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"The farm has an insatiable appetite": A food justice approach to understanding beginning farmer stress

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Abstract

Beginning farmers are critical in shaping resilient food systems amid a worsening climate crisis. Reports indicate a prevalence of stress and adverse mental health outcomes among U.S. farmers, yet there are gaps in the literature concerning the well-being of beginning farmers, a heterogeneous group with a growing number of women and BIPOC (Black, Indigenous, or People of Color) producers. The agricultural industry has a legacy of systemic

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Disclosures

From September 2020 to May 2021, Fiona Doherty did her master of social work field placement with the Ohio Ecological Food and Farm Association (OEFFA), and she received compensation through the SARE research grant funds. She did not stand to gain financially from the results of the project or benefit in any specific way from the results.

From September 2020 to May 2021, Rachel Tayse was a paid staff member and community partner at OEFFA. In May 2021, she left her position at OEFFA. From May 2021 to August 2022, she received compensation from the SARE research grant funds for her continued involvement as a key informant in the research project. She did not stand to gain financially from the results of the project or benefit in any specific way from the results.

oppression and exploitation of marginal communities. Thus, it is important to understand the unique needs of an emerging, more diverse generation of farmers, especially as discrimination is associated with stress and poor mental health outcomes. In this community-engaged, mixed methods research project, we utilize a food justice framework to understand systemic stressors and coping strategies among Midwestern beginning farmers. Beginning farmers in the Midwest were recruited using purposive sampling to participate in quantitative surveys and in-depth interviews. The survey (n=62) included measures of farm stress, mental health supports, and farm characteristics; the Patient Health Questionnaire-4; and sociodemographic information. Interviews (n=20) were conducted to establish a deeper understanding of stress and mental health experiences. Survey data were analyzed using descriptive statistics. Interviews were analyzed using thematic analysis. Top stressors included having too much to do and too little time, COVID-19, not enough person-power on the farm, climate change, and social justice. Of survey respondents, 58% reported mild to severe symptom burden of anxiety or depression. Five qualitative themes emerged, including the stress of capitalism, discrimination and inequitable access to resources, aids and gaps in social support, rugged individualism, and heterogeneous perspectives on social justice and climate change. Four transformative food justice practices aimed at rectifying structural inequalities inform our implications. Our results emphasize the urgency of systemic change and structural support for beginning farmers.

Keywords
Beginning Farmers, Stress, Mental Health, Food Justice, Midwest, Mixed Methods, Community-Engaged Research

Introduction

Beginning farmers hold many promises for the future. They are critical for shaping resilient food systems (Shute et al., 2011) and important constituents in mitigating climate change through sustainable practices (National Young Farmers Coalition, 2021). Beginning farmers (i.e., those farming for 10 years or less; U.S. Department of Agriculture [USDA] Economic Research Service [ERS], 2022) face unique start-up challenges, including reliance on off-farm income, high debt-to-asset ratios (Key & Lyons, 2019), and difficulties in accessing land (Ahearn, 2011). Reports suggest a prevalence of depression, anxiety, and suicide among U.S. farmers (Arif et al., 2021; Wedell et al., 2020; Weingarten, 2018); minimal literature exists concerning beginner farmers' well-being.

Compared to experienced farmers, beginning farmers are a more heterogeneous group, with increasing numbers of Asian (USDA National Agricultural Statistics Service [NASS], 2019a), Black (USDA NASS, 2019b), female (USDA NASS, 2019c), Hispanic (USDA NASS, 2019d), and multiracial producers (USDA NASS, 2020). This diversity is important to acknowledge, as U.S. farm stress scholarship focuses on white, cisgender male experiences, neglecting factors of race (Charles, 2022) and identity beyond the gender binary. U.S. agriculture is built on generations of systemic oppression and the exploitation of marginalized communities. Examples of systemic oppression include enslavement of Africans as part of the transatlantic slave trade (Hinson & Robinson, 2008), land theft from Indigenous peoples (Horst & Marion, 2019; Lee et al., 2020), and institutional racism against Black, Latine, and women farmers (Carpenter, 2012). It is critical to understand the needs of an emerging, diverse generation of U.S. farmers, especially when research suggests discrimination (e.g., racism, sexism, and homophobia) is associated with stress and poor mental health outcomes (Berg, 2006; Kirkinis et al., 2021; Meyer, 2003).

Farmer stress, equity issues, and start-up barriers are common in the U.S. Midwest, a highly productive agricultural region significant for local and global economies (USDA Climate Hubs, n.d.). Farmland consolidation is more prevalent in the Midwest than other U.S. regions, and along with structural discrimination, consolidation has contributed to the decline of beginning and Black farmers since 1978 (Union of Concerned Scientists, 2021). Midwestern farmers face an array of stressors (Arora et al., 2020; Chengane et al., 2021; Henning-Smith et al., 2022). Between 2014 and

2018, 450 Midwestern farmers died by suicide (Wedell et al., 2020).

We conducted community-engaged, mixed methods research with the Ohio Ecological Food and Farm Association (OEFFA) to understand concerns about beginning farmers' stress. OEFFA provides education and technical assistance to farmers throughout the Midwest. We employed a food justice framework to (a) understand systemic factors contributing to stress for Midwestern beginning farmers, and (b) examine how Midwestern beginning farmers cope with systemic stressors. We integrated participants' mental health experiences because chronic stress can lead to adverse mental health outcomes (e.g., anxiety and depression; American Psychological Association, 2023; Marin et al., 2011). We conclude with implications for policy, practice, and research, emphasizing urgency for systemic change and structural support.

Farmer Stress and Mental Health

Farmer stress and mental health have gained recognition globally, with increasing attention to occupational stress and farmer suicides. Stress is defined as a physiological response to external stimuli (National Institute of Mental Health, n.d.); too much stress can compromise physical and mental well-being (World Health Organization, 2023). Mental health describes a state of well-being in which people can cope with stress effectively and achieve their potential to live, learn, and contribute to communities (World Health Organization, 2022). In their globally focused systematic review, Daghagh Yazd et al. (2019) listed the most-cited farmer psychological stressors as pesticide exposure, financial hardship (i.e., income and market conditions), weather unpredictability, and poor physical health. Finances, workload, and weather are top stressors for U.S. Midwest farmers (Arora et al., 2020; Rudolphi et al., 2020). Farmer stress is linked to suicidal behavior (Santos et al., 2021), farm exit (Waldman et al., 2021), farm family distress (Sprung, 2022), poor animal welfare (Hansen & Østerås, 2019), and decreased motivation to adopt sustainable agriculture practices (Karami & Keshavarz, 2010).

A scoping review about farmer mental health trends identified a need to examine mental health experiences among subpopulations of farmers (Hagen et al., 2019). Studies have explored stress and mental health factors among subgroups of organic farmers (Brigance et al., 2018; David et al., 2021), younger farmers (Rudolphi et al., 2020), and women farmers (Carruth & Logan, 2002). Other studies have explored subgroups within their sample, such as the unique stressors of women farmers (Daghagh Yazd et al., 2019; Hagen et al., 2021; Henning-Smith et al., 2022). However, there is a dearth of studies considering gender beyond the binary of male and female; only one farm stress study recognized gender-nonbinary individuals in their sample (Hagen et al., 2021). Furthermore, there is scarce published quantitative research on queer farmers (Dentzman et al., 2021), let alone research focused on their unique stressors. Race and ethnicity are also often neglected in studies of farmer stress or mental health in the U.S. (Charles, 2022). Despite their critical role as future stewards of the food supply, we found no studies on the stress or mental health of beginning farmers.

Discrimination in the U.S. Agriculture Industry

Structural discrimination against women; lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ+) people; and BIPOC farmers has led to unequal land ownership and disparate access to farm resources and capital. Notable examples include civil rights lawsuits against the USDA for racial or gender-based discrimination, including Pigford v. Glickman, Love v. Vilsack, Garcia v. Vilsack, Keepseagle v. Vilsack (Carpenter, 2012), and the Hispanic and women farmers and ranchers claims resolution process (U.S. Department of Justice, 2011). As a result of structural oppression, the number of U.S. Black farmers decreased by 93% between 1940 and 1974 (Gilbert et al., 2002; Minkoff-Zern & Sloat, 2017). Specific examples of oppression include poor access to credit (Hinson & Robinson, 2008), lack of legal representation or wills (Hinson & Robinson, 2008), land lost through partition of heirs property sales (Dyer & Bailey, 2008), discriminatory lending practices (Touzeau, 2019; Tyler et al., 2014), and inadequate government outreach to Black farmers (Tyler et al., 2014). From 2012 to 2014, 98% of U.S. farmland was

owned by white individuals, 86% of farm operators were male, and women and farmers of color generated less farm income per person than did white men (Horst & Marion, 2019). Though U.S. Secretary of Agriculture Tom Vilsack declared "a new era of civil rights" for the USDA in 2009 (Vilsack, 2009), many discrimination claims remain unapproved and unpaid (Leslie et al., 2019; Minkoff-Zern & Sloat, 2017), leading to unresolved redress, mistrust of the USDA, and continued collective hardship for farmers from marginalized identities.

Pernicious cultural norms within the U.S. agricultural community also contribute to racial and gender-based oppression. Martin and Hartmann (2022) unearthed themes of toxic masculinity, heteronormative values, and "strong bigoted views against members of the LGBTQ community" (p. 1) among agriculture students at a land-grant university. The commonly utilized family farm model exudes heteronormativity and acts as a barrier to accessing "land, labor, credit, and knowledge" for women and LGBTQ+ farmers (Leslie et al., 2019, p. 929). For example, gender disparities persist in farm inheritance, as daughters are less likely than sons to inherit farmland (Alsgaard, 2012). Notions of heterosexism and heteronormativity can make LGBTQ+ farmers feel invisible to farm-related organizations and their communities (Hoffelmeyer, 2019). Experiences of racism are associated with distrust of agriculture-related government agencies (Balvanz et al., 2011) and avoidance of community participation (Medel-Herrero et al., 2021) among BIPOC farmers and farm workers. The appropriation of traditional BIPOC agricultural knowledge is another insidious form of racism (Layman & Civita, 2022).

Discrimination and Stress

Experiences of discrimination are associated with poor health outcomes. Kirkinis et al.'s (2021) systematic review found positive associations between racial discrimination and trauma, an acute form of stress. Berg (2006) found a positive relationship between women's experiences of everyday sexism and post-traumatic stress disorder, especially among those who have experienced recent sexist degradation (Berg, 2006). Additional studies have found similar results among the LGBTQ+ population (Herek et al., 1999; Meyer, 2003). The historical and present-day discrimination against farmers from marginalized identities and the lack of research focused on their unique stress informed our decision to utilize a food justice lens for this study.

Theoretical Framework: Food Justice

Food justice is a food system objective and a collection of transformative practices aimed at rectifying structural inequalities. Food justice occurs when the benefits and hazards of food production, distribution, and access are experienced equally (Gottlieb & Joshi, 2010). We embrace four transformative practices of food justice based on Gottlieb and Joshi (2010), Cadieux and Slocum (2015), Glennie and Alkon (2018), Leslie and White (2018), and Leslie (2019). First, we acknowledge that oppression occurs in each food system sector, "from farm to plate" (Leslie, 2019, p. 931). Food justice scholarship about agricultural labor has been decreasing (Glennie & Alkon, 2018), necessitating a renewed focus on the well-being of those who produce food.

Second, with a food justice lens, we can understand and heal collective trauma enacted by the mechanisms of structural power that harm socially vulnerable groups (Cadieux & Slocum, 2015), such as systemic discrimination within the U.S. agriculture industry. We embrace a temporal scale that recognizes the effects of historical trauma and looks toward a more equitable future.

Third, we incorporate an intersectional approach, considering overlapping factors of race, class, and gender identities (Leslie, 2019). Dentzman et al. (2021) demonstrated that queer farmers in U.S. agriculture are more likely to be racial and ethnic minorities, emphasizing the importance of intersectional perspectives. Social identities of gender and sexuality have been largely absent as core components of agricultural research, resulting in increased calls for more inclusive and intersectional approaches (Leslie et al., 2019).

Fourth, we recognize that oppression and resistance coincide (Leslie, 2019; Leslie & White, 2018). With a food justice lens, we can map food system inequalities while amplifying strategies of resistance and agency. Therefore, our research focuses on systemic stressors and coping strategies.

Methods

Community-Engaged Research

This study was guided by community-engaged research principles in collaboration with OEFFA. Honoring the concept of "nothing about us, without us" (Nelson et al., 1998; Padgett, 2016), we invited and compensated three beginning farmer key informants. We embraced the "three Ps" of community engagement: perspective, partnership, and participation (Padgett, 2016, p. 43). A food justice perspective informed our co-creation of research questions, methods, and results dissemination. Partnership occurred through research meetings, shared measurement selection, data collection support, and collaborative data analysis and writing. OEFFA and the key informants were critical gatekeepers (McKenna & Main, 2013), providing university researchers with access to beginning farmers, particularly marginalized participants.

Design and Procedure

Our community-university research team designed an explanatory sequential mixed methods study (see Figure 1), including a quantitative survey followed by qualitative in-depth interviews. While quantitative data provided a rudimentary understanding of farmer stress, qualitative data brought a richer understanding of stress and mental health experiences (Creswell & Clark, 2017). Mixed methods data integration occurred through a building technique, where survey results informed the interview phase, and a narrative weaving approach for the results (Fetters et al., 2013).

Data and Sample

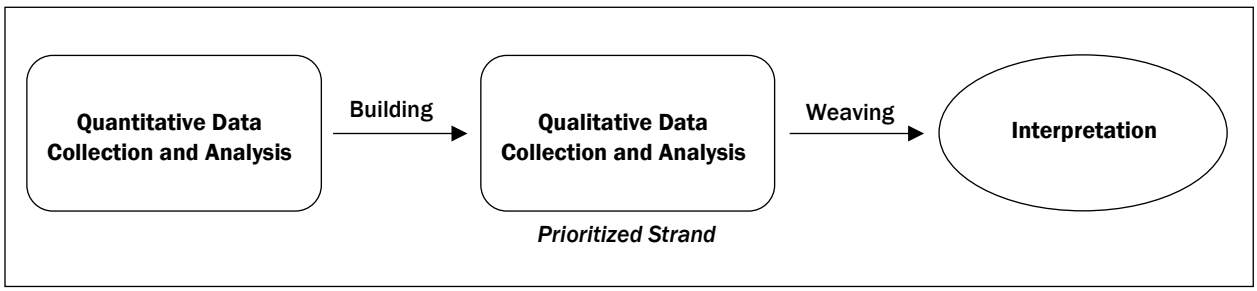
Using purposive sampling, we recruited beginning farmers through OEFFA's email distribution list of 632 contacts in the U.S. Midwest. Participating respondents were 18 years of age or older, able to read and understand basic English, and were farmers with 10 years or less of experience. We defined farming as regularly growing farm products for people outside of one's household, rather than binding the definition to capital ownership or economic production, which ignores marginalized groups who experience barriers to land ownership and mainstream market avenues (Leslie et al., 2019; White, 2018). Most participants lived in Ohio or Michigan. In October 2020, 64 participants completed a 15-minute survey administered using Qualtrics software. In March 2021, we recruited 20 interviewees from the same population to establish a more in-depth understanding of systemic stressors and coping mechanisms. The first author, a white, cisgender woman, conducted and recorded each interview using Zoom and transcribed them verbatim. The interviews ranged from 45 to 90 minutes, averaging 71 minutes. Participants received a mental health resource guide due to the sensitive topics covered and a VISA gift card ($20 for the survey and $50 for the interview).

Survey Measures

Farm stress survey

We used a modified farm stress survey informed by Eberhardt and Pooyan's (1990) and Rudolphi et al.'s (2020) measurements (Appendix A). With input from OEFFA and key informants, biased language was revised to be inclusive of farmer diversity (gender identity and race) and types of farm operations (small farms or ecologically oriented farms). We modified the survey to reflect

Figure 1. Community-Engaged Explanatory Sequential Mixed Methods Research Design



food justice and included questions on discrimination and social justice. Our farm stress survey contained 52 items in seven subcategories (working conditions, social and geographic factors, personal finances, time pressure, environmental conditions, current events and policy, and employee relations), with Likert scale responses (0=*None*, 1=*Very little*, 2=*Some*, 3=*Quite a bit*, 4=*A great deal*, or *Not applicable*). Respondents reported how much worry or concern each item had caused them in the past year. A higher score indicated greater stress. Means were calculated for each item to establish which items contributed the most stress. Internal reliability (Cronbach's α) for the farm stress scale and subscales ranged from 0.74 to 0.98.

Patient health questionnaire

We used the Patient Health Questionnaire (PHQ-4) four-item screening tool to identify potential anxiety and depression symptoms (Kroenke et al., 2009). Anxiety and depression are the most common mental health conditions in the U.S. (Anxiety and Depression Association of America, 2022a). The PHQ-4 is a measurement of symptom burden. Respondents were asked whether, in the previous 2 weeks, they had experienced (a) feeling nervous, anxious, or on edge; (b) not being able to stop or control worrying; (c) feeling down, depressed, or hopeless; or (d) having little interest or pleasure in doing things. Question responses were 4-point Likert scales (0=*Not at all*, 1=*Several days*, 2=*More than half the days*, and 3=*Nearly every day*). The four items were summed for a total PHQ-4 score, ranging from 0 to 12, resulting in four categories of anxiety and depression: minimal (0–2), mild (3–5), moderate (6–8), or severe (9–12; Kroenke et al., 2009). The first two question responses were summed to determine whether anxiety was suggested; the final two question responses were summed to determine whether depression was suggested. Internal reliability (Cronbach's α) for the scale and subscales ranged from 0.88 to 0.91.

Mental health support

We examined dichotomous measures (1=*Yes*, 0=*No*) of eight mental health supports respondents had accessed in the previous 12 months: in-person counseling or therapy, telecounseling, crisis hotline, inpatient psychiatric services, Web-based resources, faith-based services, alternative or body-based therapy, or other. We established this list of mental health support measures with the localized knowledge of our community partner and key informants.

Sociodemographic and farm measures

Sociodemographic characteristics included gender identity (male, female, nonbinary, or prefer to self-describe), age, and race/ethnicity (white, Hispanic/Latine/Spanish origin, Black/African American, Asian, American Indian/Alaska Native, Middle Eastern/North African, Native Hawaiian/Pacific Islander, or other). Farm measures included location (rural, suburban, urban, rural-urban fringe), production practices, type of agricultural products, and whether the respondent was a first-generation farmer or had an off-farm job.

Interview Measures

The semistructured interview guide (Appendix B) included questions related to stress and mental health experiences as beginning farmers. To minimize bias, we used plain language (Plain Language Action and Information Network, 2011), avoided leading questions, and did not use coercive, academic, classist, and/or racist language (MGH Institute of Health Professions, 2022). We also gathered age, race/ethnicity, and gender identity demographic information.

Analytic Strategy

We analyzed quantitative survey and qualitative interview data separately and through integrative analysis. With SPSS, we examined means, frequencies, and percentages of quantitative variables. Two respondents completed less than half of the survey and were excluded from analysis. We used an iterative thematic qualitative analysis for its flexibility and functionality in understanding participants' lived experiences and finding patterns across data (Clarke & Braun, 2017). After transcription, we read and reread interviews to become familiar with the data (Kiger & Varpio, 2020), performed initial inductive coding (Chandra & Shang, 2019), and used second-cycle "pattern coding" to condense and organize codes into categories (Saldaña, 2016,

p. 236). After an iterative process of reviewing, comparing, and grouping, we synthesized categories into themes and subthemes (Kiger & Varpio, 2020) which, along with associated codes and categories, were reviewed for consistency and meaningfulness with OEFFA and key informants (Kiger & Varpio, 2020). One team member led the coding process while other team members and key informants audited their efforts (Saldaña, 2016). For integrative data analysis, we compared quantitative and qualitative results and searched for data convergence and divergence (Creswell & Clark, 2017).

Results

Survey respondents (*n*=62) farmed annual produce (68%), perennial produce (45%), livestock (44%), flowers (26%), grain (19%), and dairy (3%). Most respondents were certified organic (16%) or were using organic practices but not certified (65%). Only 7% of the survey sample reported using chemical fertilizers and pesticides; this was consistent with the interview sample. Sixty-eight percent of survey participants worked an off-farm job. Sixty percent farmed in rural areas, 22% in a rural-urban fringe, 10% in urban areas, and 8% in suburban areas. Survey respondents ranged from 25 to 74 years old with 57% reporting their age as 25 to 44 years old. The mean age of interviewees was 38.3, ranging from 27 to 60 years old. Sixty percent of interviewees farmed diversified vegetable operations, 25% raised livestock, 10% produced flowers, and 5% produced fruit. Table 1 describes the study participants across the survey and in-depth interviews. The general population of beginning farmers in the region is 61.2% male; 38.8% female; 98.8% white; 1.15% Latine; 0.71% American Indian or Alaska Native, Native Hawaiian or Pacific Islander, or multiracial; 0.24% Asian; and 0.17% Black (USDA NASS, 2017); NASS lacks gender identity options beyond male or female.

Integration of Quantitative and Qualitative Findings

We used a weaving approach to integrate themes from the qualitative analysis with descriptive quantitative findings (Fetters et al., 2013); we describe five themes related to systemic stressors and coping strategies among Midwestern beginning farmers.

Theme 1: "The Stress of Capitalism"

Participants described the challenge of running a farm in a competitive, individualistic market structure. Interviewees recounted working 80 to 90 hours a week to accomplish responsibilities; this was especially true for single operators. All participants indicated an unequal work-life balance, leading to minimal time for self-care and the sacrifice of personal relationships. "The farm has an insatiable appetite . . . it will just eat everything if you

Table 1. Demographic Characteristics of the Study Sample

	Survey participants (*N*=62)		Interview participants (*N*=20)	
Characteristic	*n*	%	*n*	%
Gender				
Female	32	51.6	9	45
Male	24	38.7	7	35
Nonbinary, transgender, two-spirit, or gender fluid	6	9.7	4	20
Race				
White	57	91.9	15	75
Black or Black and Indigenous	2	3.2	3	15
Latine	1	1.6	1	5
Asian	1	1.6	1	5
Other	1	1.6	—	—
First-generation farmer				
Yes	46	75	18	90
No	15	25	2	10

allow it" (Participant 3). "They [family] kind of understand now that, you know, they're not gonna see me during the summer unless they come to market or come over to the farm to help" (Participant 10). The work-family strain was particularly apparent among mothers:

> Yeah, it's very stressful. Whether I want to or not, children need their mom. I breastfed both my kids. I had to pump milk in the middle of the workday. That was very challenging, because I was always, like, dehydrated, and I definitely struggled balancing motherhood and farming. (Participant 13)

Similarly, "too much to do and too little time" was the top stressor for survey respondents, with 89% reporting it as a stressor. "Not having enough person power" was the third-most-prominent stressor (79%). Table 2 summarizes the top five stressors identified by survey respondents, determined by calculating means for each item.

Competition with other farmers stymied information sharing and knowledge exchange, leading many beginning farmers to struggle when developing new skills. "It seems like I'm always reinventing the wheel. In other words, you know, maybe someone has developed a practice, and it's worked very well for them. But it's hard to get that information from them, even when you ask" (Participant 18). Competition with larger, more well equipped farms or corporations with "an absurd amount of wealth, capital, and lobbying power" (Participant 5) was also a stressor.

Participants explained that "the combination of acute and grinding stress can be particularly painful" (Participant 1). Grinding stress includes "wearing many different hats," (Participant 8) or managing farming, marketing, and transportation tasks, especially when outside of one's comfort zone. Grinding stress also includes the physical stress of farming, particularly the worry about sickness or injury. "I'm pretty much one accident away from stopping everything that I like to do, so, and going bankrupt. So yeah, that is something that's stressful, for sure" (Participant 19). Some discussed the intense physicality: "Early on, I lost a ton of weight . . . to the point where people were concerned about me" (Participant 15). Participants described acute stress from sudden traumatic events such as livestock injury or death, or losing an entire crop due to weather, disease, or pests.

Chronic stress, such as the grinding stress described, is associated with negative health outcomes, including anxiety and depression (American Psychological Association, 2023). The PHQ-4 measure showed that 58% of survey respondents reported mild to severe symptom burden of anxiety or depression. Additionally, 63% said these symptoms made it difficult to do work, take care of home responsibilities, or get along with people. PHQ-4 scoring suggested anxiety among 34% of respondents, which is higher than the reported 19% among U.S. adults (Anxiety and Depression Association of America, 2022b). Depression was suggested among 16% of respondents, compared to 8.4% of all U.S. adults (National Institute of Mental Health, 2022). Table 3 displays survey respondent PHQ-4 scores and categories, based on cutoff points.

There was a shared disappointment in the financial reality of farming, leading most to maintain off-farm employment for financial security and

Table 2. Mean Score and Standard Deviation of Top Farm-Stress Items

Source of stress	Mean (0 to 4 scale)	Standard deviation
Too much to do and too little time	3	1.1
COVID-19	2.6	1.2
Not enough person power on farm	2.5	1.2
Climate change	2.3	1.2
Social justice	2.2	1.2

Table 3. Patient Health Questionnaire (PHQ-4) Categories

PHQ-4 Score	*N*	%
Minimal (0–2)	26	42
Mild (3–5)	20	32
Moderate (6–8)	10	16
Severe (9–12)	6	10

adequate health insurance coverage. "Farmers are barely floating, especially folks who are trying to do sustainable agriculture" (Participant 5). Sixty-eight percent of survey respondents were working an off-farm job in addition to farming. While off-farm employment is a financial buffer, it also reduces the time available to work on the farm. Financial hardships exacerbated difficulties in accessing capital and land through traditional avenues. "The mental stamina that it takes to actually find and procure and then buy land takes a lot" (Participant 10). Two BIPOC participants specifically spoke to barriers in accessing loans: "I am also single, and I'm also of femme identity . . . and of Latinx origin, and so those are a couple strikes against me in terms of would I qualify for a bank loan" (Participant 2). "The banks don't readily give, uh, finance the whole thing, with credit scores, and it can prove to be challenging" (Participant 6).

Subtheme: The farm as the cure and the cause

Participants described the therapeutic nature of working outdoors, being in the soil, or spending time with animals. They felt farm work was rewarding, providing purpose, a way to combat stress, and an outgrowth of spiritual values. "There's nothing like digging in the dirt; that's the greatest relief" (Participant 6). However, participants also depicted a deeply onerous reality of farming. Stories included not taking time to grieve the loss of loved ones and feeling stuck on the farm, unable to take time away. Sixty-five percent of respondents reported feeling stress from not having enough off-farm time for themselves. Several farmers used the term "roller coaster" to describe their experiences with mental health on the farm. "It [farming] has its amazing highs, but its lows are so much lower than I ever thought possible" (Participant 15). For some, the roller coaster was tied to seasonality, with summer burnout and winter depression. For others, the roller coaster was unpredictable:

> I go to the OEFFA conference and get lots of ideas, and your sail is full of wind, you have a lot of momentum. And then you go home and find bullet holes in your tunnels . . . it takes the wind out of your sails. (Participant 18)

Theme 2: Discrimination and Inequitable Access to Resources

Some interviewees described experiencing microaggressions, feeling invisible, or not being trusted or taken seriously as a farmer due to their identity as a woman, queer person, or person of color. Sentiments of exhaustion, loneliness, and discouragement were common:

> Being queer and nonbinary, for some people in the farming community, requires a lot of explanation, and I don't necessarily always feel the level of safety that I would like to feel . . . and so there's sort of a shading or a hiding or, like, not being able to feel like I can be open about myself. (Participant 5)

One farmer shared an experience of sexual harassment that made her feel "unsafe as a female farmer" and affected her willingness to be on the farm alone. She stated, "I'm lucky that that's, like, the worst thing that I can think of that, really" (Participant 8). When talking about being mistreated as an immigrant, one participant explained, "I mean, I don't let those, those bother me because . . . to me, it's just life" (Participant 11). Another described utilizing their faith as a way to cope with racism: "I do try to keep it spiritual because it's best for me to keep looking through my spiritual eye and not my natural eye, because my natural . . . I could easily be offended" (Participant 6).

Women, LGBTQ+, and BIPOC respondents also expressed barriers to accessing resources or social networks. Some spoke about the legacies of racism and colonialism that prevented them from being successful:

> And here, too, it's a who-you-know game. . . . I'm trying to think of a person of color that owns a building. . . . I can't think of one, but I can think of a lot of white folks. . . . That stresses me out. So that systemic thing, that community-level thing, is a source of stress. It's a source of thinking hard about how to shift that. (Participant 14)

Another participant added, "How many of your queer friends actually have businesses? Not

many, because they plug into the system and they keep their head down" (Participant 20).

Theme 3: Aids and Gaps in Social Support

Social support emerged as a primary stress-coping strategy among interviewees. Respondents described the importance of emotional support from family, friends, and community members who see them fully. Instrumental support, such as help on the farm or networking at farmer events, was important. Mutual aid and social support at the farmers market were mentioned, with farmers markets described as "church" or "a big family":

> Going to the farmers markets is a really fun part of my week and is helpful in being able to chat with other farmers, and I felt like I made some pretty close friends over the past year at the market. . . . So yeah, just, like those kinds of connections were really nice to have on a weekly basis. (Participant 8)

However, the experience was starkly different and oppressive for some BIPOC or LGBTQ+ farmers: "It was, like, really challenging sometimes to participate in the farmers market fully and have people frequent their stand as much as, you know, a white farmer, for example" (Participant 14). Another participant added, "And if you look queer, they're like, 'I'm gonna go to the white dude because he looks like a farmer and you look like a hobo or whatever. . . . You must not know enough because you're not a white dude'" (Participant 20).

Several participants articulated gaps in social support. Social isolation and loneliness were frequently mentioned: "But up here, it's very isolating. I don't have many peers doing what we're doing" (Participant 13). Participants described how farmers are underappreciated and undervalued and how farming is not a respected career path: "We farmers are taken for granted. . . . The work that is done is not valued by society" (Participant 15). Similarly, respondents discussed their commitment to sustainable agriculture and the stress of being at odds with conventional farming practices: "This is Big Ag country. My neighbors make a living off of spraying pesticides on things. I hate that. I think they think we're crazy; they tell us all the time" (Participant 13). This mismatch of values weighed heavily on participants.

Interviewees shared experiences of inadequate informational support. For many, the Cooperative Extension System (USDA National Institute of Food and Agriculture [NIFA], n.d.) did not meet their unique informational needs as an alternative or small-scale farm. Other sources of support were too complicated:

> As a veteran, I thought that there would be more opportunity for beginning farmers. I mean, you hear about it all the time, they sound great. I spent so much time trying to get information. . . . It ended up just failing completely. (Participant 12)

Interviewees noted that COVID-19 compounded existing challenges. One participant described how COVID made it extremely difficult to find a meat processing facility. In the survey, 84% of respondents noted COVID-19 as a source of stress, making it the second-most common stressor.

Theme 4: Rugged Individualism Perpetuates Systemic Stressors

Rugged individualism was observed in participants' stress-coping strategies. When asked about coping, most participants noted self-reliance and listed individual mechanisms, including healthy eating, physical activity, breathing exercises, and psychological practices (e.g., practicing mindfulness, positive reframing, and creating a sense of control). Some participants described not managing their stress at all or facing barriers to stress management. Thirty-four percent of survey participants had not accessed stress or mental health support in the past year. Many associated mental health support with a "breaking point" or crisis rather than a proactive wellness approach. Others acknowledged the stress they were experiencing but did not believe it warranted any outside assistance: "This is just the way it is" (Participant 15).

Navigating the healthcare system presented barriers, including health insurance compatibility, inadequate mental health resources in rural areas, and perceptions that mental health professionals

would lack understanding of farming. Insufficient time to find resources or therapy was also an impediment. Despite these barriers, 27% of survey participants reported seeing a therapist in the past year and 40% of interviewees described experiencing therapy with a trained professional at least once in their lifetime. However, the financial cost made therapy difficult to maintain for most. "We probably spend as much on therapy as we do on groceries; it's one of our major expenses" (Participant 1).

Social stigma was another barrier to stress coping. Participants expressed a fear of being vulnerable, difficulties in asking for help, and stigma around making time for self-care. Sixty-seven percent of male survey participants had not accessed stress or mental health support in the past year, compared to 13% of females and 17% of nonbinary or transgender survey respondents. While stigma was common among male interviewees, social stigma was expressed by participants of other gender identities as well. Overall, the farm community was described as embracing rugged individualism and "fetishizing overwork" (Participant 5).

> I'm just not a huge asker of help. And especially when it comes to mental health, I'm not going to reach out publicly and ask someone for help. And so, when I can't find what I'm needing, or know where to look, then I kind of feel a little stuck just because I'm not comfortable to reach out to people and ask. (Participant 9)

As a result of ignoring stress or mental health challenges, participants described physical manifestations such as panic attacks, headaches, and autoimmune condition flare-ups. One participant described how she learned to pay attention to early signs of stress:

> In tractor machinery, there is a cotter pin that you'll put in that will break, and that's to prevent something even more expensive from breaking. And if something is consistently wrong in your cotter pin, it's so tempting to be like, "I'm just going to put a fucking steel bolt in here and this will never break again" . . . which you would never do with a tractor, because that means that your engine is just going to shred itself to bits or whatever. So I think once you start realizing that small mental health problems are the cotter pins of your whole being, instead of being like, "Oh, I guess I'll just cry less," being like, "Oh . . . this is letting me know that there's gonna be a full engine shutdown." (Participant 1)

Theme 5: Heterogeneous Perspectives on Social Justice and Climate Change

As showcased in Table 2, climate change and social justice were among the top five systemic stressors noted by survey respondents. Seventy-nine percent listed climate change and 73% noted social justice as stressors, but interviewees had mixed responses regarding climate change and social justice.

While some interviewees explained that social justice was not a source of stress, others considered it a stressor, though for varying reasons. Some participants connected social justice with their desire for a more diverse customer base beyond their mostly white, affluent patrons. They described how locally produced food is not equally accessible. Similarly, some connected social justice with a desire to increase diversity and inclusion among agricultural producers. "We need to look at who is farming out there and really start to think about . . . how are we supporting our BIPOC or femme farmers?" (Participant 2).

> Social justice makes me think of LGBTQ+ issues. . . . I know a lot of LGBTQ small farmers, and I know the kind of anxiety that they have . . . because it's a very conservative community. They just don't know how people are going to react if they find out that they're gay or transgender, and that's a big concern for me. (Participant 17)

When prompted about social justice, two respondents specifically mentioned stress from farming land that was stolen from Indigenous people. "Understanding the privilege that my husband and I have as inheriting land and being white people living on land that was occupied by Native Americans and land that was stolen, that feels really awful" (Participant 14). Many of those

concerned about social justice expressed feelings of helplessness or frustration about having insufficient time to address social justice causes.

Most interviewees identified unpredictable weather as a source of stress but did not identify climate change specifically. Some were not concerned with climate change. "I don't see it as too bad of a thing" (Participant 10). Others described it as a major stressor: "My biggest stressor is, how do we swim in this thing? You know, you can't go to the grocery store without destroying the planet" (Participant 7). Other participants described how climate change is beyond their control: "I decided long ago to stop worrying about climate change. I just don't have the bandwidth" (Participant 17). One participant described how extreme weather events trigger climate-related stress: "Climate change is very serious. I feel like the planet is dying. . . . Sometimes you can forget, but it's never far" (Participant 13).

Discussion

Our study sought to understand the systemic stressors and coping strategies of Midwestern beginning farmers. The results fill a gap in the literature related to beginning farmer stress and mental health experiences. Our sample included underrepresented transgender or nonbinary farmers, women, and farmers of color. We organize our discussion and implications by our four food justice transformative practices.

Acknowledge That Oppression Occurs

Our sample included small-scale, ecologically oriented beginning farmers with multilayered and complex experiences of stress and mental health resulting from structural oppression. We found high anxiety and depression symptom burden in our sample, consistent with Rudolphi et al.'s (2020) study showing high anxiety and depression rates among young Midwestern farmers. The overarching burden of a capitalist market structure created waves of stress in the forms of competition, work-life imbalance, social isolation, and financial strain. While not unique to beginning farmers, financial stress becomes compounded among this group due to a layering of stressors related to social position. Roles of social class and income should be explored in future studies.

Systemic oppression also hindered beginning farmers' stress coping. Healthcare costs are a persistent challenge for young farmers (Ackoff et al., 2022; Shute et al., 2011). Stress associated with healthcare was evident in our sample; many were uninsured or forced to rely on off-farm employment for health insurance coverage (Inwood et al., 2018). Rural interviewees frequently noted geographic barriers to care. Healthcare access in rural areas is further encumbered by longer distances and a shortage of healthcare professionals (Rural Health Information Hub, 2022).

Cultural norms of rugged individualism prevented some participants from seeking help due to social stigma or waiting for a "breaking point"; these sentiments were more common among male participants. Other farm stress studies have found similar ideological impediments, with help-seeking considered appropriate only during a crisis (Roy et al., 2014). The larger implications of rugged individualism should be considered, given that correlates of individualism, such as self-blame, have been associated with suicidality among Midwestern farmers (Bjornestad et al., 2021).

More affordable, accessible routine mental health care is needed to support beginning farmers struggling against systemic stressors. This includes comprehensive health insurance for farmers, funding for rural wellness programming, and initiatives to proactively enhance mental health literacy and lessen social stigma before issues progress to crisis.

Understand and Heal Historical and Collective Trauma Enacted by Structural Power

Our study found unique stressors among women, LGBTQ+, and BIPOC beginning farmers. These stressors limited the farmers' social networks and access to resources and compounded their financial stress. Women and LGTBQ+ participants described additional stresses related to heteropatriarchal gender norms (e.g., not being taken seriously as a farmer or needing to balance caregiving and farm responsibilities). Other studies show parallel findings, with women bearing the additional stress of gendered work and "fighting for their place as a farmer" (Hagen et al., 2021, p. 12). Moreover, nonbinary participants described "hiding" themselves,

which supports previous work that has exposed how heterosexism impacts queer farmers' willingness to be fully seen as themselves (Hoffelmeyer, 2021). Ackoff et al. (2022) found that, like our sample, 63.5% of farmer respondents identify as female, nonbinary, or a gender other than cisgender male. Our BIPOC participants described stress from the legacies of white supremacy, which impacts their access to land, capital, and social networks. These experiences echo those of U.S. BIPOC farmers who encountered racial bias and discrimination when trying to participate in federal farm programs (Russell et al., 2021). Our study supplements research that suggests that women, LGBTQ+, and BIPOC farmers are not as supported by Cooperative Extension (Barbercheck et al., 2009) or government agencies (Ackoff et al., 2022; Wypler, 2019) as cisgender white men.

In solidarity with other scholar-activists (Horst & Marion, 2019; Leslie et al., 2019), we call on the USDA, Cooperative Extension, funders, and researchers to include more inclusive gender identity options in data collection endeavors to further understand the impacts of gender and sexual orientation for farmers. Staff training and farmer materials need to be inclusive of non-cisgender and/or non-heterosexual farmers. Women, LGBTQ+, and BIPOC farmer participants should be centered in USDA, Extension, and funder decision-making. Farmers serving on committees should be paid for the time and energy it takes to work with traditionally oppressive institutions.

Embody an Intersectional Approach

This study shines a light on overlapping factors of social identity that contribute to unique stressors for women, LGBTQ+, and BIPOC beginning farmers. However, current U.S. policy lacks an intersectional approach to farm stress. In April 2022, the USDA released its Equity Action Plan outlining strategies to enhance equity and access to resources for underserved communities (Vilsack & Bronaugh, 2022). In a glaring gap in its conceptualization of equitable access to resources, the plan does not acknowledge disproportionate experiences of stress among marginalized communities. Similarly, little to none of the $95 million appropriated for the USDA's Beginning Farmer and Rancher Development Program (USDA NIFA, 2022a) supports addressing stress or mental health, discrimination, or the impacts of historical exclusionary practices. The Farm and Ranch Stress Assistance Network was passed in the 2018 Farm Bill "to establish a network that connects individuals who are engaged in farming, ranching, and other agricultural-related occupations to stress assistance programs" (USDA NIFA, 2022b). Even so, only seven of the 50 programs funded in 2021 acknowledge efforts to meet the unique needs of farmers of color (Charles, 2022).

Recognize That Oppression and Resistance Coincide

Beginning farmers' stressors are multilayered, and interventions must be approached at multiple system levels. We find it notable that, in our sample, the top stressors are not directly farm-related but are systemic issues. Current strategies have been critiqued as being too individualistic and neglecting broader, systems-level influences (Henning-Smith, et al., 2022). Current U.S. policy and programming emphasize technical assistance among beginning farmers (Calo, 2020); however, these individual-level strategies neglect broader systems-level disparities. A systematic review of farmer mental health interventions identifies a need for interventions that address "social, environmental, and cultural factors" (Younker & Radunovich, 2022, p. 15).

Social support was identified as a key coping strategy, while gaps in social support were mentioned as major stressors. Thus, we look to social support and mutual aid as potential tactics of resistance. Networks designed for specific groups, including women, LGBTQ+, or BIPOC farmers, may aid in resisting harmful cultural norms in the agricultural community while helping participants feel less isolated. Wypler (2019) and Leslie et al. (2019) discuss how queer farmer networks bolstered LGBTQ+ farmer success. Other opportunities that create a sense of community and belonging, such as cooperatives (Liang et al., 2022) or farmers markets, may benefit beginning farmers, though dynamics of power, privilege, and identity must be considered to prevent marginalization. Future research should focus on the mental health

benefits of resistance efforts such as social support, cooperatives, and mutual aid.

Transects Across the Theoretical Framework

Climate change and social justice stressors crosscut all four food justice tenets. Literature suggests that U.S. farmers view climate change as "psychologically distant" (Clements et al., 2021, p. 12) and less concerning than socioeconomic threats (Waldman et al., 2021). Internalized capitalism and the need to survive in a competitive market structure trump seemingly distant issues such as climate change. The preponderance of USDA programs supporting individualized farm interventions to combat climate change perpetuate this attitude; collective solutions should be examined. Prokopy et al. (2015) concluded that 66% of Midwestern farmers believe climate change is happening but only 8% believe it to be anthropogenic. More recently, however, 88% of young farmers nationwide indicated they believe weather changes are correlated with climate change (Ackoff et al., 2022). Despite varying opinions, and even if not immediately palpable to farmers, future plans must integrate the strain of climate change. Warmer growing seasons are already impacting agricultural yields in the Midwest (Cosier, 2022; Hatfield, 2012) and, consequently, the U.S. food system. This can potentially aggravate other systemic issues beginning farmers already face. Likewise, the heterogeneity of social justice perspectives across our sample is an area for future exploration through an intersectional lens. The nexus of social justice perspectives and farmer stress has yet to be closely investigated but is a topic with abounding importance, given the charged sociopolitical and rural-urban divide.

Limitations

This cross-sectional study was conducted during the COVID-19 pandemic, which may have influenced responses and respondent concerns. Future longitudinal studies can provide more in-depth understanding of beginning farmer stress. The purposive sampling strategy and sensitive nature of the survey and interview content may have introduced some bias. The survey sample size was small and excluded non-English speakers, and most participants were from Ohio and Michigan. Future studies should aim for random sampling techniques for more representative results. We worked with our community partner to reword measurements and expand options for gender identity to amplify voices often excluded from food systems research; however, the modified stress scale was not validated. Future work should validate the modified scale across contexts. Our use of the term "BIPOC" may indicate an overgeneralization of a shared non-white experience and history; however, we want to emphasize the unique experiences between and among races and ethnicities. Lastly, our research team's positionalities may have contributed to reactivity and researcher bias. Efforts were made to address this through prolonged engagement, triangulation, and peer debriefing (Padgett, 2016).

Conclusion

Beginning farmers are drawn to the Midwest to find purpose, work outdoors, and feed their community. Results from our survey and interviews reveal that the "insatiable appetite" of the farm is exacerbated by the stress of capitalism, discrimination in access to resources, challenges with social support, rugged individualism, and climate change. Farm work and social support were both coping strategies and sources of stress, revealing paradoxical elements. Future research should investigate the longitudinal effects of stress and coping mechanisms and the impact of systems-level strategies to shape structural supports for beginning farmers.

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Appendix A. Farm Stress Items

Table A1. Working Conditions

	None	Very little	Some	Quite a bit	A great deal	Not Applicable
Handling or being exposed to chemicals	☐	☐	☐	☐	☐	☐
Operating hazardous machinery	☐	☐	☐	☐	☐	☐
Noise levels around equipment	☐	☐	☐	☐	☐	☐
Farm-related accidents or injuries	☐	☐	☐	☐	☐	☐
Dust, mold, and natural materials	☐	☐	☐	☐	☐	☐
Removal of manufacturer's safety devices from equipment/absence of manufacturers' safety guards	☐	☐	☐	☐	☐	☐
Farm equipment that is inappropriately sized to your needs	☐	☐	☐	☐	☐	☐
Handling livestock	☐	☐	☐	☐	☐	☐

Table A2. Social and Geographic Factors

	None	Very little	Some	Quite a bit	A great deal	Not Applicable
Lack of close proximity to neighbors	☐	☐	☐	☐	☐	☐
Limited social interaction opportunities	☐	☐	☐	☐	☐	☐
Distance to/from healthcare	☐	☐	☐	☐	☐	☐
Distance to/from community resources such as gathering places, and businesses	☐	☐	☐	☐	☐	☐
Lack of or limited public services (school, fire department, sanitation)	☐	☐	☐	☐	☐	☐
Lack of or limited access to the Internet	☐	☐	☐	☐	☐	☐
Farm-related tensions with nonfarming neighbors	☐	☐	☐	☐	☐	☐
Discrimination from agricultural service providers or others in the farm community	☐	☐	☐	☐	☐	☐

Table A3. Personal Finances

	None	Very little	Some	Quite a bit	A great deal	Not Applicable
Repayment of farm loans	☐	☐	☐	☐	☐	☐
Market prices for crops/livestock	☐	☐	☐	☐	☐	☐
Market opportunities for crops/livestock	☐	☐	☐	☐	☐	☐
Financing your retirement	☐	☐	☐	☐	☐	☐
Concerns over the financial future of your farm	☐	☐	☐	☐	☐	☐
Cost of farmland	☐	☐	☐	☐	☐	☐
Input costs (fertilizers, feed, etc.)	☐	☐	☐	☐	☐	☐
Purchasing and updating equipment	☐	☐	☐	☐	☐	☐
Securing health insurance for you/your household	☐	☐	☐	☐	☐	☐
Planning for your farm's transfer to the next generation or operator (i.e. after you retire from farming)	☐	☐	☐	☐	☐	☐

Table A4. Time Pressure

	None	Very little	Some	Quite a bit	A great deal	Not Applicable
Having too much to do and too little time	☐	☐	☐	☐	☐	☐
Not having the person-power to operate your farm	☐	☐	☐	☐	☐	☐
Not having enough time for yourself	☐	☐	☐	☐	☐	☐
Having to balance farm work with familial obligations (child care, time spent with family, etc.)	☐	☐	☐	☐	☐	☐

Table A5. Environmental Conditions

	None	Very little	Some	Quite a bit	A great deal	Not Applicable
Crop or livestock challenges (diseases, pests)	☐	☐	☐	☐	☐	☐
Too little OR too much rainfall	☐	☐	☐	☐	☐	☐
Early and/or late killing frost	☐	☐	☐	☐	☐	☐
Erosion	☐	☐	☐	☐	☐	☐
Inadequate soil moisture levels	☐	☐	☐	☐	☐	☐
Climate change	☐	☐	☐	☐	☐	☐
Herbicide drift	☐	☐	☐	☐	☐	☐

Table A6. Current Events, Policy, and Regulations

	None	Very little	Some	Quite a bit	A great deal	Not Applicable
National policy and trade agreements	☐	☐	☐	☐	☐	☐
Environmental regulations	☐	☐	☐	☐	☐	☐
Other state or local regulations	☐	☐	☐	☐	☐	☐
Reporting requirements and paperwork	☐	☐	☐	☐	☐	☐
COVID-19	☐	☐	☐	☐	☐	☐
Organic integrity	☐	☐	☐	☐	☐	☐
Social justice	☐	☐	☐	☐	☐	☐

Table A7. Employee Relations

	None	Very little	Some	Quite a bit	A great deal	Not Applicable
The price of compensating employees	☐	☐	☐	☐	☐	☐
Employee health insurance status	☐	☐	☐	☐	☐	☐
Employee welfare and well-being	☐	☐	☐	☐	☐	☐
Securing or hiring reliable employees	☐	☐	☐	☐	☐	☐
Keeping reliable employees	☐	☐	☐	☐	☐	☐
Conflict management among staff	☐	☐	☐	☐	☐	☐
Keeping up on employee paperwork (insurance, taxes, immigration, etc.)	☐	☐	☐	☐	☐	☐

Appendix B. Semistructured Interview Guide

1. Can you please tell me about your farm operation?

   Probes: How many years have you been farming? How big is the operation? What do you raise or produce? Where is the farm located? Does anyone else help on the farm? Do you have a background in farming? First-generation farmer?

The next few questions will be about your experience of stress and mental health.

2. I'd like to hear about any experiences of stress that you have had as a farmer.

   Probes: What factors contribute to your stress? What do you do to help manage your stress? Are there specific assets you can think of that help you manage your stress?

3. In the survey we administered this past fall, social justice was ranked as a major source of stress. Would you say that social justice is a source of stress for you? If so, can you expand on how?

   Probes: How do you define social justice? What does it mean to you? Is discrimination in the agricultural arena a source of stress for you?

4. In the survey we administered this past fall, climate change was ranked as a major source of stress. Would you say that climate change is a source of stress for you? If so, can you expand on how?

5. Can you tell me about your experience with mental health as a beginning farmer?

   Probes: Can you describe people or resources you've turned to for mental health support? Are there specific assets or trustworthy spaces in your community? Have you experienced barriers to accessing mental health resources? If so, what type?

6. How does stress or a mental health challenge impact your farming practices?

   Probes: Is there a seasonality to your stress levels or state of mental health?

Let's shift gears a little bit and take a broader view of the landscape of farming.

7. Our research team is interested in the social sustainability of beginning farmers. How do you define social sustainability?

   Probe: How do you define it as it relates to beginning farming?

8. What do you think needs to be in place for beginning farmers to be socially sustainable?

   Probes: What might successful social sustainability look or feel like here in Ohio? What would be helpful in making social sustainability changes on your farm? What policies get in the way of social sustainability?

9. Can you think of other beginning farmers who might help us understand the landscape of beginning farmer social sustainability, stress, and mental health?

Before we close, I would like to gather some demographic information from you.

10. What is your age?
11. What is your gender identity?
12. How would you describe your race and ethnicity?