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A qualitative investigation of resilience among small farms in western Washington State: Experiences during the first growing season of COVID-19

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Abstract

The 2020 growing season presented new and significant challenges for farmers and farms across the United States as they navigated the COVID-19 pandemic. The rich and diverse agricultural landscape of Washington State offers a valuable microcosm in which to explore the experiences of farms in the U.S. during the pandemic. The purpose of this study was to qualitatively assess the impacts of the COVID-19 pandemic on directly marketing small farms in western Washington State, with a focus on farmers' experiences with resilience. We conducted in-depth, semi-structured interviews with 15 farmers and used thematic analysis to explore the influence of the pandemic on overall

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experiences, responses, and values and perceptions related to small farms. Interviewees provided insights on the impacts of the pandemic on their daily farm operations, production costs, marketing channels, demand, and revenue. Farmers also reported shifting personal and public attitudes towards small farms during the pandemic. Product diversity, flexibility, multiple forms of support, values, and access to resources emerged as drivers of COVID-19 impacts and farm adaptations. When compared to existing frameworks on farm resilience, farms in this study are seen to demonstrate resilience via buffer and adaptive capabilities, which enable them to absorb and adjust to shocks. Farmers also discussed resilience via transformative capability, the potential to create new systems, leveraging the collective power of small farms to shape future food systems. Future research on the resilience of small farms should focus on ways to both promote resilience attributes and facilitate the ability of farmers to act on resilience capabilities.

Keywords
COVID-19, Pandemic, Farm, Washington State, Impact, Resilience, Values, Interview, Qualitative, Small Farms

Introduction

The 2020 growing season presented new and significant challenges for farmers across the United States as they navigated the first year of the COVID-19 pandemic. Experiences at the farm level played out against the broader backdrop of the U.S. food system, where well-publicized disruptions painted a picture of a system in crisis (e.g., Hobbs, 2020; Inslee, 2020; Klassen & Murphy, 2020; Kulish, 2020; Lewis, 2020; Lusk & Chandra, 2021; Reiley, 2020; Weersink et al., 2020). However, the impacts of the pandemic varied by sector and scale (Reiley & Reinhard, 2020; Ridley & Devadoss, 2021; Thilmany et al., 2020; Weersink et al., 2020), and the overarching narrative of a struggling food system does not fully capture the varied experiences of farm businesses in the U.S. While many indeed faced disruptions, some were also able to nimbly adapt to the changing business environment by, for example, pivoting their market channels to community supported agriculture (CSA) programs, farm stands, or online platforms (Lemos & Ackoff, 2020; Local Food Research Center, 2021). In surveys exploring the financial repercussions of the pandemic, some farmers reported impacts including decreased revenue, but others reported increased or unchanged revenue (Dennis et al., 2020; Seidel et al., 2021; Stabiner & Barber, 2020). Such varied and sometimes strikingly divergent impacts of the pandemic on farm operations and finances suggest that further exploration via in-depth, qualitative research is necessary to more fully characterize the experiences of farm businesses during COVID-19, particularly as they relate to farms' different approaches to adaptation and the different manifestations of resilience displayed.

Across numerous sectors, including farming, the shock of the COVID-19 pandemic has afforded an unexpected opportunity to study the resilience of complex systems in real time (e.g., Darnhofer 2020; Haldane et al., 2021; Hobbs 2021), strengthening connections between theory and application. The concept of resilience was originally popularized in the field of ecology and described by Holling (1973) as the persistence of relationships within a system; a resilient system therefore, is able to absorb disturbances and still persist in its function (Holling, 1973). Resilience at the farm level has been conceptualized as consisting of a combination of buffer, adaptive, and transformative capabilities. These capabilities can be understood as active processes that, respectively, allow farms to absorb shocks without major changes, adapt to shocks, and make significant changes in response to shocks, essentially creating new systems (Darnhofer, 2014). This serves as a useful conceptual framework for understanding the behavior of dynamic systems—including individual farms—during shocks and ongoing disruptions such as those caused by the COVID-19 pandemic. At the same time, deepening our understanding of sources and drivers of farm-level resilience is of paramount importance to broader goals of enhancing food system sustainability (Tendall et al., 2015). In light of growing sentiment that small farms in particular have an increasingly important role to play in contributing to a national food system that is resilient, sustainable, and just (The Civil Eats

Editors, 2021), there is notable value in examining the ways in which the pandemic has revealed different forms of resilience at work across diverse types of small farm operations.

As a highly productive and diverse agricultural region—one whose geographically and climatically heterogeneous makeup supports a range of agro-ecological systems and related supply chains (Washington State Department of Agriculture, n.d.-a)—Washington State serves as an excellent microcosm to explore the varied experiences of farms during the pandemic. There is also pressure on the state's food and agricultural systems to adapt nimbly and proactively to future challenges such as those posed by a changing climate (Vallila-Buchman & Byrne, 2019; Yorgey et al., 2017) and to translate lessons learned during the pandemic into measures that enhance preparedness for future disruptions and build overall resilience (Otten et al., 2021; Vallila-Buchman & Byrne, 2020). Early reports confirm the magnitude of impact experienced by farms in Washington State, with nearly 70% of respondents to a survey conducted following the first quarter of 2020 seeing a decrease in revenue during that period (Moore, 2020). Great heterogeneity of experiences is also evident, with a different survey conducted at the end of 2020 finding that some Washington farms saw revenue decreases while others saw increases, and some increased production volume while others scaled back. Some grew their customer base while others saw it shrink. Factors such as farm size, marketing scale, and type of production appear to influence these conflicting experiences and actions (Collier et al., 2021; Otten et al., 2021). However, the degree to which surveys can explain the underlying causes of such phenomena can be limited. Specifically, a knowledge gap remains related to the sources of variation in impacts experienced and resilience exhibited, and this is a gap best addressed through qualitative study.

The purpose of this study is to qualitatively assess the impact of the COVID-19 pandemic on directly marketing small farms in western Washington State, with a focus on farmers' experiences with resilience. In-depth, semi-structured qualitative interviews were used to explore farmers' experiences in a way that complements quantitative data collection among this population (Collier et al., 2021; Moore, 2020). Direct sales, including those to consumers (e.g., through CSAs, farm stands, U-pick, and farmers markets), restaurants, grocery stores, co-ops, food hubs, and institutions such as schools, constitute approximately 16% of all agricultural sales in Washington (U.S. Department of Agriculture National Agricultural Statistics Service [USDA NASS], 2017b; Washington State Department of Agriculture, n.d.-b). Many direct marketing channels were among those most immediately and heavily impacted both positively and negatively by the pandemic (Otten et al., 2021). Examination of the experiences and actions of direct-marketing farms may therefore illuminate diverse sources of impact and drivers of resilience at the farm level. Furthermore, small farms, defined as those with annual gross cash income under US$250,000 (MacDonald, 2021), constitute nearly 90% of all farms in Washington (USDA NASS, 2017a) and are particularly prevalent in the western part of the state (Ostrom & Donovan, 2015). Yet despite their large numbers, small farms tend to be an underserved and underrepresented segment of the Washington agricultural industry; they have been historically excluded from some forms of federal financial support and, unlike large commodities, are not typically represented by a commission or other regulatory body (M. Moore, personal communication, June 29, 2020). Exploring the experiences of small, direct-marketing farms in Washington State thus also has the potential to fill knowledge gaps for agencies and organizations that respond directly to farmer needs and operate primarily at the state level.

Methods

Sampling Strategy and Recruitment

Fifteen farmers were recruited to participate in semi-structured qualitative interviews to document the experiences of their farm businesses during COVID-19. Farmers were included if they were over 18 years old, had been a farm owner or operator in Washington State for at least one year prior to COVID-19, had a farm income of US$250,000 or less, and participated in some form of direct marketing (e.g., on-farm sales, farmers markets,

CSA, agritourism, food hubs, direct-to-restaurant, direct-to-institution, or other forms).

Participants were recruited beginning in August 2020, and interviews were conducted via Zoom (Zoom, Version: 5.7.4 (804)) through October 2020. Initial recruitment targeted agricultural professionals and was distributed via email to the Washington State University (WSU) Food Systems listserv and sent directly to county conservation districts, farmers market managers, and WSU extension offices across the state. Recruitment materials explained inclusion criteria, the Zoom format, estimated duration of interviews, scheduling logistics, and that participants could win one of three US$100 e-gift cards. Recruitment was supplemented with direct outreach via email to farmers in late September. The study team identified potential farmers via emails and phone calls to farmers market managers, farmers market vendor lists, as well as the WA Food & Farm Finder online tool (Eat Local First, n.d.).

Participant Characteristics

Interviewees operated farms in King (*n*=5), Whatcom (*n*=4), Pierce (*n*=1), Lewis (*n*=1), Pacific (*n*=1), Skagit (*n*=1), Clark (*n*=1), and Island (*n*=1) counties, all of which are in western Washington (west of the Cascade Range of mountains, which divide the state). Farm size ranged from 0.25 to 65 acres, with an average of 22 total acres. Most interviewees (66%) reported a typical gross farm income of less than US$50,000, though this ranged from less than US$10,000 up to US$250,000. Ten interviewees (66%) reported producing more than one agricultural product; the most commonly produced items included vegetables (80%), tree fruit (40%), meat including beef, pork, and lamb (40%), poultry meat (27%), and eggs (20%). Other production items included berries, cut flowers, dairy, grains, hay or silage, honey, and nursery items. Three interviewees reported that agritourism or educational activities were a key part of their farming business. While the sample population overrepresents producers of vegetables, fruits, and animal products relative to overall totals for the state (USDA NASS, 2017b), these proportions reflect the higher likelihood of direct-to-consumer marketing among these product categories identified by Plakias et al. (2019) in a study of direct-marketing farms. The sample population reflects the majority-white racial/ethnic makeup among small farms in Washington State (Table 1). However, it should be noted that many of the non-white racial/ethnic identities present at lower frequencies among the state's farm population are not represented here. The sample population skews slightly more female and younger than all small farmers in the state. It includes notably higher proportions of beginning farmers and individuals for whom farming is a full-time occupation (Table 1). Beginning farmers have been found to be more likely to engage in direct-to-consumer sales (Plakias et al., 2019), and thus this differentiation between the study population and overall small farm demographics in the state is in keeping with this study's focus on direct-marketing farms. It should also be noted that the agricultural census data to which sample population characteristics are compared in Table 1 include data on up to four producers per farm, whereas interviewees for this study were typically the primary farm operator, which may affect the likelihood of reporting farming as a full-time occupation. These details about farmers and their farms are provided to assist the reader with assessing the transferability of study findings to other settings (Guba, 1981).

Data Collection and Analysis

The semi-structured interview guide explored five major topics: (1) basic information about the farmer, (2) basic characteristics of the farming operation, (3) how farmers were affected by and responded to the pandemic, (4) farmers' ability and/or need to respond to the pandemic, and (5) values and perceptions related to small farms and farming. All interviews were conducted in English; while Spanish interpretation was available, recruitment materials (including information about the availability of interpretation) were only distributed in English. The interviews were recorded and transcribed using Zoom software and uploaded to a secure server. Recordings were reviewed to manually correct transcriptions for accuracy.

The data were organized and analyzed using Atlas.ti software (Atlas.ti, Version 8.4.25.0). Two researchers completed a first pass of line-by-line

coding of three interviews (20% of total interviews) to ensure codebook validity. In total, three passes of line-by-line coding were completed, and the code book was iteratively adjusted with each pass. The study team took an emergent approach to thematic analysis and initially created codes, categories, and themes based on the experiences and reflections of the farmer-interviewees. The final codebook contained 168 codes, 27 code categories, and 9 themes (Appendix A).

Interviews were conducted and coded in the same phase of the study, and analytic memos were kept throughout the process (Saldaña, 2009). Co-coding and peer debriefing were used throughout the study to increase the credibility and dependability of the findings (Thomas & Magilvy, 2011). As the number of interviews completed approached 15, few to no codes were added to the code book, suggesting data saturation had been reached (Fusch & Ness, 2015; Guest et al., 2006; Mason, 2010). By using in-depth, semi-structured interviews, this study was designed to invite and document depth of experience—another important aspect of data richness (Fusch & Ness, 2015; Guest et al., 2006). Time of year also influenced when to end the interview process. As the end of the growing season neared, farmers began commenting more on future seasons and the overall tone of the interviews began to shift, suggesting that a natural breakpoint had been reached.

After the initial thematic analysis was completed, the study team re-examined the data using

Table 1. Interviewee Characteristics

Characteristic	Number of Respondents (%)	Prevalence among all small farm operators in WA[a]
Gender identity (self-reported)		
Female	9 (60.0%)	45%
Male	5 (33.3%)	55%
Transgender	1 (6.7%)	n.d.
Racial/Ethnic background (self-reported)		
White	14 (93.3%)	95%
Native American	1 (6.7%)	1%
First-generation farmer?		
Yes	13 (86.7%)	n.d.
No	2 (13.3%)	n.d.
Is farming your full-time occupation?		
Yes	8 (53.3%)	36%
No	4 (26.7%)	63%
For me but not my partner	3 (20.0%)	n.d.
How long have you been farming at this operation?		
<5 years	5 (33.3%)	14%
5–9 years	5 (33.3%)	15%
≥10 years	5 (33.3%)	69%
Age (years)		
25–34 years	2 (13.3%)	5%
35–44 years	5 (33.3%)	11%
45–54 years	2 (13.3%)	17%
55–64 years	4 (26.7%)	29%
65–74 years	1 (6.7%)	25%
>75 years	1 (6.7%)	11%

[a] USDA National Agricultural Statistics Service, 2017a: Producers reporting farm sales of less than US$250,000.

resilience frameworks proposed for farm businesses (Darnhofer 2014) and farming systems (Meuwissen et al., 2019). These frameworks allow study findings to be situated within the broader context of farm and food system resilience.

Research Ethics and Positionality

The University of Washington Institutional Review Board Human Subjects Division determined this research qualified for exempt status. Interview participants provided verbal consent to participate in this study voluntarily and to be recorded. Participant identities were known only to a subset of the research team and were kept confidential throughout data analysis.

All members of the author team have some experience with food production. In their professional capacities, they have prior experience interacting with food producers across multiple scales, systems, and geographies, including conventional, organic, and regenerative practices; crop and animal production; small, midsized, and large-scale operations; and local, regional, national, and international settings. The authors have no known personal connections to any of the study participants.

Results

Findings presented here highlight both similarities and distinctions in the impacts experienced by small farms during the first growing season of the pandemic, as well as farmers' explanations of driving forces behind why they experienced impacts or adapted in the ways they did.

Varied Impacts on Farm Businesses

This section describes areas where farmer experiences did not align around a common narrative but instead varied from farm to farm. Such heterogeneity of experience was evident when farmers discussed farm operations, business costs and prices, market channels, and revenue.

Production, inputs, and processing

While many farmers noted that production did not shift due to the pandemic, others explained that production was highly tailored to their market channels, and as market channels shifted, so did their production. For example, as one farmer transitioned from selling at the farmers market to CSA, they shifted to growing bell peppers and other "unique one-off things that you would find in a CSA that don't do well at market."

Interviewees reported experiencing both upstream and downstream supply chain disruptions, though none that caused significant changes to production. Two farmers explained it was difficult to obtain seeds in the first few months of the pandemic. However, one farmer was able to move forward by choosing different varieties of seed than usual, and the other was able to rely on saved seeds. The pandemic presented unique stressors for farmers selling meat products as they dealt with the fallout from bottlenecks in the meat processing industry. Farmers described challenges arranging on-farm custom slaughter, concerns around "if slaughter was going to shut down," and how they "were very limited on [the availability of] USDA processing." Despite these concerns, no interviewees reported major impacts on their meat production due to processing disruptions.

Labor

Labor-related experiences differed across farms. Many interviewees had a relatively small labor force of only one to two people to begin with; these operations did not make changes to their labor force in the 2020 growing season. Some who had larger workforces encountered challenges as a result of COVID-19 health and safety restrictions. One farmer explained that because they did not offer their work share program in the 2020 season, production quantity and quality decreased. A different farmer who typically relies on volunteer labor was worried about the increased amount of work but explained how their "super good core team" completed everything on its own.

Business costs and prices

While some farmers experienced no change in business costs associated with the pandemic, this was not true for all. One farmer reported increased costs associated with the logistics and implementation of handwashing stations, a farmworker safety program that they considered more relevant for large-scale agricultural operations in eastern Washington.

Two farmers who produced meat reported increases in processing costs. As one described:

> *The costs doubled between early in the pandemic and June, and so that, for a business our size, is huge. I'm not sure why, but it jumped from [US]$1.10 per pound for processing to [US]$2.79 a pound for processing in that time frame.* F10

Prices interviewees charged for their products generally did not change, although there was variability. For example, one farmer explained they had increased the sales price of their beef due to the doubled processing costs, while another shifted to selling garlic at their farm stand instead of wholesale and therefore charged a higher retail price.

Market channels

Interviewees experienced significant reorganization of their market channels due to the pandemic. Generally, as restaurants and farmers markets closed, interviewees shifted to selling via CSA or farm stand. Shifting toward CSA sales was a common occurrence, and farmers often described this as an "easy" shift:

> *It just felt like a really natural, easy way to do the numbers. Like how many more CSAs would I need to make up the market income that I projected? Oh, I think I can do that, or close enough.* F12

As many farmers markets closed or reduced capacity during the pandemic, some farmers opted out of markets entirely or decreased the number of farmers markets they participated in. Several interviewees explained that the risk of COVID-19 made them hesitant to participate in markets at all. One farmer implemented a completely new sales strategy during the pandemic:

> *When [farmers] markets shut down, we occasionally just went down and sold on the streets of Seattle. It was by no means a worthwhile market, but it maintained the idea that we are committed to growing.* F14

Eventually, farmers markets did reopen. While some stayed away, this same farmer chose to focus heavily on selling at farmers markets. They reflected on the success they were able to achieve as a result:

> *If you look at our books, COVID is the best thing that's happened to us. This year… we're definitely in the black. But we did that through doubling down on selling at farmers markets. Really taking farmers markets and what we grow for farmers markets seriously.* F14

Some farmers explained that new market channels emerged because of the pandemic. These new market channels were often facilitated by personal relationships. For example, a flower farmer explained how they were able to shift their drop site to the home of a personal contact and were invited to participate in a home delivery service organized by a friend responding to the closure of farmers markets.

Revenue and stifled growth

Changes in revenue experienced by farmers were not uniform across the board; interviewees reported increased, decreased, and unchanged revenue. Some farmers expressed that from a financial perspective, COVID-19 was particularly good for their business. However, some who experienced increased revenue also provided insight into what they described as "stifled growth." In other words, they expected rapid growth for their business in the 2020 season, and actual growth was less than anticipated:

> *We were expecting a 25% increase in gross sales this year, and that was a conservative estimate. And this year, our gross sales are just under 12% higher than they were last year. ... If you look at other farms that have been established for longer and aren't going through periods of rapid growth, they aren't doing as well. So we are the odd scenario here where COVID definitely had a negative impact on markets however that's not reflected in our accounting.* F14

Common Experiences of Farmers

This section describes themes that emerged around common experiences with perceived and actual uncertainty, stress, and attitudes about small farms.

Uncertainty

Many farmers expressed a general sense of uncertainty during the pandemic. Some wondered if the increase in demand they were experiencing would be maintained in future seasons or if they were just creating "insecure marketing streams." Others explained how it was difficult to adapt if they did not know what the world would look like in a month or even a year. Farmers described how this pervasive feeling of uncertainty made decision-making more difficult. A farmer who produced raw milk, among other animal products, experienced an unprecedented boom in demand and faced a decision of whether or not to expand their herd size. They expressed concern about getting "stuck" with extra milk because "you can't just turn a cow on and off" in response to consumer demand.

Stress and strain

Stress was a common feeling expressed by farmers. Some were stressed because COVID-19 greatly reduced their cash flow, particularly at the beginning of the season. Stress was exacerbated as farmers who relied on off-farm income were unable to work their other jobs. For one, this meant "living tightly" and temporarily suspending their house payments. Others were worried about the possibility of getting sick or having someone on their crew get sick. These fears strained social dynamics among farm employees as they had to navigate social distancing while working a job that required close contact with others. Some also noted that the pandemic was not the only challenge faced in 2020, hinting at the 2020 presidential election as well as social unrest and general public polarization. One farmer shared how this backdrop, combined with COVID-19, made work particularly uncomfortable:

> *Most of the folks out here where I live don't seem to care, or have very strong political opinions [against] things like masks and social distancing. That makes it challenging to get supplies and not feel like people are being nasty and giving you the stink eye.* F12

Positive attitudes toward local food

Farmers reflected positively on some aspects of the pandemic, like consumer attitudes and increased demand. Several interviewees described a collective "wake-up call" for the public as a result of the pandemic and connected this to a positive shift in attitude towards small farms. A pork producer described how they had huge success during the pandemic in part because they were able to begin selling half a pig a week to a market they felt would previously have been unavailable to them. This farmer described how people seemed to "be on a different wavelength" because of COVID-19 and how their market contact was "using the COVID craziness...to get some new things approved by her boss." This positive shift in attitude was accompanied by an increase in demand experienced across market channels. In particular, farmers described large waitlists for their CSAs and how people "wanted to give [them] money." The largest uptick in demand was noted for meat and animal products, including milk and eggs.

Farmers also reflected on a renewed appreciation for the benefits and feasibility of local food systems. In general, farmers reflected on how they felt the pandemic affirmed the "viability of a local food system," and one predicted "a pretty dramatic shift in people's willingness to consider [CSA] as a model." Further, both farmers and customers saw how strong local food systems had the ability to address chronic problems, like climate change, and acute problems, like the pandemic. One farmer noted that "small farms are regenerative and hold carbon." Another described how "having a local food source is critical" as natural disasters become more intense as the climate changes. Customers and farmers also saw how small farms were able to adapt to meet the unique challenges that arose during the pandemic. For example, several farmers noted that customers chose to shop with them because they felt safer being around fewer people.

Drivers of Impacts and Adaptations

This section describes farmers' explanations of driving forces behind why they experienced impacts or adapted in the ways they did. Themes emerged around product diversity, flexibility and autonomy, support, values, and access to resources.

Product diversity

The majority of interviewees described themselves

as diversified farm operations, which proved to be particularly beneficial during the pandemic. Farmers noted that supplying diverse products attracted customers who were interested in buying multiple items from one location. Interviewees also contrasted themselves with farms with less diverse offerings that did not have other products or market channels to lean on if challenges arose anywhere along the supply chain of a particular product. One farmer compared their diversified operation to a fictional cucumber farmer who might be struggling during the pandemic:

> *If I was just a cucumber farmer growing cucumbers for a pickle packer, and that pickle packer had to cut their orders in half because of staffing issues, I would be in a world of hurt. But because we're diversified, because we're direct to consumer, we can find a channel to sell pretty much anything.* F14

Flexibility and autonomy

In general, interviewees used words like "nimble," "adaptable," and "adjustable" to describe their operations, noting that if they needed to make changes, it was "easy." This operational flexibility manifested most clearly as the ability to shift between market channels and having autonomy over decisions. One farmer recognized that not all operations have this flexibility and contrasted themselves to a family that had been in the dairy business for 90 years who was forced out of business because they could not find an alternative market for their milk:

> *They sold all of their milk to a wholesaler ... and they could not retool. They were dumping 250,000 gallons of milk per day because of their contract and because they were not allowed to sell directly to the consumer. ... They tried to keep as many [employees] as they could. They sold everything but their home, they liquidated their retirement, just to keep their employees going. And finally, they said the only thing we have left is our home. And just like that, they sold their cattle to the meat packer, and they were out of business.* F8

In contrast, a dairy farmer interviewed for this study *was* able to make adaptive changes during the pandemic enabled by the independent, diversified nature of their business. At one point, they found themselves with extra milk; however, instead of dumping the excess and incurring a loss, they chose to make and sell cream. This was in part possible because they had the autonomy to pivot to new production methods and were not beholden to rigid contracts.

Multiple forms of support

Across the board, interviewees expressed feeling supported by their community. This took many forms, including increased verbal support, supportive grocery product managers, and direct financial support from customers. One farmer described that they "always kind of feel and know" abstractly that the support is there, but as a result of COVID-19, they experienced "tangible evidence" of that support as customers reached out to them offering to buy products, contact county officials, or generally trying to be helpful.

For some farmers, community support manifested as access to new market channels. Some gained new market channels in more mainstream outlets like grocery stores, while others had opportunities to participate in novel partnerships with new mobile farmers markets, nonprofit organizations, or other local businesses working to support those in need.

Interviewees also described how farming communities supported each other by connecting people to resources, services, and even occasionally direct financial support. As detailed previously, farmers selling meat products encountered challenges due to bottlenecks in the meat processing industry. One farmer explained how their network helped them navigate challenges accessing slaughter and avoid major disruptions to production. A different farmer noted the only reason arranging slaughter was not a stressor this year was because they were a member of a co-op that supported their processing needs.

Farmers reported receiving both direct and indirect forms of government support. Indirect support included selling to institutions like food banks that had received government funds to purchase from small farms or receiving a larger amount of "local currency," a resource akin to a market bucks matching program. Only a small

number of interviewees reported receiving direct government aid in forms such as the Paycheck Protection Program (PPP) or the Economic Injury Disaster Loan. Barriers to accessing direct aid included being "too small" to apply, having to have an absolutely clean criminal record, and difficulty with the applications themselves. One shared their frustrating experience of spending time filling out the PPP application, only to be disqualified because they did not have payroll expenses in February 2020.

Business values

Farmers described how farm mission and values influenced their operations, market channels, and price decisions. They described their desire to "be an asset to the community," emphasizing the notion that they were not farming just to "get bigger," but to provide quality food aligned with the values of their business. All the interviewees wanted to run a successful business at baseline yet seemed to broaden their definition of success beyond profit maximization. In fact, many farmers were explicit that money was not the only or even the most strongly held value of their business.

Nearly all farmers interviewed for this study emphasized the importance of values to their business, and environmental stewardship, producing nutrient-dense food, and feeding the community emerged as frequently shared core values (Table 2). Thirteen of 15 (87%) farmers explicitly called attention to at least one of these core values either in their farm's mission and values statement or elsewhere in the interview.

During the pandemic, farmers leaned heavily into their mission of feeding others, and several farmers explicitly stated the general importance of improving food access in their communities. Specific to the pandemic, many farmers reflected positively on how they felt they could fill gaps in food access when, for example, there were shortages at grocery stores and food banks, or people did not feel safe leaving their homes. One farmer shared a story of how the small Hispanic population in their community leaned on their farm stand for produce when they did not feel safe going to the store:

> *We found out they were feeling very fragile when things first started because some of them aren't citizens and they didn't know if they would have health care if they got sick, so they didn't want to shop [at the store] at all. So they connected with our farm stand. There was one person who was basically buying for everyone and bringing it to a central location.* F15

It also became particularly evident that values were tightly linked to decisions about setting prices. One farmer described seeing the needs of their friends–the people they wanted to feed–and reducing their prices accordingly.

Table 2. Core Values and Illustrative Examples as Expressed by Interviewees

Commonly shared core values	Number of farmers expressing this value (*N*=15)	Illustrative quotes from interviews
Environmental stewardship	11	*We aim to be good stewards of the land producing naturally grown products using sustainable, low impact farming methods.* F8
Feeding the community	11	*It's a value of the farm to feed the folks that are nearest to us and keep those food systems supplied.* F12
Producing nutrient dense food	6	*[We have a desire] to be a provider of healthy food.* F2
Multiple core values expressed simultaneously		
2 core values	7	*[Our mission is] working with the land and the environment to create food access for our community.* F7
3 core values	4	*Our goal is to grow nutrient dense foods, whether that's vegetables or proteins, as sustainably as possible, with community in mind.* F12

Interviewees reflected on perceived values held by their customers as well. This was most evident for meat producers who described the "reminders" customers received about industrial meat production. One pig farmer mentioned how the COVID-19 outbreaks experienced in slaughterhouses drew negative attention in the press and subsequently drove a spike in demand:

> *Any time something happens in the news with the big slaughterhouses, people get reminded that there are these big factories that process 10,000 pigs a day. And then they come and buy more from a small farmer.* F1

Access to additional resources

Throughout the interviews, farmers identified resources that contributed to their ability to adapt and respond to the pandemic. Unsurprisingly, access to financial capital was beneficial. Social capital was also important to farmers as it facilitated access to new market channels, inputs, and services, including childcare.

Interviewees expressed gratitude for their access to water and fertile, productive, well-located land, which were vital assets. Others noted that existing infrastructure, including buildings used as farm stands or farm stores, greenhouses, and space for parking, was crucial for success. Interviewees also described resources they felt were currently lacking and would be most beneficial for future resilience. Top-named needs included improved access to collaborative aggregation and distribution solutions like food hubs, improved access to administrative resources and software, and enhanced public awareness of the relationship between food access and farm viability (see Appendix B for a complete list).

Discussion

This study explores the experiences of western Washington State directly marketing small farms during the COVID-19 pandemic, with a focus on the implications for farm resilience. The findings show that participants demonstrated resilience and illuminate the strategies that *promoted* resilience. Additionally, the findings serve to contextualize experiences where simplistic interpretations belie hidden costs and potential inequities.

Tempering Interpretations of Impacts

The results presented here suggest that caution is warranted in interpreting reports of increased demand and revenue experienced by farmers during the pandemic. For example, a survey examining impacts of COVID-19 on Washington State farm businesses reported that 43% of respondents saw revenue increases in 2020 compared to 2019 (Collier et al., 2021). However, farmers in the present study were able to contextualize that simply experiencing an increase in revenue was not necessarily an unconditional success. Stifled growth and loss of off-farm income were financial challenges for farmers that were hidden behind the "success" of increased revenue and demand. Similar results were reported in a survey of beginning specialty-crop farmers in Missouri, where there was consensus among participants that business expansion had been delayed as a result of COVID-19 (Patillo et al., 2021). It is also notable that two-thirds of farmers interviewed for the present study were considered beginning farmers, a group that may be especially vulnerable to financial disruptions (Key & Lyons, 2019).

Interviewees in the present study made enormous efforts to continue operations in 2020, and many were able to maintain production despite a smaller workforce. While on the surface these are heartening stories of success, it is possible that implementation of short-term workarounds contributed to the physical, emotional, and mental stress (i.e., burnout) experienced by farmers. As one interviewee relayed, farmers were "super, super stressed out" during the pandemic. This sentiment is consistent with reports that the pandemic took a toll on the mental health of U.S. farmers (American Farm Bureau Federation, 2020; Krebs, 2020; Pappas, 2020; Wypler & Hoffelmeyer, 2020). Now, both timely assistance and further research are needed to address and understand the mental health impacts of the pandemic on farmers.

Another notable trend was the greater consumer interest and participation in the local and sustainable food movement that occurred during the first growing season of the pandemic (O'Brien, 2020, Patillo et al., 2021; Robinson et al., 2021; Schmidt et al., 2020). This boom was frequently noted by interviewees as a positive change, and

indeed the broader environmental and societal benefits of local and regional food systems have been widely discussed (Low et al., 2015). Both farmers in the present study and beginner specialty crop farmers in Missouri spoke broadly of the increased appreciation and importance of local food (Patillo et al., 2021). However, given that one of the benefits of operating a small, directly marketing farm is the ability to set premium prices (Walkinshaw et al., 2019), the boom experienced by this sector during the pandemic also invites examination of who is and is not typically able to participate in this movement. Research geared toward understanding barriers to participation in local food systems oriented toward sustainability and equity is warranted to help ensure that local and regional food policies promote equitable access to the benefits conferred by local food movements.

Resilience in Action

Identifying farm characteristics that contribute to resilience is of great interest for the development of policies and programs that will enhance the overall resilience of food systems to future challenges, and many such characteristics have been proposed (Darnhofer, 2014; Gardner & Ramsden, 2019; Meuwissen et al., 2019; Milestead & Darnhofer, 2003). Here, we analyze study findings in the context of three farm resilience capabilities outlined by Darnhofer (2014): buffer, adaptive, and transformative. Darnhofer (2014) calls attention to the notion that the term "capability" implies an active process rather than an asset or characteristic. In order to examine the characteristics that allow farms to demonstrate these capabilities, Meuwissen et al. (2019) propose utilizing resilience attributes as laid out by the Resilience Alliance (2010), among them diversity, openness, tightness of feedback, and systems reserves. The results of the present study demonstrate how some small directly marketing farms acted on these capabilities, and that flexibility and autonomy were important resilience attributes. The results also suggest an interplay between farm size and resilience and farm business values and resilience. Table 3 defines and provides illustrative examples from this study for Darnhofer's (2014) three resilience capabilities and selected resilience attributes from Meuwissen et al. (2019) and other sources.

Buffer capability

In this study, many respondents expressed that some parts of their operations shifted only minimally, if at all, which demonstrates resilience via buffer capability. Areas that did not change or shifted only minimally for some farm businesses included production, labor, expenses, product sales prices, and market channels.

Tightness of feedback, openness, redundancy, and access to social and financial capital were the resilience attributes that allowed farms in this study to demonstrate buffer capability. For example, one farmer showed tightness of feedback and openness as they clearly identified the gap left in farmers markets and chose to shift *to* this outlet while many others shifted *away*.

Access to financial and social capital were also critical attributes. For example, off-farm income from a spouse provided a second income stream that was critical to the farm's ability to survive the pandemic. Farmers were also able to rely on social capital, or their networks, families, and friends for support in the 2020 season. Here, social capital can be understood as a type of systems reserve that was used to access a range of resources from childcare to new market channels and other services.

Adaptive capability

Farmers in this study nimbly adjusted parts of their operations in order to continue farming during the pandemic, demonstrating resilience via adaptive capability. Areas for some that shifted while maintaining the same essential system functions included production, labor, business costs, sales prices, and market channels.

Flexibility, diversity, and autonomy were key resilience attributes that allowed farms in this study to demonstrate adaptive capability. For example, the small farmer who had unsold milk at one point during the pandemic was able to make the decision to diversify their production and make cream; in contrast, the large dairy facing the same problem lacked the flexibility and autonomy to diversify and was forced out of business. In general, farmers were able to make the decision to grow different

and diverse crops, problem-solve in ways they saw fit, and, importantly, shift market channels. Market-channel pivots during the pandemic were common among small farms across the U.S. (Dankbar et al., 2021; Lemos & Ackoff, 2020; Local Food Research Center, 2021; White, 2021), and in international studies have been associated with positive outcomes (Benedek et al., 2021; Hsiao et al., 2021; Mastronardi et al., 2021).

Openness was interrelated with autonomy, as farmers were deeply connected to their own operations and communities; this contributed to their

Table 3. Resilience Capabilities and Attributes with Demonstrative Examples Reported by Interviewees

Resilience capabilities and attributes	Definition	Example
Buffer capability[a]	The ability to absorb a shock without a change in structure or function, like persistence or robustness (Darnhofer, 2014; Meuwissen et al., 2019).	Increasing the number of CSA shares sold to compensate for the loss of other market channels.
Adaptive capability[a]	The ability to adjust and change in response to shock, but without changing essential functions or systems (Darnhofer, 2014; Meuwissen et al., 2019).	Planting more varieties of lettuce and other specialty items to meet demands of shifting market channels.
Transformative capability[a]	The ability to implement significant changes, essentially creating a new system in response to severe shocks or enduring stressors. This could include changing functions, such as a transition from crop production to agritourism (Darnhofer, 2014; Meuwissen et al., 2019).	Creating novel market channels that emerged in response to the pandemic.
Diversity[b]	Functional diversity, i.e., multiple species of crops grown on a farm; response diversity, i.e., a range of different reactions that contribute to the same outcome or function (Carpenter et al., 2012; Kerner & Thomas, 2014; Meuwissen et al., 2019; Reidsma & Ewert, 2008).	Producing a wide range of products protected against supply chain disruptions, like labor shortages causing processing delays.
Tightness of feedback[b]	The ability of one part of a system to change in response to other parts of the system (Meuwissen et al., 2019; Walker & Salt, 2006).	Packaging flowers differently to accommodate the needs of new marketing channels.
Systems reserves[b]	The resource stocks of a system, including natural, economic, and social capital (Biggs et al., 2012; Kerner & Thomas, 2014; Meuwissen et al., 2019).	Compensating for shortfalls in volunteer labor with a well-organized core team.
Openness[b]	Connectivity between systems (Carpenter et al., 2012; Meuwissen et al., 2019).	Shifting to farmers markets in response to a gap as other farmers left farmers markets.
Redundancy[b]	The extent to which elements of a system are replaceable or complete the same function (Tendall et al., 2015).	Relying on off-farm income during the 2020 growing season.
Autonomy[b]	The degree of control producers have over production and their ability to observe and respond to feedback (Rotz & Fraser 2015).	Making the decision to produce cream when faced with excess milk supply.
Flexibility[b]	The ability to modify behaviors or plans, or adapt existing resources to new purposes (Harris & Spiegel 2019).	Shifting swiftly to selling via CSA as other market channels became unavailable.

[a] resilience capability; [b] resilience attribute

ability to make the appropriate decisions and shifts in their operation. The connection with communities also suggests that systems reserves were an important attribute, as many farmers used their personal networks to facilitate new market channels. Interestingly, only one farmer shared an experience of participating in a new market channel that was created by a public organization, suggesting that among those interviewed, personal connections played a larger role in accessing new market channels than did government support.

The findings that flexibility, diversity, autonomy, and openness were key resilience attributes for farmers during COVID-19 align with findings from Coopmans et al. (2021), Perrin and Martin (2021), and Mastronardi et al. (2021), who call attention to the same attributes, as well as agility and self-organization. There remains limited research on if and how small farms in the U.S. demonstrated resilience. Future research could fill this gap and focus on how to support farmers to foster key resilience attributes.

Transformative capability

Farmers in this study made major adaptations to their business during the pandemic: they shifted production, opened entirely new market channels, and managed with less labor. However, the idea of transformative changes was not often discussed at the level of individual farms but instead in the context of the collective power of small farms to shape future food systems. Transformations are likely to occur over a long period of time and can be triggered by a crisis (Darnhofer, 2014); therefore, it is possible that the COVID-19 pandemic will serve as a trigger for larger food systems transformation, as opposed to transformation experienced at the level of farm businesses. For example, one way the food system could shift is to more actively adapt and respond to environmental concerns. Time and again, interviewees spoke about their role as a farmer in addressing climate change. They articulated that because many small farms focus on regenerative and environmentally sound practices, they will be important players in combating and responding positively to a changing climate. In essence, interviewees are trying to lead by example and serve as a model for other farms to adopt these practices—thereby serving to create transformative change in the food system.

Values and Resilience

Results of this study suggest that values, particularly those focused on "community," are a driver of resilience at the level of farm businesses. For example, one farmer described their desire to be an asset to the community, which indicates an openness between this farm and its customers, local organizations, and other farmers. Results also suggest that values related to community could augment systems reserves, particularly social capital. This was highlighted in many ways but can be distilled down to how farmers, the farming community, and customers showed up for each other during the pandemic; farmers were dedicated to providing food, and customers stepped up to help facilitate new market channels. Simply put, these values serve as motivators beyond profit for farms to adapt and persevere through challenging times.

Size and Resilience

Several farmers attributed their ability to adapt during the pandemic to the size of their business, describing how having few employees and a small scale of production allowed them to manage logistics like market channel pivots with relative ease. Farmers also mentioned that having small work crews made it easier to manage safety protocols like social distancing.

However, a smaller workforce also meant a relatively higher per-capita cost of implementing some sanitation measures, like handwashing stations. Some interviewees also explained that they were "too small" to receive government financial aid and thus bore a relatively larger amount of the financial burden of adapting. While the broad safety regulations (Berton, 2020) and financial aid given to farm businesses (Washington State Department of Agriculture, 2022) during the pandemic were clearly warranted, their disproportionate impacts highlight a need for enhanced capacity in state government to shape policies and regulations with small farms in mind and help small farms navigate policies geared toward larger operations.

The dual role that farm size played in shaping

impacts of the pandemic opens an interesting avenue of investigation. Findings that small size in some cases played a mitigating or positive role stand in stark contrast to reports of how small businesses as a whole fared during the pandemic. In general, small businesses faced mass layoffs and closures, in part due to their financial fragility (Bartik et al., 2020), although impacts varied by sector (Dua et al., 2020). In the present study, small size may have had a protective effect for multiple reasons. For one, operations were often so small that there were no employees to lay off. Additionally, the essentiality of the sector and the flexibility of direct-to-consumer sales may have helped increase the likelihood of finding alternate markets. Finally, small size may have facilitated flexibility and thus the ability to shift market channels to those with less direct public contact (e.g., CSA or farm stand). In a case study of a small-scale dairy in North Carolina, Huber (2020) argues that small-scale producers are a necessary component of resilient food systems due to their agility and community connections.

Transferability and Significance of Results

To date, few qualitative studies have been published that center the experiences of small direct-marketing farms in the U.S. during the first wave of the COVID-19 pandemic (e.g., White, 2021). The present study, therefore, contributes foundational insights into what is becoming an otherwise robust body of literature on impacts on U.S. farms and farmers during COVID-19. Furthermore, considering that these exact circumstances are unlikely to repeat themselves, the focus of this study is on transferability as opposed to generalizability. The myriad unique experiences of small farms in Washington State are certainly not all captured among the 15 farmers who participated in this study. Indeed, the sample population for this study is not intended to be broadly representative of all small, direct-marketing farms in the state. Participating as an interviewee required an investment of time and effort by farmers at a time that was already challenging and stressful for many. One survey reported that 66% of farmers and farmworkers felt the pandemic affected their mental health during this time period (American Farm Bureau Federation, 2020). While participants in the present study reported experiencing negative emotions due to the pandemic, it is possible that those facing more severe mental health impacts declined to participate. Given that many interviewees expressed how tightly their personal and business lives were linked, those who were willing to participate in an interview may have had different experiences from those who did not have the capacity or inclination to participate. While this is not a problem per se for the present study, which seeks to understand drivers of resilience and focuses primarily on factors contributing to *positive* experiences, it is notable that the results presented here may not be fully transferrable to farms that were more negatively impacted during the pandemic.

It is also important to note that while the sample population for this study mirrored the majority white racial/ethnic makeup of small farms in Washington State (Table 1), the choice not to deliberately oversample from non-white farmers meant that some races/ethnicities were not included in the study at all. Notably, no farmers identifying as Black or Hispanic are part of the study population. Considering that minority farmers have historically faced racist policies (Figueroa et al., 2020; Horst & Marion, 2019), and in light of racial inequities reported in the distribution of federal COVID-19 farming aid (Reiley, 2021), it is unlikely that experiences of the majority-white sample population are fully transferrable to farmers belonging to racial and ethnic minorities, who continue to experience disparities in support systems and among whom higher frequencies of negative experiences during the pandemic have been reported (Otten et al., 2021). One criticism of resilience theory is that it can be applied to maintaining an inequitable status quo (Darnhofer, 2014; Olsson et al., 2015). It is therefore important to identify where underlying inequities may influence the continued development of resilience theory and application.

While we posit that these findings will be useful to many policymakers and other stakeholders in identifying lessons learned during the pandemic and planning for future food system disruptions, we leave the final determination of transferability to the individual.

Conclusion

This study sought to examine the experiences of small farms in western Washington State engaged in direct marketing during the first growing season of the COVID-19 pandemic. Findings provide deeper context to already-documented impacts that occurred in farm operations, marketing channels, revenue, demand, and general attitudes toward small farms. It is important for policymakers to understand the nuances of these impacts in order to better serve the needs of small farms in Washington State and beyond in the wake of the pandemic and in light of future uncertainties. This study also sheds light on the resilience capabilities and attributes employed by small farms in response to the pandemic. Future research should focus on ways to both promote resilience attributes and facilitate the ability of farmers to act on resilience capabilities. Deeper understanding here can inform policies and programs that support farmers' ability to manage with resilience in mind.

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Appendices

Appendix A. Focused Codes, Categories, and Themes

Focused Codes	Category	Related Themes
- "Big meat" alternative - Increased demand for animal products - Accessing slaughter - Regulations are a barrier - Reminders	Animal production	- Farm operations - Demand - Values
- Cost of business stayed the same - Labor costs more - Spending more on sanitation	Business costs	- Farm operations
- Cash flow was tight - Challenge accessing labor - Complex decisions - Labor costs more - Difficulty accessing resources - Stress - Tense political times	Challenges during covid	- Farm operations - Shifted attitudes or feelings
- Increased demand from covid - Increased demand for animal products - Uncertainty in demand - Reminders	Demand	- Diversity - Support - Market channels - Shifted attitudes or feelings
- Donations are down because there's no "extra" - Participation in hunger relief programs	Emergency food system	- Market channels - Demand - Values
- Pivot - Social dynamics with employees - On-farm volunteers - Quick decisions - Small size made us flexible - Farm values influence operations - Expected change but didn't change	Farm operations	- Farm Operations - Diversity - Flexibility
- I teach others - Social opportunity	Farm/public interface	- Farm operations - Market channels - Values
- Farming as a career option - Farming is my full time occupation - Farming is not my full time occupation - Farming is my full time occupation, but not my partner's	Farming as a career	- Shifted attitudes or feeling - Values
- Dissatisfaction with aid - Lack of information - Regulations are a barrier - "Too small"	Government	- Farm operations - Support - Access to resources

continued

Focused Codes	Category	Related Themes
- Things take more labor - We managed with less labor - Labor costs more - Challenges accessing labor - On-farm volunteers - Small number of employees - Small size made us flexible	Labor	- Farmer operations - Flexibility - Access to resources
- Benefits of diverse market channels - Connection to new market channels - COVID market channels work better for me - Restaurant sales changed - Market channels lost to COVID - Instability of market channels - CSA predicted stability - Relationships facilitate market channels - On farm infrastructure is helpful	Market channels	- Market channels - Diversity - Values - Flexibility - Access to resources - Support
- Perfect for the pandemic - Relationships facilitate market channels - Received government support - Pivot - Quick decisions - On farm infrastructure is helpful - Direct community support to farms - Flexible contracts - Ability to make changes - Small size - “No challenges during COVID” - Benefits of diverse market channels	Positives/positive facilitators during covid	- Diversity - Flexibility - Access to resources - Support
- Prices have decreased - Prices have increased - Prices haven't changed - Prices vary by market channel - Farm values influence price decisions	Prices	- Farm operations - Values - Support
- Production has not changed - Production has increased due to COVID - Change in production due to COVID - Benefits of diverse production	Production	- Farm operation - Market channels - Diversity - Flexibility
- Revenue down in COVID - Revenue up in COVID - Revenue the same in COVID - Revenue stifled due to COVID	Revenue	- Demand - Values - Diversity - Flexibility
- Customers don't feel safe at the store - Personal health scares - Spending more on sanitation - Social distancing	Safety	- Demand - Market channels - Values

continued

Focused Codes	Category	Related Themes
- Luck - Stress - Uncertainty - Hopeful - "We survived"	Sentiments	- Farm operations - Access to resources - Support - Shifted attitudes or feelings
- Litmus test - Catalyst - People thinking about things differently - Fire drill - Increased customer appreciation - People don't feel safe at the store	Shifted attitudes	- Demand - Shifted attitudes or feelings - Values - Support
- ire drill - "Big meat" alternative - Increased demand for animal products - Farming as a career option - Fill the gap	The role of small farms	- Demand - Shifted attitudes or feelings - Values
- Uncertainty in demand - Predicted stability of customer base - Predicted stability of market channels - Litmus test - Viability of local food systems - More changes next year	Thinking to the future	- Shifted attitudes or feelings - Values
- Farm values influence market channels - Farm values influence operations - Farm values influence price decisions - Money is not my only value - Value feeding the community	Values	- Shifted attitudes or feelings - Values
- Reminders - Fire drill - Litmus test - "Big meat" alternative - People thinking about things differently - Fill the gap	Driving consumers to small farms	- Demand - Shifted attitudes or feelings - Values
- Accessing slaughter - Direct community support to farms - Mutual support - Networks - Received government support	Access to resources	- Farm operations - Market channels - Diversity - Support
- Diverse skillset - Quick decisions - No one got sick - We managed with less labor - On-farm infrastructure is helpful - Ability to make changes	Well-managed farm operations	- Farm operations - Values - Diversity - Flexibility - Access to resources

continued

Focused Codes	Category	Related Themes
- Ability to make changes - Flexible contracts - Money is not my only value - Quick decisions - Relationships facilitate market channels - Value feeding the community	Autonomy in decision making	- Farm operations - Values - Diversity - Flexibility - Access to resources
- Accessing slaughter - Benefits of diverse market channels - Catalyst - Commitment from customers - Relationships facilitate market channels	A resilient/flexible environment	- Market channels - Shifted attitudes or feelings - Demand

Appendix B. Desired Resources and Illustrative Examples Reported by Farmers

Desired resource	Example quotations from interviewees
Access to aggregation, food hubs, co-ops, etc.*	*Increase in the centralized distribution for small scale growers. There's the Puget Sound Food Hub, but they only serve a handful of farmers.*
Access to bookkeeping, accounting, administrative resources*	*There's not really effective software. . . . I've got a bookkeeping system, but it's not really designed to keep track of my veg sales and stuff.*
Pairing food access and farm viability*	*I have been thinking a lot about the link between customers really wanting to support local farmers and farmers having an excess of whatever . . . how do you put those two things together?*
Employment benefits	*Health insurance for farmers.*
Reduced barriers to creating value-added products	*I don't have access to a processing kitchen. That's one thing I've been really hungering for because there's huge potential and the profitability goes up dramatically with value added.*
Mental health services	*But the thing I hear again and again and again from other farmers . . . it's just people are super, super stressed out. And I know that there are some mental health resources in the state of Washington for farmers but I have not seen them in any of the resource lists that have been passed around to me.*
Reduced barriers to access financial capital	*I think more capital that is not a loan.*
Support for farm internships	*I'd like to see the [Washington State Department of Labor & Industries Farm Internship Program] more robust.*
Farm infrastructure	*The biggest challenge is large infrastructure items. For instance, we don't have a [local] haying operation. And it's really expensive to own that equipment.*
Community outreach	*The public isn't aware of a lot of the farm products or farms that are out there trying to move product. . . . There's always work that can be done with outreach.*
Change in meat industry regulations	*There needs to be a change in the way small farmers do meat. There are very limited options, it's very costly, and they can't begin to compete.*
Funds for farmers who identify as Black, Indigenous, or other People of Color (BIPOC)	*I would like to see more dollars made available to help BIPOC farmers buy land and start their business.*

* Denotes resources that were mentioned by at least 5 farmers