AN ABSTRACT OF THE THESIS OF


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Susan M. Shaw

This research is based on in-depth interviews with 20 women farmers and ranchers from the state of Oregon. These women employ a variety of methods and subscribe to a number of divergent philosophies regarding agricultural practices. The intention of this study is to examine how women who are the primary or equal operators of their farms or ranches experience gender in the acquisition, use, and sharing of agricultural knowledge.

While most respondents feel they have not experienced gender bias in these circumstances, they do discuss other gendered challenges and benefits to being women in their male-dominated profession. They also discuss other unexpected aspects of agricultural knowledge, among them the value of long-term experience with one’s land in building one’s knowledge of agriculture; the value of agriculture not only to agriculturalists but also to non-farmers, to the broader culture, and to society; and the need to bridge the knowledge disconnect between agriculturalists, consumers, and environmentalists in order to create a truly economically, socially, and environmentally sustainable agriculture.

Future research should include an exploration of the realities that differences of race/ethnicity, sexuality, age, and ownership status across gender make to farmer and rancher perceptions of the value of agriculture to themselves, to non-farmers, and to the rest of society.
Women Farmers and Ranchers and Agricultural Knowledge: Gender, Experience, and Connection

by
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WOMEN FARMERS AND RANCHERS AND AGRICULTURAL KNOWLEDGE: GENDER, EXPERIENCE, AND CONNECTION

INTRODUCTION

THE TOPIC

Agriculture is a profoundly important – indeed, a foundational – component of human cultures and societies. The efflorescence of civilization occurred around agricultural centers, the growers of food contributing to the year-round well being of all, allowing those who did not want to produce food and fiber to pursue other interests. Thus began the amazing and confounding existence within which we currently reside. As we have changed, questioned, learned, and invented, agriculture has been altered. Some would argue that these changes constitute an evolution toward something marvelous, while others insist that we have embarked on a destructive path, an end to the agriculture that helped us to become cultural beings and the ruin of the very elements that sustain us: healthy soil, clean water, fresh air, good food, an ethic of hard work and care for the land.

The changes in agriculture began to occur during the Industrial Revolution when mechanization replaced human labor and mass production moved tasks from individual homes to centralized factories; so came the tractors, the engines, the machines to the farm (Bartlett, 1989). Later, after World War II, the chemical industry began to see farmers as consumers for products no longer required by the armed forces; so came pesticides, herbicides, and fertilizers to the farm (Bartlett, 1989). In the 1960’s the cry went up: a population crisis and a food shortage together would bring hardship to all people unless food was mass produced, manipulated in ways it had never been, and given to those in need; so came
scientific manipulation of crops on a scale never seen and dissemination of official, scientific, research-based agricultural knowledge to farmers in the Two-Thirds World who before had only known what they knew and had done well with it (Sachs, 1983; Sachs, 1996).

During this process farmers became devalued as professionals, as intelligent and knowledgeable craftspeople, as providers of nourishment and caretakers of culture. Farmers also were seen as male, the work of women on farms made invisible and inconsequential. In the United States, women have been seen as helpers and wives but not producers and farmers for centuries, and that misapprehension has carried over into creation and implementation university Extension services, farmers-researcher partnerships, and research on farmer needs, attitudes, and practices (Sachs, 1983; Ross, 1985). Systems of agriculture and agricultural knowledge distribution seem to have left women who are actively engaged in farming and ranching out of the loop and out in the cold.

A multitude of questions arise from this neglect, among them: What are U.S. women farmers' experiences accessing, using, and sharing agricultural knowledge? Are these experiences filtered through the lens of gender? Does access to, use of, and sharing of knowledge vary among women who practice agriculture using divergent philosophical models? What do women farmers know that can contribute to a shift in agriculture from an industrial to an alternative paradigm? These questions rarely have been asked and examined, and they are the focus of this research.

THE QUESTIONS

As I began this research, I sought to clarify certain questions about women farmers and agricultural knowledge. For example, what are the types of information that women who are the primary or equal operators of their farms
require to practice agriculture in the manner they wish? What are the sources of knowledge to which they turn when they have questions? Do these women who are actively involved in a male-dominated profession feel comfortable and adept at creating and communicating their own localized knowledge? How do they communicate their knowledge to other farmers, to outside agencies, and to the public? Do they view this knowledge sharing as one of their responsibilities as farmers? My focus originally was only on technical knowledge, that which is required to engage in the successful practice of farming or ranching. However, I began to understand that the knowledge these women hold goes beyond agricultural production. They are involved in and need to know how to market their products. They need to understand how political, regulatory, and environmental groups and processes affect their work and how they, in turn, can and must affect those groups and processes. They need to recognize and seek to bridge the tremendous disconnect that non-agricultural people have from the food they eat, the way it is produced, and the land on which it is grown. These women want to raise their families in deliberate ways, and they need to be able to combine this work with their on-farm and, in many cases, off-farm labor. They have to know how to maintain community relationships, how to care for and sustain the land on which they farm and ranch, and how to retain a piece of themselves in the process of doing everything else. Clearly, women farmers have more to think about than technical knowledge. They not only are agriculturalists but also are activists, employers/employees, mothers, and cultural caretakers.

A key consideration in all of these thoughts and questions is the idea that what people know and how they know it is affected by their social locations, including, in this case, gender. If knowledge is indeed affected by one’s gender, then is agricultural knowledge gendered? Are women farmers’ ways of knowing colored by their identities as women? Much research has been done on the subject of women’s constructions of knowledge, beginning with Carol Gilligan, who sought to clarify women’s constructions of morality (Gilligan, 1982), and moving
into such works as *Women’s Ways of Knowing* (Belenky *et al.*, 1986) which examines the ways in which women’s development of self, voice, and thought are affected by gender roles and relationships and women’s status in society. These initial forays into women’s constructions of knowledge and meaning have been criticized as being overly focused on essentialist ideas of women’s roles as nurturers and not critical enough of power relationships in women’s lives that also may work to construct their knowledge (Goldberger *et al.*, 1996). These works also have been criticized as inconsiderate of the differences between women, the ways in which race, ethnicity, social class, sexuality, age, nationality, and ability work to define who women are and how they know (Goldberger *et al.*, 1996). Sandra Harding’s “standpoint theory” (Sachs, 1996), Donna Haraway’s “situated knowledge” (Sachs, 1996), and the book *Knowledge, Difference, and Power* (Goldberger *et al.*, 1996) are responses to these criticisms and are additions to efforts to understand women’s constructions of knowledge. This thesis shall add, in part, to that discussion.

The women with whom I spoke during this project often are not considered in the realm of agricultural research: women who are the sole, primary, or equal operators of their farms. These women live in a unique position of obvious productive responsibility, rather than in the typically conceived female subordinate position of reproductive responsibility. They also are engaged in a variety of agricultural methods, from conventional to sustainable to organic farming and ranching.

Generally speaking, women farmers and ranchers are located within an intricate web of potentially hierarchal and oppressive relationships. Women are in a subordinate social position to men, and women’s work is devalued in relation to men’s, even if it is performed in the productive realm (Sachs, 1996; Tong, 1998, 120). Agriculture is not highly regarded as an occupation, and farmers rarely are given credit for being intelligent, progressive, or knowledgeable experts in their fields. Rural areas – where most agriculture takes place, but where not all of the
residents are farmers – are considered cultural and societal backwaters when compared to their urban counterparts. Practitioners of alternative/organic agriculture are given less official, institutional credence than those who use conventional/industrial methods. Reliance on scientifically derived knowledge is valued over reliance on one’s personally-derived local knowledge, and those who choose to use the latter over the former often are seen as foolish and recalcitrant. Even these many identities fail to encompass the whole range of lenses through which women farmers and ranchers may operate; race, ethnicity, social class, sexual orientation, age, ability, land ownership or non-ownership, and religious/spiritual belief further texture their lives. Their abilities to negotiate these potential challenges and be successful in their profession are part of the knowledge I wish to clarify.

I entered into this research suspecting that these women’s experiences with knowledge acquisition, use, and distribution are quite different from those of male farmers. I also surmised that women who run conventional farms have a very different knowledge base than those women who run sustainable or alternative farms, the former using more scientifically-produced, university-based, outside expert advice and the latter using more locally-based, individually-constructed information. My final hypothesis was that the importance, types, and extent of knowledge sharing probably will vary considerably among paradigms. Whether I was correct in my assumptions remains to be discussed.

RESEARCHER

My interest in pursuing this line of study flows from my fascination with ecofeminism, a feminist theory which, most simply described, connects the oppression of women with the subordination and destruction of nature and which maintains that only concerted efforts to join the liberation of women with that of
nature will lead to a truly domination-free world (Tong, 1998). While ecofeminist theory may sound abstract, it has been put into real and practical use by diverse women in a variety of contexts working toward a variety of goals around the world. The pragmatic applications of this philosophy suggest that a reconnection of people with the earth potentially can lead to a reconnection among people themselves and to a strengthening of communities and of society as a whole.

I come to this study with a number of filters through which I understand the world. First is the fact that I was raised by divorced parents in two separate parts of the country, one in a medium-sized town in Montana, the other in urban Southern California; one, lower middle-class with an affinity and appreciation for simple but lovely things, love and respect for nature and the outdoors, and a strong work ethic, the other, middle-class with a bent for cynical humor, the pursuit of knowledge, and defiant independence. Along with this background is my belief that working with the land is a good and valuable thing, the impact of which can change lives and communities in both concrete and metaphysical ways. A result of that belief— and of being raised in a former agrarian society (the United States)— is my tendency to mythologize farmers and ranchers as the salt of the earth; this propensity is accompanied by a contradictory bias against those in the agricultural industry as pillagers of the land. This latter is an inclination that many white, middle class, educated environmentalists seem to have; I am all of these things, and I have not escaped those biases. Therefore, I had to guard against approaching conventional farmers with skepticism and ambivalence and alternative farmers with an unduly charitable eye.

Finally there is my feminist perspective, my belief that women are subjugated at every level and in every part of their lives by the structure of patriarchy and that there are many ways that this oppression can be ended. I entered this study believing that women farmers and ranchers are at a disadvantage in their professions because of their gender and that their gender detrimentally affects in some way their ability to participate in the cycle of acquisition, creation,
and distribution of agricultural knowledge. Although this philosophical standpoint allows me some measure of critical examination of my data, it also may inhibit my understanding of and confidence in these women's accounts of their own lives should they contradict my preconceptions.

WHY I AM DOING THIS STUDY

I think that I no more chose to look at the lives of women farmers than I chose to be born the person I am. In many ways I think this topic chose me. I have desired my whole life to be close to the earth, though it has manifested itself in different ways over the passing years. I first looked to science as a means of understanding and changing people's interactions with the earth, and later I came to believe that science offers only a partial answer to our dilemmas. I began to see that the earth itself is a healing entity through which humans can reclaim, refresh, and reopen themselves, and that comprehending this force is not necessarily best done through empirical means. I turned to agriculture at last because I see it as an intermediate point of understanding, a place where people can create and know they have not done so alone, a place where that which is fundamental can be appreciated with new eyes. I ultimately see agriculture as a tool to revitalize people, to restore damaged ecosystems, and to reinvigorate movements toward social justice.

It was difficult to consolidate my interests into one well-bounded research topic because I am intrigued by and want to work with such a broad range of issues. These include women's work and women's knowledge; the practical applications of ecofeminist theory; the barriers to and advantages of re-establishing and re-legitimating small farms and alternative farming methods; the merits and demerits of an array of agricultural paradigms; the ways in which people are alienated from their own knowledge and abilities, and the ways they can and do challenge that
alienation; the ways learning can empower and facilitate change. Without doubt, these ideas are too many and too varied to cover with one piece of research.

I have endeavored to condense and incorporate as many of these varied interests as possible into this research process while creating a product that will be of benefit to those who have helped me, the women farmers who agreed to participate in this project.
A LITTLE BACKGROUND

Although women are credited with little regarding the development of human culture, it is considered accepted theory among many anthropologists that women were the inventors of horticulture, which evolved from their roles as food gatherers and the primary providers of nourishment in Neolithic gatherer-hunter societies (Stanley, 1993; Wilbert, 1999). Autumn Stanley (1993) credits women with the invention of the majority of essential cultivation implements, including the plow, the spade, fertilization, irrigation, and plant domestication and selective breeding. Stanley speculates that as horticulture on a home or village scale (subsistence production) became agriculture on a large and economically remunerative scale (production for exchange) around 4000 to 6000 years ago, women were too busy with their multiplicity of other tasks to become full-time farmers, so men took control of cultivation – and the power and decision making that went with it (42). Following the loss of control over what had become agriculture, Stanley believes that women also lost some their incentive to innovate (37); why create new and better ways to accomplish one’s task when one no longer has a say over the creation, use, and distribution of the product?

This is not to say that present-day women do not farm independently of men or that they have no inventive desires or capabilities. Throughout the world, women grow at least half the food; in some countries, particularly those in Africa, women grow up to 80% of the sustenance (Seager, 1997). However, this agricultural production is done primarily for subsistence rather than for the production of cash crops: it also is seasonal and unpaid. For these and other reasons, women’s agricultural work often is not counted by government programs and agencies (Staudt, 1998). Unacknowledged by officials, this work is rendered
invisible and left out of development schemes that include funds for education, training through Extension programs, and credit. This situation has been improving slowly but steadily since international aid and development organizations have added gender components to their programs. Some women — but hardly a majority — are beginning to have access to technologies and, even more importantly, are beginning to be given credit as knowledgeable and skilled agriculturalists by their societies and by development agencies (Saito, 1991; Saito and Spurling, 1992; Sachs, 1996; Rickson, 1997).

In the United States, women represent a small but growing percentage of farm operators. An operator is the person who runs the farm either by doing the work or making the every day decisions about planting, harvesting, marketing, and other activities integral to the functioning of the farm; an operator does not necessarily have to be the owner of the farm (US Census of Agriculture, 1997). The 1997 U.S. Census of Agriculture revealed a 14% increase in women farm operators from the 1992 figure, up from 145,156 to 165,102 women. The latter figure represents 8.6% of all farms in the United States. The Census also indicates that while the total number of farms is decreasing, the total number of women-run farms is increasing. This does not necessarily mean that more women are entering agriculture as a new profession, however. It likely indicates that many women are inheriting land after their husbands die, a concern because these women may not have the skills and knowledge to keep the operation running productively (Sachs, 1983; USDA, 1998b). Women-run farms are also smaller on average than farms run by men, have lower net earnings, and they produce a smaller proportional amount of agricultural commodities. However, 79.7% of women operators own their own farms, while only 59.1% of men do (US Census of Agriculture, 2000).

In 1997¹ in the state of Oregon, the focus area of this study, out of 34,030 total farm operators, 4,800, or 14.1%, of them were women (USDA Census of

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¹ The United States Agricultural Census is conducted once every five years. The last U.S. Agricultural Census was undertaken in 1997, making these the most recent data available.
Agriculture, 1997). Of these operators, 2,237 (46.6%) were full-time and 2,563 (53.4%) were part-time operators. These women participate in the generation of an agriculture that is rich and diverse: over 220 different commodities are grown throughout the state, from cattle to cranberries, hops to hogs, and pears to peppermint (ODA, 1999). The farmers and ranchers who grow and raise these products brought an estimated $3.5 billion to the state of Oregon in 1999.

A large amount of literature has been written about the technical aspects of agricultural production in Oregon; however, little in the way of social science research has been done to examine and understand the lives of the women and men who grow this food and fiber. Ross (1985) cites two studies done in part on Oregon farm women, one in the 1920’s examining time use and labor, the other in the late 1950’s on farm wives’ involvement in gardening and canning. State Extension Services do research and publish papers to enhance farm production, processing, and marketing, but this information is not necessarily about farmers’ lives or done for the benefit of women in particular. Thus, it is difficult to uncover research about the life and experiences of Oregon farmers and ranchers or about Oregon women involved in agriculture in particular.

WOMEN IN AGRICULTURE

Until the 1970’s very little research was done concerning women’s contributions to agriculture anywhere in the world (Maman and Tate, 1996). Inquiry up until that time was devoted mainly to improving farmwomen’s roles as mothers and efficient housewives (Sachs, 1983; Ross, 1985). According to many researchers (Sachs, 1983; Ross, 1985; Rosenfeld, 1985; Elbert, 1988; Haney and Knowles, 1988), when women were noted at all in historical accounts, they were seen as helpers whose work did not relate directly to the economic upkeep and well-being of the farm, even though many of their activities were of immediate
economic benefit. For example, women often kept gardens and froze and canned their yields, kept chickens and other small animals for eggs and meat, and sold butter and eggs to buy supplies either for the farm or (more rarely) the home. Further, women’s reproductive work was not considered to be directly beneficial to the economic survival of the farm, regardless of the fact that they cared for children, cooked, cleaned, provided succor for their husbands after long hours outside, and performed other integral but unnoticed domestic duties. Finally, women contributed their labor to the farm itself when there was a shortage of labor or money to hire labor. Women, in many senses, were free farm labor and worked with little recognition or power.

Studies that were conducted through the 50’s and 60’s touched more extensively on farmwomen’s roles in decision-making and women’s work on and off the farm and in the household (Wilkening, 1958; Wilkening and Guerrero, 1969; Ross, 1985). The publication of Ester Boserup’s book *Women’s Role in Economic Development* in 1970 brought heretofore absent attention to the huge — sometimes total — responsibility that women in Africa have for the production of food and fiber and to the unexamined (and unconsidered) effects of international development paradigms on these women’s abilities to provide effectively those essential products (Maman and Tate, 1996). This scholarly attention to women’s roles in agriculture coincided with the Women’s Movement and began the push to create scholarship about women in agriculture around the world, whether or not that research was done from a feminist perspective.

Much more research and scholarly discussion now is available on women and farming, particularly in the Two-Thirds World related to “development” efforts. Many studies also are focused on women farmers and ranchers in Europe, Canada, and Australia (e.g. Rickson, 1997; Liepins, 1998; Rickson and Daniels, 1999). Studies of women farmers and ranchers in the United States are geared primarily toward a few major areas, including women’s control and ownership of land, access to financial resources, such as credit, and concomitant decision-making
power (e.g. Sachs, 1983; Salamon and Davis-Brown, 1988; Shortall, 1999); women's productive and reproductive work and how the gendered division of labor in agriculture makes women's work in agricultural production invisible (e.g. Rosenfeld, 1985; Sachs, 1996); women's involvement in rural development through political activities (e.g. Knowles, 1988; Miller and Neth, 1988); and historical examinations of women's involvement with agricultural expansion into the Western U.S. (e.g. Fairbanks and Sundberg, 1983).

Women and property

Control and ownership of land in most societies traditionally has belonged to men; in fact, it is estimated that women own only 1% of the land on earth (Seager, 1997). Male agricultural control via ownership of land, exemplified by inheritance of property from father to son, is enforced by law and custom and helps maintain men's unequal access to power. A foundational work on this topic (and in the field of women in agriculture), and one of the first and only books to be written about women farmers, rather than farm women or farm wives, is Carolyn Sachs' *The Invisible Farmers: Women in Agricultural Production* (1983). *The Invisible Farmers* discusses women's relationship to farming and access to resources via their relationship (or lack thereof) to men through historical analysis and interviews with 21 women farmers. The interviews reveal several categories of women farmers: those who began to farm after they were widowed (whose husbands had been farmers); single women; women married to farmers; and women married to non-farmers. These women’s control over their own labor and their farm operations is intimately entwined with their relationships to men; women whose husbands (or older sons) were active in their operations had less control over the decision-making, the goals set for the farm and family, over their own labor, and over their self-identities as farmers.
Without land ownership and under control of men's visions for their farms, women's work becomes more invisible because it is deemed to be their husbands'. This invisibility, in turn, makes it harder for women to see themselves as farmers, whether they do all the work that their husbands do or not. Unfortunately, to acquire land, women need credit, which often is not given by banks to women because they are not seen as viable risks or as real farmers (Sachs, 1983, 91).

Another avenue for becoming a property owner is through inheritance. Daughters often are passed over as heirs to land because they are not seen as potential farmers and can be seen as risks to the continuity of a family farm heritage. Salamon and Davis-Brown (1988) examined the way two ethnoreligious agrarian groups in Illinois dealt with this issue. Apostolic Christians, because of their beliefs in women's submission to men and an individual's needs as subordinate to those of the group, passed their farms only to sons who became farmers, and therefore had less fragmented and more expansive (and more viable) farming operations. Mennonites, because of their egalitarian treatment of women and men, passed land equally to sons and daughters, who did not keep that land in family-controlled agricultural production. Thus the Mennonites had more fragmented and less viable farming operations, despite their desire to maintain an agrarian lifestyle. Consequently, what is fair treatment for women is not necessarily good for the continuation of family farms and communities based on a farming economy.

The link between ownership of property and power and the problems that link creates for women are the subject of Sally Shortall's 1999 study, Women and Farming: Property and Power, based on interviews with farm women and participant observation of farming organizations in Ireland, Northern Ireland, Canada, and Norway. Shortall places the blame for women's subordinate position on family farms on two types of power relations: taken-for-granted power (intergenerational transfer of land from father to son) and control over resources, primarily property, which affords access to a variety of other resources, such as
education and training, credit, and political and decision-making clout (2). Shortall discusses how this power inequity plays itself out in subtle, seemingly natural ways, for example, in the denial that women are excluded from taking leadership positions in agricultural organizations, that those with the talent and gumption (the "exceptional" ones) can do it if they wish; placing the blame for lack of participation then falls on women rather than on the sexist structure of the organization (100). Although some efforts have been made by governments to increase women's presence at the organizational level (such as through the funding of women's farming organizations) and to establish their legitimacy as landowners (e.g. through reformation of land inheritance laws that exclude women from being heirs to their father's property), the gendered power arrangements underlying property ownership and control remain prevalent.

Women and work

A discussion of women in agriculture invariably brings up the topic of women's reproductive and productive roles on farms and ranches and the gendered division of labor on these operations. Women's labor is essential to the fluid functioning of family farms and ranches, and they are often involved in all aspects of farm labor, from childcare and household chores to production, processing, and marketing, from running errands and keeping a garden for family consumption to working off-farm in order to maintain the economic health of their operations and the economic stability of their families. Researchers have done many, many studies and analyses of farm women and farm work. These studies examine the relationships between farm productivity and women's multi-faceted work roles or their self-identities; time allocation to various tasks; division of labor by gender and the double or triple shift; women's work and the agricultural training knowledge that they possess or require; and women's work and their relationships with the
environment (Sachs, 1983; Bokemeier and Garkovich, 1987; Maman and Tate, 1996; Sachs, 1996; Bartlett et al., 1999).

Rachel Rosenfeld was one of the first authors to delineate the multiplicity of women's involvement in agricultural labor. Rosenfeld's *Farm Women: Work, Farm, and Family* (1985) is another of the foundational works that brought to light the extent of women's involvement on agricultural operations. Based on interviews with respondents to the 1980 Farm Women's Survey, *Farm Women* examines farmwomen's involvement with wage and volunteer work, in-home businesses, housework, and childcare, as well as farm production work. Rosenfeld discovered that women often do at least half of directly farm-related tasks as well as the bookkeeping (97); involvement in these and related tasks depended on the woman's own characteristics, such as age and farm experience, upon involvement of decision-makers besides herself and her husband, and presence of young children. She found that women generally had more control over household decision-making, while men had more control over decisions about the farm operation, though some decisions were equally made (138); husbands often thought their wives had more input into decisions than the wives themselves reported. With respect to volunteer and political organizations, although women and men were equally likely to participate in them, men were more likely to be involved in those that directly related to farm production or knowledge acquisition and were more likely to be on boards, panels, and committees (243). A woman's age, education, farm experience, and childcare responsibilities were found to affect all of these types of work. Though on their tax forms, a majority of these women did not identify themselves as farmers, in this survey over half thought of themselves as farm operators and capable of running their farms if they had to. Many wanted to be actively involved in the present and future practice of agriculture.
Women and political action

The right to participate in political decision making in the past has depended on a person's ownership of property; because women were not recognized by custom and by law to be property owners during most of U.S. history, they were not allowed to vote or to be involved in political action (Haney and Knowles, 1988, 4). The rise of the Populist movement due to an agricultural economic crisis in the late 1800s and the farm organizations that grew out of it — including the Grange and the Farmers' Alliance — gave women the courage to buck tradition and to get involved. They demanded not only attention to farm economic conditions and productivity needs and maintenance of rural infrastructures but also recognition and resolution of poor quality of life for women on these family farms. This low quality of life stemmed from the drudgery of unmechanized household labor, the multitude of tasks they had to perform without assistance each day both within the house and on the farm, the need for social connections to curb loneliness, and the desire for education and mental stimulation (Knowles, 1988).

As women found their political voices, they also found the wherewithal to challenge government wastefulness and excess ("Raise less corn and more hell," Miller and Knowles, 1988, 357) and the gendered nature of their own farmer organizations. Although men, both in the past and currently, more often occupy leadership positions in farm political organizations, women more often create and maintain the cohesion that keeps these groups working toward their goals (Sachs, 1996). Moving away from their subordinate roles in farm and commodity groups, farmwomen are creating their own organizations to address their own issues of concern. These groups include American Agriwomen, which advocates education and networking for women in agricultural areas, and Women Involved in Farm Economics (WIFE), which lobbies for farm policies and programs (Sachs, 1996, 137). These groups are not often feminist organizations that seek equality and recognition of farmwomen. More often, they are comprised of women trying to
maintain the family farm lifestyle while gaining their own voice and power at the same time (Miller and Ness, 1988). In the process of maintaining traditional family farms, the risk of retaining the gendered structure of those farms also exists (Sachs, 1996, 137).

Women and historical accounts

The realities of agricultural women’s lives can be understood better by studying historical and contemporary journals, diaries, letters, oral histories, and autobiographical texts written by these women. Fairbanks and Sundberg (1983) used these materials to understand the realities of women’s lives during the expansion of white settlement into the interior of North America during the 19th and early 20th centuries. The stories told by these women are quite unlike the stereotype perpetuated by mainstream – that is, white male – authors and travelers, that of the fragile and helpless lily-white angel who constantly is threatened by the wilderness, harassed by marauding bands of Indians, and ever in need of the protection of courageous, undaunted, and invaluable men (Fairbanks and Sundberg, 1983, 47). Rather, their tales are as diverse as the women themselves. Some wrote of hardship and loneliness, others of excitement and adventure, and others of the beauty of the open spaces. Many women proved themselves to be strong and capable of doing “men’s work” in a man’s world. These women’s words stand in marked contrast to the legends told by and about men on the Frontier. Clearly, to comprehend the lives of women in their own words is to begin to fathom what is true and real for them, situated as those accounts are in each woman’s own perspective.
The types of knowledge people in rural areas receive, whether or not they are involved in agriculture, quite literally have been constructed for particular purposes by the U.S. government, and later by universities under the direction of the government, since the middle 1800's. The creation of agricultural extension programs is case in point. Because the federal government wanted to increase farm productivity and, therefore, farm (and national) income, two Acts were passed to fund agricultural extension services (the Morrill Act, 1862) and agricultural experiment stations (Hatch Act, 1887). The latter organization was directed to “conduct basic research into a wide range of scientific processes in agriculture” (Knowles, 1985, 53); the former was to deliver this “scientifically based” information to farmers. Thus began the mechanization and industrialization of agriculture (to maximize efficiency) and the demotion of farmers from skilled and knowledgeable in their own right to unskilled, ignorant, and requiring the services of “experts” from universities (Sachs, 1983; Bartlett, 1989; Kloppenburg, 1991; Sachs, 1996; Ausubel, 1997).

With the progressive mechanization and industrialization of agriculture came the concurrent weakening of women’s roles as integral subsistence providers and their relegation to household duties (Sachs, 1983). The work women did to earn money for farm and household through making and selling butter and eggs was taken from their hands as production of those commodities moved to factories. Growing and preserving food from gardens lost its necessity, as well, as factory-supplied canned goods came into circulation. The loss of control over these areas was combined with inattention to women’s needs for labor saving devices inside the house (ironically, as their husbands were receiving all manner of new technologies to improve their work on the farm). These conditions occurred concurrently with a rural to urban migration that the U.S. government felt threatened the agrarian ideology that founded much of U.S. society. Thus came the
drive to enhance the image of farm housework through scientific domesticity – the housewifization of farmwomen via the science of home economics.

Thus, the government was actively involved in the creation of what it deemed appropriate knowledge for farmwomen to have. This information was dispersed through the Cooperative Extension Service’s Home Economics division. This “knowledge” based on “science” created in land grant universities was used to create and maintain the kinds of housewives/farmwives needed to make the agricultural economy work (Knowles, 1985). It required these women who formerly were involved in subsistence production to become consumers, and it kept them in their houses rather than outside partnering with their husbands on the farm; moving their labor solely into the private sphere further exacerbated the invisibility of their work and their needs. Interestingly, while these programs were targeted toward rural women, urban women found out about them and begged for such information as the universities could provide them. They craved this knowledge, and often it was denied them (Elbert, 1988).

The “scientist-as-knower, farmer-as-recipient” paradigm was challenged many decades later by Jack Kloppenburg, Jr. (1991), who describes a two-part social science project he feels is necessary for the restructuring of agricultural science and industrial agriculture and the creation of a truly alternative agricultural science. The first part involves the deconstruction of conventional science-based agricultural knowledge through the realization that science does not have exclusive claims to truth or objectivity, but rather is constructed from historical trends and personal bias, as is all knowledge. In other words, science gives only a partial and situated understanding of how the world works. The second phase involves the reconstruction of a “successor science” (a term he borrowed from feminist philosopher Sandra Harding), a task that is more difficult than the first, since it involves finding sources of alternative knowledge that will be accepted by those who formerly used and trusted conventional knowledge exclusively. To create this alternative knowledge, Kloppenburg advocates the use of feminist epistemologies
to give useful insights into the types of knowledge that would most readily fill the empty space, since feminist epistemologies allow for production of knowledge “through ‘sensuous activity’ and ‘personal experience’ that is necessarily and specifically ‘local’” (527). Such knowledge, which comes from a farmer’s work and intimate association with a particular place, is a “mutable immobile” (adaptable and applicable to one location) while scientific knowledge is an “immutable mobile” (static but useful in any location). The complementarity of each type’s strengths and weaknesses can be used to create and inform this new alternative agricultural science.

Kloppenburg’s position is further elaborated and given a stronger gender angle by Feldman and Welsh (1995) who insist that local knowledge, even though it is focused on a very specific location, is not a homogeneous entity. Local knowledge itself is constructed by various actors in the farm household, and the different experiences of men and women (given their largely disparate work tasks) need to be considered when defining local knowledge. Women are active contributors to the success of a farming operation, and their experiences with and ideas about running the farm or creating agricultural sustainability might be different from those of men; therefore, the full assortment of a farm family’s local understandings and ideas need to be incorporated in the creation of an effective alternative “successor science.” This is true whether women perform primarily productive tasks or a variety of reproductive and productive work.

Much research has been done to find whether and to what extent this local knowledge exists, how it is created, used, and shared, and how it can be allied with more conventional knowledge to define more appropriate and readily adoptable agricultural practices for all farmers (e.g. McCorkle, 1989; Lyon, 1996; Forest, 1990). Local knowledge has been of particular interest to international development agencies and practitioners, as they have discovered flaws in the applicability, delivery, and acceptance of One-Third World agricultural practices
by the Two-Thirds World (World Bank, 1990; Sumberg and Okali, 1997), especially as they pertain to gender (Saito, 1991; Saito and Spurling, 1992).

Having access to enough and appropriate knowledge of any sort is vital to the success of all aspects of agricultural operations, from best production practices to marketing information, from transitioning from conventional to more sustainable practices to keeping abreast of changes in laws, regulations, and financial matters. In fact, the farmers most susceptible to failure due to lack of adequate and appropriate information include African-American farmers – among the most at-risk farmers in the country (McLean-Meyinsse and Brown, 1995; USDA, 1998a); farmers transitioning from one method of agriculture (e.g. conventional) to another (e.g. sustainable) (Saltiel et al., 1994; Drost et al., 1998); and women farmers (USDA, 1998a; USDA, 1998b).

A few studies include discussion of or have been done explicitly on women farmers and their relationships with agricultural knowledge. Shortall (1999) discusses women’s access to agricultural education and knowledge again in terms of property ownership or the expectation thereof. If most women entering agriculture do so because they are marrying into it rather than inheriting land, then they enter with no prior expectation of farming for a living, and, therefore, they do not pursue agricultural education before they begin to farm (115). Because the work women do on farms rarely is recognized or compensated (thus consigned to the “domestic” realm), their training needs also go unaddressed. However, access to education and training increases the efficiency of these women’s work and makes their work and roles on farms and ranches visible and valued (116).

The women in Shortall’s study required a variety of information because of their multifaceted roles on their farms – they use equipment, get involved with making production and other managerial decisions, keep the books, fill out government forms, and tend sick animals, among other things. Access to individualized and group-based education on such topics gave the women confidence in their knowledge and its application and also gave them “fellowship”
and "friendship," a chance to share experiences similar experiences with difficult situations (127). Unfortunately, training programs for women often are seen by male farm advisors and government funding agencies as superfluous or are misinterpreted to be courses in baking, knitting, and other domestic chores, activities farm women are thought to engage in exclusively and which do not require training to perform. They also rarely address gender/power inequities on the farm (134).

Sachs (1983) insists not only on the need to keep women farmers in the information loop with colleagues, Extension, and agricultural publications, but also on the importance of training farm girls in production techniques, rather than solely domestic tasks, since they someday may be faced with the real need to run their operations (should their spouses die, for example) and with no means to learn tasks quickly and well. Leckie (1996) echoes this advice. From material compiled through in-depth interviews, she proposes that farm girls are left out of the process of agricultural occupational inheritance - the passing on of information from parent to child and the use of this information to farm successfully - because work and therefore knowledge transfer regarding work are gendered in agriculture. If these women then wish to become farmers in their own right when they become adults, they are at a disadvantage because they are not given access to their (farmer) father's knowledge. Even if their mothers are farmers, due to the gendered separation of particular tasks, very few girls learn male-oriented tasks, for example, how to use certain types of machinery or do basic mechanical repairs, unless their fathers are open to teaching them. This silence around certain tasks also helps cement the myth of male inborn mechanical know-how. Presence of brothers, birth order, and age of siblings also affect what farm girls are allowed to learn and do. Having brothers often means girls are relegated to helping roles; girls who are only or oldest children are allowed to learn and do more.

Neva Hassanein's 1997 research focuses on knowledge exchange in the present rather than knowledge acquisition in the past. She used interviews and
participant observation to look at how female sustainable farmers in Wisconsin created a forum specifically for women farmers to discuss their needs and exchange their knowledge. In this forum these women shared different kinds of knowledge in different ways from their male counterparts in similar male-dominated sustainable agriculture networks. For example, one woman in the group discussed how she had to learn to “coax” cows into doing the things she wanted rather than “bullying” them as men do because of her smaller size. Her methods had advantages over the men’s ways of doing the same tasks because they caused less stress to the cows and she was able to get more milk from them (255). In addition to being able to learn how women similar to themselves accomplish tasks and discover solutions to problems on their operations, the women valued this group because it gave them a place to feel valued and taken seriously as knowledgeable members of their profession. The significance of this study is two-fold. First, it provides evidence in support of Feldman and Welsh’s assertion that local knowledge is not uniform but is shaped by social location; therefore, in the effort to incorporate local knowledge into broader agricultural knowledge creation and implementation, the various situated understandings of its creators must be taken into account. Second, using the situated local knowledge of a variety of practitioners of sustainable agriculture may enable the creation of a more powerful and compelling “successor science” (Kloppenburg, 1991), a combination of local and scientific knowledge that facilitates a more rapid adoption of sustainable agriculture’s beliefs and practices.

Michel Foucault describes a particular relationship between power and knowledge. Those who wield power hold the means of production of knowledge, which assists them in justifying, maintaining, and normalizing the power that benefits them. Thus, power and the knowledge created from and for power reinforce one another in a seemingly endless cycle (Gauntlett, 1998). Only by resisting and challenging the knowledge received from those who use power in this oppressive way can the cycle be broken and liberation from the power/knowledge
complex be achieved. One form of resistance can be found in the creation, use, and sharing of one’s own knowledge, which is formed through critical analysis and understanding of one’s own existence, experiences, hopes, and needs, a process called conscientization. Paulo Freire (1970) advocates such a technique for his own critical, liberatory pedagogy. If women are not seen as knowledgeable, professional practitioners of agriculture, they are less likely to be believed or listened to. This situation, in turn, denies them agency, which then hinders their progress toward their goals (Hartman, 1991).

AGRICULTURAL PARADIGMS, GENDER, AND KNOWLEDGE

A key issue in the last two decades of agricultural research is whether agriculture as it has been practiced since World War II – and especially since the Green Revolution of the 1960’s – is a socially, environmentally, and economically responsible way to grow food. While many people believe it is the only way to grow enough food for the billions of people living on Earth, many others believe this need can be met in ways that are more chemically benign and socially conscious. From this debate, two highly divergent philosophies about how to grow crops have arisen; the ideological chasm between them is so deep and wide, many spokespeople on both sides believe there never will be agreement between the two. Rural sociologists have examined the abundant literature from these competing paradigms—the industrial/conventional and the alternative—and have ascribed value systems to both based on their analyses (Beus and Dunlap, 1990; Beus et al., 1991).

Industrial agriculture, also known as conventional agriculture, involves high capital investments, large-scale and mechanized farms, planting of monocultures, and huge reliance on external petrochemical inputs in the form of fertilizers, herbicides, and pesticides. Beus and Dunlap (1990) find that proponents of the
industrial/conventional viewpoint advocate a number of points: dependence (on external inputs, energy, credit, and knowledge); centralization (fewer farmers, concentrated control of resources, national/international production, processing, and marketing); competition (self-interest, small rural communities not necessary, farm traditions outdated, farming as drudgery); domination of nature (humans separate from and superior to nature and nature’s value solely or primarily as resources to be used); specialization (narrow genetics, plant monocultures, crops and livestock separate); and exploitation (high consumption, short-term goals matter more, high use of nonrenewable resources, science and technology emphasized).

At the other end of the Beus and Dunlap agricultural values spectrum lies a diverse group of alternative agriculture proponents. These people espouse a number of different farming techniques, such as organic, regenerative, biodynamic, sustainable, low-input, and natural agriculture, but they are united in their criticisms of industrial agriculture. They emphasize independence (from off-farm inputs, credit, energy, and non-local knowledge); decentralization (more farmers, dispersed control of resources, local/regional production, processing, and marketing); community (cooperation, small, healthy, rural communities necessary, farm traditions as valuable, farming as rewarding); harmony with nature (humans as part of and subject to nature and nature valued for its own sake); diversity (genetic, plant polycultures, crops and livestock intermingled); and restraint (reduced consumption, long-term goals matter, renewable resources, science and technology not emphasized).

Although these paradigms seem profoundly incompatible to those who are entrenched deeply in the debate, a third paradigm has sprouted up as a median point between conventional and alternative thinking: that is, sustainable agriculture. Sustainability has a variety meanings depending on who is wielding the term. It can be used as a vague political buzzword or as a delineator of very specific ideas and methods for reaching particular goals (Gale and Cordray, 1994). Sustainable
agriculture considers the economic, social, and environmental health of the farm and its local surroundings to be intertwined (Reganold et al., 1990; Allen, 1993; The Food Alliance, 2001). Although the goals of sustainable agriculture often coincide with those of alternative agriculture, sustainable agriculture certification agencies, such as The Food Alliance in Oregon, do not necessarily prohibit the use of chemically-derived fertilizers and pesticides, thus making this paradigm a viable option for those farmers who wish to leave conventional agriculture but who do not want to practice completely alternative techniques.

Conventional agriculture, as discussed above, often is considered to maintain and reproduce strict gender roles and a gendered division of labor, and generally to reduce farm women’s self-determination and power in relation to the farm (Clunies-Ross and Hildyard, 1992), while agricultural practices that lean more toward the alternative are considered to be more welcoming to women in production and leadership positions (Gershuny, 1991). Several studies have sought to clarify these assertions.

Allen and Sachs (1993) contend that although social position, such as race, gender, class, and nationality, does affect the perceptions, needs, and roles of the various members of any farm operation, sustainable agriculture as a social movement had not taken those effects into account in its creation and promotion of the movement. The family farm as an ideal model and traditional values associated with family operations are advocated without consideration of the patriarchal, inequitable nature of such situations or any desires farmwomen might have to change those relationships.

Meares (1997) and Peter, et al. (2000) examine the ways gender interacts with the transition from conventional to sustainable agriculture. A series of interviews with women and men on dairy farms led Meares to contend that because women’s contributions on family farms so often are ignored institutionally, new movements, such as sustainable agriculture, fail to incorporate women’s definitions of movement visions, goals, and activities, thereby alienating women from full and
active engagement with and participation in the movement. By ignoring the particular viewpoints of this key constituency, the sustainable agriculture movement risks losing its ability to attract more family farms to the movement and to maintain its forward momentum.

Peter, et al. (2000), on the other hand, explore constructions of agricultural masculinity and its relationship to conventional farmers’ willingness to transition to sustainable agriculture. They interviewed a number of farmers in Iowa and found that men who did not belong to the local sustainable farming group displayed “monologic masculinity,” a belief in strict gender roles and expectations and a rigidly defined conventional masculinity. Those men who belonged to the sustainable farming group, however, showed a more open, negotiable, and flexible “dialogic masculinity.” The authors believe dialogic masculinity allows the men to have a more flexible relationship with nature, their farming practices, women, and other men, thereby giving them room to transition from conventional farming.

Chiappe and Flora (1998) critique and add to the Beus and Dunlap (1990) definition of alternative/sustainable agricultural characteristics (here the terms “sustainable” and “alternative” are used interchangeably); women’s voices had been neglected in the initial creation of the model. The authors interviewed farmwomen – not necessarily primary operators but women dedicated to the sustainable agriculture movement – to ascertain whether they expressed the same values as similarly situated men. While the women did validate the six principles elucidated by Beus and Dunlap, they also espoused additional concepts: those of quality family life that is enhanced by practicing alternative forms of agricultural production and spirituality that is reflected in a more environmentally benign, relational agriculture.
A FINAL NOTE

As shown above, rarely are farmwomen acknowledged as being farmers in their own right or as being equal partners with their spouses. Neither is the diversity of farmwomen in the United States often considered regarding race, ethnicity, social class, labor performed, ownership status, nationality, religious affiliation, or sexual orientation. The question arises: when women are acknowledged as farmers, what type of person do we see in our minds? Is she white or Black or Latina? Is she an owner or a tenant? Is she a farm laborer? Is her partner, if she has one, a man or a woman? How do these social locations affect her life, the way she farms, whether she is seen as a legitimate, knowledgeable member of her profession, whether her voice is heard or lost in the fields? While these questions are beyond the scope of this study, they are important to keep at the forefront of research projects and questions. Finding answers to them will inform and support the lives of women in agriculture better in the future.

There also is a research need to turn the primary focus on women as farmers, as owners/operators, and as voices for themselves and their personal experiences. Further, there is need to ascertain women farmers’ and ranchers’ involvement in the creation of agricultural knowledge, that information which is required to run an agricultural operation successfully. The purpose of this research is to elucidate some answers to these latter two questions.
THEORETICAL FRAMEWORK

Because my goal for this research includes illumination of women’s experience-based agricultural knowledge in order to make their knowledge-creating roles more visible and valued, I employ several theoretical lenses throughout the process. First, socialist feminism, the theory that women’s oppression derives from women’s labor and the subordination of that labor to men’s, colors my entry into this research process. Second, situated knowledge regards knowledge as positional, partial, and constructed, based on one’s experiences and interactions with the world; it also regards the knowledge of subjugated people to be more complete, objective, and potentially transformational. The knowledge my respondents possess as women farmers and ranchers can fall into this category. Finally, ecofeminism and its practical applications, as I already have discussed, lends itself to my approach in this research.

I chose to use Grounded Theory as the organizational framework for this project (Glaser and Strauss, 1967; Creswell, 1997). When using this analytical tool, the researcher is supposed to enter a study without preconceived hypotheses or theories in mind that she would like to prove with her data. Rather, her mandate is to create theory from very purposeful (theoretical) sampling and the perpetual creation of future questions that correspond to what she has learned from past data gathering. Thus, the researcher’s questions for the next interview are always drawn from the ideas raised in the previous interview, and she always is coding the data she has just gathered to fortify and clarify her current theoretical stance. In this way the theory she eventually elucidates will be “grounded” in data that is ever informed by previously collected and analyzed information.
METHODS

According to Marjorie DeVault (1999), a feminist researcher must work to shift the focus of inquiry from men in order to "reveal the locations and perspectives of (all) women" (30); she must reduce as much as possible the amount of harm and control exerted by the researcher over the participants in the research; and she should support research enterprises that are valuable and meaningful to the women who participate in them, those which may lead to social change that benefits the participants' lives.

Toward this end I decided to base my research primarily on interviews with women farmers and ranchers from the state of Oregon. I chose to do interviews with these women over other data gathering methods for several reasons. I wanted to reach as many of a broad variety of farmers as possible — thus excluding the use of case studies — but I wanted to hear the unique and intimate details of their personal experiences in agriculture, which a formal, mail-in survey cannot accomplish. I wanted to be able to talk about the experiences of women farmers in Oregon in a broad but not universal fashion; interviewing can accommodate a small but adequate sample size. I wanted to give as many women as possible an avenue to speak of their opinions and experiences but in a way that allowed them the most control possible over the circumstances of our interactions, as recommended by such feminist researchers as Reinharz (1992) and DeVault (1999).

I decided to use semi-structured, open-ended interviews as my primary research technique (Bernard, 2000); this type of interview gives the researcher some control if discussion strays too far from the desired topic while still affording the participants power over topic order, depth of discussion, and insertion of material about which the interviewer might not have thought to ask (Reinharz, 1992, 24). Ann Oakley (1981) was among the first feminist researchers to criticize
traditional interviewing techniques that subscribe to dominator/subordinate politics, constructing the interviewer as the all-knowing and rational dominant party and the interviewee as the subordinate who must be guided, who must bow in deference to the knowledge of the interviewer (40). I did seek to minimize my power in the interviews I conducted by disclosing much of my personal history and my reasons for wanting to ask the questions I was asking; by answering questions posed to me by my respondents and interacting in a friendly and conversational rather than an aloof and "objective" manner; and by keeping in mind the topics I wanted to cover during the interview but letting each woman to direct the flow, length, and primacy of subject matter in each interview. I also gave them the opportunity to choose their own pseudonyms, rather than taking that power to name in my own hands. Regardless of my intention to create and nurture a non-hierarchal relationship with these women, I ultimately am the one who had and has power in this situation for many reasons. I am the one who chose the subject of the research and the "general topics" to be covered in each interview. I am the one who guided each interview, often unintentionally interrupting flows of thought and discussion that were significant to my respondents. I am the one who has ultimate say about the meanings I will construct from these interviews, which women's words I will use to elucidate those meanings, and which meanings I will silence or misinterpret, however unintentionally. The power, clearly, is mine, however non-hierarchal and fully representative I wish the process and results to be.

The interviews lasted between 30 minutes and an hour and a half with the majority going for about one hour. The longer interviews were actually part of extended visits of between 3 and 5 hours; however, I chose to record only the formal pieces of the interviews and allow the rest of the time for ice breaking and conversation. I spoke with one of the women on two separate occasions, which allowed an even richer and more enjoyable interaction to take place. For most interviews I traveled to the woman's house or a mutually agreed-upon meeting place close to her farm; some of the most distantly located farmers and ranchers all
happened to be in Corvallis for a meeting one day, and I was able to set up interviews with them without having to travel to their farms. During each interview, we spent some time getting to know and to feel comfortable with one another; many times we had a cup of tea or coffee and sat in offices or kitchens or living rooms. Only one woman gave me a complete tour of her operation. I met some of the women's children and husbands, and one husband joined our discussion after the formal questions had been answered.

The questions I asked focused on how they got started in agriculture, their jobs on the farm, their sources of information, whether they participated in any formal information/knowledge creation and exchange, and with whom they shared their knowledge on a more informal basis. I also asked about their feelings about agriculture, about the debate between conventional and alternative agriculture, and about the value of farming as a healing tool. Through all of the interviews, I tried to flow with the conversation to allow each woman time to discuss topics that were important to her as well as those I wanted to study. I did this to give each participant some control over the situation and also to see if what I thought was important to study and talk about was actually important to each woman. For almost every interview, I felt as though the initial interaction was a bit stiff as we got to know one another and feel comfortable talking. Each interview then flowed into the main interaction, which mostly felt very easy, relaxed, and cordial.

All but two interviews were conducted in person, and all of these interviews were tape-recorded. Of the two interviews not conducted face-to-face, one was done over the phone; this was recorded, as well. The second was done via email; no phone contact was made with this farmer at all. I asked every woman if she felt comfortable with me tape recording or if she would prefer that I just take notes; only two of them were a little unsure, but they said they would allow me to tape as long as I sent them transcripts to check. I further reassured them by having them turn off the tape recorder when they felt a sensitive subject was being broached.
I supplemented these interviews with demographic questionnaires that provided information that was necessary and important but that was very easily answered in survey form. Using multiple methods allowed me to devote more valuable (and limited) interview time to delve into the aspects of agricultural knowledge that are so important to this study while ascertaining other pertinent information relatively quickly. I borrowed and modified the questions in this survey from Tanner (1999) who surveyed women farmers about their entrepreneurial activities related to their farms. Since I administered the questionnaire after the interview, I also had time to write notes about the interview and to discuss any information the women might have wanted to share after the formal interview was over, while they were filling out the questionnaires.

All but two women filled out questionnaires. One did not because I discovered over the course of our interview that she did not really fit my criteria for "women in agriculture" (i.e. women actively involved in the production, processing, or marketing aspects of their farming or ranching operations); therefore, we talked, but we decided that a questionnaire would not be appropriate for her. The other I decided to spare the ordeal of answering written questions; she had told me several times during the interview that she has dyslexia, and that written things make her feel very uncomfortable and inadequate. I thought it would be crass, self-serving, and unfeeling – decidedly unfeminist – to ask her to fill it out. Of the rest of the women, many asked me if it was acceptable to give answers that I had not specified for certain questions. I assured them that they should answer each question in the way that fit their needs best.

Follow-up questions were called in to each participant as necessary to clarify remarks from the interviews or to ask questions not covered during the first interview. Data from the questionnaires was catalogued in a spreadsheet for easy comparison and analysis of responses. All interviews and follow-up remarks were transcribed and printed out for thematic coding and analysis according to methods elaborated by Grounded Theory (Glaser and Strauss, 1967). In Grounded Theory,
coding occurs in several stages as described by John Creswell (1997). During open coding, the researcher reads through her data and identifies initial themes common among the responses and the various properties and dimensions of these themes (e.g., how many different ways does this theme come up? What are the most divergent examples of a given theme?). Next, in axial coding, the researcher organizes these themes in different ways to see how they might alternately be described; central phenomena and their causes begin to emerge from this process. Finally, in selective coding, the researcher creates a "story" which incorporates the phenomena elucidated in axial coding.

PARTICIPANTS

In Oregon, there are 4800 women who consider themselves the main operators of their agricultural enterprises (US Census of Agriculture, 1997). Unfortunately, this source does not reveal the agricultural paradigm to which these women subscribe, where they live, or how to contact them. Thus, I had to find alternative means of locating an adequate number of willing participants. According to Bernard (2000), "[i]f you want to know about the lived experience of individuals, you need a nonrandom sample" of the population of people in question (192). I elected to select a small (7 to 10 people per agricultural methodology) but diverse population in a purposive manner (Bernard, 2000, 176) to give me a personal recounting of their experiences with a broader phenomenon, that of acquiring, using, and sharing agricultural knowledge. When one is doing purposive data collection, the need for a large sample size is diminished because the data will not be used for generalizing attitudes and behaviors to the broader population.

In order to identify subjects, I utilized convenience and snowball sampling. The former relies on haphazardly choosing people to whom to speak (Bernard, 2000, 178); the latter relies on the recommendations of good interview candidates
by people who know them (Bernard, 2000, 179). Because I wanted to talk to women involved in a variety of operations and using a variety of methods, I went to a number of different sources to find potential participants. The Dean of the College of Agriculture at Oregon State University led me to the names of ten more conventional women farmers and ranchers who he thought would be interested in talking to me. The bias attached to these farmers lies in their involvement with OSU’s College Of Agriculture and the OSU Foundation. They are all well known and well thought of by the Dean or by the person who sent me their names; they thought these women would be open to talking to me, and perhaps they thought they would be able to advocate for OSU’s involvement with creating agricultural knowledge.

In order to obtain the names of women in sustainable agriculture, I contacted the Food Alliance, a non-profit certification organization in Oregon that promotes adoption of sustainable agricultural practices on farms across the country; from them, I got the names of the ten operations in Oregon on which women play prominent roles. These women’s visions of sustainable agriculture match up with the vision of this certification organization; thus, in this group there is some bias toward women who subscribe to the sustainability tenets of the Food Alliance or who wish to have this particular certification for their sustainable farming techniques. Women who consider themselves to be sustainable farmers and ranchers but who have not been or choose not to be certified by the Food Alliance would not have been included in this sample. In this group one name I received overlapped with one from the conventional farming group.

In order to locate women involved in alternative/organic agriculture, I contacted Oregon Tilth, a non-profit certification organization that promotes research into, education about, and adoption of organic farming practices in Oregon, the United States, and abroad. They initially suggested eight farms, three of which had two women operating in partnerships. I also found additional names in their on-line list of Tilth certified growers.
Finally, I got the names of three potential respondents as I discussed my research with friends and colleagues. This sampling method produced the most immediate results because of the personal connection involved between the farmers and myself. They were easiest to contact and the most receptive to my initial requests for interviews. One of these women considers herself to be an alternative/organic farmer; another considers herself to be sustainable but leaning toward organic; the last woman fits most readily into the conventional paradigm.

I first tried to contact my respondents via telephone. This dry-run type of contact, in which they had no prior knowledge of me or my purposes, coupled with the fact that I was calling during harvest season, made the initial interactions very difficult; people often did not respond to messages or would be unwilling to talk or pin down an interview time. After getting only two affirmative responses this way, I decided to send a letter to all the people I wanted to interview along with a postcard asking them whether or not they wanted to participate. In the letter I introduced myself and my study, told them where I had obtained their names, asked them if they would like to participate, and asked them to please return the postcard indicating their choice. I also told them that if they did not return the postcard within two weeks of my sending it, I would assume they were interested but busy, and I would call them.

This method of introduction elicited many more responses, and I was able to eliminate some people and set up interviews with others. For the people who did not return the postcards, I called, and, after very little explanation and discussion on my part, most said they were interested in talking.

Of the 33 farms and 36 people I contacted, 22 people agreed to be interviewed. Of the dual-woman partnerships, one woman from each farm said she would be willing to talk; of these, one woman backed out and one woman had abandoned farming some years before. I did sit and talk with her but it was off the record and about matters pertaining to women lands and women-only communities. I interviewed but decided not to include another woman, as well, because she
wasn’t involved in agricultural production, processing, or marketing. Therefore, in all, I incorporated interviews with 20 women farmers into my analysis.

There were diverse reasons given by those women who decided not to participate but did contact me. One said she was pretty isolated and atypical and didn’t fit very well with research-type endeavors. Another said she had a pretty negative attitude about agriculture at the moment (her business wasn’t doing very well), and she doubted she would be able to help me in a positive way. A third said she was just too busy and wouldn’t be able to make any time at all for an interview. I respected these women’s decisions and didn’t push them; however, I suspect some would have had very interesting stories to tell. I received no response at all from only four women.

My respondents are ethnically homogeneous, the majority of them being white. Their average age is 45 years with the youngest being 25 and the oldest 55. 14 are married, two have partners, and four are unmarried. Of those who are married or have partners, 12 have partners who are involved in the agricultural operation in some way. 13 of my respondents have children, and one was pregnant at the time of our interview. Three participants have high school degrees, one has an Associate’s degree, one went to college but has no degree, 11 have a Bachelor’s degree, two have teaching credentials, one is working towards a graduate certificate, and three have Master’s degrees. Eight participants studied science in some form during their college careers. 17 identified themselves as farmers or ranchers by profession. 14 said they had been or still are involved in some profession other than agriculture.

I believe I achieved what I had hoped for regarding the inclusion of a diversity of agricultural methods and operations. The participants are involved in many types of agricultural production, including large and small conventional, sustainable, or organic cattle and sheep ranches; small urban gardens; large and small conventional, sustainable, or organic fruit and vegetable farms; sustainable orchards; and agri-entertainment. They live and work all over Oregon with four in
the Portland area, five scattered throughout the Willamette Valley, two from the southern Coast Range, two from the north-eastern corner of the state, two from the southern Coast, two from Southern Oregon, two from Central Oregon, and one from the Colombia River Gorge. They subscribe to a variety of agricultural models: conventional, sustainable; transitional (moving from conventional to more alternative practices), and organic.
RESULTS AND DISCUSSION

Originally I set out to uncover knowledge about women farmers' and ranchers' how-to-do-it, agricultural knowledge. How did they get the information they needed to get started in agriculture? How and where do they get the information they need now? Do they experiment with the knowledge they receive? Do they create their own? Do they share it with colleagues or other professionals? While I did learn much about these women’s strategies for acquiring and using agricultural knowledge and sharing it among themselves and other agricultural professionals, I also discovered that the definition of “agricultural knowledge” reaches far beyond the plane of technical know-how. Agricultural knowledge also encompasses information about agriculture shared with non-farmers and ranchers, such as consumers, environmentalists, and policymakers. It includes the understanding that agriculture is valuable to individual, cultural, and societal well being. It is the knowledge of the reconnection of people to place. Finally, agricultural knowledge is circumscribed in part by the social identity of the knower; in this case, agricultural knowledge does appear to have gendered elements.

All of these categories will be illuminated and elucidated in this chapter. I first would like to discuss technical knowledge of agriculture and will describe how these women learned to be farmers and ranchers, how they maintain their knowledge, and how they share that knowledge with colleagues.
Entry into agriculture

Women entering farming and ranching in the United States may do so in a variety of ways: through the death of a spouse or a parent (primarily a father) through marriage to a farmer or rancher, through purchasing land for themselves (this method is very difficult, according to my respondents, because land prices are so prohibitively high), and, very uncommonly, through a divorce in which the farming husband leaves his land to his spouse (Sachs, 1983; Sachs, 1996; USDA, 1998b).

For the women in my study, entry into and training for agricultural production and marketing occurred via diverse means. Eleven of my respondents were raised in agriculture; seven of these women left it to pursue education or other careers and returned after varying periods of time and for different reasons, primarily due to familial necessity or a passion for agriculture that never had left them. The majority, such as Marjorie², learned much as children from their farmer fathers: “My dad is a wonderful...fountain of knowledge...he couldn’t have stopped me [from being actively involved in the operation as a child].” However, a few of these women learned how to operate their farms and ranches after they returned to agriculture, often because their fathers had been injured or had passed away while they were children and their families had to leave agriculture before they had acquired much experience and knowledge.

Three women married into agriculture and had had little exposure to the profession beforehand. Chris, throughout her marriage, primarily has stayed out of the production arena and has concentrated on marketing their products and
managing the farm business. Although she knows how to do most farm-related jobs, she does not want to get drawn into doing production labor: “I’m afraid that if he puts me on a tractor, he won’t let me off.” On the other hand, Lenora began her married life doing most of the agricultural production on her and her husband’s first farm because he was working on another farm to make money. Thus, she often was in the fields doing work she never had done before. Hers was on-the-job training, and her primary teachers were her husband and her own experiences and mistakes. This also was the case for Beth, who had had little experience on a ranch, aside from visits to her grandmother’s place during her childhood. She found herself troubled by her husband’s role as her teacher and boss: “…I really was in a situation where… I didn’t know anything, and if I did, it didn’t matter, and so [my husband] immediately was really not my husband as much as my boss and my instructor.”

Five respondents came to agriculture in other ways. Two, Ellen and Sarah Bea, entered through an interest in food and nutrition and the desire to educate people about how to eat well; Ellen got her education at OSU in Horticulture, and Sarah Bea learned to farm through an apprenticeship in sustainable agriculture and gardening at University of California at Santa Cruz. One, Suzi Valentine, had been involved in a cattle drive when she was five years old and had wanted ever since to be a “cowboy”: “[W]hen I was a little girl, people would say, ‘What do you want to be when you grow up?’ and I would say, ‘A cowboy’…finally I thought, ‘Well, I’d better go do this, so I did.”’ One woman, Cocoa, became interested in animals after her Veterinary Medicine professor at OSU told her he thought she would be happier working with healthy animals and encouraged her to enter the Animal Sciences Department. Jane Farmer never had thought of farming at all and one summer decided to pick tomatoes to reduce some of the stress she was feeling in

2 The names of all of my participants have been changed in order to protect their anonymity. Most participants chose their own pseudonyms; some deferred the task to me.
her regular job: “The light went on. It was just wonderful. I would have done it for free…[It] cleared my mind out, and it grounded me.”

This sentiment is echoed in the majority of women with whom I spoke. They found themselves drawn into agriculture, wanting to continue practicing it whatever the hardships or disappointments. The desire to remain in agriculture is complicated, made of many diverse aspects, and has to do in part with the rich, varied, and interconnected amount of knowledge required to run a farm or ranch and the way that complexity appeals to the intellectual self. Many also love the challenge presented by trying to solve problems and the daily anticipation of not knowing what will happen. For Patty C.:

[It] seems like it might get boring ‘cause you’re kind of, you plant in the fall, you harvest in the summer, you know, the same old, same old, but yet there’s so many variables to it. You know, how much moisture are you gonna get to what the crop’s gonna do. One year we had a hail storm come through. Had no hail insurance whatsoever. Freak thing, it’s like every 100 years they even have a hail storm…[W]e just totally got nailed…Didn’t get the neighbors, but a great big swath right through us. It was like, there’s always something. We survived that…it’s a challenge. It’s a gamble. Farming is a total gamble.

Adding to and maintaining knowledge using “conventional” methods

After becoming farmers and ranchers, the need to maintain and expand one’s knowledge base is paramount. These women discussed what might be thought of as typical, “conventional” sources of information but also described using less conventional – or less officially sanctioned – sources. Typical sources include university Extension and other research-based services, farm journals, books, conferences and organizations, farmer networks, individual farmers, the Internet and email listservs. Farmer networks and individual farmers stand out as
interesting sources, partly for the diversity of knowledge that these networks can bring and partly for the knowledge that is not shared. For Georgia Brown, the cooperative to which she belongs is a wonderful thing partly because so many different points-of-view are heard, respected, and given credit. Husbands and wives, more conservative ranchers and more experimental ranchers, all their voices are heard and their views taken into consideration. Because so many different experiences are shared within the group, their decisions are stronger and their cooperative is more successful as a result. Sarah Bea also discusses her more informal community supported agriculture (CSA) farmer network. At the end of the growing season, these farmers come together to share experiences, frustrations, problems, and solutions in the hopes that their next season will be made better from the exchange.

Interestingly, this type of exchange seems to work well only if there is not strong competition between the sharers. Among producers who are directly competing for customers (with similar products sold through similar means), the types of information shared will be more limited. Kay McIntosh and Sarah Bea both mention how close-mouthed some farmers (both men and women) are about the varieties of plants they grow because this information, shared with people growing in the same climatic region on the same types of soils, would be potentially detrimental to their sales. Jane Farmer talks about the difficulty in resolving her desire to be helpful and her competing desire to protect one's market base: "The threats really come when there's a market overlap...and then we're truly challenged to go beyond our small pettiness." This reluctance is interesting because it contrasts to the idea that women are more cooperative, nurturing, and more willing to share information and ideas because they are women. The practicalities of needing to keep their market base intact often come before any desires to help others out, even those who are new or less experienced in the profession.
Some information sources had mixed reviews from my respondents; among these are Extension and university research, certain published information of which there is a dearth, and the Internet. Regarding Extension, some think that university-based services (primarily at OSU) did not do enough to address needs and desires for cutting-edge information on alternative and sustainable farming methods. A few also think that Extension agents are behind-the-times in their abilities to respond to more complicated questions and concerns and to engage people’s critical thinking skills. Organic and sustainable farmers often must turn to their own research or research done by institutions such as University of California at Davis, which leads the way in sustainable agriculture research. Some organic farmers also use the Soil Food Web concept, developed by Dr. Elaine Ingham, a courtesy faculty member at OSU, to assess and increase their soil health.

For Suzi Valentine, university Extension services and research projects often seem more of a waste of time and money than they are worth; she prefers to get her knowledge from those who have been farming and ranching for a long time:

I have called the Extension Office a couple of times, but sometimes they’re so far out that their answers aren’t practical. It’s that old academic problem here. They can field test a lot of wonderful ideas, and they’re very good, but they’re being paid the whole time. I’m not being paid to field test; I need it to work the first or second time. I can’t afford two years with no crops…and I know something. Um, a lot of these really old farmers know a lot; they’re a great wealth, and if you can just kind of get ‘em to open up and start asking them questions, they want to tell you; they want that information to go on.

Diana, an organic farmer, also feels that less money and time should be spent on university outreach to farmers, and that farmers should be able to put their money into supporting information sources that most closely subscribe to their individual ideologies:
I don't think it's the job of the civil government to be funding the teaching of agricultural practices. To do so is very wasteful because it mostly goes to support an army of support people (the bureaucracy) and teaches in accord with the beliefs of those in power....[A]s I've already stated, I believe God's Law/Word is the base of all Truth including how best to farm. If farmers were taxed less they could afford to subscribe to the farm organization, publications, think tanks, that they most agree with, learning and farming as their think best. Then their customers will either like their products and support their farm or not.

Although May, a sustainable farmer, finds university research extremely helpful, she also sees the complications it causes for agriculturalists who want to use currently accepted, "state-of-the-art," methods but often cannot afford to do so:

It's amazing how much stuff is involved in this industry. Sometimes it just blows my mind, but if you didn't have...all that stuff that's going on behind the scenes to work with you, I can't imagine farming....[But for every change made in the system] there's a chain reaction....So what's happening, like to us, you put in an irrigation system, and the next year there's a whole other way of thinking about watering....the biggest and most frustrating thing about farming in this day and age is keeping up with all the stuff, and at some point farmers put their foot down and they don't try anything new because they ran out of money and they just have to sit on it, leave it for five years, let other people play with it....And [my husband] and I...are getting that way.

Of course, not all of these farmers and ranchers feel ambivalent about Extension services; a couple of respondents even had been Extension agents or industry representatives before they began their careers in production agriculture. Many of these women find Extension to be invaluable for specific questions they have, and several from each agricultural paradigm have maintained working relationships with Extension agents that include research projects. Interestingly, since many of the women whose husbands also farm spend less time doing production-related work, their spouses are often the ones doing experimental work with Extension agents; however, the women almost always refer to those experiments as "ours" or "we are doing such-and-such." This phrasing may
indicate that although they are not necessarily directly involved in the day-to-day experimental process, they are involved in the discussion of those activities and so have a connection to them. It also may indicate that they see their farms as team endeavors, the activities of each partner intrinsic to the success of the other’s; thus, anything one partner does, the other feels a part of.

Regarding information found in books or journals, the organic and sustainable farmers have particular difficulties finding materials pertinent to their needs written after the 1930’s; much of the official research on, for example, organic or sustainable production and pest-management methods is found in books written during the 1920’s and 1930’s, before chemical agriculture came into vogue and before those techniques were designated “organic” or “sustainable.” However, there are a variety of other information sources to which these farmers can turn, including prominent organizations such as Rodale and ATTRA (Appropriate Technology Transfer for Rural Areas).

Finally, many people find the Internet to be less useful than they would like it to be, often because they live in rural areas that do not have adequate Internet infrastructure or because the Net contains too much information (compounded by these women’s shortage of time in which to read it all). As Suzi Valentine puts it, “I’m not interested in the Internet... I don’t need more printed information and dialogue in my life.” Sarah Bea feels similarly: “Sometimes the Internet is so clogged with words... you know, sending you here and sending you there, sometimes you just want a nice [concise thing to read].”

On the other hand, several women thought the Internet was just about the best thing ever for getting lots of information quickly. Aggie says, “I occasionally just put in a search... and just [go] through and read all there [is] to read about it.” For Ellen, “[A] lot of the things I get from the Net are from discussion groups where I can just throw out a question.” Amy, a rancher, has found the Internet invaluable for keeping her informed of politically sensitive information. She belongs to the Sierra Club listserv, so she can stay updated on environmental
actions taken by outside groups that may affect her livelihood or that of the broader community.

Maintaining and expanding knowledge in less conventional ways

Less conventionally-espoused sources of information include commodity and political organizations, trial-and-error (also referred to as “shooting-from-the-hip” and learning from mistakes), travel and observation of techniques in other areas of the country or the world, asking suppliers and other experts, intuition, long-term connection with the land, Nature, the Bible (and other spiritual sources), and customers. I will discuss knowledge gained from the land, Nature, and customers later in this chapter.

Most interesting and unexpected for me to discover was that several women rely on their spiritual beliefs to guide their practice of agriculture. For Diana, “The Bible has a lot to say about growing practices and some has been written over the centuries applying Biblical farming practices to specific crops and climates.” It is important for her to follow those practices prescribed by her faith and by scholars of her faith. For Lenora, her choice to use sustainable agricultural methods follows from her spiritual values, as well:

I think it just really has to do [with]...our view of how we fit into the world, who the world’s made for and the fact that it needs to be taken care of because it doesn’t belong to us....I’d really say that ultimately it goes back to our spiritual values, that [it] wasn’t necessarily real conscious, it just was there....[W]e wouldn’t want to pour that stuff on a crop that we’re about to eat and we’re about to sell to someone else. Besides, it’s not good for the soil. I mean you’re thinking that way, but...you know, the more you’re challenged on your decisions...the more you realize it does have to do with your spirituality and your view of how we fit in the world.
Marjorie concurs with this belief and feels that one should put out into the world what one hopes to receive in return. For her, using organic methods, branding as few of her animals as possible, and managing her land to the best of her ability ensures that she is putting positive energy into the universe, and she is hoping to receive positive energy in turn. For Jane Farmer, who uses organic methods, as well, being a practicing Buddhist has informed the questions she has begun to ask herself about her goals for farming. When she first entered the field, she wanted to know how she could be a better farmer, make her system perfect, and change the world with organic farming. Now “my spiritual practice kind of is fed by this work [and]...I ask more now what is being asked of me here today right now and I listen more.” Her spiritual practice has given her a new perspective on the reasons she is farming and what she can learn from her craft.

On a different note, many of my respondents express interest in and reliance on political organizations to keep them informed about issues key to their profession, such as regulatory and financial-program changes and important bills being discussed at the state and federal level. Patty C., a conventional grower, finds her local, county, and state commodity-focused political boards invaluable for keeping her aware of such regulatory requirements as transition from mail-in to online submission of yearly pesticide use reports, a modification that surely helped the monitoring agency but added difficulty to the lives of rural farmers whose access to computers often is minimal. She also enjoys the opportunities afforded to her through these agencies to travel to Washington, D.C., to participate in lobbying efforts and to observe the top-down political processes that affect farmers and ranchers far from centers of power. Amy, another conventional grower, spends much of her time involved in numerous political activities, from trying to pass bonds to fund the building of tide control structures to testifying in Salem in order to change laws that she and other producers feel are short-sighted, top-down, universal rules that do not transfer well to specific locations.
Some of the most impressive stories about acquiring and applying knowledge relate to the need to innovate in order to survive; these farmers know that if they stay in one place, philosophically and methodologically speaking, their operations will fall to the pressures plaguing agriculture. One story is particularly exciting. Georgia Brown is primarily responsible for creating the path that led to the founding of a highly successful marketing cooperative. The road to success began with one key event: her willingness to question the way things always had been done. Because she asked a question that had not been asked before and got an answer no one expected, she and her colleagues were able to come together and to recreate their operations to include not only production but also marketing of their product. Before this significant event, she and her colleagues had relied upon the commodity market for their subsistence; consequently, they never knew what happened to their product after it was taken to market. Under their new system, they market their product directly to specialty stores, and they meet the people who buy their food, thus creating a rare connection between producer and consumer that has been highly successful for the individual producers and for their communities. The connections made not only with customers, but also with processors and grocery store managers, have given all involved with the cooperative new knowledge and appreciation for the full cycle through which their product travels and have broken down barriers of mistrust that once existed.

Also interesting is the technique of talking to suppliers and other experts who are knowledge specialists rather than generalists and so have a lot of information about a very specific thing, whether it is irrigation, mechanical equipment, or fertilizer. Often these sources are easier to access, and they are glad to share what they know. Suzi Valentine talks to experts quite frequently:

I don’t use Extension very often. Um, it’s just not convenient for me. Um, when I was tearing apart a pump, and I couldn’t get the part, I called the pump company, and they got their mechanic, and their mechanic talked to me. And I’ve heard guys do this. They just call up the mechanic at the
pump place! They talk to ‘em for nothin’! And he told me what to do. I
was so thrilled, I called him back! I learned something: just ask. If that guy
won’t tell you, call somebody who will. Um, most people want to share,
and um, they’re willing to help you.

Farmers’ experience, that which comes from years of work on the same
piece of land, is a vital but very often neglected component of agricultural
knowledge. All of the women I talked to express in some way that their experience
and the time they have invested in becoming agriculturalists is their most valuable
source of knowledge:

This evolution of what’s happened in my garden over the last 12 years, that
certainly wasn’t a recipe that I followed and got from anybody (Sarah
Pederson);

[Y]ou know, one of the biggest resources is something you can’t really put
a name on and that is just time and experience and getting to know people
(Lenora);

I think I do a lot of stuff just by trial and error too....[Y]ou know, you’re
just sort of out there and a lot of times you don’t have time to gather
information. You’re just working, and you’re just doing and you just do
(Ellen);

...[I]t’s just what they say. It’s, um, the kind of knowledge you need to do
this is very little, but also very deep, and a lot of it’s experiential, and what
you actually need to know to be a good farmer, ah, in this day and age, is
probably less than more, sometimes (Jane Farmer).

Less may be more after several years of experience and the certainty and
confidence in one’s own abilities and knowledge that that experience affords.

Perception of one’s own experience and expertise is so important that some
women, such as Ellen, are disinclined to share their knowledge in more official
capacities, such as at conferences: “No, no, no, no. I’ve only been doing this for a
couple years. I’m a neophyte....[T]here’s people who have been doing it for the
past 20, 30 years, so I just go and listen, mostly.”
Many women are involved in teaching people how to practice the craft of agriculture – from those considering entering the profession to those who just want to work a little bit with the land. Jane Farmer has a yearly apprenticeship program during which students learn all the practical aspects of farming, including planning, production, processing, and marketing. Ellen wants to set up a scholarship program at OSU in fruit and vegetable production for a young woman who wants to become a farmer. Marjorie has demonstrated the very real benefits of using organic production methods to a skeptical contractor. Cocoa has had several people come to work on her ranch before they bought their own operation to discover whether they really wanted to enter the field; she even offered to let me come and work before I got too far into any agricultural schemes of my own. Penelope’s customers often come and help so they can get a taste of what farming is like without the daily responsibility of owning a farm. This sharing of knowledge creates a connection with people that is powerful and potentially transformative. I will discuss this aspect of connectivity later.

Sharing knowledge acquisition responsibilities

Two final themes that emerged around agricultural knowledge are the splitting of knowledge acquisition responsibilities and the invaluable, often untapped knowledge that farmers possess. The former theme I will discuss now. The latter theme I will discuss in more depth later in this chapter.

Because the diversity and extent of knowledge required to keep an operation running can be so great, particularly when one is first establishing one’s operation, and because many of these women belong to partnerships of some sort, many found that dividing knowledge acquisition duties has been helpful and, indeed, necessary. May, a sustainable farmer, and her husband re-entered agriculture after many years involved in other professions. Because they had to
learn so many new things, for a time both of them were involved in knowledge gathering together. As they became more comfortable with particular pieces of their operation, they began to split knowledge acquisition according to their specific interests and the tasks they wanted to perform. Now they are more specialized in their knowledge gathering, but they keep each other informed about what the other is doing. This situation also applies to Penelope, whose husband does more information gathering via phone while she does most of the reading, and they tell each other what they have learned. She credits her spouse with being more of a “team player” than she is, always including her in any conversation that he is having with Extension agents or other information providers. He wants her to be in the loop, and though she often does not want to be, she sees this information splitting and sharing as beneficial to their partnership.

Amy knows how imperative this sharing of knowledge from first-hand experience. Several months prior to our interview, she was involved in an on-farm accident that left her in a coma for several weeks. During this time, some of the tasks that she always took care of, including the paying of important bills, needed to be done, and her husband did not know where she kept the pertinent information. When she woke up and recovered, they realized how vital it is for husbands to know what wives do, as well as for wives to know what their husbands are involved in.

Meanings made of agricultural knowledge

Several interesting themes emerge from this initial discussion of agricultural “how-to” knowledge. One prevalent issue is the contrast in beliefs about the veracity and utility of scientifically derived information. Many of these farmers feel very strongly that scientific knowledge is of great value, have been trained in the scientific model, and want to know that the information they get is from (what
they perceived as) unbiased, scientific sources. However, others feel that the utility of empirically generated information is limited, that its creation is driven by larger and more powerful farms and agricultural interests, and that the data generated sometimes are of little help to their particular circumstances. No one uses scientific knowledge to the exclusion of other knowledge forms and sources, and even those who “know” that science-based, conventional agriculture is the best way to feed the world have had experiences that suggest otherwise. Sarah Pederson’s experience is particularly striking:

I kind of learned a very interesting lesson. Of course being in the agricultural industry and having the kind of knowledge that I have, I know that to produce the amount of food that we have to produce to feed this world, we at this point have got to use petrochemicals, and so I’ve always been in that philosophy, and so when I put in my little field, I went through, and I fumigated the soil to kill any symphylums that would chew on the roots... and what I noticed was that I killed everything. I mean, I killed the earthworms and, you know, everything. And so my crop was really good for about three years, and then I had about two or three years where it just didn’t do very well at all, and I think that what happened was... a lot of the bad nematodes and that came back but I didn’t have the beneficials there to balance it, and um, I really wasn’t adding the organic matter to the soil like I needed to be... so now... I compost all my horse stuff out of the horse stalls plus all the trimmings off the field, so all that goes back on the field, and the last couple of years, I’ve just seen a tremendous change, and I’m producing more flowers, they’re of better quality, I have virtually no insect problems, I had tons of frogs, there’s tons of worms, um, and it’s just really interesting. I mean it’s just a very small little personal case study, I guess – and I know, like I say, with the amount of food that we have to produce globally to feed the population we can’t do that, but it’s just really interesting on my little, my little garden, how I saw that.

Sarah’s experience expresses the dysphoria of someone who has learned to define Truth as something derived from “objective,” officially- and institutionally-sanctioned science and yet has learned through her own experience that this Truth is not absolute nor even always correct. This dysphoria may be caused by having to shift from received knowing, in which the knower takes in the knowledge/truth
of authority figures without question, to a more procedural (knowledge is received with skepticism and must stand up to rigorous examination) or even constructed knowing, in which the knower realizes truth is contextual, can be questioned, and can be modified with one’s own knowledge (Belenky et al., 1986).

Along with this dysphoria comes ambivalence by some and loyalty-with-stipulations by others to the precepts of scientific discourse. As Harding (1996) suggests, science as practiced in the United States has been made to appear “objective” but in fact has been constructed over time by the needs, power, and desires for resources of European colonial expansion. Because Western science originates from a biased construction, it is not surprising to find ambivalent feelings from those who exist outside of the power structure that defines “scientific” knowledge creation, even if those people have been indoctrinated into the scientific paradigm. She also suggests that attempting to describe and “know” nature (the mission of science) from outside this dominant framework “can generate more accurate and comprehensive accounts of nature’s regularities and their causes” (445). Thus, Sarah and other of her colleagues who have questioned, however tentatively, the validity of “science” potentially can produce a more thorough understanding of nature and agriculture, as they continue to explore knowledge generated by other methods or outside of the mainstream of sanctioned agricultural research.

A second theme that appears in this discussion is that many pieces of this “how-to” knowledge have the potential to be circumscribed by the gender of the knower. Although I devote more space to particular forms of gendered agricultural knowledge later, I would like to touch upon the ways the lens of gender can affect even “objective” technical knowledge.

First, none of these women mention that they had female mentors when they first entered agriculture; they learned from husbands, fathers, and other male teachers, such as equipment suppliers. Thus, the knowledge they accumulated from these teachers may well have been bounded by those teachers’ perceptions of
what women can and cannot, should and should not learn how to do. As certain researchers have pointed out, Extension agents in Two-Thirds World nations often overlook women and women’s needs and abilities when they impart their information (Saito, 1991; Saito and Spurling, 1992; Sachs, 1996; Rickson, 1997). Might knowledge providers, whether they and their students are aware of it or not, also engage in this oversight, a censoring of knowledge given to women by men? This would be one way to keep power within agriculture in the hands of men (Shortall, 1999). As more women enter agriculture and become experts in their fields, they will be able to impart their wisdom to others and perhaps level this gendered relationship.

Another question arises from the idea that because men currently are the majority of local experts in agriculture, there may be imbalances in the types of knowledge they impart to women – or even to other men. As we shall see in the next piece of this chapter, women believe they have an easier time getting away with experimenting with unconventional methods on their farms and ranches because it is more socially acceptable for them to be seen as “kooky.” If this is indeed the case, would men who also have used unconventional methods be less likely to share their results or sources of information with their colleagues for fear of looking foolish and unprofessional? How is the transmission of sustainable or alternative agricultural knowledge circumscribed by gender?

A final common focal point in this discussion is the diversity of knowledge that one needs in order to be able to farm well, the acknowledgement that a variety of sources are required to obtain this information, and the realization that adaptation is key to survival and success. The farmer herself must be responsible for finding the answers to her questions, and she cannot let obstacles or tradition hinder her. This active construction of the knowledge one requires is discussed by Belenky et al. (1986) and Goldberger et al. (1996) and is conceived as “superior’ in its flexibility and in the sense that it represents a meta perspective on knowing”
(13), a perspective that the routes to knowing are multiple and each has its place, purpose, and merit.

This need for so many different kinds of knowledge partly resides in these women's multiple responsibilities on their operations. Though most of them are at least equally involved in the production aspects of their operations, most also are responsible for the processing and marketing of products, connecting with and educating customers, doing PR, and doing the bookkeeping and other managerial tasks. Many also are raising children and attending to the needs and goals of their families, including homeschooling, and many have jobs off-farm to add to the financial resources of their operations and the financial well-being of the people who work for them. Many of these women attribute their abilities to handle their multiple jobs well to characteristics inherent in women and in mothers, particularly. From whatever source this ability comes, the diversity of knowledge sources to which these women subscribe allows a more complete understanding of a given situation and allows a broader range of responses and interpretations to be considered because those sources come from different perspectives constructed by various social realities as Harding (1996) suggests. Thus, women indeed may have a more complete perspective on the ways in which traditional agricultural knowledge can be challenged and changed (Feldman and Welsh, 1995).

GENDERED KNOWLEDGE

We have just seen that agricultural knowledge indeed can be and is filtered through the lens of gender. How gendered, then, is the agricultural knowledge that women farmers and ranchers acquire, use, and share? Other questions that arise from a discussion of women farmers and agricultural knowledge are whether or not these women have experienced any gender bias or discrimination in the process of acquiring, using, and sharing their knowledge; whether or not they have
experienced any other problems as women in a male-dominated field and how they have learned to deal with those challenges; whether or not they experience any benefits based on their gender; and whether they think gender is a primary concern in their lives at all. I will elaborate on these issues in this piece of the discussion.

Initially gaining knowledge

Several women experienced gender-based difficulties as they were learning how to farm or ranch. Kay McIntosh, during an apprenticeship, was harassed by a male peer who jealously guarded the knowledge he felt he alone should be allowed to learn. While he learned how to operate machinery, do direct seeding of root crops into the field, and apply fertilizers, Kay was given chores such as taking care of greenhouse plants and mixing soil, which often are jobs women do in a gendered division of labor: “I felt like I was kind of out of the loop as far as learning [certain jobs].” Jane Farmer also felt frustrated by this gendered division of knowledge acquisition when she first entered agriculture:

I guess I would have called myself a pretty ardent Marxist feminist at the time... and I was acutely aware of all the inequalities of our culture for women, so I came to agriculture that way, and I was very frustrated with being slotted for work that was looked at as women’s work on the farms ‘cause all the guys got to move pipe and do the tractor and all the girls worked in the greenhouse and went to farmers’ markets...[W]hen I saw that, I was like, “Well, that’s not gonna go for me! I’m moving pipe and I’m learning the tractor and all this stuff.” So I was adamant about challenging myself, and I did learn all those things, and I’m fairly confident [about doing them]....[T]he segregation on farms [is] very real, the gender roles....[I]t doesn’t build confidence because the secret message is that you can’t do this.

One woman, Beth, had quite a few difficulties learning to do the work on her husband’s operation primarily because women had not been on that ranch for
many years prior to her arrival. The horses, for example, were used to having large, burley men, rather than small, light-weight women, ride them, and would take off with her on their backs. Her father-in-law also gave her trouble, once going so far as to physically remove her from the corral, saying, “Go back to the house. You’re going to get hurt.” She was defiant at being treated this way – “I tend to be not real good at just going along, following along behind” – which spurred her to keep learning.

Another woman, Lenora, often was left to farm her and her husband’s land while he was working on someone else’s; she had not yet learned much about farming and encountered a few skeptics and some difficulties:

I felt like a girl, and all these men farmers were saying, “What the heck are you doing over there?”...[O]ur neighbor told my husband, “You know...I would never let my wife drive a tractor!”...This went on all the time. Or I’d go into the parts store to get stuff, and they’d say, “Well, why don’t you ask your husband next time if [this is the part you need]?”...”[W]ell, listen, I’m here because I came myself because I was running this machinery and it broke while I was using it, so I need a replacement part. I don’t know what you call this. My husband didn’t tell me because he doesn’t know I’m even here! So come on! Help me out!”

Despite these initial challenges, Lenora has become a much-admired and greatly respected farmer in her own right.

As mentioned earlier, this attempt to keep women from learning tasks required for them to run an agricultural operation successfully may be one method men use to maintain their power within that system. As Leckie (1996) discusses, this myth-making works to limit what women know and, consequently, what they can do on an operation. Although it probably does not occur on a conscious level or due to individual male malice against women – because this, like all social systems, has power relationships and their maintenance built into it – this myth-making does serve to make women dependent on men’s abilities and knowledge.
Two very heartening stories about women entering farming come from my respondents about their mothers. May's mother, who had not intruded on her husband's farming domain when he was alive, took to agriculture immediately when he passed away. In three years she has learned to do everything required on her operation (although May and her husband will not allow her to spray pesticides). Now she actively attends technical workshops and farm tours, openly questions and challenges the advice and information provided by experts, and thinks of innovations and improvements not only for her operation but for the good of other producers, as well. Patty C's mother became a farmer through a more unusual method: her husband decided he did not want to farm any longer and left his family operation in her hands. According to Patty C:

[M]om really dug in there and became [an] excellent business person and manager. Speak about knowledge. She just dug in, and she'd get the Wall Street Journal, she'd get Pro Farmer... anything that could increase her knowledge level on how to manage the farm, she was going to grab a hold of....[W]e've heard that [some people] always thought [Mom] would lose the farm in a couple of years, you know, they didn't give her much hope as a woman farmer, and not having the background, I guess, in running a farm, that it would be successful, but we, it's really worked out great.

According to their daughters, both mothers have turned out to be formidable forces, unwilling to be daunted by the challenges that face them and rising far beyond the expectations of their peers. Patty C's mother has gained so much respect from other farmers in her area that she is the first woman to be elected to a seat on her local commodity board.

These respondents' mothers, along with several other women, seem not to have been hindered by their gender in learning how to farm or ranch. Suzi Valentine, learned from anyone and by any method she could when she entered ranching at the age of 40, and although "[i]t took the cattlemen a long time to tell me that I raise a good cow and that I did a good job," now "[I] can brand, dehorn, castrate with the best of 'em." These women entered agriculture later in life than
did most of the other women with whom I spoke; it is possible that age and the life experience and tenacity that often come with it may have something to do with these women's successes in their field. Several other women mention that while they had encountered sexism when they first entered agriculture in their youth, they found that as time passed, they gained credibility with their colleagues. Even if they do encounter sexist behavior now, as Ellen says,

I think...my attitude has probably changed – I don’t care what they think [she laughs]. I’m going to ask what I need to ask and find the information I need to find, but, you know, when you’re young, you’re just starting out, you don’t really know what you’re doing, I think it affects you more than after you’ve been doing it for a while.

Aggie tells a different story about the effects of age on one’s credibility. When she first entered agriculture she had just finished a graduate degree and had come home to help with her family’s operation after her father’s death. Because she was not an outsider to the community and because she came from a well-respected family, she feels, in retrospect, that she had an advantage when it came to being taken seriously. At meetings, she often would throw out suggestions without worrying about how her boldness would be perceived by the rest of the participants:

I do remember having a very clear sense that maybe academically I had learned some things that could be of some use to other people...uh, but I was just fortunate in being able to know that...I could throw my ideas on the table, and they could take 'em or not. Um, and I think maybe youth was more of a threat...than the fact that I was female. I had enough self-esteem or cockiness or over-inflated sense of my own importance that it [sexism] bothered me less then than it does now. Uh, because I think I see it more for what it is now than I did then. Gosh, I was just kind of young, brash, and you know, so what?

Therefore, one’s age (whether combined with the boldness of youth or the confidence of maturity), one’s own and others’ perceptions of one’s experience,
one's social status, and one's attitude about the opinions of others all have bearing on women farmers' and ranchers' abilities to get the information they need in order to practice their profession.

Having a supportive father and some measure of tenacity also might impact women's confidence and abilities to learn how to farm and ranch. As mentioned previously, Marjorie wanted to learn how to do everything related to working her family's ranch, and her father "couldn't have stopped" her. She learned over time to do everything required on her ranch, from creating a custom pump in order to irrigate her fields to castrating calves to deciding how to manage her land and resources properly. Another woman, Penelope, and her brothers were "the labor" on her father's farm: "I started driving tractor when I was six and feeding the animals....[W]e bottle fed 'em and hayed 'em, the typical story. We did chores in the morning and we did chores at night...and we moved pipe in the summertime." When she was in her 20's, her father fell ill, and she quit her job, moved back to the farm, and ran the operation for him.

According to May, another of the women raised in agriculture:

I have never been intimidated by men...because of the way I was brought up....I had a father who felt very strongly about his two daughters being self-sufficient and standing up for who they are and what they believe in, and sex had nothing to do with it. I was never told I was a girl so I have to learn how to manipulate men to get what I want....Just go out there and get what you want and do what you want and be brave about it, and I guess I went out into the world with that attitude....I'm sure the Taliban would think I am a God awful thing because of being a woman I have all this energy and this strength about me. I'm sure that would just disgust them, and they'd beat me with a stick all day, but I'd get back up and fight back.

Regardless of whether or not they experienced challenges in learning how to practice agriculture, all of the women I spoke with expressed confidence in the knowledge they have, certainty that they can acquire the knowledge they might need, and confidence in their abilities to perform all of the tasks required of them.
on their operations. Their confidence springs from many sources, including unwillingness to be told they cannot have what they need, knowledge of the consequences to their operations should they fail in acquiring what they need, and the experience that age brings when dealing with sexist and other frustrating situations.

Mechanical knowledge

One of the most difficult areas of knowledge for women to become proficient in seems to be mechanical skill building. When she was growing up, Patty C’s brother was shown how to run the combine, but she was not; she is not sure whether that was because he was older or because he was a boy. Now that she is grown, the consequence of that lack of education is that she has less confidence in running the machinery on her farm. She is especially uncertain about being able to fix anything that breaks; therefore, although she drives a tractor and likes to run the swather, she lets her brother and their hired hand to run the more complicated equipment, such as seeding machinery. Jane Farmer was very afraid of not being able to get the mechanical skills she needed, and she insisted that she be allowed to learn along with her male colleagues during her apprenticeships. Sarah Bea has been unable to hire a female farm manager because although the women who apply for this position have many valuable managerial skills, most are not able to run basic pieces of equipment, such as tractors. Suzi Valentine suggests that mechanical proficiency is one of the most valuable skills to cultivate in women to help them become more confident people, and she comments that she learned how to work with and be patient with machinery by watching and asking men. One man told her that the way to take something apart was to put each piece out on a blanket so she could remember where it came from; according to him, “[T]his is how guys take apart lawn mowers.”
As mentioned previously, women’s difficulties in obtaining mechanical knowledge are not uncommon. As Sachs (1983) and Leckie (1996) suggest, the use of machinery may be one way that men keep women from participating fully in agriculture, whether it is through the assertion that women are not made to operate mechanical equipment or through keeping the knowledge of how machinery operates to themselves, thus mystifying and mythologizing these pieces of technology, as Jane Farmer’s comments and Patty C’s lack of confidence suggest. In Sachs (1983) one woman feels she had more control over the goals of her farm before her son joined her on the operation and began to use large machinery to get things done. Sarah Bea thinks that perhaps women are drawn more to organic agriculture because there is less machinery and more hand-work involved.

While some women feel left out of the mechanical loop and have had to struggle to get into it, other women make an active and conscious decision not to use machinery. As Chris mentions, she is able to use the tractor and its attendant devices, but she prefers to remain in the office. While this may at first appear to mean she is not comfortable on such equipment, another statement indicates that deferring these jobs to her husband is one way she maintains control over her time and the work she does: “I’m afraid that if he puts me on a tractor, he won’t let me off.” Jane Farmer also now allows her male partner to do the tractor work after all of her efforts to develop facility with machinery because she does not enjoy that kind of work as much; she seems to feel that the knowledge is important but not immediately necessary to her situation. Therefore, while learning how to use machinery is important, especially for women who have to operate their farms and ranches alone and perhaps for those who want to have an equal part in their operations, and while it may instill a sense of self-confidence and assurance, mechanical knowledge also seems to be a gendered site of contention for identity and self-definition.
Knowledge and ability questioned

Many of the women I talked to have had their knowledge questioned in various ways by suppliers, customers, and colleagues. Patty C. says that people react with surprise when they find out she is a farmer and that women farmers tend to get that reaction more than men. Chris states that when she is selling her products at farmers’ markets, people often ask her if she knows how her fruits were grown; she suspects that if her husband were the one selling, people would take his knowledge about their products for granted. Kay McIntosh also has encountered skepticism from her customers, particularly older men, who ask to see her hands to make sure they look like they have been working in the soil. Penelope is indignant about her treatment by some customers; she feels that her appearance had something to do with her lack of credibility because she is small, slender, and pretty rather than large and masculine-looking. Sarah Bea describes a time when she and her partner, another woman, were asked by a parts supplier, “Which one of you is the beauty and which is the brains behind this operation?” Of this incident, she says, “[H]e would never have said that to two guys walking [into the] store.” This type of questioning can be seen as a way for men to remove women’s authority and power.

There are other tactics men often use to challenge women’s expertise. For example, Cocoa discusses the disrespect she and another woman rancher received from a male colleague during a policy-making meeting:

[We] took a lot of flack from...people who didn’t know us at all, didn’t know anything about us, and didn’t want us having any part in the decision making process....[There was one instance when] I said something about...if your pastures are in good shape you shouldn’t have any runoff...and this guy said, “Well, that’s probably what you’d think if you sit around in the house all day, but for those of us that actually have to be out in the field working, we know better.”
Another man at the table came to her defense, saying, “I can tell you right now that [she] spends a lot more time in the field and understands more about what she’s talking about in relationship to pastures than you’re ever gonna.” Unfortunately, this man’s firm support of her skills probably had more impact on her detractor than any words Cocoa could have spoken in her own defense. Thus, men have the power not only to remove but to restore women’s credibility and professional reputations.

Suzi Valentine gives a different example of having to use men or male traits to obtain respect and credibility and to get done what she needs to do. In her case, she was trying to buy a new part for a pump that was broken. The man behind the counter in the parts supply store kept insisting that the part she was asking for had never been made, although his company’s logo was stamped right on the piece of metal she held before him. Finally, Suzi became fed up: “I turned around to the guy standing beside me, and I said, ‘Ask him in a deep voice for this part.’ He said, ‘Go get the lady the part.’ He went and got it. But I knew what to do. Just ask him in a deep voice.” By “in a deep voice,” Suzi is referring to the need to have a man’s deep voice in order to be credible with other men. She has had to use this tactic in other situations. She recalls a time when a neighbor kept putting off fixing his fence, which allowed his cows to come on to her property and eat her hay:

Sometimes, I’ll be really sarcastic. I’ll call and say [in a deep voice], “This is Suzi Valentine. I need you to go fix this fence because your cows keep getting into my pastures. I’ve fixed it about six times, and if you just run a hot wire, it will work.” “Oh, you must have a terrible cold [says the neighbor].” “No, I just know you needed to hear a deep voice.” They’ll laugh. You know, I try to interject the humor.

This use of humor by women to make a point and to stimulate action on the part of men can be viewed as another negotiation of the power differential between women and men, a necessary strategy for overcoming obstacles while maintaining
goodwill between colleagues of different social status. Another strategy for dealing with men’s unwillingness to believe and respond to their women counterparts’ requests is the gentle lesson. Cocoa describes an incident in which a man was going to deliver hay to her operation but hesitated to come because only she was going to be there to unload it; he wanted to wait until another man was available to run the forklift. Cocoa said to him, “You’ve got it loaded. You might as well come and find out if I can get it off.” He did come and she showed him how wrong his misgivings were:

I was unloading and stacking them [hay bales] in the barn and it’s one of those things that probably most women would be better at than most men...they tell me that women are way better forklift operators than men cuz they have better hand-eye coordination, and they are a little more cautious, and so if you’ve done something like that a lot, most of them would be as good or better than most men, and so I’ve gotten so I’m pretty skilled with the tractor, so I got him unloaded pretty fast and picked his tarp up and put it back on the truck, [her voice goes soft and mischievous] and I couldn’t help give him a bad time, so I went over and signed the paperwork, and I said, “Now that wasn’t so bad, was it?” and he kind of laughed and said, “I gotta tell you. I will never again harass any woman who I have to ask about a truck.” He said, “You unloaded that faster and smoother than anybody I’ve ever had unload a truck... You know, I’m sort of embarrassed.” I said, “What did you expect?” and he said, “I pictured my truck all torn up and, you know, piles of hay on the ground and stuff.” I said, “Now you’ve learned something.”

Cocoa did not want to point out his errors in an unkind way, but she did want to make the point that he had been wrong in his estimation of women’s abilities with machines. Her lesson allowed him to reassess his assumptions without making him feel too foolish.

The very real necessity of maintaining good working relationships with colleagues, customers, and suppliers may be one reason these women try to refrain from being more aggressive in confronting sexist behavior and may also explain the need to enlist support from more understanding men. The words of an ally
often hold more credibility and sway than those spoken in one’s own defense, and men often can produce the kind of understanding of a woman’s worth that the woman herself is unable to create.

Unfortunately, sometimes being kind loses its effectiveness – or perhaps the one who must be kind finds herself disgusted with the requirement of keeping her irritation in check in order to maintain good professional relationships. Many of my respondents insist that although they have not encountered much sexist behavior in agriculture, if they ever do, they face it head-on and insist on proper respectful treatment. May and Suzi Valentine are very pointed in their strategies for being given their due. May, whose job it is to manage the Latino work crews that help during harvest season, has had to become very gruff at times because her all-male work crews do not like being told what to do by a woman. Often, when she gives orders, they will spit on the ground or mock her in Spanish. In these instances, she looks them straight in the eye and says, “Yo hablo espanol, señores.” Although she does not really speak much Spanish, her strategy is effective: “You don’t let ‘em intimidate you.” Suzi takes this attitude even further:

Sometimes I’m so angry, I just have to walk away, and then I cool down and come back and say, “You know what? Please do it means the same thing as God Damn It, Motherfucker, fix this. Now which would you like me to use: please do it or the other because I can go either way.” I forget how aggressive I’ve become, especially when I deal with women; I turn to them and say, “Why are you taking that crap?” and then I realize I was there, too. I was taught to be a certain way, and I believed it, and I don’t believe it anymore. I’m a single woman; I’m running a ranch; I’m running two or three businesses out of this ranch; I’m staying afloat; I’m aggressive. I like who I am, and I like what I’m doing, and if somebody wants to call me a bitch, I’ll bite ‘em. [chuckles] It’s OK. Bitches bite.

Clearly, being willing to negotiate socially-prescribed norms of gendered behavior has its limits and can be vexing and exhausting for those who have to perform successfully in both subordinate (women’s) roles and dominant
(farmer/rancher/male) roles. Those who get fed up with the system have strategies for dealing with their frustrations that may or may not be effective.

Physical challenges

My respondents face numerous other challenges aside from those associated with knowledge because they are women in agriculture. First are the physical demands of farming and ranching. To put it bluntly, agriculture is not easy. As Beth states,

[T]he work is hard... You know, spending 10 hours on a horse yelling at cattle in hot, dusty conditions and falling asleep in your plate. I mean, I remember instances where I would curl off my horse – literally – just exhausted, legs feeling like they were coming off because [it was] really painful physically, and crawling in the bathtub and waking up as I slid under.

Many other women, particularly ranchers, have similar tales to tell, and they use their experience to warn other women of the physical pitfalls of agriculture. Cocoa wants to continue to be a rancher for as long as possible; however,

I have to find a way to do it so it doesn’t beat me up physically. I think that’s one of the concerns I have for women in agriculture. I see women twenty something who have got to learn to be careful physically just because of the strength differences... There are times when it is kind of overwhelming physically, and you also have a sense that you also have to keep up with [the men], that you don’t want to be a sissy girl if you’re working with a group of men, and I think that the price that we pay for that is going to be real high.

Both Jane Rancher and Amy (also a rancher) see the physical demands of ranching as one potential limit to women who want to enter the business; Amy suggests that farming or working with smaller animals might make agriculture
more accessible for women. Suzi Valentine had to change her operation from ranching to agri-entertainment after her daughter was killed in an accident because she no longer had the help she needed physically to perform tasks such as calving, a very physically-demanding job.

Women can turn these physical requirements to some personal benefit, however. Jane Farmer feels that she was not very healthy before she became a farmer and that she has become much stronger and more confident physically because she does daily physical labor; she even has found an agriculturally-based body work called Breema that she and her apprentices use to help condition their bodies. Beth has discovered that while she has many difficulties with cows, she easily can handle sheep and lambs:

I love the sheep because I can do almost everything with the sheep totally by myself. [T]hey're a nice animal for a woman because picking up an 80 pound wet calf and taking it in to do something with it...it's a struggle for someone my size, and 6 to 10 pound lambs, I can put one under each arm and do it by myself....[I]t's such a tremendous sense of freedom in knowing that here you are...in a very male-dominated world, but you're doing something all by yourself.

Suzi Valentine has become adept at adapting her environment to her physical capabilities. She makes sure that the bales of hay she makes are 65 pounds rather than the usual 125, so that she can lift them. She also makes sure that when repairmen come to do work on her house or around her property, they make all of the fixtures "woman-tight" rather than "man-tight" or "gorilla-tight" so that if she needs to unfasten them, she will be able to do so.

All the women who mention physical aspects of agriculture agree that women have less body strength than men, but they also agree that there are ways to adapt to these bodily differences to make them work in one's particular situation. Many aspects of agriculture, from tractors and other machines to irrigation to hay bales, have been created by men for men's physical abilities. Often, women are
told that they were not made to do agriculture, but in fact agriculture was not made to accommodate women (for example, see Sachs, 1983, 104, 116; Hassanein, 1997). Women’s lack of access to many parts of agriculture can be attributed to the social construction of the profession by men without thought that women would have done it differently. Obviously, many avenues exist for women to challenge that construction and remake it in their own fashion, and they experience apparent, well-deserved pride in doing just that.

Precious time and hard labor

Another challenge these women discuss is their lack of free time due mostly to the number of tasks they are responsible for each day on their operations. As I already have mentioned, women on farms and ranches, no matter what their productive responsibilities, are involved in a number of other activities, including training and overseeing workers, child rearing and homeschooling, housekeeping, off-farm work to supplement farm income, bookkeeping and farm-related errand running, and marketing of their products. Although they see themselves as better able than their husbands to deal with this multiplicity of tasks because of their gender, they also feel frustrated and that their efforts are under-appreciated or simply not seen at all.

Regarding off-farm work, the person who chooses to perform this labor either is the one whose time can be spared most readily from the daily management of the operation or the one who can make the most money and get the best benefits. On traditional family farms, although this person sometimes is the male partner, in most instances, the off-farm worker will be the female partner. This is the case on Penelope’s operation. She finds this off-farm work, although necessary for insurance and monetary purposes, to be an extra burden that women can more readily handle than men: “Maybe part of the reason that women tend to work [off-
farm] is that women multi-task. Men don’t... so I would say that’s a burden... I think I have to be extremely careful I don’t feel resentful of that.”

Jane Rancher comments on the requirements on her time and compares them with the duties her grandmother performed. While her grandmother cooked three meals a day for all the ranch hands, she also got to take naps; isolation was a bigger issue than time for her. However, for Jane, because of all of her home- and farm-related chores in addition to taking care of the needs of kids, “nowadays, it seems like it’s at least as difficult... I certainly think that I have more time commitments... than my peers” who work full-time but whose husbands are not ranchers. Lenora has similar feelings about the amount of work she does, but she compares it to women’s work in the past in a different way:

I think that women – whether in agriculture or in any field – they just basically have a broader range of things that they are concerned with... [T]here’s times when it is really difficult, but that’s life... I mean I really can’t complain about it... [I]f I start to feel sorry for myself, then all I have to think is I have a dishwasher, I have a crock pot. I mean things could be way different. I have running water and electricity.

These women may view their multiple roles simply as part of the life they have chosen to lead, part of the role women are meant to play not only on farms but also in life. Several of these women believe that because women are mothers, and because mothers have to play numerous varied roles in their family’s life, they are better suited to managing these tasks than are men.

This naturalization of the fulfillment of women’s many tasks on farms actually is key to the original agrarian ideology espoused by Thomas Jefferson. As Deborah Fink (1992) discusses, Jefferson’s vision of America was built on the belief that every (white) man would own and farm land and from that labor would come a nation of “independent, vigorous, and free individuals. Such men would be public-spirited citizens, the backbone of the state” (15, emphasis mine). While white men would play this key role in nation building, their
wives would fulfill a much different role: they were to give support, succor, and comfort to their husbands; they were never to work on the farm except in times of great financial need; and they were never to meddle in men’s affairs. (They also were not supposed to interact with other women, incidentally; Jefferson felt this contact created “less happy and less virtuous” farmers (21).)

Because women were to work inside the home, to have little contact with other women, and to be silent and obedient to their husbands, their work became invisible both to their families and to society. That women’s work, paid or unpaid, in the home or on the farm, still is disregarded and unseen should be of no surprise. Many women are acutely aware of the amount and invisibility of theirs and other women’s work. According to Amy, “When things need to be done, I’m the one who ends up doing it,” and Beth, “[Y]ou tend to have to work like a man but do all the woman’s work, too.” Georgia Brown comments on the unrecognized efforts of wives on ranches:

[U]sually...you [the wife] made the decisions around the kitchen table, and you did as much work outside as [your husband] probably...but your husband was the rancher....[T]he majority walked side-by-side with your husband but it was the husband [who got the recognition for doing the work].

The consequences of this invisibility can be harsh. Beth irately discusses how much effort women put into operations that are considered to belong to their husbands. All of this work is expected but unpaid, and when something happens to that spousal relationship, such as divorce or death of the husband, the wife finds herself having done years of work without official (governmental) recognition of it, and, therefore, no claim to social security benefits. This very real and dire consequence of the invisibility of women’s work on farms and ranches slowly is being addressed in new laws and regulations, but, as Beth comments, those who most need the information do not know they need it and so do not seek it out.
The work men accomplish "single handedly" is done with the help of women in the background; they help, they support, and they make him look professional, accomplished, and independent. This statement is true for secretaries in offices, for wives in the home, and for women on farms, if it is a traditional "family" farm. If women begin to question the invisibility of their efforts, what then would become of the mystique of this independent, self-reliant man? With women's work visible and given credit, men would have to receive less credit, which would shift the power relationships between them and their "helpers," thus disturbing Jefferson's original agrarian ideal and the attendant ideal of a patriarchal "family" farm.

These women seem to have evolved an acceptance of their numerous and varied roles on their operations through comparison with the past, through an understanding of women as better able to deal with such requirements than men, and through a good-natured understanding that somebody has to do it, so they might as well. However, the many demands on their time may have negative consequences that can impact their physical and mental health.

Women's multiple tasks and inability to focus solely on farming also may have detrimental effects on their abilities to contribute to information acquisition and creation. Jane Rancher comments on how her husband has more time to ponder agriculture and problems specific to their ranch because he is a full-time rancher, while she has multiple duties, including off-farm work. She also feels that because more of his peers are involved in ranching that hers are, he is involved with more information sharing with peers than she is. Lenora remarks that because she is so busy doing other things, she has neither the time nor the desire to become involved in the experiments that her husband and local Extension agents create: "[I can't] keep track of it, so I just nod my head and say, 'Gosh! Sounds interesting!'"

Another potentially detrimental effect of the invisibility of women's work and, thus, the invisibility of women themselves on farms and ranches is a stifling of their creativity and feelings of control over their destinies. Beth speaks poignantly
of her own struggle to find a place for herself on her husband’s ranching operation. She was an artist before moving to the ranch, and she had to learn how to incorporate her own needs into the limits and possibilities afforded her in her new location. She finally decided to create a natural fiber business. She now raises llamas and sheep for the fiber; she also sells lambs as meat. The men who work on the ranch tease her about having these non-bovine animals running around the operation, but she ignores their jibes because both of these ventures give her the freedom to create a life and an identity for herself outside of “ranch woman” or her husband’s wife. Regarding her natural fiber business, she says, “[T]he creative part inside of me has always needed stimulus, input, that kind of stuff.” She feels that all human creativity should be honored and allowed to grow, rather than being stifled.

Her lamb business gives her a different sense of satisfaction. Since she is too small to work with cattle very effectively, especially during calving, she has found that working with sheep, which are much smaller animals, gives her a sense of freedom not available otherwise:

[I can work with lambs by myself], so it’s such a tremendous sense of freedom in knowing that here you are in a very male-dominated world, but you’re doing something all by yourself...[T]here comes a point when doing something all by yourself feels really good because there’s too much of this “I gotta go get a guy.” Rrrr! And they’re never around when you need ‘em...So a lot of my searching is for things to do, things that I can be in charge of that [my husband] wasn’t part of also.

Beth has compensated for her invisibility and sense of lack of control by creating her own identity on her operation. She feels that being in charge of a part of the operation is very important for women, and she sees the new trend in directly marketing farm and ranch products to customers (rather than selling them as commodities to impersonal “buyers”) as an avenue for women who have been stifled by their husbands’ agriculture to spread their wings and be creative and
successful human beings. She feels this is especially true because women seem to be more likely to be the ones doing that direct marketing:

[Customer outreach has] opened up a whole new window of opportunity for a lot of agricultural women because a lot of these outreach niche kinds of things, product-wise, educational, recreational things...it's like their thing. It’s their venture...[E]verybody has their own talent, and it can really be suppressed when you’re living in the middle of a very male-dominated world.

Thus, expressing oneself and one’s creativity through practical, farm- or ranch-based outlets and being personally involved with selling one’s products to customers is one avenue to reduce the invisibility of women’s work in agriculture. Customer outreach also reduces the invisibility and disconnection non-farm people have for agriculture itself, a topic that I will discuss later.

Credit

Some of the women with whom I spoke also have encountered difficulties with banks and loan operators. Penelope once blatantly had been denied a loan while she was running her father’s dairy operation. May, when she was younger and a single mother, was required to get her parents to co-sign a loan application for her because the bank felt she was a high risk. Lenora also applied for a loan under her name when she first entered agriculture, and, when the bank sent her the papers to sign, they had inserted her husband’s name rather than hers on the forms. When she crossed his name out and printed hers instead, the people at the bank got angry with her for changing a legal document. All of these incidents took place in the 1980’s, and no one gave more recent examples of having trouble with credit agencies or banks, so whether this is a prejudice that has passed or that remains intact is not answerable through this study. However, given the fact that women
have been established to be better credit risks than men by various lending agencies (among them the Grameen Bank in Bangladesh), this prejudice seems short-sighted, to say the least.

Face saving

A final challenging aspect of being a woman farmer or rancher is the difficulty of imparting one’s knowledge to a male colleague. As Cocoa says,

[T]here’s certainly a group of men who still are not at all sure that women have anything to offer in agriculture....I think it’s a little more awkward as a woman to try and teach somebody something ‘cause you have to be awful careful about how you phrase it so that you’re not putting them at a disadvantage.

Several other women have similar feelings about talking with male colleagues, that they have to be careful of what they say, how they say it, and what they presume their colleagues do not know. This technique of face-saving might also be an adaptation to the need to maintain good working relationships with neighbors and fellow farmers and ranchers.

On the positive side...

While women farmers and ranchers may be more likely to have to engage in face-saving, ego-padding activities when they are teaching their male colleagues, this process can be turned into an asset for them, as can other gender-associated liabilities. Many of these women are well aware of the limits gender stereotypes place on them, but they also see those stereotypes working against men. Because men must “save face,” they are hindered from performing certain activities that
could make them look less masculine in the eyes of their fellows, for example, asking questions. Several of the women I talked to view their ability to ask questions without appearing incompetent (or, rather, more incompetent) as an asset that can benefit both themselves and their male partners.

Jane Farmer discusses how badly she feels for her male partner, who is not particularly mechanically inclined. While she can enter a parts store and ask how to fix something, he has less of an ability, because he is a man, to admit he does not know something and still maintain the respect of the men in the store. Georgia Brown suggests that women being able to ask questions benefits all the members of her group. If there is a concept that the group does not understand, “the men can’t not know it if they’re supposed to know it, so they’re either real quiet or something, and we women can kind of laugh and say, ‘Gosh, we didn’t catch it.’ Well of course you wouldn’t ‘cause you’re a woman.” Thus, a woman asking for clarification is acceptable and can be beneficial for all parties. According to Georgia, “We’re just formed differently and we try to learn how to ask questions differently so it doesn’t push buttons and irritate people but helps get out the needs that we need, that they need out and we need out. And, boy, that helps.”

There are other methods of turning a gender liability into an asset. Pumpkin feels that being a woman in agriculture has been a great benefit to her because the male buyers with whom she works will tell her things that they would never be able to say to a man: “I think it’s easier in many cases for a female to be very non-threatening to their [male] counterparts....I think there can be a gentleness about asking for information in a way that’s non-threatening that...might be hard to explain.” Georgia Brown feels that because she is a woman and also unpolished in her manner of speech and dress (“I’d put on my jean skirt and go...”), she is better able to make headway and deals with store owners and meat processors with whom she and her cooperative members have to create alliances. Marjorie feels that women are able to get away with experimenting with unconventional production techniques, in her case, some European-based ranching methods: “In talking with
some of my male buddies who are struggling with getting into alternative agriculture...it probably allows us [women] to, um, experiment more...because we're not seen as a threat as quickly.” Women, therefore, may be able to be more innovative and explore more unconventional techniques than men and also may be able to supply vital information to those who need it because of their gender. Gender may then be viewed as an asset in creating something revolutionary or unexpected, for example, an alternative agricultural science and methodology.

Other benefits of being a woman in agriculture

My respondents see many other benefits to being women in agriculture. They feel that farming and ranching gives women a certain strength because they have to deal with so many hardships and difficulties and “doing without,” a strength that their non-agricultural counterparts might not be able to attain. They also comment on the broad range of skills that they have acquired from being responsible for so many different tasks on their operations. Several feel that if they ever had to leave agriculture, they will be able to find jobs doing just about anything because of all the skills they have acquired and honed. Many women attribute this broad range of abilities to motherhood because a mother has to learn so much in order to do that job well.

Also important are women’s political leadership and representation on policymaking boards. A number of political organizations throughout the state of Oregon have women at their heads. Amy mentions that some state politicians consider women to be the three most politically active members of the agriculture industry in the state. Many of my conventional and sustainable respondents acknowledge this representation and conclude that women must have more time than men to be politically active. In ways, this explanation is difficult to reconcile with women’s admitted lack of time. However, women may see themselves as
overworked but also as having more flexibility with the tasks they must do each day, especially when their children are grown. Because a male partner more often is completely involved in daily production activities, and these activities are seen as most vital to the continuation of the operation, women may see their non-production related tasks as more expendable or more readily put aside for something as important as creating policy that also will affect the continuity of the operation.

A few of my respondents have been asked to be on committees or boards specifically because they are women. According to Aggie, “I fill a pretty good slot even to this day in the natural resource business….I think the fact that I was female from a natural resource-based business made a difference.” Another respondent, Ellen, says, “I’ve sat in on a lot of interview committees for professors here at OSU…and I used to tease them that they asked me to be their token female,” but she appreciates being on those committees because she is able to bring something to them that the men cannot, something relational and community-oriented. Patty C. views her seat on a Farm Service Agency Board with some consternation because she is their official, government-sanctioned minority farmer: “I’m not used to having that….to be that is kind of strange, you know, that they have to, have to have a minority person…where normally, normally you’re just one of the farmers, you know, you’re really included as a woman.” It seems almost that there is a certain discomfort in these women at being asked to “fill a slot.” At the same time, they seem to see these instances as opportunities to bring a different and valuable voice to the decisions being made.

The reality

Most of the women who shared their time with me have had to deal with sexism at some point during their time in agriculture; however, few of them feel it
is a pervasive influence upon their lives, their work, and their experiences with agricultural knowledge. Some believe that there was more sexism to deal with in the 1980’s when the Women’s Movement had just begun to make inroads into sexist systems and that in the current decade there is much less difficulty between men and women. Others believe that they were questioned more frequently or given more trouble when they were younger, new to the business, and had less experience. Says Suzi Valentine, “I had to prove myself. Everybody does.” As Amy states,

I really don’t think that we women are set apart from the men because most of us work with the men, you know, and we’re out there doing the same things....I think in the old days there was, but I think in...this century, I don’t think there’s going to be any difference between the men and the women in terms of – ...I would guess you run up against a few chauvinistic men, you know, but that’s typical...but overall I think the women are perceived very, very well in agriculture, and their role is just as important as the men’s role in agriculture.

If these women experience sexism, they commonly view it as an isolated event or as an individual problem with individual solutions. These women are very likely to forgive any transgressions against them if they are isolated occurrences and are likely to attribute sexism to the perpetrator having a bad day. Most feel that if one deals with each person she encounters in an honest, straightforward manner, those people will reciprocate with respect and kindness. Few are inclined to make a general statement that the men in agriculture are sexist or have issues with women colleagues; however, many say that men in some agriculture-related industries, such as equipment supply stores, food processing facilities, or credit agencies, are very gender biased and that Good Ol’ Boys networks still operate in several industries. Lenora feels that where one lives is a determinant of how gender-biased people will be; she experienced all of her troubles as a woman in agriculture in the Mid West and says that Oregon is a “pretty cool” place as far as less traditional attitudes are concerned.
There is some disagreement with these assessments, however. Some of these women are willing to admit that the structure of agriculture, as well as some of the individuals within it, are gender biased. Jane Farmer readily admits that there is a gendered division of labor that is built into the system. Lenora, on the other hand, though she has had a few difficult experiences, is unwilling to challenge them: “I’ve never been really one to get up in arms about women’s rights and all this kind of stuff, I just figured it’s the world we live in and it’s the way it is and my job is not to change the world we live in.” Aggie, however, hopes the structure can be changed. She thinks sexism is a pervasive problem in all institutional aspects of society and that part of the instability in agriculture today might have to do with the radical social changes that have been taking place since the 1960’s. She also sees in social change movements the potential to change agriculture even further and to make it better and more able to survive a tenuous future. Georgia Brown agrees and believes the efforts of her cooperative to change ranchers’ marketing practices also has brought about significant changes in the gendered relationships on ranches. According to Georgia, in the cattle business “the proper thing is your husband introduces you, and you know you sit there kind of like back in the ‘50’s where...you cross your legs down below your knees, and you wear white gloves to church.”

However, in this cooperative, the old ways are giving way to something new, and, according to Georgia, better. The changes began when she asked a woman coming to the first cooperative meeting whether she was a rancher:

I thought maybe I insulted her....I just don’t believe you have to stand two steps behind your husband. You stand right with him and work together and that’s what’s been very fortunate in my experience, so I’d never had to experience this other where the men tell you what to do and you did it....[This lady] didn’t say anything for a minute, and I kind of looked up, and she said, “You’re darn tootin’ I’m a rancher!” I’ll never forget those words. “You’re darn tootin’ I’m a rancher! I’ve been a rancher all my life, but I’ve never thought of it that way....You put rancher down there.”
This single act began a chain of events that has brought about a change not only in the way this group of ranchers does business but also in the way they interact as men and women. That first woman and all the other wives joined their husbands in that first meeting rather than going into another room to chat about recipes and other “womanly” things, which is a common occurrence in other ranching organizations. Now at all of this cooperative’s meetings, wives and husbands sit together, which many members have found invaluable: “[W]e [women and men] hear different things, you know, you pick up on different things, and it just makes the strength of this organization all the better because...you kind of know double when you come home from a meeting.” They have made it possible for new mothers to stay in meetings by providing babysitting services (courtesy of ranch youth) so the mothers (many of them college graduates) can contribute to the ideas being generated. Further, everyone introduces him or herself rather than the husband introducing his wife, as commonly occurs elsewhere.

According to Georgia, they are breaking down these traditions with great respect for everyone’s beliefs and comfort levels. However, they are not willing to allow tradition to stand, since tradition has not done good things for agriculture. In traditional agriculture, “[the women] meet down the hall and they talk about recipes or do whatever and then the [men], they take care of the business. The trouble is, they’ve been taking care of business all these years, and our business is going broke, and they’re still taking care of business.” Georgia feels that we all have the power to change our conditions and that change must be embraced on all levels: “If women need to pull men out of agriculture [as usual], so be it!...It doesn’t matter what your gender is. Shucks, let’s get to work!”
Last notes on gender and gendered knowledge

Thus begs the question: is agricultural knowledge in some measure constructed by gender? The information revealed in this discussion suggests that it most certainly is. My respondents seem to realize – but often do not wish to admit – that gender does play a part in their daily lives as women farmers and ranchers. They must negotiate this parameter by using knowledge that they accumulate from experience. This knowledge filtered through the lens of gender allows them to deal with people who question their authority, to create identities and meanings for themselves in the middle of male-oriented operations, and to make use of occasions that broaden not only their agricultural knowledge but also that of their colleagues and partners. Gendered knowledge is required to meet and answer gendered challenges; it also is necessary to turn potential difficulties into opportunities.

For some of my respondents, seeing gender bias in agriculture is easier than for others. Some also see the link between the need to change agriculture and the need to change gender relations in agriculture. Why, then, is this a difficulty for so many of these women? I speculate – and others concur with this speculation (Sachs, 1983; Fink, 1992; Sachs, 1996) – that the primary problem is that agriculture and gender are deeply and intrinsically interrelated, that the structure of agriculture as it exists has been created to be dependent on hierarchal interactions between men and women. There may be a very real fear or concern about what may result from a change in gendered relationships and women’s unequal access to power and knowledge in agriculture. To suggest change or acknowledge existing problems is to threaten a profession and way of life that already is under attack from various social structures on a national and international level. Because the family farm and family farmers already have such a tenuous existence, to admit that pieces within it need to be addressed and changed – especially with so few models of change available from which to learn – might be seen as a final nail in the coffin, the final turn of the dirt used to bury family-based agriculture once and for all.
Unfortunately, not to change may also lead to the fate so many farmers want so badly to avoid.

KNOWLEDGE OF THE VALUE OF AGRICULTURE

In addition to the knowledge needed to practice the craft of agriculture and the gendered knowledge acquired from being women farm and ranch operators, the women involved in this study have much to say about the value of agriculture to people, to culture and society, and to the land. This is knowledge acquired from working intimately with the land and from seeing daily how their work is and is not credited in society at large. They suggest that knowledge and communication of the value of agriculture to those who do not comprehend it is intrinsic not only to the security of the nation but also to the health and well-being of the individuals who live within its borders.

Value to society

Foremost on many of these women’s minds is the importance of agriculture and agricultural knowledge to national security. In the aftermath of the events of September 11, 2001, with the nation buckled down to battle terrorism, many of my respondents feel that a key area of vulnerability needs to be addressed: the nation’s food supply. This vulnerability lies in several areas. In the first place, much of the food we eat is grown outside the country, a situation that is dually troublesome. First, reliance on other people to grow food to feed us is fraught with complications. Cocoa addresses this concern: “It doesn’t make any difference how strong our military is if someone can cut off our food supply.” As Pumpkin puts it, “I think that if a society can’t feed itself, then that society is no longer sustainable.
If a society can't meet its basic needs of food and fiber, then in my mind, I don't see how that economy is sustainable in the long run.” She likens the current situation in the United States to that of countries in Europe after World War II, commenting that the latter realized the value of strong domestic food supplies after theirs were destroyed during the war. Second, this imported food is not subject to the same regulations as is domestically grown food; for example, pesticides that are illegal here are used in vast quantities in other nations, particularly in the Two-Thirds World. According to Pumpkin,

"If I was Secretary of Agriculture today and September 11 had occurred...[t]he number one thing I would do tomorrow is I would hold those imported products to the same regulatory standard that we hold our own growers to....I would test every container load crossing the border, or I would require those companies to have that product tested before it crossed the border for residues, for a whole host of requirements that we are required to meet here.

Therefore, because imports are not as strictly regulated as those crops produced within the United States, any number of hazards might make it into the food supply without detection.

Our second vulnerability, they suggest, stems from the fact that the vast majority of the food grown in this country is grown cheaply in a few centralized locations rather than in a decentralized fashion; decentralized production would support local producers but also would mean a higher price for customers to pay in grocery stores. Because local farmers have to compete with each other and with larger, more “efficient” farms to supply markets that are competing with one another for the lowest prices, the smaller and local producers are rendered uncompetitive and put out of business (Bird et al., 1995; Greider, 2000). As Cocoa puts it, “[Grocery stores] can pressure a price so high, and they are so competitive with each other [that they are willing to import food rather than buy from local producers]. I hate to see that happen 'cause I hate to see our food grown out of this
country." Although Sarah Pederson concedes that competition is good for business, she also believes that domestic food security is the more important issue:

The thing I see right now...related to...the whole war thing, to the whole terrorism thing is that...we're putting all the little farmers out of business, and even when I worked with the produce growers I found that the grocery chains, they don't have an allegiance to, they won't help support the local farmers. If it's cheaper from CA, they're going to buy it from CA. And I guess business wise they have to do that, but it drives our little guys out of business, and so all of our food is going to be coming form two or three places in this country. We have all our food down in the San Joaquin Valley or in Arizona or someplace, and they [terrorists] drop something down there, there goes our food supply. Everybody's gonna be hurting. But if we still had a supply here in Oregon or we still had farmers in business, we'd get by. It really concerns me.

The problems raised by import regulations and domestic competition in the marketplace are difficult enough. However, they are compounded by the fact that most consumers are not aware that the first two issues exist. Public awareness and education are fundamental to getting governmental policies changed and marketplace practices reevaluated. Pumpkin says she would make it top priority, if she were Secretary of Agriculture, to work with the Homeland Security Advisor “on really communicating to the American people why supporting their local farms and farmers is important to our national security interests.” Given her knowledge of the agricultural system, she would have given the likelihood of someone destroying our food supply “100 times the chances of taking out the two towers because it would be so easy.” Therefore, she feels it should be the number one priority of all those working to combat terrorism to “empower the consumer with good enough information so we're turning economic power into domestic survivability of agriculture.” May concurs:

There isn't a lot of security in farming unless the nation as a whole reviews its idea behind where its food comes from, where it wants to buy its food...um. I think 9-11 has woken up a new spirit in people to give that
some thought. OK, homeland security means a lot more than, um, being free from biochemical warfare and terrorism. There's also homeland security that has to do with basic necessities of life, your water and your food, and if you don't protect those two sources, then we are once again letting down a shield and allowing ourselves to be a target for broad-based terrorism.

In other words, the public needs to know how the economic impacts of food purchases affect the chances that farmers in the United States will be able to continue to produce food. This education is occurring in many places and in a variety of ways and will be addressed more extensively later in the discussion.

Value to the individual and to culture

Agriculture not only has (unrecognized) value for the security of the country. It also has value for both the individual and the culture in which that person resides; as one is realized, the other has the potential to come to fruition. These aspects of the value of agriculture became clear to me when I asked my respondents how they feel personally about farming or ranching and whether they feel that agriculture and working with the land holds any special value or benefit for the people who do it, particularly for women. Their responses contain within them a certainty that agriculture is the provider of more than food and fiber. In the eyes of many of these women, it has the potential to renew a culture that has become fixated on speed, consumption, and the bottom line and to replenish a person's mind and spirit.

My respondents all feel that they and others have benefited from working on their farms and ranches. First, there is mental health and the idea that when one is working hard and being productive, there is little time to dwell on problems or parts of one's life that cannot be changed. For Amy, "personally nothing is better for mental health than to...just get out and work....If things aren't going good,
that’s the best thing I can do for myself...because if you sit around the house, all you do is worry more about yourself, and there isn’t time.” Beth echoes these sentiments:

[T]here is a tremendous healing quality to being involved in producing something as simple and common as food and working in a garden....The physical work, whether it’s pulling weeds or gathering pine cones or whatever...the act of being outside....[M]ost of us aren’t outside enough. And just that in itself can be great. Dealing with something in the environment that all you can do is cope with it, you can’t worry about it, you can’t change it. It’s just there and you just have to deal with it. Finding something to do that keeps you busy and lets you focus on something other than your own immediate, horrible problems is tremendously healing and important.

Several of my respondents mention community and children’s gardens in their areas that are designed specifically to give people a chance to improve their mental health through growing food and flowers. This type of “horticultural therapy” has become increasingly regarded as a viable option for “intellectual, social, emotional, and physical development” (Reif, 1973).

Mental health goes hand-in-hand with self-esteem and self-confidence, which on a farm or ranch often comes from seeing the completion of one’s efforts on a daily and seasonal level and from the knowledge that by doing this work, one can feed oneself and others. Amy feels that “people need to feel productive....[T]his feeling of good self-esteem and a feeling of being productive is so important and you definitely, the farm life is definitely that way,” can definitely contribute to those feelings. Pumpkin is instilling this self-confidence in her children by making them responsible for raising a steer and a sheep each year to serve as the family’s meat supply: “I especially want my girls to understand and to know how to feed themselves and take care of themselves under any circumstance they might ever find themselves in in the future.” Not only do the children learn valuable and
fundamental skills, but they learn skills that will empower them and give them self-confidence in the future.

Most of my respondents feel that farming or even gardening (though perhaps not ranching unless the animals were of a more manageable size; sheep, for example) has the potential to be overwhelmingly helpful for women who are in transitional periods in their lives (a question I specifically asked), whether that transition stems from leaving an abusive situation, feeling unfulfilled with one’s work and wanting a change, or simply not knowing what one should do next in life. Some feel the act of performing methodical labor is meditative and relaxing. Others, as already mentioned, think such work allows a person to think about something besides the problems plaguing her; from this detachment, answers may come. Still others understand how powerful the knowledge that one can feed oneself and one’s family can be, the pride and self-worth and assurance that that type of self-reliance creates. That agriculture might provide another avenue of empowerment for women in a patriarchal culture such as ours is an exciting prospect. However, to use farming as an empowerment tool also requires challenging the patriarchal structure of the system itself. The power relationships that exist on traditional family farms and within agrarian ideology might prove problematic to the direct application of farming to the improvement of women’s lives.

Many of my respondents feel so strongly that learning how to produce one’s own food is the most basic but the most empowering and reconnective knowledge one can have that they purposely have created spaces on their own farms and ranches to facilitate the acquisition of that knowledge. For example, Jane Farmer has created an apprenticeship program on her operation for people to learn farming basics, and Penelope has designed her farm to accommodate customers and friends who want to do farm chores but who do not want the responsibility of daily operation of a farm. These are examples of agriculturalists actively bridging the
disconnect between people and the land and also between people and their inner abilities and buried desires. I will discuss this key topic more fully later.

Several women had much to say about farming and ranching being excellent ways to raise children who are responsible, skilled, and able to get along in the world and, as mentioned earlier, to purposely design their family lives to their own choosing. As Diana, who has one child, says, “I love [farming]. It is a most rewarding way of life and a great venue in which to raise a family.” According to Amy, who has two grown children, “I always feel that it’s a great place to raise children... because they learn so many things that they wouldn’t learn, you know, the kids in town just don’t know...” Jane Rancher, who has two grown children, concurs, feeling that children in rural areas come equipped with the skills required to make it in all areas in life, from making friends to adapting to new situations, because they have learned to depend on their own efforts to succeed:

When you live in a rural area, you have to be dependent on yourself, and those are life skills, and I think that right there, that sentence says why good kids are raised in rural areas... I mean in general most of those kids are very successful, and that isn’t always true in cities ‘cause they don’t have to learn to be dependent on themselves.

Cocoa, who has no children, cannot fathom how people in cities can raise their kids with any sense of responsibility or understanding of the consequences for not following through on chores or other tasks:

I don’t know how people raise kids when they don’t have those kinds of things. I mean you want them to learn responsibility... so you tell them to make their bed, but who cares if their bed’s made? Who cares? When you go to bed you straighten it up and hop in it, but if the cow doesn’t get milked or the chickens don’t get fed then it counts, and the consequences to not following through are greater. I don’t know how people raise kids in the city. There’s nothing for them to do. There’s not even a lawn to mow, and if there is, somebody else comes and mows it.
From the children's points-of-view, farming is also a good thing, but it has its challenges. Many of these women's children are too young to realize fully where they live and the work that occurs there. Lenora says her three children mostly enjoy the farm, except when they have to work a lot in the summer. They particularly like being able to go out and eat something from the farm when they want to snack. Penelope says her kids also enjoy the farm, except that one of her sons wants to live in town so he can play hide-and-seek. Chris's four children are very actively involved in the operation; her daughter is in charge of certain accounts, and her oldest son wants to continue the family's agricultural heritage.

These women are quick to acknowledge that digging in the dirt and working with animals is not for everyone, and some people who grew up on farms have been forever turned off by the idea of plowing, tilling, or weeding. They are also quick to follow with the argument that people who do not like to do agricultural labor are lucky that other people do because it frees them to do what they like. Not everyone is required to be a farmer or rancher for the very reason that some people want to produce enough food for everyone else. Our current culture has been allowed to develop because production agriculture came into being (Stauber et al., 1995). Thus, when one engages in agricultural labor, along with personal growth and satisfaction should come the realization of benefits of agriculture to the broader culture and an appreciation of the enormity of the knowledge and skill that farmers and ranchers possess. As Pumpkin says,

[Y]ou have the best of the best left in agriculture right now. We have gone from a society where virtually 98% of the people were involved in providing and growing food and fiber, and over the last 100 years we have transitioned now to where less than 1% of us do this. Those of us that have survived, you have to assume are the absolute best of the best. But I think...the American public should realize, and most of us don't think about it, that if you lose that 1% for just a period of years, how irreplaceable that talent is. It's like......the craftsmanship of ultra fine furniture. We have become a society...of speed and quickness, and there's a certain patience and a certain seasonality, a certain, just a real presence of talent that makes
this industry work. And knowledge. Substantial scientific knowledge, but there’s still an enormous amount of knowledge that’s not in textbooks. Um…and I think you wouldn’t want to lose that talent as a society for a generation because you likely won’t regain it.

Suzi Valentine also discusses the knowledge that farmers and ranchers possess. She tells a story of an old farmer who told a news reporter that it was going to freeze that night. “The young guy says, ‘How can you tell that?’ and [the rancher] says, ‘Well, look at the color blue of the sky.’” Later the weatherman was stunned that the rancher had known it was going to frost before the weatherman himself had given his report. “How did [he] know that?”…[H]e knows it because he lived outdoors.” Suzi is unimpressed with the general public’s lack of respect for farmer knowledge and capability, and she wants to acknowledge the store of know-how in farmers’ heads: “[A] lot of these really old farmers know a lot; they’re a great wealth, and if you can just kind of get ‘em to open up and start asking them questions, they want to tell you; they want that information to go on. Um, remember farmers aren’t stupid.”

These women suggest that farmers, unfortunately, are perceived as being stupid. Kay McIntosh finds this to be the most frustrating aspect of her newly chosen profession:

[The way] people view farmers, it’s kind of been…discouraging….There’s a lot of stereotype of farming being stupid and that’s really made [my partner and me] angry a couple times…things we see on the news or on television that stereotype farmers as being, you know, not knowledgeable about anything besides how to plant corn, and just this idea that that’s not good enough, that that knowledge of how to plant anything isn’t good knowledge….You know, we’re feeding all these people and just the value people put on farm knowledge and farm products….There’s so many people that they’ve spent all their lives eating out of boxes and plastic bags, and so they don’t really get it. I don’t think.

Kay’s frustration stems in part from the idea that what she knows how to do – grow food to feed people – is seen as inadequate or superfluous. Wendell Berry,
paramour of the small farmer and eloquent advocate of a return to more responsible, traditional (pre-industrial) agriculture, writes often of this unwillingness by the non-farming public to value or give credit to farmers and ranchers. He feels that the prejudice against farmers “begins in the idea that work is bad, and that manual work outdoors is the worst work of all” (Berry, 2002, 23) and that the dual stereotypes of farmer as “salt of the earth...and child of nature” (23) is as harmful as that of the farmer as “simpleton, hick, or redneck” (23) because “[b]oth images serve to obliterate any concept of farming as an ancient, useful, honorable vocation, requiring admirable intelligence and skill, a complex local culture, great patience and endurance, and moral responsibilities of the gravest kind” (23). He also sees the small family farm as “one of the last places...where [people] can answer that call to be an artist, to learn to give love to the work of their hands. It is one of the last places where the maker...is responsible, from start to finish, for the thing made” (Berry, 1987, 167). He states that the family farm is failing “because it belongs to an order of values and a kind of life that are failing” (167) as we turn from an agrarian to an industrial and then to an information-producing economic base.

Berry’s words speak to the belief that the knowledge that small, locally-based, family farmers and ranchers have and the skills that they possess are good not only for themselves but also for the cultures, small and large, that encircle and entwine them. Of course, his particular idea of the family farm does not contest the power relations within that context. For Berry, men are the farmers and women are the farmers’ wives and exist to perform specific tasks related to reproduction and mothering. Deborah Fink (1992) challenges Berry’s vision of the family farm because it specifically requires stable marriages and women’s fertility to maintain farm health and, ultimately, the health and well-being of society. Fink believes that women’s issues often are put aside to deal with larger farm issues — “Once again, the treatment of women is overlooked for the good of the farm” (194) — not an unusual circumstance. Women’s needs have been put aside in many struggles,
purportedly for the common good and in an effort to keep people focused on the "real issues." Such struggles include the fight to win suffrage for Blacks and for women in the late 19th Century, the Civil Rights Movement, and more recent environmental protection movements which have ignored environmental justice and the concerns of women and people of color.

My respondents seem to be challenging, however unconsciously, that patriarchal notion of the proper roles of women on a farm. They also seek fulfillment and empowerment in their lives, and they create it in a number of ways, through the development of their own interests, through the creation of innovative marketing strategies, and through communication and sharing of their knowledge to people outside of agriculture. By making their knowledge visible, they are demanding recognition of the value of that knowledge – and of themselves, as well.

Pumpkin feels her knowledge – and that of her colleagues in agriculture – can help heal a culture that has been disconnect from itself, from valuing time with family, hard but meaningful work, the slow savoring of good food, and the craftsmanship that comes from experience. She endeavors to pass this cultural knowledge on to those who have lost their connection with it:

I recently wrote a chapter for a cookbook....I had made an end-of-harvest celebration dinner for a group of friends, and I wrote down all these recipes, and I intertwined all of the things that we grew, or many of the things that we grew and processed on the farm this year. But at the end my last paragraph was really on how to present the meal, how to serve the meal, and how to serve it over four or five courses, so that you could really sit down as a family for a two hour period of time, and how unheard of that is in America today. You know, in this 20 minute microwave mentality, we have so lost our connection with food, and I think in many ways, you know, September 11 might change us and maybe change us forever. We're staying at home much more as a society. And I'm hoping that that has happened, maybe those family connections or some of our basic values might really resurface as a result of that, um, that we're not just about material things, but we're more about values and family and traditions. And I just, I just sense that there's part of me that wants to go backwards, that says hey, these things are important, and let's as a society not lose these
Sarah Pederson echoes this idea of needing to look to the past to find the best path toward to future in a discussion about the benefits to non-farmers of learning how to grow and preserve their own food: “[I]t is going backwards, you know...we’ve kind of made a mess of things and we’ve got some fixing to do, and it’s almost like we have to go backwards” in order to move forward in a successful, productive, and meaningful way. Looking to the past, however, can be a dangerous thing if it is examined through the lens of nostalgia rather than with the critical eye of realism. Given the fact that much of the mythologized “ideal way of life” for which we as humans are prone to pine has been created by particular people to achieve their particular vision of a utopian society, before we undertake a mission to bring the values of that life forward into the present, we must question whether all of those values are worth keeping as-is. Family, tradition, and the values of a slower, simpler society potentially can be a wonderful thing, if they are recreated in a less power-ridden and hierarchal image that considers the needs, desires, and beliefs of all people.

As well as being a site of caretaking for cultural values and traditions, agriculture can be a place of intentional religious practice, as mentioned in an earlier discussion. For Diana, the farm is a place not only to connect people with food, the land, and a particular way of life, but also to remember the original instructions from God to humans:

Was it not the original Creation Mandate given to Adam by God Himself? ...to guard and nurture the garden (the planet). One noted historian and theologian explained "real wealth" as that which is produced by taking a natural resource and adding man's labor to it. I believe that farming can be a great blessing to an individual, a family and a nation because people can provide real sustenance for themselves and others...creating real wealth.
Thus, the knowledge gained and the skills possessed by individuals working with the land growing food or flowers or fibers can instill in them the confidence, self-worth, a renewed connection with the spiritual and what truly matters ("real wealth"), and even the peace they need to become integral members of the larger culture. The culture’s values then may benefit from these skills, the renewed appreciation for the type of work one does on farms, the input of people reconnected with natural cycles and with the soil.

All of these positive values may be very difficult for non-agriculturalists to see, however. Farmers and ranchers are, for the most part, taken for granted in the U.S. They are not seen and not heard but are expected to produce that which we all need to survive. According to Suzi Valentine,

[C]ity dwellers and agricultural people have a long disharmony of rivalry between them….City people always feel that a farmer has something that he should have given away for free, and the farmer really doesn’t want to give his labor and food away for free., and, um, city dwellers always feel they’re a little above it all.

Changing these attitudes is vital to the future well-being not only of farmers and ranchers but of non-agriculturalists, as well. What is more, not only humans benefit from agriculture. The land, contrary to certain belief systems, may also be enriched by the process of growing food and fiber because of the appreciation for healthy soil, water, and air that many farmers possess and seek to sustain.

Value to the land

Agricultural knowledge can be seen to have benefit for the land itself. Although agriculture is not a "natural" way of interacting with nature – as many conservationists and preservationists would point out – it is a very human way of joining into a practical partnership with the natural world, of engaging with the
cycles of birth, growth, and death, and of comprehending and appreciating what such an interaction between that which is vast and that which is insignificant can produce. Because many farmers and ranchers have a daily direct interaction with the land, the water, the air, plants, and animals, and because they have a vested interest in maintaining the health and productivity of all of those resources and creatures, their knowledge can serve to inform non-agriculturalists about the importance of preserving natural resources for future human and non-human benefit. It also can serve to demystify our conceptions of the natural world, make it more immediate and real, and reconnect all people to the earth in a pragmatic way.

The knowledge acquired through working with the land (which, according to Kloppenburg (1991), is local knowledge at its core – the mixing of labor with location to produce understanding) has given some of my respondents a particular perspective on the consequences developing land rather than leaving it alone or preserving it for future production of food. Sarah Pederson hates to see houses being built in areas that have rich, productive soils and would like to see better urban growth regulations be adopted to protect those soils:

[L]ike in Canby there’s just so many more houses being put up and it’s all on good farm land, that’s what kills me...[O]ur soils [where we live], those are pretty shallow and you can’t really produce a whole lot, so that’s where the houses should be, but on that gorgeous river bottom stuff down by Canby, that’s just a sin. It’s so sad.... I think when we’re making our growth boundary, we need to look not just at area but we need to look at soil type, really, what could be produced there.

For Cocoa the idea of land use planning is sound, but she also thinks the policies could be better made to take environmental and resource health into account:

Even though it is much maligned, at least there is a land use plan in Oregon...but in terms of our long-term future, we’re not doing a very good job. I mean we’re still paving [prime agricultural land because the soils and
sites are suited to developers' needs. Unfortunately, God didn't give us very much good pasture land, but it's the easiest kind to build on, so they'll pave it.

For Jane Farmer the ease with which prime agricultural land can be used for other purposes is dismaying. She believes farmers ought to share their knowledge about land because their work with the land gives them a particular knowledge about why it is important to preserve it:

Because the intimacy that comes with working with the land is...difficult to feel for those who haven't been here and don't see it and it's complexities. When I drive down the road into town and a lot of agricultural land's being lost to development, when I see that soil being dug up and hilled up and carted off, I see thousands of generations past and future of good Class I soil. No one else can see that, even people who are inclined to be supportive of the farms will not look and immediately feel in the gut how that earth is rich. I mean, I drool over that kind of soil.

These are pragmatic viewpoints of how to better make use of our natural resource base. These women can look beyond a societal response to immediate infrastructural or economic desires and can calculate the losses not only to future generations of food growers but also to past eons of earth building processes, which are gone in the time it takes a tractor to pile the soil up and move it away. But many of these women do not just view nature as a practical tool or set of resources. They have learned many lessons from working outside within the environment, lessons about the realities of the natural world and about the values it is possible to adopt if one only pays close attention.

As much as Amy finds pleasure in working outside, she also appreciates the difficult but necessary lessons to be learned when working with animals:

"Nothing is more satisfying than watching a baby lamb be born and start to nurse. It's just, it's just kind of this revival of life. But you also have the death part of it, too." Many of the women who worked with animals echoed this sentiment. Georgia expands on this idea of learning to understand and appreciate the processes
of life and death. She has trouble understanding animal rights activists’ feelings about the killing and eating of animals because in her experience nature does not typically deliver a kind death to its inhabitants:

[W]e live out here on the high desert, and we see a hawk or an eagle go down and scoop up a little ground squirrel, and it is... squeaking and stuff as they have it in their talons... um, that’s nature and that isn’t kind, and that’s the end of that little squirrel, and it’s keeping that hawk or that eagle going.... Now we see that kind of stuff around here all the time. We see nature working.... [Y]ou kind of have to try to work with balance out here. Nature is a great thing, but nature isn’t specifically kind. You know, the hurricanes aren’t kind, but a lot of times they have those kinds of things so that you can get top soil going different places, but you know, with all the humans here now, we forget about how does the natural form want to be....[I]t’s kind of just, you have to kind of snuggle yourself in to your environment....[Y]ou’ve got to balance. You cannot take one thing out of the natural system and think that something else isn’t going to happen.

Marjorie also has learned much from working with natural systems: “[I]t’s the simplicity of our natural systems that I still learn from.... The study of natural systems that we humans tend to forget a whole lot about.... So I think we can learn from natural systems, you know, birth, death, it’s all part of this life that we try to think we can control.” However, for Marjorie, this learning does not only include physical nature. It also includes the ideas of interconnection, of spirit, and of something akin to karma. She has learned over the passage of time to trust that the energy she puts into the world will come back to her, and she lives this philosophy by doing things like branding as little as possible, in order to cause as little pain as possible, and by worrying as little as possible about the health and well-being of her operation. “I’m trusting the universe... that I’m doing the right thing, I’m putting the right thing out there by not causing any more undue pain than is needed in this culture, this world....[Y]ou don’t need to do that. It’s maturing.”

For Lenora, although she enjoys the feeling of accomplishment she gets when the food she has planted grows and she harvests it, she acknowledges that
those feelings of accomplishment do not fully encompass her emotions and understanding of the process she has brought her crops through because you didn’t actually produce it. You can plant seeds, and you can water things when it gets dry, you can pick insects off or spray or whatever you want to do if it has problems, but...the miracle is something that’s out beyond our control, and it is good to see that...[Y]ou know, I don’t make it grow...[S]ome people will just call it the beauty or the magic or...if you believe like I do in a Creator that designed it that way, then it’s, it’s great just to see it and appreciate it and...be thankful, you know...but you still have to do something [she laughs]. It’s not magic. You’ve gotta do something...so I think that’s part of maybe, too...the satisfying, or the good part of it, the good part of farming is that you’re involved in things that you can influence, and you can plan on how well you work, and how smart you work has an outcome, but you also, um, in the end if you get anything out of it, it’s a blessing, you know?...It’s a gift.

This gift takes many forms: the understanding that here is an interaction with something far beyond human power to make or to do or to create; the realization that one’s actions can have consequences beyond one’s immediate circumstances; and the feeling of spiritual renewal and physical connection that can come from being close to the land, perhaps particularly the same piece of land for a very long time. For Marjorie, “it’s where I rebuild” not only the physical and emotional parts of herself, but also—and for her very importantly—the spiritual. Aggie has similar feelings:

I know there are people who feel the same way about their place that I do, which is fundamentally, gosh, I love this place. I can’t, I mean, it’s my life, it’s my economic life, it’s my social life or lack of [she laughs], it’s my spiritual life. It is, this place is the spiritual foundation for my life...I don’t know what gender has to do with that, except so much of the source of my strength comes from a connection to this place....I wouldn’t presume to say what it must be like for those folks who are being forced by economics to leave. I can’t...I can’t go there. I can understand that it’s just gut-wrenching ‘cause it certainly would be here. If I mismanage it into the ground, I guess I’ll pay the consequences.
Aggie realizes that the sustenance she receives from her ranch is tenuous and contingent on her careful management of the land and its resources.

Suzi Valentine also has strong emotions for her place, a similar passion for it and feeling of obligation to it to keep that connection between it and her both healthy and honored. She feels such a deep connection to her land that it has become a part of her being, and when it suffers, so does she:

[P]eople come here and they say it’s so peaceful. There’re good vibes here, and I don’t know why. All I know is it’s my job to keep it that way. Not to overgraze it. Not to dump things on it that are bad. I don’t have a dump here. Um, to fix my fences as well as I can....I have great passion for the land. I feel the land. I’ve gone through three droughts here. I remember one year in April the ground was so dry that it had cracked open, and I laid on the ground when the irrigation water came...and it ran down the cracks, and the cracks were ten feet down, and it was like blood was running through the veins of the land again, through the capillaries, and it was coming back alive, and while my ground is that parched, I hurt. I physically hurt.

Jane Farmer also finds challenges and bounties in her work, especially in the ways farming allows her to practice her spiritual beliefs:

[T]here are many challenges for me doing this work, but it is also incredibly enriching. I couldn’t imagine anything else for my life. I...am a practicing Buddhist, and...the philosophy of interconnectedness and um, the practice of stillness....So my spiritual practice kind of is fed by this work, as well. And...I ask more now what is being asked of me here today right now and I listen more, and I’m much more acceptant of the paradoxes of what, what’s brought to you out there. So it’s rich. It’s a rich time.

This connection with the land is deep and abundant in its lessons and meanings even as it provides a space for meeting the practical, material needs of human beings. Connection with the land also may be gendered. Recall that due to the gendered division of labor on farms and ranches, women are more (though not exclusively) likely to perform tasks that involve more handwork and direct contact
with plants and the soil than men, who are more (though not exclusively) likely to be involved with tasks that require machinery. Men's interactions with the land then become indirect because they are mediated by machines. Because of their more direct interactions with the land, women may have more opportunities to engage in connected knowing with the land (Belenky et al., 1986). Although this form of knowledge refers to interactions with other people, it — and all ways of knowing — also may be extended to include non-human nature, with which humans forever are entwined and from whose lessons we often are told to learn. Thus, receiving the knowledge, viewpoint, or wisdom of "the other" (in this case, the land) and incorporating it into one's own knowledge without judgement or doubt but with affirmation of the value and validity of that received knowledge (Clinchy, 1996, 216) allows a connected learning and knowing that cannot be attained through less intimate interactions. This "woman's way of knowing" (Belenky et al., 1986) builds a "new and enlarged understanding of broader human experience" (Surrey, 1991, 171) with the land and deepens one's sense of connection with and ability to respond to this broadened definition of human and non-human reality (Surrey, 1991, 172).

The connection that farming and ranching seem to create between people and the land appears to hold much promise for those who have lost and wish to regain it. It also has promise for the honoring and renewal of agriculture-as-craft-and-way-of-life and for comprehending the need to protect the land itself, but these potentials only can be realized through the joint efforts of agriculturalists and non-agriculturalists to understand and to communicate with each other in an act of reciprocal education.

Throughout this discussion, I do not mean to imply that all farmers and ranchers use methods that are beneficial to the land, nor do all of them view their relationship to the land as one of connection and love. Many agriculturalists are not good stewards and caretakers, but many more of them are or are trying to be. Stewardship means different things to different people, from Patty C's cherishing
of weed-free, thus freely pesticided, crops to Pumpkin’s striving for pesticide residue-free crops and soils to May’s desire to preserve some of the wild habitat that runs through her property so the animals that live there will be healthy and content. All of these women think of themselves as good stewards although their definitions and practices of stewardship are very different.

Remembering the value of agriculture and the value of reconnection

Although agriculture and agricultural knowledge have much to offer on many structural and individual levels, most people do not realize this fact, and so agriculture, the people who practice it, and the land on which they produce our food and fibers become further removed from the public consciousness. Equally unfortunate is the realization that many farmers and ranchers do not fully appreciate the depth and severity of public disengagement from the source of that which sustains them — and which has transformative potential for those who choose to engage in it. Farmers and ranchers often are seen by those not engaged in agriculture as backward, too caught up in tradition, and too unwilling to change their practices. Part of the problem, according to Aggie, is that the issues that agriculturalists have had to deal with are so huge and convoluted that it is easier to dig in and do nothing than to be progressive and connected with non-agriculturalists.

I think we’re just in this incredible transition period that has been, we maybe have not been quite as progressive as we should have been...[W]e just struggle with these issues of family farms, family farm ownership, and, um, land use planning, then...all the various kinds of regulations. You know, we don’t want to know whether we’re fighting for farmer’s rights or...the battles have just gotten so confused and convoluted, and so when in doubt, let’s dig our heels in and do nothing.
She also feels that part of the unwillingness to change lies in the perception by farmers and ranchers that the rest of the world needs them more than they need the rest of the world:

[We think we] will change the rest of the world, and they will have to come back to our way. It’s not happening, and we’re falling farther behind....At some level, we have almost an over-inflated view of ourselves, and at another level, I think the rest of the world has vastly underrated the way they should have looked at us, um, or the way they should look at us.

Although the consequences of this situation in some ways seem dire – from the use of good agricultural land to build shopping malls and housing developments to the economic edging out of the nation’s farming and ranching communities – this disconnect between agriculturalists and non-agriculturalists is beginning to be bridged in a number of ways by both groups. The sharing of knowledge in order to reunite these two cultures is the subject of the next piece of this discussion.

BRIDGING THE DISCONNECT

The debate over the importance of the “domestic survivability of agriculture,” as Pumpkin puts it, has been addressed by agricultural and social scientists for a number of years, especially since traditionally-conceived family farming has become rather an endangered production method and lifestyle. Two aspects of this debate have been elaborated by Steven C. Blank (1998) and William Greider (2000). According to Blank (1998), agriculture is the unskilled, entry-level job of every nation, “something that everyone has to go through, but it is not a highly desirable occupation and one that, eventually, everyone wants to get out of as they move up” (7). Further, “national economies leave agriculture for more profitable industries as soon as possible” (8). Thus, according to Blank, pursuing agriculture is undesirable both as an individual profession and as a national
industry, and nations further up the "economic food chain" (9) (such as the United States) would be better off investing resources in the highest stage of this chain, information production, than the lowest, food production. "America doing agriculture is like a Ph.D. doing child's work - we can do it, but it is a waste" (18). Thus, we should rely on immigrant farm workers to help us "transition" from an agricultural economic base to one of information production, after which our food production needs should be left to countries "lower" on the food chain. Blank's sentiments actually can be seen as a carefully stated rationalization for the current sorry state of agriculture in the United States: because agriculture is an unworthy pursuit for an "advanced" nation such as ours, its loss is not something to regret but to embrace, for we are on the verge of a higher-order economy.

William Greider (2000) - and every farmer with whom I spoke - would disagree heartily with Blank's assurance that the United States - or any nation - should abandon agriculture. Greider's position is that agriculture is in trouble because it has become highly concentrated in the hands of agribusiness monopolies; because it has been weakened by government policies that favor these corporate entities over smaller, family-operated farms; and because the non-agricultural public does not fully comprehend that the much-lauded production of cheap food is not beneficial or safe for the environment, food security, public health, agricultural workers, animals, consumers, or the larger social fabric. Neither is cheap food guaranteed to be available forever. Greider contends that if small, local farms are driven out of business and corporations take over food production, food prices could rise sharply as the barons of industrial agriculture seek greater and greater profits. The only solution that Greider sees is the creation of political alliances among ideologically divergent groups, including farmers, consumers, environmentalists, church activists, and animal rights activists, to advocate for an unlikely goal - the recreation of truly competitive markets in which small, local farmers can compete effectively with larger, corporate agricultural
entities. Thus, where Blank sees obsolescence, Greider sees something of social and cultural value worth engaging the masses in fighting to protect.

The belief that farmers and ranchers should quietly allow their craft/lifestyle to wither away and disappear because some people feel it is archaic and too rudimentary for a “highly evolved” culture to pursue is akin to the dismissal and destruction of any other cultural group simply because “they” have no value to “us.” As Penelope says, farming is key to her family’s entire existence, and to change that piece would require a restructuring that would be not only unwelcome but also very painful; most of my other respondents concurred. The end of agriculture also would be potentially detrimental to national security and individual growth, as already discussed. However, in order to protect and even restore to the U.S. an agriculture that belongs to the many, small, and diverse rather than to the few and powerful, all of the very divergent groups mentioned by Greider must understand the ways in which they will benefit from such an alliance. Farmers and ranchers must recognize that people such as environmentalists are not just agricultural antagonists and the average consumer is not completely without concern for the origins of the food she or he eats every day. At the same time, environmentalists and consumers have to make an effort to reach out and to understand the people whose lives and livelihoods they often take for granted. These groups have the potential to affect positively one another’s existences, and the first step to creating these united fronts is mutual education, bridging the disconnect. This mutually-informed alliance, I believe, is another key aspect of creating a locally-based successor knowledge to transform agriculture, an important addendum to Kloppenburg’s (1991) and Feldman and Welsh’s (1995) discussions of local knowledge. Alliances have another important potential benefit for women farmers – their empowerment through the empowerment of others. These topics are the subjects of the following discussion.
Connecting with customers

The people who purchase and consume agricultural products – and that would be everybody – have a huge potential to influence change in many areas, from demanding an end to policies that hurt small or family owned and operated farms and ranches to no longer accepting that food production cheaply and on a massive scale is more important than the health of the environment, the consuming public, and agricultural communities. Consumers can make choices that show their disapproval of agribusiness, and they can request that their supermarkets stock locally-grown products. Consumers also can show their support of particular agricultural practices by purchasing food and other goods directly from farms that employ those methods.

For this support to be effective, however, the consuming public also must be well-informed about the myriad issues surrounding agriculture today (Stauber et al., 1995; Greider, 2000; Berry, 2002). Several of my respondents assert that the reason agriculture is in the midst of such deep crisis is that consumers want cheap food the production of which they do not have any need or desire to ponder. Industrial agriculture, the kind that gives all of agriculture such a bad reputation, exists to meet the demands of masses of people who do not have much of an idea about the processes involved in it. So great is this disconnection from agriculture that many people barely understand that their food had to be grown in the first place. This “cluelessness” and “disconnection” are hot topics for many of my respondents.

Probably one of the most important things farmers and ranchers can do to bridge the disconnect between themselves and the rest of the population is educate customers through direct outreach and education. Unfortunately, this activity is not one in which most agriculturalists traditionally enjoy engaging. In fact, several respondents comment that one of the major reasons they are in their profession is that they enjoy living far from large numbers of people. As Suzi Valentine puts it,
"[W]e like to live out in the country because we don’t like people – I do like people, but – we don’t want our neighbors right on top of us.” Isolation and independence from most of the rest of the world is a good thing for many farmers and ranchers, and the idea of actively seeking out people to talk to about agriculture, the use of the land, and the way food is produced and processed is furthest from many of their minds. As Pumpkin comments, “[P]robably the number one thing that most farmers really don’t enjoy doing is marketing and sales. I think in general this industry is not overflowing with people who enjoy communicating [we laugh]. These people often do what they do because they enjoy the remoteness.” I told Pumpkin that another woman (Chris) had talked about her husband’s refusal to join her when she first began selling at farmers’ markets and that it appeared that, in this study, primarily women were in charge of marketing while the men worked the fields. Pumpkin laughed, “He’d rather have a root canal than go out.”

Several women, however, feel not every farmer or rancher must reach out to customers. Agriculture currently is varied enough that some farmers can cater to a public that wants to meet the farmers who grow their food, and other farmers can sell to commodity markets in which the only person to whom they have to speak is the one who buys their entire crop for the mass market. Penelope, in reference to her father, who grows a commodity crop, says, “For my dad, he’d talk to people, but he’s not inclined that way. He didn’t have to do it, and he doesn’t choose to do it....[A]nd that’s OK, there’s other people to do those kinds of things.” This sentiment was echoed by many other women.

This isolation and independence, however, is based partly on the myth of the agrarian ideal of the self-sufficient, morally righteous yeoman farmer; the patriarchal structuring of farm family members’ work loads, including the invisibility of women’s (and children’s and farm laborers’) work; and the invisibility of the consuming public’s very real dependence on farmers and ranchers – and their reciprocal dependence on that public, something many would
be loath to admit. Thus, the ideal of independence, as appealing as it is to many people both on and off agricultural operations, may not be a desirable characteristic to embrace in a future, more sustainable, connected agriculture. Independence does not have to be rejected, necessarily, but it must be modified.

For those who do connect with customers, there are many lessons to be learned about the very deep gap in knowledge that non-agriculturalists have about how food is produced, who grows this food, and the extent to which they are dependent on agriculture. For example, Sarah Pederson is appalled by a conversation she had with one of her daughter’s friends:

I took my daughter [and some friends to a soccer tournament], and I was pointing out the crop ID signs coming up that road and, you know, one of the girls, she didn’t know what agriculture meant. She didn’t know what it meant [she sounds disgusted and amazed at the same time]......what did she say? I said something about, “Well you tell me something at the grocery store that doesn’t have to do with agriculture, that doesn’t come from a farmer.” She says, “Well, Ritz crackers.” And I said, “Well where do you think the flour comes from that goes into that cracker.” “Oh, yeah...” And I said, “Well, your toothpaste is mint flavored, right?” And she said, “Um hmm...” And I said, “Well, most of that peppermint came from right here in the Willamette Valley.” “Oh, I didn’t know that.” And it’s just, it’s so important because every day adults are making the decision to, to keep our local farmers out of business, and to allow development and, you know, different laws that affect farmers and their production tools, and it’s just, it’s critical.

Sarah uses her small farm to teach both the adults who come to buy her products and the children they have in tow about agriculture. She hopes that the simple lessons she provides – having bunnies around for the children to pet, talking to people about her methods – will give the adults pause when they are voting on land use issues or buying food and will provide memories for the children to help connect them to agriculture throughout their lives. However, she remains indignant and rather irritated with people’s complete lack of understanding about an issue so vital to their continued well-being: “[I]t's frustrating because the people don’t have
a clue...[Y]ou know, they like [my product] and they enjoy [my product], but I get frustrated again...because they don’t understand where their food comes from.”

Beth also has been amazed to learn the extent of people’s lack of knowledge about the origins of their food. She relates a story told to her by a friend who sells lamb and yarn at fairs and farmers’ markets:

[My friend] had a gal come in wanting some ground lamb, so [she’s] getting the ground lamb out, and the lady says to her, “Now this lamb didn’t have to be hurt in any way, did it?” And [my friend] said, “I kind of thought she was kidding – so I said, ‘Oh no’ as kind of a joke, and then the lady bought it and walked away, and I thought, ‘She wasn’t kidding. What are you going to say to her? “No, we just cut off one leg at a time; he doesn’t really miss it.”’?” I mean, the disconnect is huge. Lack of knowledge and interest [is huge].

Beth, in a way, can understand the reasons for this type of disconnect, and she sees the potential for producers to help people come to an acceptant understanding of production process without alienating those customers further from this knowledge:

[T]he funny thing is when [my friend] isn’t working in the booth, she’ll have her spinning wheel; it’s a huge draw. And I do spinning wheel demonstrations at fairs or whatever, and people and kids are just there. They’re so interested in watching, and so that’s a huge draw, and she’s got yarn, she’s got sheep products and dog bones and all kinds of stuff. Her side of the booth, people want to know the name of the sheep that the yarn came from...but on the other half, the meat side, they do not even have a picture of a face of a sheep because people don’t want to look at it. So I mean, they’ve got it split right down the middle. So there is a tremendous disconnect, and it’s people who want to know but don’t want to know the bad stuff, want to eat meat but don’t want to know that the animal had to be killed. I sell butcher lambs, and people say, “How can you bear to sell that cute little lamb?” They’re thinking of 3 weeks old, and I say, “I wait until they’re teenagers.” And they’ll say, “Oh! That makes sense. We’d all like to do in our teenagers.” And so that one on one connection with some humor on the producer’s side, I mean, you can’t berate people for feeling bad about not wanting to see an animal killed. (emphasis mine)
The ability to understand the sources of people’s misapprehensions – whether an unwillingness to accept uncomfortable truths about food production or a general disconnect from the reality of other people’s lives – and to find ways to dispel those misunderstandings gently and in an educational manner is an example of connected knowing in action. This act of being willing to understand and relate to another person’s viewpoint (connected knowing) not only empowers the recipient of that viewpoint but also empowers the one whose viewpoint is being received (Miller, 1991). Thus, “using one’s power [in this case, knowledge] to empower another” (Miller, 1991, 199) enhances the knowledge both of the producer and the consumer and can lead to richer, more informed choices by and interactions between both parties in the future, as can be seen in the following examples.

Much misinformation about agriculture abounds in the non-agricultural populace; so, too, does the misimpression by agriculturalists that other people know what happens on farms and ranches. For example, May was surprised to hear the questions people asked her about her products when she first began selling at farmers’ markets. Their concerns ranged from wanting to know how to ripen the produce they bought to wanting to know, but not articulating well, whether she uses pesticides. May has discovered not only her customers’ interests and anxieties but also her own need to be a very accurate and constant provider of information and to challenge people’s incorrect assumptions about certain agricultural practices.

If you’re a farmer, my God, your land is your bread and butter. You’d better take care of it. And so we always assured them that we love the land and we, you know, we try to take real good care of it. So...we got quite brave, actually, ‘cause a number of people would walk up to the booth and say, “Do you spray?” And it took me a while to figure out they didn’t know what they were talking about. I finally said to one lady, “What do you mean ‘Do we spray?’” “Well, do you spray chemicals?” And I say, “Yeah, we use the pesticides that are within guidelines that we’re allowed to use, but we do have a soft program.” “Oh, well then I don’t want to buy if you
spray.” And I said, “Well, do you know that organic growers spray?” And they would step back and look at me and go, “They do not!” And I said, “You really believe they don’t spray.” “Nope, they do not spray.” And then I would say, “Well, you know, I think it’s real important that you take my information on the Food Alliance. Get on your Internet. Look up the Food Alliance, what we’re all about. Get on your Internet, go to Oregon Tilth. Look under their list of available chemicals that they’re allowed to use, and then next time you walk up to a booth, you don’t ask me ‘Do I spray?’ You ask me what do I spray. You need to educate yourself about what you’re buying when you buy organic. There are a lot of people getting ripped off by quote-unquote a sign that says “Organic,” so you’d better start asking the question, not “Do you spray” but “What do you spray.” You write down the chemicals they tell you they’re using, and you go look them up and find out what it is they’re spraying. Because some of those organic chemicals are very toxic, more toxic than some of the stuff we use in our soft program.

This frustration with organic agriculture is something that several sustainable farmers expressed, an issue upon which I will touch momentarily. Although this type of interaction is vexing for May, it also is enlightening, and many of the other things she learns from her customers are more positive:

I was impressed with...the questions that were asked because I thought OK, those people are concerned about where their produce is coming from, and they did ask intelligent questions about, um, how we’re dealing with the import [system], and they are concerned when they go to the store and they see produce from another country when they know they could be getting that produce from Oregon, Washington, or California, but it’s not in the store...you know, they are becoming concerned about that. So we did share a lot of knowledge on what we knew about that, shared a lot of knowledge on...our chemical practices and on water conservation.

Beth has made similar discoveries about the concerns her customers have and the questions they ask. The questions are unexpected but illuminating.

[S]ome of them strike us as funny, like “Are your cows happy?” ...[W]e got to realize that yeah that sounds like a stupid question, but it’s a very sincere question coming out of someone who doesn’t really know how to
communicate their concern and their question. So that’s how it comes out, but it’s wrapped up in a whole wondering frame of mind because we’ve all seen those awful pictures of feedlots with cattle standing in mud up to their hips, and people carry that kind of image, and so they don’t want to say to you, “Are your cattle all covered with mud and sores and icky stuff.” So how do they say it? And we learn those kinds of things. It’s very important that people who do not raise their own food, who do not have that option, who do not have that connection, there’s some way to be reassured that they’re doing something right and good for them. And being involved in [niche marketing]...has been a tremendous education and helps reduce the disconnect from the producer’s side because traditionally, you raise your product and you put it on a truck and you never think of it again. But in this newer, modern age of agriculture where [you use] niche marketing...you learn quickly that you have to think of their concerns. They are your customers.... (emphasis mine)

Thus, questions that seem foolish to someone who has intimate, everyday experience and knowledge are not foolish at all to a person whose experience is based on images seen on television or communicated in other forms, often by those who also lack immediate knowledge of a situation or a methodology. In these instances, a woman’s connected knowledge – a willingness to accept the viewpoint of another person and respond to that viewpoint without criticism – may be an incredibly useful tool for women farmers and ranchers to use, especially since it seems they are more involved in public outreach, marketing, and education than their husbands are.

Amy, a rancher, had to respond to public misinformation when she had Taiwanese visitors to her ranch. Her guests were surprised to see how healthy her cows are because they only had seen pictures of factory feedlots and the miseries inflicted on the animals therein. Although she was able to assure them that her cows are healthy and happy, she had to deal head-on with a reality that often is portrayed to the public but which may not be true on individual operations. While the gross mistreatment of animals, as well as other abuses, happen quite frequently in agriculture, many farmers and ranchers do not subscribe to those practices and work hard not to be associated in the public eye with those images. As Aggie says:
I fundamentally believe that most of us who live and work off the land do have a little better idea of what we’re doing than most outside people think. I [also] think one of the things that we have done poorest being stewards of the land... is we haven’t held our own peers accountable. ‘Cause there are some, there are a handful of people – just like in any other business or any other organization – there are a handful of people who are doing the wrong thing and we somehow should have figured out a way to police that ourselves as opposed to relying on or doing nothing until the outside guys came and something had to be done. So we in agriculture missed an opportunity somewhere to be a little stronger advocates for what good land practices are, and when we got behind that curve, we’ve never been able to get back ahead of it, and so we’ve been subject to regulation and the frustration and bad feelings that come out of the strife with that.

For Cocoa, the need to be proactive in educating those who might misinterpret her management of her operation is very real, and she engages in it often by giving tours of her ranch to a wide variety of people, including the environmentally-minded employees of the stores where she sells her meat. On one tour she dispelled many of the myths these people had created for themselves about agriculture:

Most of them – all of them – had never been on a farm of any kind, and we toured around and watched baby lambs be born and went to pastures and so on, and they had umpteen questions about “do you use chemical fertilizers,” and I said, “Yeah we do,” and you could tell they were hoping I’d say no, and I said, “We test our soils, and we find out what’s needed, and we watch the pastures, and we read the pastures and tell when we need something,” and I said, “We use very limited amounts at critical times of the year to encourage growth so that we don’t have to go out and buy feed – alfalfa and grain and so forth – that uses way more fertilizers,” and I said, “How much fertilizer do you think we put on?” And they said, “We don’t know.” And I said, “Well. I’ll mark off an area this big...[T]hat’s an acre...and you know what a 50 pound sack of dog food looks like? [P]icture a 50 pound sack of dog food spread over that whole area.”...[They said], “We thought you just piled it on [a foot] deep.” And then they were asking if we used any pesticides, and I said, “[Y]eah...[I]n fact this area was just sprayed the other day.” It was like they wanted to lift up their feet ‘cause they didn’t want to be standing on this area...and they said, “Why? Why did you spray
this?” And I said, “You see that thistle there that kind of has frilly yellow edges?...[A] fella walked through here last week and he individually sprayed these thistles....[T]he animals won’t eat that and [soon] the grass will come and take over that spot. But...if we can’t [spray], then gradually this pasture will become crowded with thistles and blackberries and there won’t be any [meat] coming to [your store] that taste[s] good,” and I think they felt real comfortable after they found out. They said, “You know, we wanted you to be organic, but you can do better this way, can’t you?” I said, “Yep. There’s an in between place that makes a lot more sense.”

Many of the women I talked to find it frustrating to know they are being judged by a public that wants farmers and ranchers to run organic operations while they blithely spray biocides and fertilizers on their yards and gardens and golf courses. Many feel that on an individual level, they are more responsible by far than their non-agricultural counterparts. Thus, when they use their knowledge (power) to educate people about this double-standard, as well as other key issues in the lives of farmers and ranchers, they are asserting their capacity to produce change not only in their individual lives but in the profession of agriculture as a whole (Miller, 1991).

Diana sees both trouble and potential for farming and ranching in the public’s current knowledge about agriculture. Of the lack of knowledge, she says, “It is staggering! And very destructive for our way of life.” However, she also feels there is hope as people gain a renewed interest in buying better food and supporting those who produce it: “Many are again returning to the idea that you have to pay more for better food. This thinking may also help the small family farm to make a comeback. I hope so.”

Not only are people beginning to see the value in supporting local organic or sustainable agriculture despite the higher cost of these items. For many years, they also have had a desire to reconnect with the people who grow their food and the land on which it is grown. Recently this desire has manifested itself in a surge of people joining community supported agriculture groups, going to farmers’ markets and meeting and talking with the producers selling their goods, and
volunteering to help on farms and ranches. As I discussed earlier, many of my respondents feel that learning how to produce one’s own food is the most basic but the most empowering knowledge to provide people. Many have seen first hand the benefits other people have received either from coming to work on their operations or from buying food grown on their land.

Ellen, for example, tells of the positive, healing effects of agriculture for a person unaccustomed to such work. In this case, the person was a woman whose boyfriend had come to work on Ellen’s husband’s farm. Ellen invited the woman to help on her small operation:

[S]he had a terrible upbringing, just a lot of emotional issues to deal with…and she would help me, and it was the first time that she had ever done anything with the ground and growing, and she was just happy out there. You know, she just developed self-confidence, she started standing up to her boyfriend who was sometimes abusive to her, and, I mean, you could just see the change in her over this four month period. We’d be out there working together, planting something, watching it grow, she goes, “I don’t care where I live. Forever more, I’m gonna have a garden.”

Several of my respondents intentionally have created opportunities on their farms and ranches for non-farmers to learn and to find what they need to find as they work the land. Penelope has wanted to include her customers in the operation of her farm since its inception: “A lot of people love to come out and work on the farm. They don’t want the responsibility; they just want [the experience], so…we have little jobs that they can do and complete, and part of that is making them feel welcomed and appreciated….Everyone is…taken care of.” As a result of the environment she and her husband have created, people love to come and help with the most surprising tasks. A particular group comes every year to help butcher chickens, a fact that stuns Penelope. One of her girlfriends had never driven a tractor and wanted to try, and Penelope invited her over to do so. She was also surprised to learn that one of their customer/helpers was thinking seriously of rescheduling his yearly vacation because he was going to miss his favorite time on
the farm. One of the most telling experiences was when a friend of the family was laid off from work and began to come every other Friday with his children to help on the farm. After he found work again, he told her, “You know, you don’t realize how important it was for me come out here because...’ it gave him a sense of accomplishment; it was something to do.” He even requested to work 80 hours in nine days so that he could still have every other Friday off to help on the farm. Thus, Penelope has discovered that her intentional creation of a space of learning and of welcome has borne fruit of a most surprising richness.

Marjorie also has plans to create an educational facility on her operation after she retires from her off-ranch job. Hers is a bit different, however, in that it involves teaching women and their children (and men, as well) how to hunt and fish, not only so they can learn how to provide food for themselves and gain that type of self-confidence, but also so they can understand that creatures must die so they can eat:

[I]f you teach a child that when they catch a fish, they have to kill it versus going to the store and buying it in a piece of foam that’s got Saran around it, then there’s a whole lot less killing that goes on. You can understand that spiritual piece around feeding yourself. But killing and breaking that fish’s neck or hitting it on the head or however you decide to do it, that you’re doing that for your dinner or for your lunch versus “Oh, this is a great big fish and I want to show somebody and I want to put it on my wall.” Uh, same is true if you have to raise a calf from the time it’s born and then feed it...and then you’ve got to kill it and slaughter it and watch its blood go out on the ground, and cut it up and then eat it. All of a sudden beef doesn’t look so good. And I just think...we can learn a lot from Native Americans around that. Not just out there killing for the sake of killing or because it’s a big buck or it’s a big whatever the hell it is, is not a good reason to kill. So that’s some of what I was looking at with, with women, as well, was I was going to teach them how to fish and hunt, and...the idea is respect for what you kill, and also the confidence in that I can feed myself.

Cocoa also wants to be able to use her land to teach people – in this case people who are thinking about becoming ranchers but who do not have any
experience. She wants to be able to help them see all that is involved in operating a ranch before they take the plunge. Cocoa also has seen the therapeutic power of working with the land. She tells the story of a cousin whose high-powered, high-stress job was wearing away her nerves and making her sick. Cocoa gave her this advice:

I said why don’t you just come out to the farm. I said you just need to get back outside and [work hard and look at what you’re doing to yourself]. It’s not natural. You’re living on planes and in hotels and eating weird food and going at a fast pace, but your body never gets tired. There’s never anything physical that you do until you can relax.

Her cousin took her advice, and the experience transformed her life. She now works for six months a year, long enough to make enough money to live off of the rest of the year. For the rest of the year she lives with a nomadic people in Africa and writes an ethnography of their culture, which is vanishing swiftly.

Jane Farmer and her partner also have created a space for people to experience their farm; however, theirs is an apprenticeship program, as I mentioned earlier. Jane discusses the purpose she originally wanted the program to serve: “I really wanted to offer something for the person that I was at that time [when she first started farming], which was someone without a lot of money, really wanted to learn, and wanted some structure.” With the program in its sixth year, she has discovered that the benefits apprentices attain from working on the farm are “individually tailored” to each person’s needs:

[Y]ou get what you need from what’s out there....Someone comes and they’re very scattered in their mind, and they find some sense of grounding or simplicity. If someone’s the opposite, if they’re sluggish and can’t get up and go, they find some energy in themselves, so there’s a gift for each person who touches this work that is exactly for them, and it’s a slow and long process, so you don’t always see it, but if you see someone go through a six-month intensive program, you see it, and in many years, you can really see it. And then they in full take that on with them elsewhere in their
hearts. I just got a note today from an apprentice from last season, and she said – I was quite stunned – she said, “On a daily basis, something comes to me that I learned from the farm.” She’s not talking about what seed to plant; she's talking about some lesson or some person that she had an interaction with or the beauty of nature or anything like that, so I think that’s one of the work to do, and especially very natural when there’s a lot of women here.

Jane Farmer also speaks of the connection that her customers feel from their interactions with the farm:

[I]t provides a lot of connection and love out there…in the community that just comes back to you in the most surprising ways. A CSA member telling me, “It’s almost too much. It's changed my life to eat this way.” For some people, it does because they get this box of food connected with the farm, so [people are affected] in ways that are totally out of your control…. [T]here are many challenges for me doing this work – um, but it is also incredibly enriching.

All of these examples of women purposefully introducing non-agriculturalists to farming and ranching are further instances of using one's own power for the empowerment of other people (in these instances, through enhancing knowledge, ability, self-confidence, self-esteem, and personal understanding), which gives these respondents a sense of satisfaction, a sense of connecting to people who can help them with their own operations, and a sense of making it possible for other people to create their own triumphs both in and outside of agriculture. Jean Baker Miller (1991) asserts that she believes most women would be most comfortable “in a world in which we feel we are…enhancing the power of other people while simultaneously increasing our own power.” If power is the capacity to produce change, as Miller (1991, 198) believes, then these women have much power in the lives of other people and in the realm of agricultural production.

Despite all these inspiring stories and the feelings of replenishment a person can get from working on a farm or ranch, my respondents are very specific in pointing out that agricultural lives are not idyllic for those who live them everyday.
Agriculture is hard work; it is exhausting; it is frustrating, and it may not be healing or reconnective or therapeutic, especially if a person comes in looking for meaning and discovers lots of labor-intensive and redundant work that often falls to the mercies of the natural world. These women are very pointed in telling me that farming is not for everyone, and that people who think farm life is easy and without problems need to be informed about the very real stresses – economic, physical, and emotional – that a farm or ranch puts onto its operators. This is reality, as well, and it needs to be communicated.

Many of these women suspect that the reason for the renewed interest in agriculture is in part due to people’s nostalgia for a lifestyle that their grandparents and great grandparents lived daily. They feel as though they are missing part of their roots and want to return to an understanding of what that lost heritage means. Other people seem to be looking for a lost connection with nature, which they are most likely to associate with pristine wilderness, rather than seeing the potential for such an interaction via agriculture. Aggie discusses this mystification of nature and the demand many preservationists have made to keep land from being used for any purpose:

With...greater urbanization...open space becomes a source of something else in people’s minds whether they even know it’s conscious or not. It’s becoming a source of some other products besides meat, milk, trees. It’s becoming their spiritual...it starts to carry a much greater spiritual connotation...but...we can’t expect every acre, every open space acre to provide that person’s spiritual nourishment as well as his or her food, clothing, shelter. I mean, we just can’t get everything off every space, and it just, it’s part of becoming a more sophisticated world. We’re not worried about – the fact of the matter is...in this country...thank goodness...we’re not really worried about where our next meal comes from, so we’re starting to look for other things that we think we’re missing without realizing we may have to give up one of these basic needs.

If these people can be persuaded that a responsible, sustainable, non-corporate-industrial agriculture is a viable alternative to the non-use of open space,
perhaps they will become allies in the effort to ensure the “domestic survivability of agriculture” that Pumpkin mentioned earlier. As Georgia Brown sees it, innovative producers and forward-thinking consumers coming together to learn from one another and consumers directly supporting producers has the potential to transform both groups:

You can’t imagine... how neat it is to be in [a big city and] to go into a... store, doing a demonstration of our [products], cooking a little of our [product], having the people try it, and have them say, “Boy, we thank you for this. We really appreciate so much what you’re doing so we can have this wonderful [food]. We enjoy it so much.” And we turn around and say, “Boy, we thank you for coming in here and caring where your product came from and giving us the encouragement through your dollars and through your care and through your voice, keeping us on the ranch, letting us live these lives that we live out on the ranch.” But it is just a wonderful marriage of two societies together.

If both agriculturalists and the non-agricultural public worked to become better informed about one another’s realities, the resulting mutual understanding could serve as a communally-built foundation for local knowledge production and the creation of an agriculture and agricultural science that more completely serves the needs of all who enjoy its benefits.

Connecting with environmentalists

As I have divulged already in the discussion above, many of the farmers and ranchers with whom I spoke expressed concern about environmentalists making trouble for agriculture. Environmental groups and agriculturalists often have been antagonists since the issue of pesticide use became a hot topic in the 1960’s and 1970’s. Given the fact that industrial agriculture employs techniques that are quite detrimental to the environment – including heavy chemically-based
biocide use that often kills everything besides the crop itself (and can poison the people who have to apply them, be they farmers or farm workers), use of petroleum-based fertilizers that salinate the soil, tillage methods that cause extensive soil loss, heavy use of limited water resources, and planting of genetically-modified monocultures — it is not surprising that environmental groups have come down on agriculture-as-is and lobbied for ever-stricter regulations to restrict such practices.

Unfortunately, fervor over protecting the environment often blinds people to two other facts. First, not all farmers and ranchers practice agriculture in these detrimental ways. Many agriculturalists have a long history of using alternative, organic, or sustainable techniques to produce their crops. Second, whether they use more conventional techniques (not necessarily on an industrial scale or using an industrial philosophy) or more alternative techniques, many farmers and ranchers consider themselves first and foremost to be stewards of the land (although, as I have mentioned already, definitions of "stewardship" vary broadly from farmer to farmer), and they believe that taking proper care of the land is vital to their future livelihoods and to those of subsequent generations. As Aggie says, "If I mismanage [my operation] into the ground, I guess I'll pay the consequences, which is something, again, that a lot of people don't realize....[Y]ou know, we're not mining this ground. We're managing it to the very best of our ability." All of the women who brought up this issue heartily echo this summation.

Thus, people who live and work daily with the environment and who claim to love that land and water and air have their lives affected — often adversely — by a different set of people who also claim to love the environment but who often have no daily experience working in it. As a result, a deep distrust has been built between two groups of people who likely could be of great benefit to one another.

Amy, a rancher who uses more conventional methods, discusses this mistrust. When I asked her if she ever gives tours of her operation, she said she used to but stopped because she was afraid members of environmental groups
might come on the tours, see something they do not like, and complain. She also
uses the Internet as a tool to gather information that will allow her to stay
politically ahead of these people who she perceives to be adversaries. Marjorie, a
rancher who uses more alternative methods, feels she has become cynical about the
potential to educate people about the kind of agriculture that she practices:

What I find is that if it isn’t a sexy issue, the people really don’t care nor do
they really want to go to the depths of what being a rancher or a farmer is
like right now in this country, particularly a family farmer, particularly an
alternative farmer, rancher. It has very little romanticism to it when you’re
doing it. Hard work, no money, um, and I find that there’s very few people
who want to lend an ear at all about that. If it’s an issue around stream
banks or something that’s making the papers or the TV or “My God, we’re
ruining Mother Earth!” or whatever that may be, then I find all kinds of
folks who are willing to do a surface conversation with you, but the minute
you start talking about what life is really like in terms of the day-to-day
work of being a rancher, farmer, it’s like I find very little interest [from
people].

Public fascination with the negative issues rather than the daily lives or
even positive accomplishments of farmers and ranchers made other respondents
angry, as well. As Jane Rancher says:

[My husband and I are] into a lot of natural resource type of
education…. [Y]ou definitely do feel that need [to educate people], and it’s
very important….that’s a difficult thing because [resource management is]
not a mainstream news item. It’s only a mainstream news item when the
stream is damaged, but all the positive things that people who own the land
do to take care of it are frequently overlooked…. [W]e believe a lot of
propaganda in America, and I think that the anti-land use and anti-meat
propaganda has been much more successful than those of us who know the
true story. And that’s our own fault, but unfortunately we really haven’t
risen to the challenge of all the anti-propaganda, and that’s not just food
producing agriculture, it’s forestry and lots of other types of land-use kinds
of things.
As well as the focus on negative or “sexy” issues, these women feel environmentalists tend to think they know more about the environment than do farmers or ranchers. For Marjorie, these “surface ecologists” make more trouble than they do effective and positive changes:

[T]he surface ecologists, the folks who believe they have a handle on the truth around ecology but have yet to do a day’s work anywhere on the earth in their life and certainly don’t understand the business...they’re not looking at people like me who are doing this every day and who are absolutely committed and passionate about the health of this earth and the health of this air and the health of your cattle and the health of your food. I mean, we’re passionate about it. There’s some of us who are absolutely passionate about it who are not in love with folks who are surface ecologists who are doing this terrible damage.

These issues obviously stir tremendous passion in these women and cause them a great deal of frustration. How then can these disconnections between agriculturalists and those who advocate and make regulatory policy be bridged? Many of the same women who find environmentalists so troubling make the greatest efforts to talk with them about resource-use issues and agriculture. Aggie has been a member of several commissions and boards which have tried to create more equitable environmental policies. Her views about environmental advocates, regulatory processes, and her own role as steward of the land were all influenced by her involvement, as were her beliefs that good decisions arise from cooperation rather than out of opposition:

There is a role for regulatory...agencies. There is a public. There’s a public interest at stake....I learned a lot about the other point-of-view....[T]here are other ways of seeing things besides the way that I see them, and some of them actually have validity [chuckles]. Some of ‘em don’t [laughs], but some of them do....I think it broadened my world, and that influences me. I mean it did influence me. I met some very dedicated people whose values were equally as strongly held as mine and equally as well thought out – maybe even better in some cases. So I learned about listening. I learned about listening to other points of view, and...it’s
interesting because...I never minded listening to different points of view, listening to the recommendation of an agency, all those various things that go into making a decision. And I usually felt pretty good about arriving at a decision because it is a matter of taking part of this, partly from here, partly from there, and putting it together, and actually very often out of that...you get a reasonably good decision. I've never been comfortable being part of or listening solely to advocacy groups. "It's my way or the highway." I just don't think that's the way public policy should work because that's not good public policy....I also learned that those of us who live on the land know a lot more, and do a lot more, than most people think, and to this day I have trouble listening to other points of view...who rely on their decision-making as being [in opposition to rather than] developed out of something that's more positive.

Marjorie also feels that when local groups sit peacefully together and listen respectfully to one another's concerns and beliefs and different truths, then better, more equitable policy decisions are made than if they are mandated from a top-down agency, such as state government. When people refuse to listen and understand one another, "we so misrepresent each other by not knowing each other's stories" that little effective or satisfactory change gets accomplished.

According to Aggie, one Oregon environmental agency, the Oregon Environmental Council, recently completed a study with agriculturalists in Oregon; the study sought to discover the barriers to cooperation and trust that exist between environmental groups and farmers and ranchers. As Aggie says, "We should be on the same side." Thus, efforts are underway to engage these potential adversaries actively in meaningful dialogue. As Surrey (1991) discusses, as the number and diversity of connections one makes to unfamiliar perspectives increases, so does one's ability to understand and empathize with the broader "human" experience. Through this type of connection and understanding, a woman farmer or rancher may be empowered to respond with greater effectiveness to a variety of challenging situations — from difficult or disconnected customers to antagonistic (or even sympathetic) environmentalists — thus enhancing the opportunities for united action to create a positive change in agriculture. By listening to and understanding one
another’s concerns, these groups have the chance to create alliances to advocate for an agriculture that is environmentally, economically, and socially responsible and fulfilling.

Connecting among farmers across paradigms

Although the issue of disparate agricultural paradigms is prominent in rural sociological literature, most of the women with whom I spoke did not wish to speak ill of methodologies different from their own or the people who employ them. They want to acknowledge that these divergent paradigms – conventional, sustainable, and alternative – exist because there is a market for the products from each type of agriculture. Much of the consuming public wants cheap food without having to worry about where it comes from, and so a more industrial agriculture is in place to serve that desire, as well as the perceived need for massive production of food for a growing global population. Alternative agriculture, including organic methods and direct marketing of products to customers on a local scale, exist because many other consumers are worried about the quality of their food and the health of the environment, and many wish to have a connection to the people who grow their sustenance. These people are willing to pay a higher price in order to support agriculture of this kind.

Further, many conventional farmers and ranchers can see the ill effects of some of the techniques they have become accustomed to using, and they are transitioning from conventional to more sustainable methods. Such methods include the use of fewer chemically-derived biocides and fertilizers in a more precise way, the implementation of techniques such as integrated pest management (IPM) and the use of green manures, and tilling the soil in different ways to maintain soil structure and lessen erosion. Sustainability, as I have mentioned, not only involves environmental health but also social and economic well-being.
These farmers and ranchers also have found a ready market for their products and the philosophies which guide their methodologies.

My respondents perceive a place for all different types of agriculture but feel strongly that the methods they use are best for them and their operations. They want to make very clear that they are doing the best job they can to provide the kinds of products that people seem to desire. Still, there is some apparent frustration and polarization around which methods are most appropriate, who is being the most responsible steward of the land, and who is practicing the type of agriculture that will best fit the needs of humanity. There also is a bit of resentment at any implication of irresponsibility. When I asked Ellen why she chose to use “earth friendly farming practices” (as advertised on her brochure) over more conventional ones, she was quick to point out that

I’m not really “Miss Organic” because I think there’s pros and cons to both ways of doing things...but...when you’re selling right face-to-face with the consumer and they’re asking you how you take care of your [land], what are you doing...um, I just kind of chose to do it that way.

She and other women closely associated with other farmers who use more conventional methods also wanted to point out that those farmers are using cutting-edge techniques to ensure they do as little damage as possible to soil, water, and air.

Some techniques also are viewed as “kookier” than others, especially organic or other alternative methods. These farmers often are not taken as seriously as their more conventional peers. Thus, there is room for a renewed respect and understanding of agriculturalists across these often divergent paradigms. Jane Farmer feels there is potential for unity across difference:

I’d love to see [agriculture] less polarized. I certainly state my position [that I am] a very strong advocate for more of what we do [organic farming], but I don’t eschew any of the other systems. I’ve met plenty of
conventional farmers who are highly responsible, sensitive people who make choices which they feel backed into, and I’ve met some very arrogant, irresponsible organic farmers who are motivated by profit and not too specific about what they do and who are rude to their workers, so it’s a lot of gray area out there, and if we can remove some of the polarization, perhaps dialogue can happen amongst all farmers. I identify with all farmers even though sometimes some, if you read like the Capital Press or the Grange Mutual Newsletter…you can get that kind of voice out there that says “Those damn environmentalists! We’re trying our best, and they’re trying to take us down!” So there’s a lot of energy for polarization, but I think what you’ll find when you really touch people is something in between. The farmers have a common experience whether you’re out there with a spray rig sometimes or you’re out there harvesting beets by hand, the premise is, it’s the touch with the land, and because economics is almost no motivation in any of it, there’s another connection why people continue to do it. There’s a real love and passion and craft to the work that is shared. I don’t really know how that polarization will dissolve, though…[P]robably the large organic farms are the link.

Jane is referring here to large-scale farms that are trying to produce massive quantities of one crop using organic methods. Some of these farms are particularly successful, among them Lundberg Family Farms, an organic brown rice producer in California. Although these farms resemble industrial farms in their size and focus on a single crop, they espouse a philosophy aligned with the organic movement; their goal is to produce a large amount of food using “methods of farming that care for the soil, wildlife, air and water” (Lundberg Family Farms Homepage, No Date).

Given the need for unity of purpose in order to preserve and sustain a socially, economically, and environmentally beneficial agriculture in the United States, the creation of alliances among producers across paradigms is as vital as the formation of connections between agriculturalists, consumers, and environmentalists. These alliances may have the combined power and clout to make effective changes in agricultural policy at the local, state, and federal level, changes that would benefit all parties involved.
FIRST THOUGHTS

This thesis originally was going to center on the types of technical agricultural knowledge that women farmers and ranchers need in order to run their operations in the manner they want. My intention was to discover whether or not my informants experience gender bias in their acquisition, use, and sharing of agricultural knowledge. While I made some discoveries regarding this line of questioning, I also found that “agricultural knowledge” is comprised of much more than technical know-how, and it is much more diverse than non-farmers and ranchers might ever suppose. This knowledge is based in part on the need to grow products to sell to consumers, but it also is based on the desire of farmers and ranchers – at least those to whom I spoke – to make sure agriculture as a craft and a way-of-life can be sustained into the distant future.

Agriculture in the U.S. is extremely difficult to elucidate fully. For example, the term “family farm” can mean anything the person using the term wants it to mean. If a family owns the operation, it can be called a “family farm,” but that does not mean it is a small-scale operation on which the family that owns it lives and works and from which that family makes the majority of its living. While all of the women to whom I spoke would view themselves as family farmers, some of them are incorporated, some of them are vertically integrated (production, processing, and marketing all occurring on the farm), and some use huge amounts of land to grow their products – all perceived characteristics of a more industrial agriculture. I would like to stress that none of these women operates a farm or ranch that resembles the factory-type operations that have made agriculture an infamous profession.
I also want to stress that the results of this study cannot be generalized to the entire population of women farmers in Oregon or in the United States. They only offer a glimpse into the issues around gender and agricultural knowledge that were important to these specific women at the particular point in time that I spoke with them. These results may point to future research questions and hopefully do add interesting new insights to the research that already exists on women in agriculture, local knowledge, and the future of agriculture in the United States.

One of the most important things upon which I can comment regarding the women in this study is their diversity – some are ranchers and some are farmers. Some use conventional methods; others are transitioning from conventional to sustainable practices. Some always have used sustainable methods and have no intention of becoming organic, and some always have used organic methods. They entered agriculture through a variety of avenues. Some want to remain in agriculture forever and pass their operations to their children; others cannot see a future for their operations beyond the time they have left in the business. Not everyone is politically active nor thinks it is necessary to be, yet several feel it is the most important thing they can be doing. Almost everyone reaches out to customers, but each woman does so in different ways.

Regardless of this diversity, they feel similarly about several things. As to agricultural knowledge, they look to and desire to have a variety of resources, both conventional and unconventional, to fill their needs. The most important knowledge resource to which they have access is their own experience gained from a long-term relationship with their land and their methods.

Regarding gender, being women in agriculture has certain challenges, but they are determined to adapt and to be successful in their profession whatever these challenges may be. They mostly see gender bias as an individual problem with individual solutions, although some efforts to change the gendered structure of agriculture have been made. Being a woman in agriculture also has some advantages that balance the challenges. Although they have been hindered in some
ways from acquiring, using, and sharing their knowledge, they have found other avenues for satisfying their requirements.

Regarding the value of agriculture, there is a general sentiment that agriculture is beneficial for people in ways they cannot imagine until they experience the work, the difficulties, and the joys. Also, there is a very great certainty that a healthy, diverse, and wide-spread domestic agriculture is key to national security and survival. Finally, most women in some way express their beliefs that reconnecting agricultural producers and consumers is key to maintaining agriculture in the long-term.

MEANINGS

These women’s revelations offer some powerful insights into the gendered construction of local knowledge, a “successor agricultural science,” and the farm itself as a place of self definition and empowerment. First, a local knowledge that will serve to help create an alternative “successor science” must be composed of more than farmer knowledge (Kloppenburg, 1991) and must consider more than the gendered power relationships on the family farm (Feldman and Welsh, 1995). Such a local knowledge also must include the needs, concerns, and desires of the diversity of people whose futures depend on the adoption of a truly sustainable agriculture – from producers to consumers to environmental activists. It must include not only information about production, processing, and marketing methods but also the knowledge of the value that agriculture has for individuals, for culture, and for society. This knowledge is partly scientific, partly experiential, partly comprised of logic, of emotion, and of spiritual belief. It is derived not only from researchers and practitioners, but also from consumers and activists. These myriad understandings should be used to create a more complex wisdom that is key to creating an agriculture that can survive and thrive.
Second, the farm appears to me to be a powerful potential location for the intentional construction of life and of power relations as desired by those who live and work thereupon. One can construct family life according to one’s desires and can provide a space for children to learn skills and values possibly not available to children off-farm. One can construct “family” itself to be as one wishes; thus, a “family farm” might consist of same sex partners, a group of women, a mixed-gender group, or a group of men, as well as the more traditional heterosexual couple (see Sachs, 1996, 138). The power relationships on a farm do not have to be circumscribed by patriarchal traditions; a woman’s power and authority can be equal to that of a man’s, as long as both parties are willing to negotiate that potentially hierarchal relationship. The farm or ranch also is not solely a site for production of food and fiber but also can be a place of connection-to and reconnection-with for those who add their labor to the land.

The question then arises: should a farm or ranch be shared with those who do not own it? Not necessarily, but agriculturalists should realize that the urge that many people feel to reconnect with and to protect the land may drive them to make unreasonable requests of those who practice agriculture. By helping people to reconnect with the land in meaningful ways, whether that means offering one’s farm as a place for people to work or offering one’s knowledge of the deep significance that agriculture has for oneself, farmers and ranchers have the chance not only to enhance people’s relationships with the land but also to increase the chances of the survivability of agriculture.

Third, these women farmers and ranchers appear to have created a variety of gendered knowledges that help them successfully negotiate through a sexist system of production in order to be innovative, to organize their lives in ways of their own choosing, and to practice an agriculture that aligns with their individual philosophies and goals. These individual meanings are not the only benefits of their gendered knowledges; they also have been able to use their experiences as women to connect in meaningful and productive ways with consumers,
environmentalists, politicians, and other agriculturalists across paradigms. These connections, born from the need to recreate and redefine agricultural practice itself and nurtured in the minds of women willing to facilitate those changes, have the potential for empowerment and alliance building beyond these women’s immediate spheres of influence.

Thus, agriculture may be viewed as a medium that offers reconnective potential for people with the land, with the cycles of nature, and with demanding but productive labor whose rewards are both immediately and seasonally apparent. Agriculture, in particular forms, can be seen as a way to end people’s alienation from work and from the products of their labor (an idea that is not new by any means, as it was put forward by Marx and Engels in discussions of communism). Agriculture might even be a way to re-envision ecofeminism, transforming it from something based in theory and abstraction to something based in practice and experience. This idea has been put forward by Sachs (1996) and should be pursued in an effort to make practical a theory whose goal is the liberation from oppression of both human and non-human nature.

The most striking examples of ecofeminism-in-practice are given by my respondents as they relate the ways they have seen people’s lives, including their own, changed through working with the land. The personal and emotional meanings these women have discovered for themselves and others are impressive and powerful in a world where facts and statistics dominate. The intellect tells much, but that which is emotional, that which stems from passion and love and deep care for place and moment-in-time is equally telling. I believe these pieces of knowledge are the ones that have the greatest power to move and change minds and hearts, relationships and policies.
I feel it is necessary to address Extension services to farmers and ranchers in a separate section of these concluding remarks. Extension has been lauded as a great and powerful informational tool for agriculturalists for more than a century; in fact, as I have mentioned previously, Extension services were designed specifically to provide a particular type of information, that based on scientific, "expert" research from land grant universities, to farmers in order to maximize their productive potential. Farmers thus lost their status as independent knowledge producers and experts and became recipients instead, recipients who began to be categorized by their willingness or reluctance to adopt recommended methods and practices (Rogers, 1995), thus having judgments placed on them for how readily they accepted scientifically-derived information.

A particular type of Extension also was created to pass along information about the "science" of home economics to farmwives; this information was designed to make these women feel like they were doing something more rewarding than performing housekeeping chores (Sachs, 1983; Ross, 1985). Thus, Extension services also created an ideal farm woman when they created an ideal (male) farmer. Each farmwife was to strive to reach this ideal in order to fulfill her "duties."

Seen in the light of intentional, officially-mandated construction of an institution for the particular purpose of creating and maintaining a new industrial agrarian model, OSU Extension's purpose, to educate "by delivering research-based, objective information to help [Oregonians] solve problems, develop leadership, and manage resources wisely" (OSU Extension Service, 2001; emphasis mine), becomes a highly problematic statement. It first relies on the false notion that research-based information is objective. As I already have stated, science is a socially-constructed knowledge form just as any other. People who have access to resources and institutional power decide which issues are important for them to
study and research, then, through a particular type of research methodology which
relies on a variety of assumptions about nature and Truth, they seek to find answers
which they then will impart to passive recipients, in this case, farmers and ranchers.

This model, for some time, has not taken into consideration the knowledge
that agricultural craftspeople have created for themselves, nor has it considered the
variety of techniques and resources available for farmers and ranchers who
question the dominant industrial agricultural paradigm. Extension is just beginning
to incorporate cooperative learning and research models into its programs, and it
must continue to consider further the informational needs of agriculturalists beyond
“how-to” knowledge. For example, coalition building workshops may have
incredible potential to help farmers and ranchers begin to cooperate more not only
with one another but with customers and agricultural “antagonists,” such as
environmentalists. Also important would be the truly timely release of research
results to farmers (Cocoa, for example, believes that researchers keep much of “the
good stuff” to themselves initially). Extension might also recognize the value of
communicating farmer knowledge to researchers, not just researcher results to
farmers, and the merit of communicating the value of agriculture to the non-
agricultural public. Jane Rancher feels there should be some sort of informational
mediary between farmers and consumers:

I’ve actually thought that universities oughta offer a major doing just
that...so that we could perhaps get some sort of an honesty in media kind of
campaign going...[I]t’s very frustrating because the opportunities for that
education are very limited...[U]nfortunately most rural areas are
agricultural, most cities are not, so the information needs to be disseminated
into the cities, not in the rural areas...[Y]ou can’t preach to the choir.

This is a role Extension might fill admirably, as long as they represented a diversity
of farmers and ranchers and related their information with the knowledge that it is a
partial perspective on and knowledge about agriculture.
Finally, Extension might begin to consider the particular roles that gender plays on an operation beyond the kitchen door. Although most of my respondents feel they have been treated fairly and with respect by Extension agents, there still is an unrecognized role that Extension might play in the development of women farmers' knowledge: that of connecting women farmers and ranchers to one another so that they might share their experiences as women in this profession. Hassanein (1997) discusses the valuable connections made in a women farmers' network in Wisconsin. This network's mission is to “inspire women farmers with a strong support network that promotes successful sustainable farming. We will share personal experiences, technical information, and marketing strategies” (254). These women discovered that the content of their knowledge is affected by their gender and that they construct particular pieces of knowledge specific to their gender in the effort to overcome obstacles related to their gender.

Most of my informants do not mention having significant informational exchange or support relationships with other women farmers. While they may not recognize the value these types of relationships might have for them, the results of bringing them together to “share personal experiences” and general knowledge might have a profound effect on the ways they practice agriculture and perceive themselves as members of this profession. Extension might be able to play a significant role in the creation of such a network, as long as it played a peripheral, rather than a defining, role in its creation, thus making a space for women to define themselves and construct their own meanings and beings in agriculture.

RECOMMENDATIONS FOR FUTURE RESEARCH

Several of my respondents express interest in research on women and agriculture, giving particular thoughts about what should be studied. Aggie is interested in discovering the ways that movements for social change, such as the
women's movement, have affected "tradition-bound agriculture" and rural areas. She believes that social change movements have the power to move agriculture out of its tradition-minded rut and into a mindset that will be more productive and beneficial for those both in and outside of agriculture. Sarah Bea thinks it would be interesting to find out whether women's experiences in organic agriculture are different from those who use more conventional methods. Some research already has been done regarding this issue (Gershuny, 1991; Meares, 1997). Pumpkin thinks it would be most useful to study health care issues of women in agriculture. She believes that women in agriculture often think they have to be tough, so they ignore pain and other indicators that something might be wrong with them. She wants to know how long treatment of diseases such as cancer is postponed and how many women find out they are sick too late to receive treatment.

Another line of research that often is suggested but rarely is pursued would seek to answer whether difference makes a difference. In this case, does difference make a difference to the value that people place on agriculture for themselves and others? Does gender matter? Does race/ethnicity? Sexuality? Age or class or ability or religion? Paradigms? What would different groups have to say about whether they think agriculture is a good thing for individuals and for culture and society? Are they able to create the culture, the family life, the meanings that they want from agriculture? Is agriculture really a malleable medium? Is agriculture worth preserving? Does it need to change? In what ways?

Also worth pursuing would be the idea that one's ownership of the land that is farmed has much to do with one's connection to agriculture, the value one places on agriculture, and one's feelings about its need to change or even survive. Those who own but do not work on their land may feel very differently and subscribe to different paradigms than those who own and work on their land. All of these people likely feel very differently about agriculture than people who work on but do not own the land and resources, be they migrant farm workers or long-term cowhands.
Finally, I would love to know if women farmers and ranchers really are taken as seriously by their peers as they believe themselves to be. Do male colleagues, information providers, suppliers, buyers, and customers perceive women agriculturalists the way these women think? Are they and their abilities respected and utilized or disdained and ignored? To uncover the answers to these questions, interviews with men are most definitely in order, especially since this particular line of research has very rarely been pursued (Gershuny, 1991).

GENERALLY SPEAKING...

Given the information these women gave me, I feel I can make particular statements about what needs to be done with agricultural knowledge and with alliance building around agricultural issues. Agriculturalists need to have ready access to a variety of information from a variety of sources about all the things they do. Pertinent information includes production, processing, and marketing techniques; regulatory changes and lobbying efforts; potential alliance and coalition partners and how to connect with them; ways to transition from conventional to sustainable agriculture that are economically viable; and information on recent innovations and whether those innovations soon will be obsolete (thereby diminishing the need to modify what will change in a couple of years anyway, thus avoiding additional accumulation of debt). Farmers and ranchers also need to know all the resources available to them and to have the confidence to access those resources.

Scientists should be more forthcoming with information and should recognize that they may be pursuing questions already answered in part by those they are trying to serve. There should be a more equal exchange of information between researchers and Extension agents and farmers and ranchers; many of my respondents said they often use Extension and research knowledge but rarely
pursue the possibility of giving information in return. Whether this is because they feel they have no useful information to give or because researchers and Extension agents do not seek it out was not discussed, but is alluded to in Kloppenburg (1991).

Farmers and ranchers – or their advocates and allies, who may have more time, energy, and resources – need to be able to educate people in order for agriculturalists to be given a fair deal. Difficult as it may be, in order to remain viable in a very contentious marketplace, it seems that farmers and ranchers may need to break away from traditional commodity agriculture and connect with customers who want to understand where their food comes from. Although it may not be necessary for all agriculturalists to do, direct marketing of one’s products to local or regional customers not only enhances agriculture’s visibility and reconnects consumers with the people who produce their food; it also gives farmers and ranchers access to stores of knowledge rarely tapped in commodity markets – the knowledge, desires, concerns, and questions of the people who buy and use their products. The information and knowledge that exists and can be exchanged between producers and consumers is one further piece of the local knowledge-successor science puzzle that must be addressed.

Finally, if a “sustainable successor agricultural science” based on local and scientific knowledge and an understanding of the gendered power relations that comprise agriculture is to be created, then the men who make up the vast majority of farm and ranch operators in the United States must recognize the knowledge that their female colleagues possess and be willing to listen to and share that information. There must not only be tolerance but also respect for the differences that may come up in such an exchange. Georgia believes that her cooperative is so successful because there is such a distinct effort made to listen respectfully to everyone in the group, no matter their gender or their inclination to be more conventional or more innovative. People listen to each other, understand one another, and make decisions based on the collective good. This communally-based
knowledge founded in a diversity of viewpoints seems to me to be the most likely to succeed in breathing new life into agriculture – both for women and for men.

LAST WORDS

Although some of these conclusions may be put to practical purposes I cannot yet conceive, still questions linger for me. What, finally, can be made of all this information, all these interpretations? Are they really of value? Do they have meaning beyond that of personal inspiration for the one who gathered and made them? Will those who gave their time to me ever realize how deeply they have affected my outlook and my understanding of agriculture and women’s knowledge and each person’s potential to create meaning and to affect change? I have come to realize that the power of the researcher lies beyond the ability to create one’s own meaning from the meanings of others, and it lies beyond her ability to selectively discuss Truth, Significance, or Knowledge. I am not just the writer of this discussion but also the possessor of the words that made its creation possible – or perhaps keeper would be a more appropriate envisioning of my role. However I choose to view my role, I have pages and tapes and disks with these women’s words upon them. Whether those words are true for each woman now that several months have passed, I cannot say. Truth and reality are ever changing, ever mutable. What I can say is that the truth they contained within the moments they were spoken is something I can look back to whenever I wish, something I can learn from or even base future research on. This research has created for me a beginning. My growth and potential from those short encounters will have far more benefit for myself than they ever will for those women who so graciously shared their time and their knowledge with me. How can this effort be properly feminist given such circumstances? How can I take this power I unwittingly have been given and make something good and just?
I believe it is important to take this research as a lesson for myself. I will not be truly satisfied with any of my work unless it benefits the people with whom I am working or the places where my feet have walked. I have learned the necessity to myself of doing research that is participatory and action oriented, seeking the involvement of those I wish to help or to learn from, so that it may be beneficial not just for myself but also for others.


Respondent pseudonyms (self-selected) and pertinent personal characteristics.
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<th>age</th>
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<th>total years on this operation</th>
<th>type of operation</th>
<th>marital status</th>
<th>partner in agriculture?</th>
<th>education</th>
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