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Caroline R. Putscher  
*University of Vermont*

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# **Agency and empowerment on women-owned farms: A Vermont agricultural case study**

Carrie Putscher, Masters Candidate, University of Vermont

## **Introduction**

The USDA Census of Agriculture only began asking for the gender of the principal farm operator in 1978, and only began collecting data on multiple operators in 2002 (Sachs, Barbercheck, Brasier, Kiernan, & Terman, 2016; USDA, 2014). Nationwide, using data from the 2012 Ag Census, the number of women farmers in the United States totals 969,672, or approximately 1/3<sup>rd</sup> of the nation's total farmers when up to three operators are included per farm (USDA, 2014). However, sales of products from women-owned farms represent just 3.3 percent of total U.S. agricultural sales (USDA, 2014). This figure, such a small fraction of the nation's total agricultural revenue, points towards a severe imbalance in the gender dynamics of our food production system, one that has not been well-studied in the literature. Why are there not more women involved in farming, why is the revenue produced by women-owned farms such a slight percentage of the total, and what are the barriers preventing the formation of a more equitably-gendered food system?

Even with the recent focus on women farmers in nationwide data collection, like the USDA Census mentioned above, there is still a lack of information on why such an obvious agricultural gender imbalance exists, and why more women farmers tend to gravitate towards smaller, more diversified farming systems or other alternative food systems (Finan, 2011; Trauger, 2007). Alternative agriculture systems, including organic farming, permaculture, and agroecology strategies, eschew the typically input-heavy, mechanized, and commodified system of agriculture that currently dominates our nation's food system (Beus & Dunlap, 1990; Chiappe & Flora, 1998; Som Castellano, 2014; Wells & Gradwell, 2001). They are organized around a value system that places a greater emphasis on relationships,

cooperation, and respect for nature, meant to “correct” the perceived faults of our current agrifood system (Som Castellano, 2014). The organization of a farm business is based not only on financial decisions, but also on the beliefs and values held by the farmer, like those mentioned above; these can differ in focus across genders, and may be represented in the fact there is a much larger proportion of women farmers than men involved in alternative agriculture systems, such as organic farming, Community Supported Agriculture (CSA) or direct-to-consumer marketing strategies, like farmers’ markets (Paul, 2015; Paul & Fremstad, 2016; Trauger, Sachs, Barbercheck, Brasier, & Ellen, 2010). Within a variety of agricultural systems, even these alternative ones, women farmers still represent a population of “overlooked landowners” and farm principal operators, and more research is needed on the many differences between men and women in farming that contributes to this invisibility (Allen & Sachs, 2007; Eells & Soulis, 2013; Jarosz, 2011; Wells & Gradwell, 2001).

With my research, I examine how women farmers in Vermont, many involved in alternative systems, structure and manage their farms and how these practices demonstrate agency and empowerment. I interviewed nineteen women about their farms, asking questions related to how they structured their farms and sold their products, the decision-making processes of the farm, and how other people (including family members, customers, and employees) factored into the running of and success of the farm. By analyzing the information from my interviews using a constant comparative method, I attempt to reach a more thorough understanding of how women farmers demonstrate agency and empowerment through farm management and structural decisions. My results have implications on how to increase women farmers’ agency and empowerment in agriculture to help them overcome the barriers that they may face. At the same time, my results also highlight the unique ways that women navigate alone and together through the male-centric world of agriculture in an attempt to succeed and potentially tip the scales towards a more gender-balanced system.

## **Literature Review**

In the 2012 Census of Agriculture, the USDA released a special report highlighting the agency's findings concerning women farmers. Although the number of women farmers had been increasing in previous years, the report found that there was actually a two percent decrease in the total number of women farmers since the previous census in 2007 (USDA, 2014). Women accounted for just 14 percent of principal operators (the person in charge of the daily decisions and operations of the farm), 3.3 percent of sales and 6.9 percent of farmland in 2012 (USDA, 2014). These numbers, showing the domination of the agriculture sector by male farm operators, offer a glimpse into the inequalities of the agricultural world. However, the same census found that in Vermont specifically, women were the principal operators of 1,642 farms out of a total of 7,338 farms (22.38%); while this number is noticeably higher than the national average, it is still a fair distance from an equal split. Additionally, women-run farms tended to be smaller (an average of 88 acres as compared to a statewide average of 171 acres), which is a factor of the small percentage of agricultural sales recorded in the survey and another revealing statistic (USDA, 2012).

In part stemming from the traditional and deep-seated “agrarian myth” of the farmer as a rugged, hyper-masculine individualist (Harter, 2004), most research on farm women has looked at them as one part of a heterosexual farm couple: the farmer and his farm wife (Ball, 2014; Trauger, 2007). The wife, not seen as a true farmer but more a background character, performed basic or undesirable tasks necessary to the survival of the farm, but these tasks were labeled by others as merely “woman’s work” and not actual farming (Brandth, 2006).

While it is still easy to find current examples of this traditional farm couple structure, new farming arrangements have emerged, and some recent research has shed more light on women as farmers in their own right. Contzen and Forney (2016) analyze gender inequalities in family farming and

propose that inequalities are related to status on the farm and position in the family configuration, rather than to gender identity. They believe that different farming structures, such as collaboration or on-farm individualization, allow for greater gender equality and women's empowerment on farms (Contzen & Forney, 2016). These structures allow for women on farms to have greater agency and decision-making power, leading to female empowerment.

### ***Theories and Context***

The theory of agency and empowerment is often used when researchers examine gendered differences in a system. This theory provided a foundation for the ideas included in this study. Agency is a term that can be defined differently by different researchers. One definition of agency is “the ability to act on behalf of what you value and have reason to value,”; in this view, it is a “process freedom,” or the ability to make a decision, no matter if the goal of the decision is achieved. It is an internal process, but can be limited by external factors, such as gender (Ibrahim & Alkire, 2016, pg. 383-384). In a similar vein, the concept of empowerment is often deemed “fuzzy,” and researchers have yet to come to agreement on a finalized and formalized definition of the term. One researcher argues that four concepts are generally included in most definitions of empowerment: that it begins with a state of disempowerment, that it cannot be given by a third party but must be claimed by those wishing to be empowered, that it includes a sense of decision-making and choice on matters one finds important, and that is a process, not a product or final state (Mosedale, 2005). Ibrahim & Alkire (2016) add that,

...the concept of empowerment is related to terms such as agency, autonomy, self-direction, self-determination, liberation, participation, mobilization and self-confidence. It is also a debated

term, which has been ascribed a wide variety of definitions and meanings in various socio-economic contexts (383).

Kabeer (1999) defines “disempowerment” as being denied choice, and thus defines empowerment as “inescapably bound up with the condition of disempowerment and refers to the process by which those who have been denied the ability to make choices acquire such an ability” (437). In her paper on women’s empowerment, she explains that in order for women to fully exercise choice and gain empowerment, the three criteria of resources, agency, and achievements must be present, again showing that agency is often categorized as a subcomponent of empowerment (Kabeer, 1999). In agriculture, resources can include such necessities as access to land, capital, labor, machinery and other inputs, and even a customer base, while agency involves choices and decision-making power on the farm and about the land. Achievement is an additional concept that needs further exploration in future research on women farmers, but it will not play a significant part in this article.

### ***My Research***

Through a series of in-depth semi-structured interviews with women farmers in Vermont, I hoped to answer the question of what barriers women face in agriculture and how they overcome them. Based on the literature reviewed above, I suspected that the lived experiences and barrier solutions of these women farmers might illustrate the themes of agency and empowerment theory. In what ways do the practices chosen to mitigate the barriers confer agency and empowerment to the women utilizing them, and how can individual and collective action lead towards the empowerment of women in farming? Previous studies have examined women who farm in Community Supported Agriculture (CSA) systems and the benefits they receive from such alternative systems (DeLind & Ferguson, 1999;

Jarosz, 2011; Wells & Gradwell, 2001). Many of the women I interviewed used CSA strategies, but I also wanted to look more closely at some other ways that women conquer barriers and support their own futures in agriculture.

## **Methods**

### ***Sampling***

I conducted a total of nineteen interviews with women farmers in Vermont. After obtaining university Institutional Review Board approval, I began my participant search. Five of the interviews were collected as part of a course project, and an additional 14 were collected after the course was completed in order to further the project. A UVM Extension agent, a key informant for this project, provided me with a list of Vermont women farmer names to start with. I contacted interviewees by email and phone, and scheduled interviews with those who responded to my initial contact. I also used snowball sampling to identify potential participants when interviewing my initial respondents. Snowball sampling, in which interviewees recommend other potential interviewees, creates a large and diverse pool of potential participants (Polkinghorne, 2005). By having participants recommend other potential interviewees at the end of their interviews, I gained a larger sample size as well as a clearer picture of how women farmers in Vermont were connected with one another.

The farmers I interviewed represented a variety of agricultural specialties and products, ranging from vegetables and fruits to flowers, poultry and livestock, eggs, dairy, maple syrup, and more. Multiple farmers were also engaged in the agritourism and farm education businesses, in which people come and stay at the farm (i.e. a Bed & Breakfast) or visit for some sort of workshop or class. Some farmed with romantic or business partners, while others farmed on their own; I made sure to qualify this division within the interview questions. Additionally, while many of the women interviewed were business owners, a few were managers of farms that were owned by someone else or by a collective. I

gathered participant demographic data at the end of the interviews; one farmer, who declined being interviewed in person and submitted a written response to the interview questions instead, did not offer demographic data. The eighteen interviewees who did provide demographics had an average age of 45.24 years and farmed in ten of the fourteen counties of Vermont (Addison, Bennington, Caledonia, Chittenden, Franklin, Orange, Orleans, Washington, Windham, Windsor). The number of years that they had been involved in farming ranged from three to 55, with a mean of 19.9 years, a mode of 10 years, and a median of 16 years. Those who chose to identify their race during the demographics section (fifteen of the eighteen who gave demographics) all identified as Caucasian/white, and all interviewees identified as female, a qualification for participation in the study.

### ***Semi-Structured Interviews***

The interviews were semi-structured in order to discuss main points and themes, but also leave room for elaboration and probing if new ideas and themes arose from discussion points raised by the interviewee (Doody & Noonan, 2013). One major benefit of semi-structured interviews is that because the questions are asked in the same order to all participants, they allow for easy comparison between interviews (McIntosh & Morse, 2015). Initial questions focused on how the participants started farming, the structure and mission of their farm businesses, employment and management structures, use of support networks and organizations, necessary skills for farming, and whether they felt that their experiences in the world of agriculture were different due to their gender.

Interviews lasted between 30 and 90 minutes and were conducted face-to-face or over the phone depending on the respondent's distance and personal preference. Each interview was digitally recorded to allow for accurate transcription. As mentioned above, one respondent sent in her answers in written

format due to scheduling constraints. Interviews were transcribed verbatim, and the respondents were assigned pseudonyms to ensure confidentiality in the write-up.

### ***Thematic Analysis***

As I collected data from interviews, I utilized a constant comparative method on my data set. Data was collected and analyzed concurrently, which allowed for an evolving process of comparison between emerging themes and new data. During the open coding process, I identified reoccurring ideas and vocabulary terms in order to tease out “stories” from the data (Tuckett, 2005). The transcripts were axially coded around reoccurring potential connections to agency and empowerment theory. Once these categories became saturated and new codes no longer emerged, I reviewed my collected codes and the patterns within them. Three forceful themes under the idea of “barriers” arose from my analysis: perceptions and identity as women farmers, machinery skills and equipment, and capital/resource access and farm profitability. Thematic analysis allows for a rich, detailed view of the patterns discovered within the data and can be less constraining than pure grounded theory analysis (Braun & Clarke, 2006). The prevalent codes within the themes detailed above were then organized around a problem-solution framework of perceived barriers in agriculture and the solutions used by the farmers, with subthemes of individual and collective action within solutions.

### **Analysis**

This study aimed to examine the barriers that women farmers face in the agricultural world, and the strategies that the farmers use to overcome these challenges. I argue that the solutions that Vermont women farmers use to overcome or diminish the agricultural barriers that they face rely on the practice of increased agency and empowerment of individuals as well as the collective.

### ***First Barrier: Perceptions and Identity as Women Farmers***

One of the first barriers I identified in the responses was the barrier of gendered perceptions and identity. Women farmers said that they often felt as though they were not taken seriously as farmers because of their gender, or were the victims of other subtle/overt sexism. Joan, an older woman who runs a highly diversified farm with her children, mentioned that when she was growing up, “everybody told me I couldn’t be a farmer because I’m a girl.” She also described how:

When people come and take pictures of me on the farm, they tend to take pictures not in front of the tractor, or not with my chainsaw in my hand [...] They will do that to the men on the farm, but [...] they’ll want to take a picture of me collecting eggs, or working in the greenhouse, which tends to be stereotypical of women. [...] I feel sad about that, but that’s their instant, go-to picture of what a woman farmer is.

Even the Agriculture Census, as discussed in the introduction, did not start collecting data on gender of principal operator until 1978, a patriarchal assumption. Shannon, who owns a farm and education center with her husband, commented on the unfair representational nature of Census, saying:

I think there’s always been a lot of women farmers, but when the Census data happens [...] they only [expletive] ask for one person! [...] They take the man, right! [...] The last three or four years that I get on the phone to answer questions, they want to know ‘Is your husband here?’[...] So, I think that there’s some misrepresentation, and I think women have been put into positions where they have to feel like ‘Oh, you need to talk to my husband.’

Michelle, who homesteads with her husband and runs a small CSA program, commented on this inequality: “there’s a longstanding tradition of men and women, even if the man’s name is on the farm [...] the woman was also very much present and very much a critical link in the system.” The agrarian ideology described in the literature review is centered around a lone male figure, who is seen as the norm in farming. Women are inherently viewed as strange or outsiders in the agricultural sphere, and this can lead to feelings of discomfort and inequality for both the woman farmer and those interacting with her. Catherine, who runs a farm together with two male co-managers, mentioned that “I’ve definitely had issues with coworkers, you know, because I manage staff, I’ve definitely gotten some rub from young male coworkers that I don’t see them have with [the male managers].” Catherine had observed that her gender changed the way that others interacted with her in a negative manner, a significant barrier to her equality on the farm. As a retailer of goat meat sourced from local dairies, Cheryl described her experience: “I certainly recognize other people’s perception of my position as being less than positive [...] it’s a little disappointing being a Vermonter that I am experiencing some discrepancy between being a woman and not being a man.” Lauren, a livestock farmer and participant in agritourism, also shared:

I had a really negative experience with folks. I had...an FSA [Farm Service Agency] officer...he addressed me in so many inappropriate ways, told me, "Sweetheart, your voice is so soft, can you repeat it? You must be either very young or very nervous." You know, really, truly, points where I could have pursued a lawsuit...there is a lot of that around.

In a different direction, Stephanie, who runs a vegetable and maple syrup operation with her husband, described how she was often expected to provide emotional labor to others as a woman in a

way that others were not: “ [...] the way my gender has perhaps been used or like, misunderstood, was that I would be the eternal caregiver for a host of problems that had nothing to do with work.” She described how an intern treated her more like a mother or sister than a supervisor, and how she was unhappy with that type of attention. The inability of women to feel totally included, respected, and understood in the traditionally male-dominated atmosphere of agriculture creates a feeling of a lack of belonging or a struggle to be accepted, both of which can be significant external barriers to their success and feelings of ease in the agricultural sphere. This in turn can lead to an obvious imbalance in the number of women involved in agricultural spheres, as some leave due to this discomfort or do not enter into farming in the first place. Jennifer, who is involved in both the dairy industry with her husband on their farm, and agritourism industry on her own with the B&B she runs in their farmhouse, felt this barrier keenly. She said:

Even in the tourism/hospitality world, when I go to inn conferences, there's an extremely strong male component there as well [...] it's extremely male-dominated in the hospitality industry. When I've served on dairy promotion committees, I can remember certain years where--there were a couple of years where I was the only woman sitting at the table

Women farmers perceived an awkwardness from others based on their female identities or were forced to change the way they presented themselves to others to preserve some part of these external identities. Kim discussed how:

A lot of times we work with these older, old-school Vermont macho dudes who have their tractors and they want to talk to the dude [...] And I find myself too, like, kind of code switching

[...] when I talk to these guys, I tend to be a little more tough and just sort of put my dude vibe on.

Joan mentioned that “I have a lot of men farmers around, you know, because I’ve been in the business for so long, but it’s a little bit different language ... [with women] you don’t have to go through that extra door to get where you need to go.”

In addition, some interviewees also reported that the typical agrarian image of a male farmer resulted in the interviewees themselves not feeling as though they are “real” farmers, creating a personal identity barrier to equality in farming. Amy, who described herself as more of a “horticulturalist” than a farmer during our interview, commented that:

I think that there’s a thing that a lot of women have which is we just don’t feel qualified for whatever it is we’re doing...The imposter thing. And on a farm, it was really easy not to feel like a real farmer for a long, long time. I think that’s definitely been the case for me.

Melissa, who joined her husband on his fruit farm, which they now run together, also commented: “I do feel intimidated by male farmers...seven years still seems new to the farm to me. I still question—I guess as a farmer, you’re always questioning ‘Do I actually know what I’m doing?’” Suzanne, when discussing how she and a friend started a flower and herb business on the dairy farm she ran with her husband, told me that “[...] my husband didn’t support my doing something other than being totally involved in the dairy farm, so it was kind of a rough time for me because of that lack of support.” This inability to feel like a “real” farmer and to gain the support needed from others can stem from the perceptions and reactions of others or internal perceptions of the self. While outside

perceptions can be changed by others or changed through a societal viewpoint shift, the internal perception issue is one that women have to change for themselves through the processes of individual and collective agency and empowerment strategies.

Some women farmers were conscious of gendered labor divisions on their farm, and actively worked to be satisfied with them the way there were instead of fighting to change their own internal perceptions. Michelle describes how “I’m just pretty conscious of being proud of some of those roles on the farm that are maybe typically more female roles [...] there are some stereotypical things that most women are good at, and I guess I just didn’t want to be afraid to be good at those things and embrace them.” Stephanie agreed, saying: “even my genuine interests get called into question, because I’m so aware of the gender dynamic on the farm [...] it’s conflicted, and some of the things that I really enjoy are really typically feminine.”

Women farmers also reported empowering themselves around changing gender and farmer identity through collective means more so than individual actions. They said that they relied on the formation of support networks, both formal and informal, for many reasons, one of which was a mitigation of this negative gender identity barrier. Jennifer described how she often felt dismissed by others in the (male-dominated) tourism industry who did not understand her agritourism venture. She then stressed how important having the support of a female friend was to her emotional success: “[...] that was, for me, was a real turning point, was having her recognition and support [...] having [her] say ‘No, don’t quit. You’re doing something that has value, has meaning.’” Some women farmers also felt that formal, preestablished networks did not completely and accurately fit their needs, and often did not rely on them nearly as much as the informal ones of their own creation. Melissa remarked:

There's the Vermont Women Agricultural Network (WAGN) [...] but I don't necessarily feel like they're providing that support [...] I don't feel like there's any writing or forums for women farmers to come together and maybe discuss things [...]

When discussing their networking practices, some women mentioned that they tended to gravitate towards other women farmers before men farmers. Cheryl mentioned the members of her “excellent cadre of women support,” and Rachel described networking with other local women farmers, saying how “there's something about when you meet women like that, you want to be around them, like, I'm going to feed off that energy.” These comments demonstrate how informal social networks of women farmers offer a source of individual inspiration. The farmers feel empowered by seeing other women in the collective do similar work. Many other farmers echoed the importance of female role models in their own lives, and expressed hopes that they too could be seen as role models by other women looking to enter into agriculture. Rachel, in running a raw milk micro-dairy with her husband, stated that “I definitely try to latch onto any female [...] I think when I find a strong woman who runs her own business, [...] it's very inspiring, so I try to grasp onto those people as much as I can.” Melissa stated:

There's a lot of interest in young women to farm, and I hope that I can serve as a role model for [...] women that are looking to farm, and as a resource for people and support for people. That was very important to me in my farming career; I made several decisions on which farm I was going to work at based on having a woman role model.

Informal social networks among women were important because they were perceived as more welcoming and open than formal networks and events, such as grower meetings or Extension workshops. When discussing instances of sexism in her personal experiences, Helen mentioned that

I've noticed more of that dynamic not with the people that I'm actually paying, but in the industry in general, like in the support organizations, like NOFA [...] or like a lot of the UVM Extension. I feel a lot more—it's male-centric, and I feel a lot more of that angle, like they don't take our farm seriously or something.

In addition to being more welcoming, informal networks of women farmers were more accommodating to the interviewees' schedules. Some farmers emphasized how much they enjoyed being able to participate in more traditional organizations and networking opportunities, but were frustrated by how often scheduling issues made connection difficult. Time was often cited as a factor in why women farmers did not attend networking or learning events nearby. Helen remarked:

I would be interested in doing more kind of cooperative stuff. Life just feels so busy, it's so hard—it almost takes more time to coordinate. You just want to make sure it's working out for both parties, and I guess I haven't found that many clear opportunities where that would be the case.

Informal networks, given their very nature, rely less on rigid scheduling and may fit into a woman farmer's life more easily. They are more cooperative and collective in nature as well—women farmers in the network can collaborate amongst themselves to find a time that works in everyone's

schedules, rather than making schedules work around the set times of formal gatherings. The importance of the Internet in creating and maintaining women's support networks was paramount, especially in cases where other suitable networks do not exist nearby geographically, or are too difficult to access in terms of time or energy expended. By using the Internet, farmers have the ability to connect on their own schedules, often a few minutes at a time when composing an email or Facebook message, rather than spending a whole day away from the farm with travel. These online informal networks not only provided technical assistance, such as answering specific questions about farm practices and problems, but also offered some women farmers more of an emotional connection with other women in similar situations. Rebecca commented:

I have a network of farmer friends. We all met on the Internet...But we meet up once a month or so even though we live a couple hours away from each other, all in VT. But I feel like that network has been super important to me in terms of, just an emotional connection to other women who are in a very similar spot.

Rebecca then went on to emphasize, "I guess I can't overstate how helpful the Internet has been to doing everything that we do and making it all one hundred percent possible." Kathleen, who owns a vegetable CSA farm with her husband, echoed this idea of more support from women farmers, elaborating that "I definitely gravitate towards women farmers just because...our experiences are similar, just as far as the roles that we take on the farm and just that sort of knowledge and skillset." This reliance on the formation of collectives empowers each individual as well as the collective itself, but may be limited by a lack of support from formal or recognized institutions.

### ***Second Barrier: Machinery Skills and Equipment***

Another major barrier to the success of women in agriculture surrounds agricultural machinery. Women farmers repeatedly mentioned that they wished they had more machinery skills when asked what skill areas they would like to strengthen. Those who worked in partnerships felt that divisions of labor around machinery use often fell more towards traditional division of labor, and many were aware of the fact that this reinforced a traditional gender stereotype. Women were often more responsible for the farm tasks that do not require the operation of heavy machinery, such as tractors. When asked about potentially gendered labor divisions on their vegetable farm and honeying operation, Kim replied “Machines. I really am not down with machines.” Rebecca also stated, when discussing how her husband is the one who handles all of the machinery on their goat dairy operation, “I don’t want to be working with the big machines.”

Kathleen, when speaking about the roles she and her husband play on their farm, said “...he does all the maintenance of the tractors and he does a lot of the tractor work...it is funny how things have sort of broken down along these gender lines on our farm.” Rachel realized that she and her husband had a similar tractor work situation on their dairy farm, but mentioned that “I think because I know I can do it, I don’t get too caught up in it being a male versus female thing.” Melissa described how even when she does end up doing tractor work, she feels as though her competence is being judged in a way that a man’s wouldn’t be:

I feel very, like—people are watching me to see if I can actually do it...some of it can be how you carry yourself, or being a smaller woman, but a lot of times feeling like people are watching me, like, “Oh, does she know how to do XYZ on the tractor?”

This traditional gendered division of labor that persists today can limit women's agency on the farm, as it takes away their decision-making power and confidence around machinery-focused tasks and farm structures.

Additionally, many of the machines and accessories needed for farming are problematic in a physical sense because they do not fit women's bodies. For example, women farmers mentioned that the machines and accessories are built to the height, weight, and arm reach specifications of men. Lauren describes her experiences:

When I butcher I'm the only woman there, all the time. Everything is made for people who are, like, you know [gestures to a height well above her own]. The only coats they have are extra-large. All the things are stored high, and they are not set up for people who do not have as much muscle.

Anna recalls her own experience: "Box sizes and equipment attachments [are] built for men arm's reach," and Linda, who runs her own farm and bakery, added: "[...] the cultivating tools are for men; they're sized for men or tall women. They're not sized for 5'4" women." Shannon even described how she often has difficulty finding clothes and shoes that are rugged enough for farm work while still fitting her body: "There's not a lot of functional clothing for women [...] the clothing is the biggest thing, is finding something, stuff that's rugged and really treating women as like, working, you know? Using their hands and wearing things out."

This ergonomic barrier (which also can be connected back to the gender identity barrier in that a male body is used as the "norm") can limit the ability of women farmers to feel as though they have full agency on their own farms. If the clothing, machinery, and equipment that is necessary for daily farm

operations does not fit their bodies, then others must do the work or provide assistance, and the choice has been removed for them. This reliance on others and lack of available options may create a feeling of disempowerment, or a sense of “not belonging” to the group or the profession.

In addition to not “fitting” most farming machines and accessories physically, women farmers sometimes reported receiving inadequate training on how to use agricultural equipment, and often felt that the men that they knew had had better or more frequent chances to learn these machinery-focused skills. Paul & Fremstad (2016) describe this barrier as often being the result of “patrilineal inheritance of...farm knowledge” (2). Stephanie mentioned that

[My husband] ended up going to a high school in which he learned how to use a saw and learned how to drive a tractor [...] he learned how to have these skills really early on, and for me, I’m coming to some of these skills late on, and I’m doing them as an active resistance towards tradition.

Other farmers also discussed similar experiences (or lack thereof) of training on tractors and other machinery, such as chainsaws. When asked what skills she wished she could improve upon, Anna stated, “Maybe having more equipment exposure. [I] am fairly good at seeing mechanical problems but [I] don’t know about engines.”

When seeking a solution for this equipment barrier, women farmers reported empowering themselves and others by tapping into network resources, similar to those described in the previous section. Many of the women farmers mentioned building more confidence and gaining more skills with agricultural equipment and techniques through informal networks, including group workshops and peer-to-peer learning, rather than formalized presentations and classes. Linda described her past experiences

with networks for learning new skills: “We set up workshops so that everybody could learn something new [...] We would bring specialists in and we’d all have a workshop, all of us together [...] It was all very cooperative, extremely cooperative, and I don’t think it’s died out.”

Many of these networks allow women to learn in a hands-on manner, which was the manner in which almost every respondent said they preferred to learn. Catherine explained: “Oh, hands-on for sure. If somebody tells me how to do something, or even shows me and then I don't do it myself, I'm going to forget, like, I'm going to have to learn again, for sure.” Melissa explained: “I think it’s really helpful to do it and actually get your hands dirty. That’s how you develop the muscle memory to do it.” Amy described the advantage of in-person informal learning networks, stating,

It’s much easier for me to really see and learn.... A friend of mine taught a tractor safety and maintenance class here on my tractors. The really hands-on of “find the oil plug, now undo the oil plug” instead of “there’s an oil plug over here, and you just undo it,” that kind of thing is very helpful for me.

This class represents a strategy that combines individual and collective strategies for overcoming the barriers associated with being a woman farmer—each individual who attended the class made the decision to take the time away from their farms and go to the class, and each subsequently learned a new skill as a result of this choice. The class itself was made possible and successful through network connections and support (one person to host the class, one person to teach it, students to come and learn, word of mouth invitations, etc.).

### ***Third Barrier: Capital/Resource Access and Farm Profitability***

When women farmers were asked about the goals and mission of their farms, financial viability often arose as either a major goal or a third barrier to achieving other value-based goals. Women farmers are not the only ones who struggle with farm profitability, but their gender may afford them unique struggles or opportunities within this issue as related to the other barriers discussed in this paper. Jennifer described a situation in which she asked a banker for a home improvement loan to start her agritourism-focused B&B:

The banker said to me, “Does your husband know what you’re doing? [...] Well, I’m sorry, but I won’t give you a loan unless your husband’s here with you.” [...] I ended up asking the banker three times, and he turned me down three times.

Jennifer was the victim of the banker’s sexism, which placed her in a disempowered position as an individual. She knew she needed to get the money to invest in her business venture and empower herself, but was also cognizant of the fact that she would lose some of her agency if she had to rely on her husband in order to get the loan. Jennifer also commented on this story: “I think some of the barriers that I’ve encountered have had to be mitigated since then, by federal law. If the banker [...] had been Farm Service Agency, then I would have been part of a class action lawsuit.” She is referencing *Love v. Vilsack*, a lawsuit brought against the USDA in 2000, which claimed that women and Hispanic farmers were discriminated against and denied access to loans through the Farm Services Agency (FSA) (USDA, 2016). A \$1.33 billion settlement fund was established and nearly 22,000 claims brought forth for judgement. 3,200 of these claims were awarded some sort of financial compensation, totaling over \$207 million. However, remaining claims from the suit were dismissed in 2016 (Sachs et al., 2016, pg. 14; USDA, 2016).

Emma used the current interest in women farmers to her advantage to gain access to funding. She stated, “I feel like [my gender]’s been a big asset, and we have gotten more help because of it, because Vermont is so focused on women farmers. We got our FSA loan based on—under that category.” By recognizing that some of the state’s focus has shifted towards supporting and recognizing women farmers, Emma is using individual action (in applying for FSA loans as a woman farmer) that came about from collective action (a group of farmers bringing a lawsuit against the USDA/FSA and the subsequent amplified focus on women farmers) to increase her empowerment and decision-making ability through financial means. Helen had a similar feeling about the financial services offered to her because of her gender. She described her experiences:

Because I go through the Farm Service Agency for all my loans, and because I’m a woman farmer, I qualify for certain programs that I wouldn’t necessarily because I’m a disadvantaged social group. So, I feel like, if anything, those programs have helped me over the years. Not necessarily financially, but at least, you know, put me to the top of a pile if they’re looking at people to lend money to.

Some farmers try to use various financial strategies to make farming their only source of employment, like Helen, who said, “I don’t want to work—I want this to be my full-time employment, so I do not work in the winter for somebody else. That’s my goal, is to not be doing that.” Other farmers do the opposite and rely heavily on off-farm employment to supplement their farm income. Working on other farms, teaching classes, and developing workshops and programs for outside organizations were common practices for some women farmers. Emma owns a goat micro-dairy with her husband, but also works in sales at a different local goat dairy to support herself and the farm. Lauren described how she

held a full-time job teaching at a local university (employment which gave her more time in the summer to be on her farm) while also maintaining her farm, which she described as “a second full-time job.” Amy mentioned “I always have at least another job, and often two other jobs,” and Shannon discussed how she provides consultations on farming and grazing (and ski instructing) to others as part of her income stream.

This transition away from a reliance on off-farm work for financial viability may represent a diminishing of empowerment for some in that they are “forced” to have another source of income, but for others, it represents a form of empowerment. In taking an off-farm income, their reliance on farm income is decreased, which may free them to make financial choices they otherwise would not make for their farms and lives in general. Whatever strategy these women farmers chose, it shows that they are empowered through their ability to make this choice as individuals.

Third, individual diversification of farm business arose as another main strategy that women farmers used to help boost the financial success of their farms. By growing and producing a wide range of products or using multiple venues to sell their products, women farmers can avoid the issue of relying too heavily on one revenue stream and encountering major financial losses if that revenue stream fails. When asked to describe how their farm was structured, many women farmers responded with a long list of endeavors and avenues rather than one focus. These farmers utilized profits from Community Supported Agriculture (CSA) or produce box schemes, wedding flower arranging, farm stands, maple syrup production, livestock operations, forestry operations, and beyond.

Some farmers also reported creating and maintaining a variety of agritourism ventures, such as cooking classes, farm dinners, B & B enterprises, and much more. Agritourism is a special blend of traditional farming spheres and tourism strategies that bring people to the farm in order to create a stronger connection between the consumer and the producer/farmer. It may be more attractive to women

farmers because of this emphasis on community and education, which is often a goal expressed by women farmers (Jarosz, 2011; Trauger et al., 2010; Wells & Gradwell, 2001). Suzanne related that the B&B she runs out of their farmhouse has a strong educational focus, especially for children who come out from the city and have never been in such an environment before. When describing her farm, Stephanie mentioned all of the “farm components,” such as vegetables, maple syrup, and high tunnel production, that she and her husband worked on together, and then also described the “education component, which I run, which is like a community outreach component that brings field trips and school groups here.” Her ability to diversify the markets for each product from her farm as well as bring people to the farm for agritourism shows individual agency through the power to have choices rather than be stuck with only one market option. These choices and decisions, made through her individual agency, allow her to feel more secure within her business, and this security in turn leads to a greater sense of empowerment. It is also the result of collective structures—without these other markets and a community of consumers willing to pay for these products and experiences being available to her through their own choices, her options for profit would be more limited.

Fourth, to achieve financial success, farmers discussed how collaborating with other producers can increase success for both parties. Many farmers who used farm stands to sell their products also sold items produced by others, or relied on other farmers to supply certain crops for their CSA members that they chose not to grow themselves. Rachel described how “we run a direct market retail business [...] that’s the other half of the business, is we buy in products from all kinds of farms to basically stock our own store as well as selling our own milk.” Amy, who has chosen to shrink the size of her business in past years, mentioned how she gets most of her farm stand crops from other local farms and focuses her growing efforts on only a few crops that she wants daily.

These types of collective financial partnerships support the individual farmers while also supporting the creation and maintenance of networks that can offer encouragement in other ways. In this way, the individual and collective actions are merged through empowered decision-making about what types of relationships to foster. Women farmers have the agency to choose who they will work with and what types of products they will sell on their farm for success. These decisions can lead to a greater sense of empowerment, both for the original farmers and those they purchase from and support.

### **Discussion**

This study aimed to understand how women farmers face, cope with, mitigate, or overcome perceived barriers associated with their agricultural occupation. Through my research, I found that women use a variety of individual and collective actions to overcome the effects of these barriers. These strategies strengthen their individual feelings of agency and empowerment through decision-making power, as well as the empowerment of the collective of women farmers.

My research found that the experiences of my interviewees compliment the theory of women's agency and empowerment developed in previous research, but also complicate it when examining individuals and collectives (Ibrahim & Alkire, 2016; Kabeer, 1999). Women farmers made decisions on their farms. They showed high levels of agency in the ability to make and implement these decisions to overcome the barriers they faced, such as the perceptions of others and lack of access to resources (Kabeer, 1999). The barriers detailed above could be considered restraints on women's agency and empowerment; in overcoming them with the solutions they described, women farmers were able to increase these concepts. However, they are still disadvantaged when compared to male farmers that may not have faced these barriers in the first place. In addition to exercising individual agency and thus achieving individual empowerment, women farmers described experiencing a strong sense of agency and empowerment through collaboration and collective action. This complicates the theory described

previously, as agency and empowerment cannot be given by others; involving oneself in a collective has to be seen as a form of “taking” agency and empowerment, rather than the others within the collective, already empowered, being able to give it.

Informal networking strategies were an important means of collective action. This finding contributes a new perspective to current theoretical understandings of agency and empowerment, which have mostly been focused on individual agency and empowerment. This knowledge can be used to encourage and educate more women farmers through support networks and other informal methods, rather than fostering a reliance on formal networks for knowledge exchange. These formal networks, although they may believe themselves to be helping women farmers, may need to rethink their strategies in order to compliment the more informal way that women farmers prefer to learn.

### ***Future Research and Limitations***

My findings complement and complicate understandings of women’s agency and empowerment within the current state of agriculture. Future research should examine more closely the interaction of individual and collective agency and empowerment among women farmers, and the empowerment of individuals as members of collectives. Further inquiry into these topics should also dissect how women farmers begin to construct and strengthen any support networks that they use, with a special focus on the importance of the Internet. This could allow these support networks to form earlier in a woman farmer’s career and potentially allow for more barrier mitigation. Researchers could look at populations of women farmers in other states and regions to see if they use similar mechanisms and strategies for individual and collective agency and empowerment as those found in my Vermont study. Additionally, examination of how others involved in formalized agricultural programs such as extension services perceive women farmers could further an understanding of why many women farmers feel

uncomfortable in these programs. This could then potentially lead to necessary changes in structure and attitude within these institutions.

One of the limitations of this study is its geographical scope. Although my interviewees came from more than half of the total counties in Vermont, I was not able to interview a woman farmer from each county, so responses may be biased towards the viewpoints, themes, and attitudes in the counties I did capture. Additionally, the farm types and value-based practices represented by my collected responses may also exclude some woman-owned farm types that I did not manage to capture with my interviewee pool. This inadvertent exclusion may possibly skim over the agency and empowerment strategies and barriers of these women. Although the results from interviewing women farmers in Vermont shed light on how they overcome barriers in agriculture, these results may not be transferable to other populations given the cultural differences between a state like Vermont, with many agricultural resources and support networks and a unique perspective on agriculture, and other areas of the United States.

### ***Implications and Action***

With these results, I hope to shed light on why women are still seen as outsiders or unusual in the agricultural world, and what can be done to change this view. These findings hopefully can be used to prompt greater support from formal organizations, and especially a greater focus on highlighting women farmers to act as role models for others. For example, NOFA-VT or the Vermont Vegetable & Berry Growers Association could work towards increasing the number of female speakers at their gatherings; they could even make women farmers the topic of a yearly conference. Formal organizations should also try to be more connected and supportive of the informal networks across the state and their activities. It is possible that women looking to enter agriculture would start with contacting these formal organizations, and having them connected to other networks could provide a greater sense of kinship and

support for new farmers. In addition, the USDA/FSA should continue to repair their strained relationship with women farmers by providing financial support to those who need it, as well as other forms of women-specific programming and research wherever possible across the country.

### ***Conclusions***

Despite USDA Agricultural Census data showing that the number of women farmers in the United States has increased over the last decade, more progress towards gender equality in farming is sorely needed. The barriers that women farmers face are numerous and constraining, but these women are resilient and utilize unique strategies to succeed as farm operators. Women farmers reported cleverly combining individual and collective action to boost their own personal agency as well as to empower themselves and others. Support networks are a crucial part of the financial success and emotional wellbeing of women farmers, and their formation and resilience should not be overlooked when determining how to support the varied needs of women in agriculture.

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