Women Farmers in Minnesota and the Post-Productivist Transition

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This research on women farmers emerged as the result of uncovering a gendered spatial differentiation of farmers in Minnesota. Women farmers are more likely to cultivate marginal agricultural land and operate farms that are remarkably different from their male counterparts. The post-productivist transition in agriculture helps explain the spatial differentiation between male and female farmers, but fails to provide answers to the question of why women farmers are engaged in alternative production. Using a survey and in-depth interviews, I attempt to contextualize a small group of women farmers as agents of change in agriculture through their marginalization from productive roles in industrialized agriculture, and through their adoption of a feminist environmentalist ethic towards agricultural production. The correlation between independent women farmers and alternative agriculture, together with the increasing numbers of women farmers in Minnesota suggest the possibility of a transition to a post-productivist agriculture, in part led by women.

Keywords: Productivist agriculture, post-productivist transition, women farmers, Minnesota, agricultural census data, qualitative methods.

The increasing mechanization of agriculture and the ensuing demise of the family farm in recent decades is well documented (Sachs, 1983; Jellison, 1993; Leckie, 1993a; Neth, 1995). Equally well documented is the gender division of labour on family farm operations in the United States (Buttel and Gillespie, 1984; White, 1984; Fink, 1986; Shaver, 1990). However, current literature reveals very little about women farmers independently operating their own farms, or women who are considered responsible for day-to-day decision making on a family farm.

Research indicates that women farmers are a diverse and significant group within the agricultural community, and their contribution to farming and interests as a group have been overlooked (Sachs, 1983, 1996; Rosenfeld, 1985; Fink, 1986; Jellison 1993). Feldman and Welsh (1995) note that ‘agribusiness’ (the invention, production and marketing of new farming techniques, equipment and products) and government policy are informed by research on farmers that is conducted by universities and government agencies. Marie Hoff, (1992) and Gloria Leckie (1996) claim that this research has been focused on the farmer ‘he’ rather than the farmer ‘she’ or farmers ‘them’, and the resulting innovations in technology and agricultural training have been directed towards male farmers. In addition, research directed at women
farmers and rural/farm women suggests that women are impacted by agriculture in gender specific ways (Sachs, 1983; Jellison, 1993; Leckie, 1993a; Neth, 1995).

Conducting gender analyses in agricultural research has the potential for identifying previously unknown sources of variation, and ensures that agriculture will be more thoroughly described and understood (Feldstein and Jiggins, 1994). This paper contextualizes women farmers as distinct and active participants in a restructuring of agriculture. This restructuring, theorized as the ‘post-productivist transition’ by Brian Ilbery and Ian Bowler, is characterized by a movement away from intensive agriculture, and emphasis on food quality and sustainable farming systems (Ilbery and Bowler, 1998). This paper ties together the multiple strands of post-productivist transition theory, theoretical work on women and agriculture, as well as my own research on women farmers in Minnesota to explore the connections between women farmers and the post-productivist transition.

A Critique of Productivist Agriculture

Agriculture has undergone significant restructuring in the years after World War II (Marsden et al., 1986). The result of the shift from farming as a family business to farming as a sector of an integrated agro-food industry has come to be called ‘productivist agriculture’ (Lowe et al, 1993). Troughton (1986) claims this industrialization is the ‘Third Revolution’ in agriculture, where numerous small-scale subsistence agri-cultures are converted to fewer, larger scale and more capital intensive and specialized operations. However, the conversion of capital intensive, specialized farms occurs unevenly, and smaller less capitalized farms persist with the “new spatial divisions of capital and labour” (Marsden et al, 1987:299). Lowe et al (1993:205) emphasize that government policies influence the capitalization of farms by placing “an overriding priority on the production of food”. Yet, recent changes in agricultural policy and consumer demands have led to the demise of such influence, and “new political and economic opportunities” have opened up in rural areas (Lowe et al, 1993: 205). Within this context, Ilbery and Bowler (1998) have developed a theory of the post-productivist transition, where farmers are refashioning the productivist model of farming. The following section reviews Ilbery and Bowler’s critique of productivist agriculture, and the development of the post-productivist transition.

Three processes that are characteristic of the development of productivist agriculture are: intensification, concentration and specialization. Intensification is characterized by an increased reliance on machines, increased application of chemicals and biotechnologies, and an expansion in production. Concentration results in an increase in the average size of farms (total acres and total production) and a decrease in the total number of farms. In order to facilitate intensification economically, many farms engage in specialization. Specialization is the process whereby farmers limit their main income producing products to one or two products rather than several different types of products (Ilbery and Bowler, 1998).

Ilbery and Bowler (1998) identify two types of environmental manipulation that result from the practices of productivist agriculture: “increased energy flows and modification of natural components within a farming system” (Ilbery and Bowler, 1998:67). The application of an inorganic fertilizer such as nitrogen results in a build up of nitrates in water supplies, as the systems to which they are applied cannot effectively process the extra nutrients. Nutrients intended to boost crop yields are applied to fields, and the extra nutrients are dissolved and stored in water supplies. Similarly, the application of pesticides to a field affects plants and animals that are considered pests as well as those that are not, including beneficial insects that act as pollinators and natural predators of crop pests. In addition, intensive agriculture often depletes soil of nutrients, particularly nitrogen, which results in increased application of nitrogen from outside the system, and monoculture often robs soil of the protection of vegetation, resulting in serious soil erosion.

Modification of natural components in farming systems is the process of removing natural features such as wetlands or windbreaks in order to facilitate the exploitation of land for agriculture. Wetlands serve as natural filters of runoff and when they are removed, the natural system is less able to process the chemicals and nutrients applied from outside sources. ‘Farming fence-row to fence-row’ came about as farmers began to cultivate as much land as possible to intensify production. This resulted in the removal of the groves of trees that sheltered fields from
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**Women as Producers**

Women who work on farms are often defined in relationship to the male individuals of the farm and are referred to as 'farmwife', farm helper or sometimes, farm partner. Even women who shoulder full responsibilities for production with men often do not identify themselves as operators (Rosenfeld, 1985). Although this dichotomy has existed throughout the development of agriculture in market economies as a gendered division of labour on farms, the division between farm men and women has grown with the development of productivist agriculture (Jellison, 1993; Neth, 1995). Today, women who choose to engage in farming as a profession encounter various gender-specific barriers and resistance to their legitimacy as farmers (Leckie, 1993a). These factors marginalize women from industrial agriculture, and I suggest that these events can be constructed as the rejection of women as producers by gendered and patriarchal productivist agriculture.

Katherine Jellison (1993) and Mary Neth (1995) document how the processes of modernization and capitalization in agriculture marginalized farm women from their roles as producers to roles of helpers and farmwives. Previous to World War Two women’s work on farms largely revolved around the productive activities of gardening, raising livestock and poultry and helping during harvest times, as well as the reproductive activities of housework, childcare and cooking for hired labour. Although gender defined the kinds of activities farm women and men engaged in before the war, modernization and specialization...
of agriculture after the war altered the farm work culture. Farm women lost control of their productive enterprises, were encouraged to become homemakers and consumers, and eventually became defined as helpers in the productivist food regime. Women no longer produced farm products for consumption and sale, they became labourers or investors in a commercialized farm enterprise controlled by men.

Deborah Fink (1986) describes the development of the poultry industry in Iowa and its impact on the social and economic status of women on farms in Open Country Iowa. Between the years of 1929 and 1974 egg production in Open Country Iowa was removed from the sphere of labour intensive ‘women’s work’ on farms and converted to a capital intensive and commercialized industry controlled by men. The labour (women’s) involved with raising the chickens on family farms and the food they consumed were considered free and therefore the sale of the chickens and eggs was highly profitable. Seeing the profitability of poultry, the Iowa State College and the Extension Service began developing programs to improve and intensify the production of poultry and poultry products. In 1929, the average size of a flock in Iowa according to Iowa State Extension was 125 hens, and over 95 percent of all farms reported having a flock. By 1978 the average size of a flock was 595 hens and eggs had become a specialized commodity produced by less than six percent of all farmers. Women lost control of poultry production in Iowa because they did not have access to capital and credit, and could not increase production to compete with larger scale producers. Fink concludes: “Far from liberating women, progress in the egg industry forced most women out of business and marginalized the rest” (Fink, 1986: 159).

The gender division of labour on family farms serves to define the kind of work that women do on farms, and often this gendered work culture is transmitted to the children of farmers as well (Leckie, 1996). Gloria Leckie, in her collection of life histories of women farmers in Canada, found that the kind of work farm girls were allowed to do depended largely on what kind of work their parents, particularly their fathers, decided was appropriate work for girls. The women farmers Leckie interviewed indicated that some had fathers who encouraged them, but many did not. This lack of encouragement and hence lack of education about farming was a major obstacle to women attempting to enter the agricultural industry. Leckie also notes that not only do girls and boys often inherit different work culture from their parents, but adult women also struggle with challenges to their legitimacy as farmers when they attempt to enter the male-dominated profession of farming. These challenges are personally defeating to women farmers and the suspicion and hostility generated from them often results in further limiting the pool of available information resources (Leckie, 1993a, 1996).

The commercialization of agriculture in the United States removed the need for women’s farm labour by replacing human labour with machinery. Women’s roles on farms became institutionalized as one of farmwife akin to the suburban housewife, with the status of the family in the community dependent upon how modernized the farmwife’s kitchen was, and how little she helped with farm work. Acceptable work for women on farms now includes errand running, housework, gardening and farm work ‘as needed’. Furthermore, when women do attempt to assert the identity of farmer, they are met with resistance and challenges to their legitimacy and ability. The barriers to women’s full engagement in productivist agriculture are institutionalized and currently still present in many places.

Women who wish to farm therefore must do so outside of the productivist farming community and industry.

Have Women Rejected Productivist Agriculture?

There is a body of thought that suggests that women may be informed about environmental issues in ways that are separate and different from men. This discourse, also known as ecofeminism (Mies, 1993), suggests that women have a unique understanding of the environment, because, historically, patriarchy has marginalized women and nature in similar ways. It is useful to explore the discourse of ecofeminism in the context of the detrimental environmental consequences of productivist agriculture and the marginalization of women as farmers as decision makers within the productivist food regime. Ecofeminism takes many forms, is embodied in a variety of ideologies and many of its basic principles are contested and debated. However, the idea of a linked oppression of women and the environment by patriarchal societies and the push for a
reconceptualization of the relationships between people and the non-human world remains at the heart of ecofeminism.

Bina Agarwal rejects the idea that women have an innate intimacy with nature, and puts forth the idea that a relationship between women and nature is constructed in certain contexts. Rather than being intrinsic to the nature of women, a consciousness and sensitivity to environmental degradation is “rooted in their material reality, in their specific forms of interaction with the environment” (Agarwal, 1992:126). She gives the example of peasant women who traditionally collect, food, water and firewood in the forests around their village, and whose workload increases substantially with deforestation and contamination of water supplies. “They could thus be seen as both victims of the destruction of nature and as repositories of knowledge about nature, in ways distinct from the men of their class” (Agarwal, 1992:126).

Carolyn Sachs echoes this idea in reference to the contributions by women to the sustainable agriculture movement. Women’s marginalization or exclusion from capital-intensive agriculture and large-scale landholding encouraged them to develop particular forms of labor saving and land-intensive practices. These practices, often viewed as backward and a hindrance to agricultural development efforts are now being reformulated as ‘new’ approaches to agriculture, with only rare acknowledgment that many of these new approaches derive from women’s traditional practices (Sachs, 1996: 58-59).

Sachs (1996) goes on to explain that some of the environmental impacts of productivist agriculture are gender-specific, which could result in women having an increased awareness of the ecological harm caused by industrial agriculture, and perhaps more importantly, a significant reason to protest and revise industrial agricultural practices. Sachs has documented several practices of productivist agriculture that degrade the environment and impact women’s health and well-being in particular. Two of these practices are specific to industrial agriculture in a developed market economy: the use or overuse of inorganic fertilizers, and the use of pesticides.

Sachs argues that “Women are more vulnerable to the effects of pesticides than men, but U.S. government policy sets pesticide health standards based on the effects of pesticides on the healthy adult male” (Sachs, 1996). Drawing on the theoretical work of Sachs and Agarwal, I suggest that some women engage in the post-productivist agriculture as farmers because they reject the environmentally costly practices of productivist agriculture.

**Study Methods**

To understand the experiences and motivations of women farmers in Minnesota, and to investigate the links between post-productivist agriculture and women farmers, data from the U.S. Agricultural census (USDA, 1997) were combined with a postal survey and in-depth interviews with women farmers. This follows suggestions for a feminist methodology, set out by Rose (1993, 59), that can bridge research divides and that uses “combinations of methods in complementary ways” to provide ‘triangulation strategies’ for verification. Complementing quantitative data with qualitative data also provides a ‘detailed view’ of the research that the census data do not allow, and it also allows the research subjects to be studied ‘in their natural setting’ (Creswell, 1998: 17).

A graphical exploration of the census data revealed several patterns that indicate a relationship between women farmers and post-productivist agriculture. I mapped several of the variables (male and female operators and commodities produced by county), and created tables of the other variables, and visually compared them for patterns. To investigate the census statistics and contextualize the patterns that emerged from these data, I conducted a small survey of women farmers in two different counties of Minnesota. The purpose of the survey was to contact individual women and collect basic information about their lives as farmers. This served as a way for establishing an opportunity for in-depth interviewing. The eight women I surveyed were identified through local informants based on their identity in the community as a farmer, and care was taken to include women involved in a variety of production types. The survey was approximately two pages long with ten questions regarding operator status, household composition, production information, conservation practices, and agricultural issues important to them. Rosenfeld’s 1985 survey of farm women served as a guide for the questions, and I followed Sheskin’s (1985) model for conducting mail survey research. A question was also included which invited women to respond if they would like to participate in an interview.
Five women responded to the survey, and three consented to an interview. The interviews were conducted at the farms of the respondents and lasted approximately two hours, which included a tour of the farm. The interviews were designed to investigate both the patterns emerging from the census data, as well as explore their motivations for the way they were farming, and their experiences as women in farming. The interviews were semi-structured, not-recorded and included follow-up questions regarding conservation and farm practices from the survey, as well as new questions regarding their experiences with discrimination, the 'farm crisis' and the agricultural community. The interview questions also followed Rosenfeld's 1985 Farm Women Survey. The women I interviewed can be considered individual case studies, and they complement the aggregate level analysis of the agricultural census data by linking information about individual farms with information on the personal experiences of the farmers.

Creswell’s (1998) techniques were used for analyzing the results of the survey and interview. The purpose of a case study is provide a "detailed description of the case and it's setting" (Creswell, 1998, 153). I followed a 'categorical aggregation' analysis, which examines the data for common themes and emerging meanings, such as common concerns and perceptions of the farm crisis. I also applied naturalistic generalizations from the emerging themes, which allows for drawing conclusions about the individual cases or a population of cases. In this particular case, the census data provide background information on the population of women farmers in Minnesota. The survey data provided a description of each particular case and its setting. The interview method was designed to link background information with information about motivations, concerns and perceptions. The interviews were a critical piece of the method because the census data are not linked to information about individual farmers.

Taken together, these methods allow the determination of whether the experiences of individual women farmers are, or are not, suggestive of the patterns found in the census data and the literature on women and farming. In addition, these methods allowed me to investigate two additional aspects of the research problem, which included a lack of baseline information on individual women farmers, and a lack of information about their experiences with farming.

The Study’s Context: the Agricultural Geography of Minnesota

Figure 1A illustrates the length of the growing season in Minnesota. The major cash crops of Minnesota, corn and soybeans, require temperatures above freezing between May and October (a frost free season of 150 days) to germinate and reach maturity. Figure 1B shows the soil orders in Minnesota. The best soils for agriculture are Mollisols, which predominate in the southern and western portions of the state. The poorest soils for agriculture (Entisols, Histisols Vertisols and Inceptisols) are found primarily in the northern part of the state and for the purposes of illustration are grouped together. Alfisols are also good agricultural soils, but are often found in forested areas with many lakes. The United States Department of Agriculture identifies three Farm Resource Regions in Minnesota. (Figure 1C). Region 1 has the largest number of cash grain and cattle farms; Region 2 has predominantly wheat and livestock farms. Region 3 is the most populated region, and has primarily dairy, general crop and cash grain farming.

Results

Census Data on Female Farm Operators

The United States Agricultural Census contains quantitative information about women farmers in Minnesota, although it is limited because the census only began including gender as an operator characteristic in 1978. However, information obtained by the census reveals a number of interesting characteristics of women farmers. According to the census, women farmers account for approximately five percent of all farmers in Minnesota in 1997, but they appear to be quite different from the male farmers who overwhelmingly define and represent the agriculture of the state as a whole (See also Kalbacher, 1982, Leckie, 1993b).

Women farmers tend to be found in higher percentages in the northern counties of the state of Minnesota where the soils and growing conditions are not as favourable for agriculture
Female farmers vary from male farmers with respect to farm size, product, income and location. Women farmers disproportionately engage in the production of fruits, vegetables, trees, nuts and animal specialties (Figure 3: A and B). Many of the farms operated by men range between 220 acres or more, whereas the size of farms operated by women tend to fall in the smaller farm size classes, with nearly half of all farms operated by women falling under 49 acres (Figure 4: A and B). Over half of all male farm operators gross more than $25,000 per year from the sale of agricultural products, while 80 percent of all female farm operators gross under $25,000 annually, with nearly a third of all female farm operators reporting gross farm incomes of less than $1,000 in 1997 (Figure 5A and B). While the numbers of farms operated by men are shrinking, the numbers of farms operated by women is increasing (Figure 6A and B).
These differences between men and women farmers coincide with the differences between productivist and post-productivist agriculture: diversified farm products and services, farm size and corresponding farm income and spatial differentiation. These findings raised interesting questions about why women appear to be so different from men, but the aggregated census statistics cannot reveal information about individual farmers and their motivations. However, they did help identify appropriate regions to conduct the survey and in-depth interviews. I contacted women who farmed in two areas of Minnesota; one largely agricultural (Region 1) and one largely non-agricultural (Region 3, Figure 1). Lac Qui Parle county is in an agricultural area in the south western portion of the state. Eighty-two percent of the land in the county is devoted to agriculture, and the average size of farm is 468 acres. Fifty percent of the farms gross over US$50,000 in annual sales from cash grains and beef cattle and...
livestock. Women operated only two percent of all farms in Lac Qui Parle County in 1992. In contrast, St Louis County, in the north eastern part of the state has only four percent of the land in the county devoted to farming. The average size of farm is 218 acres and over half of all farms gross less than US$10,000. Livestock and field crops account for a large number of the farms in St. Louis County as well, but there is a large percentages of ‘non-conventional’ farms. Women account for 10 percent of all farm operators in this county, one of the largest percentages in the state, and above the United States average of eight percent.

These two areas of the state are remarkably different in both their physical and agricultural geography. Few states have a geographical area that includes the ‘Great Plains’ and ‘The Great Northwoods’ within their boundaries, with the former region being excellent farmland, and the latter being poor farmland. Productivist farms are more likely to be found in areas with good farmland, and these areas also tend to have fewer numbers of women farmers. Thus, the spatial association of women farmers with post-productivist agriculture and poor farmland is evident in Minnesota, and this makes it an excellent place for pursuing my research questions.
Survey Results

Of the five women who responded to the survey, one trained and boarded horses, one raised dairy cows, organic fruits and vegetables, one raised hogs, and one raised sheep, pigs, cattle, corn and soybeans. The latter two farmed with men in the southern portion of the state, and engaged in intensive, traditional agriculture. The former three women farmed in the northern portion of the state. The women raising horses and farming organic fruits and vegetables are participating in an agriculture outside of the dominant agricultural industries of the state. However, the dairy farmer falls on the cusp of the post-productivist transition. Dairying is the second leading agricultural industry by sales in Minnesota, and therefore could be considered a productivist commodity, but this woman ran a small-scale dairy farm, and was forced out of business by low milk prices in the 1980’s. All of these three farmed alone, and were engaged in small-scale production not typical of the dominant industries in the state.

The survey included a question about the employment of conservation practices. All respondents indicated they practiced some sort of ‘organic’ or ‘green’ fertilizer; three stated they were pesticide free.

Figure 4: Number of farm operators by farm size and sex, Minnesota, 1997.
and employed the use of biological pest controls; two were herbicide free and used 'no-till' techniques; one was certified organic and another had land enrolled in the Conservation Reserve Program. Two common themes around conservation were identified: concern for the environment as well as farm animals, and concern about the economics of farming. Examples of the responses that fell under concern for the environment and farm animals were ‘water quality’, ‘pesticide and herbicide control’, ‘allow animals to remain on farms’ and ‘making small farms profitable’. Responses that fell under concern about the economics of farming included: ‘a good market for our products here and overseas’, ‘preserving farming’, ‘the low prices on crops and livestock versus the high input costs and equipment costs’ and ‘commodity price supports’.

Three of the five women identified as being owners or operators of their farms, and two did not. Of the two that did not identify as owner/operators, one shared the farm with a husband, the other with a father and brother. The presence of men on the farming operation was associated with a lack of identification with independent operator status, but this was also associated with
the geographical area and type of farming. Marital status did not seem to be the factor behind not identifying as 'independent' because one of the 'non-independent' women was single.

Two of the five women were single, and not living with anyone else. Of the three who did live with other people, one lived with her same-sex partner, one lived with her husband and two children, and one lived with her son. There were no geographical differences in household composition, nor was there any relationship to 'independent' status, but this very lack of a clear pattern illustrates the diversity of women farmers' experience.

This very small group of women expresses immense diversity in a most basic and important part of life: family. All of these women have widely differing concerns and needs for child care, health insurance, and retirement based on their relationships to the people in their households.

**Interview Results**

As demonstrated by Fink (1986), access to credit and capital is crucial to successfully competing in productivist agriculture; intensification and concentration cannot be facilitated without
capital expenditures. Of the three women I interviewed, one indicated that she had experienced difficulty in obtaining a loan. Her dairy operation required capital for building facilities, but her application for credit at her bank was denied, ostensibly because she was unmarried. She was eventually able to find funding through a program for women developed by the Carter administration, only months before the program was cut with the election of President Reagan in 1980. Of the two women who indicated no difficulties in obtaining loans, one operated a large-scale farm with her father and brother who could obtain the loans, and the other did not require a loan for her farm because her production was small. Two of the three women I interviewed cited challenges to their credibility as farmers because they were women, and both indicated it came from individuals in the farming community and businesses selling agricultural goods. Interestingly, the woman engaged in small-scale organic fruits and vegetable production claimed that she worked with a “great group of men”, had not encountered sexism in her professional activities, and she attributed it to the kind of alternative production she was involved in.

One of the women identified the concentration of land in the hands of fewer and fewer people, and exploitative land-use attitudes as a problem for not only the environment, but the future of small-scale farming itself. Another said that the “mythology that science will provide all the answers” threatens to change the definition of life, and therefore the existence of the things she values. Another woman identified the ‘greed’ of big agricultural companies who ‘own everything’ as the reason why farmers cannot get good prices for their products. These women indicated a lack of power and a real fear that their livelihoods and the things they valued were threatened by a powerful ‘other’ that did not value them as individuals, as farmers or as stewards of the land. Their ideas about how to resolve the ‘agricultural crisis’ or prevent it from happening in the future, revolved around diffusing the power of the ‘other’, decentralizing food production and creating relationships between producers and consumers.

As a follow-up to the survey question about conservation practices, one interview question probed at the underlying attitudes that perpetuate the use of environmentally sensitive land-use practices. All the women interviewed indicated that conservation was very important in keeping their farms efficient and healthy. They all expressed a desire to keep the ‘nutrients in the system’ and to ‘close the circle’ not only because it cut their costs and but also because it improved their product. It also seemed to be a point of pride that they wasted so little. One woman cited the amount of soil that stayed on her fields when she did not plow in the fall, and the increased yield she obtained when she spread manure on her fields. When asked about the philosophy that informs the way they farm, all of the women stated that ‘recycling’, ‘efficiency’ and maintaining a ‘self-sustaining system’ were integral parts of their perspectives towards their farms. They also stated that ‘farming connects everything in my life’ and ‘the cows are the center’. These women clearly demonstrate a concern and a passion for farming and the land they farm that goes beyond merely making a living.

**Conclusion**

The women I researched appear to be engaging in a unique form of agriculture, and there appear to be connections, material and theoretical between women as food producers and the development of a new food regime. The areas of unique differentiation between men and women farmers in Minnesota parallel the differentiation between productivist and post-productivist agriculture. The women of this study were participating in types of agriculture largely outside the mainstream of agriculture production in the northern part of the state, where the soils and climate are poorest for agriculture, and they were farming alone. The women participating in more productivist agriculture in the southern part of the state where the farmland is better were farming with men. The correlation between independent women farmers and alternative agriculture, together with the increasing numbers of women farmers in Minnesota suggest the possibility of a transition to a post-productivist agriculture, perhaps in part led by women.

However, I did not collect data from male farmers, or from minority farmers who are similar to women farmers in many ways, so it is difficult to claim that women are leading the movement, or doing it alone. I also rely heavily on census data for much of the empirical evidence for this theory, which is problematic because it includes only those women who claim farming as their primary occupation on their income tax forms. In addition, those women who farm in partnerships, or help out on family farms are often not counted because only one operator...
may be listed per farm. Further study might involve comparing single female farmers with single male farmers to determine if there is a difference in gender, or if other variables exist that might confound the apparent correlation between women farmers and the post-productivist transition. In addition, examining the kind of agriculture undertaken by men in the areas where women farmers are most common would provide clues to whether gender ideologies or geography, or both, dictate changes in agricultural production. The role of women as producers in agriculture has been studied, documented and theorized very little. In the troubled times of modern agriculture, examining these ‘invisible’ farmers might lead to new answers to questions about the future of agriculture undertaken by men in the areas where women farmers are most common.

References


