proven effective. With this technique, herbicide is applied specifically to the target plant, reducing the possibilities of damaging nearby, desirable vegetation. Cut-stump treatment is effective late in the growing season (July-September), and also during the dormant season. Dormant season application is preferred because it will minimize potential harm to nontarget species. Glyphosate is a nonselective herbicide, so care should be taken to avoid contacting nontarget species. Both glyphosate and piclorum (Tordon RTU) are recommended for controlling established plants.

In addition, Triclopyr (trade name Garlon 3A) can be applied to cut stems or canes for selective control of multiflora rose. Garlon 3A diluted in water at a rate of 50% can be sprayed, using a hand sprayer, to the cut surface. Application should be within minutes of cutting. Use of Garlon 3A is best done in the dormant season to lessen damage to nontarget species. Great care should be exercised to avoid getting any of the herbicide on the ground near the target plant since some nontarget species may be harmed. Avoid using Triclopyr if rain is forecast for the following 1-4 days; otherwise runoff will harm nontarget species. By law, herbicides may only be applied according to label directions.

### Recommended Practices on Lands Other Than High-Quality Natural Areas

Repeated cutting, as discussed above, is effective. For large populations on severely disturbed areas, mowing can be substituted for cutting individual plants. However, mowing multiflora rose can result quickly in flat tires. On mowers, filling tires with foam is recommended.

Fosamine (trade name Krenite) can be applied as a foliar spray in a 2% solution plus 0.25% surfactant (two and one-half ounces of Krenite plus one-half ounce surfactant per gallon of water). The Krenite S formulation contains the appropriate amount of surfactant. Coverage of foliage should be complete. Krenite should be applied only in July-September. No effects will be observed during the autumn season following application. Slight regrowth may occur the following season but canes will die during the summer. Fosamine kills only woody species and is non-volatile, therefore it is the preferred foliar spray treatment.

Dicamba (trade name Banvel) is an effective foliar spray that is less preferred than Krenite. Banvel is selective against broadleaf plants, so care must be taken to avoid contacting desirable, broadleaf vegetation. It can be applied as a foliar spray in a 1% solution (1 ounce of Banvel per gallon of water). Though this solution can be applied any time during the growing season, best results are obtained during May and June when plants are actively growing and flowering, following full leaf-out. One-half ounce of a surfactant should be added when treating dense foliage and, to enhance control in late season applications, complete coverage of all green leaves should be achieved. **Do not spray Krenite or Dicamba so heavily that herbicide drips off the**

**target species. Foliar spray of herbicides should only be used in less sensitive areas because of problems with contacting nontarget species.**

Glyphosate (tradename Roundup) is an effective foliar spray when applied as a 1% solution to multiflora rose plants that are flowering or in bud. Roundup is not a preferred chemical treatment, however, because it is nonselective and the selective herbicides mentioned above are effective. Nevertheless, Roundup can be used as a foliar spray during the growing season on severely disturbed sites if care is taken to avoid contacting nontarget plants. Roundup should not be used as a foliar spray during the growing season in high-quality natural areas because it can result in damage to nontarget species. Roundup is useful as a foliar spray for alien plants that remain green and retain their leaves after native vegetation is dormant or senescent. Multiflora rose does not fit this description adequately and is controlled most effectively when treating during the growing season.

## Appendix H

### Images from local CAFO hog operation



Image 1. CAFO Sows



Image 2. Nursing litter in farrowing house



Image 3. CAFO Boars

The sows are restrained in these cages to reduce handling and feeding difficulty and to facilitate artificial insemination. The boars are caged for similar reasons of handling difficulty and to facilitate the collection of semen.



## Appendix I

### Correspondence Regarding USDA Press Policy and NAAJ

Jerry Perkins, Farm Editor of The Des Moines Register and  
President of the North American Agricultural Journalists (NAAJ)

Alisa Harrison, USDA Press Secretary

May 15, 2003

U.S. Agriculture Secretary Ann Veneman  
**U.S. Department of Agriculture**  
**Washington, D.C. 20250**

Dear Secretary Veneman:

We were very honored that you took the time to have lunch with us and speak to us about some of the issues facing the USDA during our annual NAAJ spring meeting. I and many other reporters who were there that rainy day in Washington reported on your remarks in our respective publications. It is that kind of open relationship between the press and public officials that makes for a well-informed public and effective democracy.

As president of the North American Agricultural Journalists, I have been asked to write a letter to you expressing the organization's concern about a recent incident at the U.S. Department of Agriculture. I'm sure you have read accounts of the incident or heard reports from your staff, so I won't waste time or space repeating the facts here. I have been a reporter long enough to know there are at least two sides to every story and, if the facts as you know them differ from published accounts, it would be good for you to let me know what happened so I can pass your account on to our membership through our newsletter. You have the right to have your point of view represented.

What disturbs me and the members of NAAJ the most about the incident was that it appears to be a continuation of a pattern by the Bush Administration to restrict access to government. As you know, a free and unfettered press is an integral part of American democracy. It would be tragic if the efforts of our brave men and women in uniform to bring democracy to Iraq were undercut here at home by press restrictions. We cannot allow any restriction on our constitutionally-protected ability to cover the news and inform the American people of their government's actions.

Meetings in a public building involving public officials must be open to the press. If members of the media are excluded from the meeting, then they have to be allowed access to the participants after the meeting is concluded. Alisa Harrison has been quoted as saying that reporters must "never" stake out a meeting at USDA again. I would be very interested in hearing from you if you agree with that.

The membership of the North American Agricultural Journalists wants you to know that we believe in an open and responsive government. The First Amendment guarantees that the people of the United States have the right to know what the government does. You took an oath when you were sworn in as Secretary of Agriculture to protect and defend the U.S. Constitution. I have no doubt whatsoever that you have every intention of honoring that oath. Members of your staff should be instructed that you intend to allow the press to cover the news within the U.S. Department of Agriculture.

Thank you for hearing the concerns of the North American Agricultural Journalists. I look forward to your reply.

Respectfully,

Jerry Perkins

Farm Editor of The Des Moines Register and

President of the North American Agricultural Journalists



United States  
Department of  
Agriculture

Office of  
Communications

1400 Independence  
Avenue, SW

Washington, DC  
20250-1300

July 18, 2003

Mr. Jerry Perkins  
Farm Editor, Des Moines Register and  
President, North American Agricultural Journalists  
Post Office Box 957  
Des Moines, Iowa 50304

Dear Jerry:

Thank you for your May 16, 2003, letter to Secretary Veneman regarding press access at the Department of Agriculture (USDA). She asked me to respond to your concerns and I very much appreciate the opportunity.

Secretary Veneman and the leadership of USDA greatly value the important role that agricultural journalists play in informing interested parties about our department and programs. As you know, USDA programs reach a broad array of people, and the news media play a critical role in providing information to the public. In an effort to provide transparency to the press and public, we have worked very hard to institute ways of providing access to USDA leadership to more reporters than ever before.

For example, by using currently available technologies, we now regularly make live events accessible via our web site, allowing reporters who are not able to attend in person to have real-time access to information. The events can also be replayed, so that reporters who are not able to listen live can go back and listen at their convenience. Related to this, we also provide transcripts of most open press events for reporters to use as reference. We regularly provide briefings for reporters around the country through our television and radio studios in Washington. We have now upgraded those systems to allow for more reporters to not only listen, but also participate in those briefings. In addition, we have upgraded our web site to make information easier to find, and more upgrades are planned.

Mr. Jerry Perkins

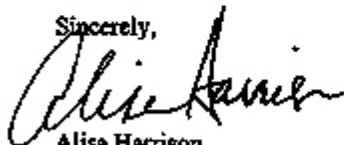
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As we discussed during the North American Agricultural Journalists (NAAJ) meeting in Washington, we have put homeland security communication at the top of our priority list. If the United States' food and agriculture systems were attacked by intentional or unintentional acts, the media would be a primary way for us to get information to the industry and consumers. We sought input from a variety of audiences, including NAAJ members, on how we could best get information to reporters during an emergency situation. The result includes the implementation of a priority toll-free number, 1-866-4-USDA COM, for immediate live briefings and recorded messages; a labeling system for e-mail subject lines based on priority codes to ensure that reporters and others recognize a high priority message; and a special section on our web site to post the latest updates on the situation.

We continue to review our media policy to assure that in-house reporters have clear direction about access to USDA. I have had a chance to meet with all but one of them to listen to their opinions regarding the matter, and I will follow-up with them personally to discuss further.

Jerry, thank you again for your letter and let me assure you that it is in no way our intention to restrict press access. We value the relationship we have with the NAAJ, and hope that it continues. As always, I encourage reporters to contact me immediately if there are any concerns regarding this or other matters. Most reporters have my contact information, but I am enclosing it, along with the contact information for the Deputy Press Secretaries. Please feel free to share the contact information with NAAJ members if you feel it would be helpful.

Sincerely,



Alisa Harrison  
Press Secretary

## Appendix J

### Policy Recommendations

While contemporary emphasis on traditional practices such as rotational grazing and the use of livestock rather than petroleum dependent machinery is a clear step in the right direction, the farmers who originally devised the methods deserve credit. It should be made clear by Extension or Conservation or whomever introduces technologies where the ideas and practices originate. Technocratic rationality has for too long discredited farmers and traditional society in the United States and abroad. Traditional farmers who continue to practice these strategies should serve as examples of long-term sustainability; they should be offered jobs with agriculture and conservation departments and hired as sources of traditional knowledge that is complementary to scientific knowledge. Not only would this provide jobs in rural areas, farmers would finally receive some deserved recognition.

Similarly, traditional farmers who continue to farm on multi-generational land need to be recognized as conservationists in our society. They have conserved the productivity of the agroecosystem on their family farm for generations. This means that they have traditional knowledge that has been passed down to them that reflects an intimate relationship with a specific agroecosystem. This relates to the current debate regarding *in situ* conservation (Rhoades and Nazarea 1999). Traditional Ozark farmers conserve their farms because they want to pass them on to their children in a productive, sustainable state. They do not attempt to conserve them because the Soil and Water Conservation Department tells them they will compensate them if they conserve. Dove (1999:62) has referred to this form of *in situ* conservation, as “the type of *in situ* conservation that development programs should be trying to emulate, in which the conservation is driven by ideology, not the reverse (that is to say, where

the perceived need for conservation drives the attempt to develop ideology).” Unfortunately, current Soil and Water Conservation Departments push the latter. They reward city peoples who buy fifty acres in the area and do not intend to farm, but want a pond, by assisting them financially and manually. Local, traditional farm families, who have owned a farm for generations and need financial assistance with the up-keep of their ponds, do not receive help. Farmers repeatedly complained that the Soil and Water Conservation Department refused to assist them with cost-share on their ponds because they are built for stockwater for their livestock. One farmer explains:

...if someone moves down here and buys 40 acres of woods and wants a lake to play in, they’ll build it for them. They base it on erosion. They’ll build you a pond to control erosion, but they won’t build you a pond for stockwater. This pond out here, I had to build it myself. Soil and Water wouldn’t help me a darn bit. They come out and look and then they said, ‘No, you don’t have enough erosion’ (Interview 47).

According to the official Soil and Water Conservation cost-share statement, Missouri citizens are concerned about conservation and have increased taxes to help assist farmers, but traditional farmers who have conserved their soil and therefore have limited erosion do not receive assistance. On the other hand, non-farmers receive assistance to build ponds. The fact that landowners who allow erosion are financially rewarded and those who conserve soil are refused assistance represents a major disconnect in agricultural / conservation policy in the United States.

Finally, contemporary meat processing and crop inspection regulations need to be revisited, reassessed, and reformulated to recognize the inequalities for rural areas inherent in current legislation. Small producers in rural areas need to be able to sell their products at local grocery stores and restaurants. It should be the burden of the government to ensure that this is possible. It should not cost the small farmer money to sell a product to a local market. This, to return to Ikerd, (2001) is common sense. It was a strategic abandonment of common sense that

precluded the local sale of agricultural products. As a result, rural communities have become destabilized and impoverished and rural inhabitants are forced to commute to cities for work.

This is easily remedied. USDA should provide inspectors, either free of charge or at a negligible rate, to community cooperatives that purchase local crops and animals, process them, and either sell them from the cooperative or distribute them to local grocers and restaurants. This is not a huge request, but it could have potentially huge rewards for rural U.S. communities. This is also where the academy and environmental and social justice movements step in with collaboration. Local cooperatives need to be organized and established. Connections need to be made between farmers who raise quality animals and crops without producing negative externalities, and high-end restaurants that serve premium, organic, and/or fair trade meals. The demonstration to traditional farmers that demand exists for their products will serve as reinforcement and enticement to participate in the cooperatives.

Local cooperatives would hire local butchers, produce handlers, drivers, etc., thereby creating local jobs. Farmers would be required to disclose and sign statements indicating what inputs were used on their fields and their animals. Produce and meats would be labeled accordingly and consumers could purchase based on their preference. USDA regulations for organic would still apply, but similar to farmers' market practices, local consumers would resume the trust of the word of local producers, as occurred in the past (Ikerd 2005). The cooperative would be a non-profit entity, existing to create jobs and keep a market open for local livestock and crops, so that rural communities can maintain their cultural identity and farmers can remain themselves, farmers. Currently, small farmers are advised that their only option is to seek out 'niche markets,' but this does not have to be the case.