

# Farm and Ranch Mental Health: Stressors, Barriers, and Strategies

## Research Brief

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## Farm Stress Brief Series



Southern Ag Exchange Network

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**Synopsis:** This brief provides information on stressors for farmers and ranchers, barriers limiting access to resources and mental health care for this group, and strategies for limiting farm and ranch stress as well as removing barriers to mental health care.

## Introduction

Farmers and ranchers face an important occupational challenge in managing stress within the unique conditions of the agriculture sector. According to the U.S. Centers for Disease Control and Prevention (CDC), chronic stress can lead to feelings of anxiety, depression, changes in diet, difficulty concentrating, problems sleeping, poor physical health like headaches, and increased substance abuse (CDC, 2022). Additionally, a 2020 CDC study using data from the 2016 National Violent Death Reporting System showed that the suicide rate for males within the occupational category of "Farmers, Ranchers, and Other Agricultural Managers" was 36.1 per 100,000. This is 1.6 times as high as the general population rate for all males, which was 27.4 per 100,000 civilian, noninstitutionalized working persons aged 16–64 years (Peterson et al., 2020). This suggests that agriculture has the fourth highest rate of deaths by suicide among males. Trend data from 2003 to 2017 showed an overall increase in farmer suicide over the study period, with higher counts for older, white male farmers (Norrod, Sanderson, Abner, Seals, & Browning, 2023). While the suicide

rate for females within the occupational category "Farmers, Ranchers, and Other Agricultural Managers" was not reported, it is known that female farmers and ranchers have specific stressors related to their roles in both farm production and maintenance of the farm household that merit attention (Henning-Smith, Alberth, Bjornestad, Becot, & Inwood, 2022).



## Farm and Ranch Stressors

A farm or ranch is a complex operation: a business and a household navigating the division of labor with a family unit and influenced by economic, social, cultural, and historical factors. Due to this complexity, there are a multitude

of stressors that impact farmers and ranchers:

- Occupational demands (e.g., length of the workday, lack of vacation and sick leave) complicated by labor shortages and the environmental conditions of production (Kolstrup et al., 2013)
- Physical health and injury concerns (e.g., heavy machinery accidents or pesticide exposure)
- Familial, such as childcare and generational differences (Henning-Smith et al., 2022)
- Weather and climate challenges (Tutor-Marcom et al., 2018)
- Social isolation
- Rural depopulation and community stress, obligations
- Legal control over property (e.g., heirs' property)
- Structural changes in agriculture increasing economic insecurity and market uncertainty (e.g., price fluctuations; Rudolphi, 2020)
- Psychological ties to farming as a way of life, family legacy over generations
- Burdens due to government and policy regulations, paperwork, requirements

Finances plays a central role in levels of farm and ranch stress, and prior studies have noted that the salience of this stressor changes over time with economic conditions (Molgaard & Phillips, 1991). Further, a struggling farm or ranch operation can affect the operator's and fellow workers' mental health since it is strongly tied to one's sense of identity. Also, farming and ranching duties can be isolating, especially when there are limited sources of social support.

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## Finances plays a central role in levels of farm stress

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The stressors affecting a particular farm or ranch operation can vary based on geography, the type and size of operation, and external economic supports, as well as the social experiences of the farmer

based on age, race, gender, sexual orientation, location, and climate. For instance, a study conducted on gender differences for depression symptoms in the rural work environment found that although both men and women may endure stressful conditions while working, it was found that female farmers tended to express higher depressive symptom scores than males. This result was attributed to women reporting challenges in balancing home and work life and having less physical capacity for physical farm tasks than men (Smolski, Schulman, Tutor-Marcom, & Bynum, 2022).

Another stressor affecting business output for farmers and ranchers is extremes in temperature and weather conditions. Diverse climatic challenges present different stressors for dairy farmers than those running a greenhouse operation. While dairy farmers in the Midwest may experience early or late freezes, those in the southern region may be combatting heat waves and hurricanes. Climatic variations by region also influence disease or pest concerns that affect crop and animal agriculture. When it's too cold, cows divert their energy to maintain body temperature instead of producing milk. And when it's too hot, cows reduce their feed intake to mitigate heat stress, which can affect fertility rates and viable milk yields (Lopez, Laughton, Donghoon, & Soo Suh, 2022). Such climate discrepancies may decrease livestock productivity, which can negatively impact a farmer's economic and overall health well-being.

## Barriers to Care and Resources

Farmers and ranchers seeking to find resources to address these multiple stressors face barriers to accessing mental health services and other resources:

- Lack of training for mental health providers on the unique conditions under which an agriculture operation functions (Younker & Radunovich, 2022)
- Lack of training for farm service providers on mental health
- Distrust of medical and/or mental health professionals

- Prohibitive costs of mental health services
- Proximity and lack of access to mental health services
- Lack of time off to seek care
- Distrust of public institutions and agencies (Key & Wheat, 2021)
- Lack of access to the internet
- Lack of access to farmer mental health resources (Russell, Hossfeld, & Rico Mendez, 2021)
- Discrimination when seeking to access resources (Russell et al., 2021; Smolski et al., 2022)
- Stigma around mental health (Hagen, Sawatzky, Harper, O'Sullivan, & Jones-Bitton, 2022)

These barriers demonstrate a need to address attitudinal, economic, institutional, cultural, and resource factors related to the provisioning of mental health services for agricultural populations. For instance, the stigma around mental health can reduce the likelihood that a farmer or rancher will seek care, similar to distrust of public institutions and medical professionals.

In a recent report, Black farmers noted discrimination and racism as barriers to care (a barrier that extends to other social categories; Smolski et al., 2022). This links to heightened levels of distrust for public institutions. Black farmers reported barriers in trying to navigate federal programs and resources designed to assist farmers, reporting poor communication and information dissemination, barriers at the local USDA offices, and onerous application processes that exacerbate existing challenges and stressors instead of relieving farmer stress. Longstanding discriminatory practices by the USDA point to the numerous challenges that Black, indigenous, and farmers of color face in trying to access the very resources that would build farm businesses and reduce farm stress. Research with 89 Black farmers in Mississippi revealed major impediments exist that exacerbate

accessing federal resources for farmers, discouraging socially disadvantaged farmers (Russell et al., 2021).

Barriers to accessing care are linked to a lack of available resources as well as to a lack of training about farm-related stress by mental health professionals. These barriers can operate as stressors, thereby compounding farm and ranch stress.

## **Strategies for Limiting Farm and Ranch Stress**

There are several potentially viable policies and programs that can address farm stress:

- Farmer-led resource delivery
- Social support (Schulman & Armstrong, 1990)
- Cooperatives (Liang, Janssen, Casteel, Nonnenmann, & Rohlman, 2022)
- Curriculum and training for mental health and farm service providers
- Technology-supported platforms for reaching rural audiences (telehealth, etc.)
- Integration of farm stress resources and outreach in Cooperative Extension
- Greater transparency and accountability in accessing federal programs, especially for socially disadvantaged farmers (Henning-Smith et al., 2022)

Social support through crisis hotlines, cooperatives, and peer-to-peer networks provides resources to address stressors among farmers and ranchers. Studies have shown that cooperatives provide a basis for belonging, connecting farmers to resources and providing a capacity for impacting policy (Frederick, 1993; Liang, Janssen, Casteel, Nonnenmann, & Rohlman, 2022).

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## **Social support...offers avenues to lessen some stressors among farmers and ranchers**

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Cooperative Extension Services (CES) in many states are partners in leading a variety of initiatives that assist local organizations and the farming community with financial and emotional stress. For example, one of Extension's popular programs is financial counseling. Extension agents with Accredited Financial Counselors certification are equipped to refer and provide information on personal financial challenges brought by farmers. Another approach is facilitated through regional and state-level Farm and Ranch Stress Assistance Networks. These partnership networks link institutions that have provided Mental Health First Aid and Question, Persuade, Refer [QPR] trainings to hundreds of agricultural service providers, educators, and producers. Thus, collaborations with CES, farm advocacy groups, and other societal sectors can ensure longevity of proven programming.

Other recommended strategies to redress barriers to accessing resources includes greater communication about federal programs, as well as greater transparency, uniformity, and ease in the application process and program implementation. Four recommended practices for federal programs to redress discriminatory practices include:

- Sharing information about programs through communication strategies that target marginalized populations in culturally relevant ways (Smolski et al., 2022);
- Streamlining the administrative process for applying to and accessing programs;
- Including Black, indigenous, and farmers of color on local advisory boards or other stakeholder groups;
- Building community coalitions across racial categories (Russell et al., 2021).

## Conclusion

Farm and ranch stress presents a complex issue with a multitude of stressors and barriers addressing farmer and rancher mental health. Uncertainty

due to changing economic conditions, changes in the structure of agriculture, weather concerns and climate change, and the restructuring of rural communities all impact farm enterprises and farm families. Farms and ranches contribute significantly to the local and state economy, provide food and other goods to millions, and also give needed support for themselves and their workers. When farms and ranches thrive using the resources available to them, the deleterious effects of stress can be mitigated.

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## When farms and ranches thrive...the deleterious effects of stress can be mitigated

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### Selected Examples of Existing Resources in the Southern Region

A review of farmer mental health programs notes that a best practice for briefs is to include a listing of existing resources (Inwood, Becot, Bjornestad, Henning-Smith, & Alberth, 2019). The following section includes selected examples of state-specific resources from a select number of states in the Southern region.

Arkansas:

- Mental Health First Aid training provides education to equip community members to respond to mental health and substance use crisis. Arkansas Cooperative Extension has six certified trainers.
- QPR—Question Persuade Refer—provides training for participants to respond to persons contemplating suicide. Arkansas Cooperative Extension has 20 certified trainers and provides these trainings at no cost.

- UAMS AR ConnectNow offers up to six free sessions with a mental health professional. The AR ConnectNow call center is available at 501-526-3563 or 800-482-9921. The call center is available 24 hours a day, seven days a week. Available online: <https://uamshealth.com/ar-connectnow/>

#### Florida:

- Florida Department of Agriculture and Consumer Sciences (FDACS) Farmer Stress Awareness Initiative is a holistic outreach campaign to raise awareness of mental health challenges and connects farmers and rural community members to local supportive services. See: <https://www.fdacs.gov/Agriculture-Industry/Farmer-Stress-Assistance>
- UF HealthStreet is a community engagement program whose mission is to reduce disparities in health outcomes and access to care. Health Street uses a Community Health Worker model to assess the health concerns and conditions of the people in the community and refer people to relevant medical and social services, as well as opportunities to participate in health research. See: <https://healthstreet.program.ufl.edu/>

#### Georgia:

- Mental Health First Aid (MHFA) and Question Persuade Refer (QPR) training to rural communities. Three different versions are offered: adult, youth, and military.
- Innovative peer networks for farmers and rural community members. Highlights include a Men's Shed and She Shed, where rural community members come together to do a creative activity (e.g., woodworking) and, in turn, they form relationships and improve mental health outcomes.
- Targeted outreach to veterans working in agriculture including a Farmer Veteran Coalition (FVC) state chapter.
- Targeted outreach to women working in agriculture through a virtual

- community and annual conference
- Host an Annual Rural Stress Summit in Georgia
- For more information, visit <https://www.farmandranchstress.com/>.

#### North Carolina:

- The NC Farmer to Farmer program provides peer support for farmers, ranchers, and their family members experiencing difficult times. Specially trained peer supporters are farmers, ranchers, family members, and others working in agriculture. See: <https://ncfarmstress.org/programs.php#farmertofarmer>
- Counseling and Behavioral Health Services—contact the NC Farm Help Line at 844.325.3276 or email [info@ncfarmstress.org](mailto:info@ncfarmstress.org).

#### South Carolina:

- SC AgriWellness provides free counseling services for farmers and farm families: <https://www.scfb.org/farmstress>
- Mental health resources for farmers and their families: <https://www.scfb.org/outreach-leadership/sc-agriwellness>
- Farmer support resource map: <https://arcg.is/1X8rTW0>

#### Tennessee:

- UT MANAGE: MANAGE was designed specifically to help Tennessee farm families carefully evaluate their individual situation and assist them in improving their quality of life. The MANAGE program is conducted by University of Tennessee Extension. More than 15,000 Tennessee farm families have participated in the intensive farm and financial planning phase of MANAGE. <https://arec.tennessee.edu/extension/manage/>
- SAgE-TN: A partnership between the TN Department of Agriculture and University of Tennessee Extension working to increase professionals' knowledge, awareness, and readiness to respond to symptoms of farm and ranch stress.

## References

- Center for Disease Control and Prevention. (2022). Coping with stress. Retrieved from <https://www.cdc.gov/mentalhealth/stress-coping/cope-with-stress/index.html>
- Frederick, D. A. (1993). Cooperative involvement in public policy. Retrieved from <https://www.rd.usda.gov/sites/default/files/cir42.pdf>
- Hagen, B. N. M., Sawatzky, A., Harper, S. L., O'Sullivan, T. L., & Jones-Bitton, A. (2022). "Farmers aren't into the emotions and things, right?": A qualitative exploration of motivations and barriers for mental health help-seeking among Canadian farmers. *Journal of Agromedicine*, 27(2), 113–123.
- Henning-Smith, C., Alberth, A., Bjornestad, A., Becot, F., & Inwood, S. (2022). Farmer mental health in the US Midwest: Key informant perspectives. *Journal of Agromedicine* 27(1), 15–24. doi: 10.1080/1059924X.2021.1893881
- Inwood, S., Becot, F., Bjornestad, A., Henning-Smith, C., & Alberth, A. (2019). Responding to crisis: Farmer mental health programs in the Extension North Central Region. *Journal of Extension*, 57(6). Retrieved from <https://tigerprints.clemson.edu/joe/vol57/iss6/20>
- Key, C. D., & Wheat, J. R. (2021). An exploratory study of occupational safety and health with limited resource African-American farmers. *Journal of Agromedicine*, 26(2), 140–150.
- Kolstrup, C. L., Kallioniemi, M., Lundqvist, P., Kymäläinen, H.-R., Stallones, L., & Brumby, S. (2013). International perspectives on psychosocial working conditions, mental health, and stress of dairy farm operators. *Journal of Agromedicine*, 18(3), 244–255.
- Liang, Y., Janssen, B., Casteel, C., Nonnenmann, M., & Rohlman, D. S. (2022). Agricultural cooperatives in mental health: Farmers' perspectives on potential influence. *Journal of Agromedicine*, 27(2), 143–153.
- Lopez, R. A., Laughton, C., Donghoon, K., & Soo Suh, H. (2022). Climate change and productivity of northeastern dairy farmers. *Agricultural and Resource Economics Review*. Retrieved from <https://www.cambridge.org/core/journals/agricultural-and-resource-economics-review/article/climate-change-and-productivity-of-northeastern-dairy-farms/938AA13B43864F64891B8A778E102ABB>
- Molgaard, V. K., & Phillips, F. (1991). Telephone hotline programming. *Journal of Extension*, 29(4). Retrieved from <https://archives.joe.org/joe/1991winter/a4.php>
- Norrod, P. E., Sanderson, W. T., Abner, E. L., Seals, J., & Browning, S. (2023). Farmer suicides among states reporting violent deaths, 2003–2017. *Journal of Rural Mental Health*. doi: 10.1037/rmh0000232
- Peterson, C., Sussell, A., Li, J., Schumacher, P. K., Yeoman, K., & Stone, D. M. (2020). Suicide rates by industry and occupation—National Violent Death Reporting System, 32 States, 2016. *Morbidity and Mortality Weekly Report*, 69(3), 57–62. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6903a1.htm>
- Rudolphi, J. (2020). Diversity of mental health issues in agriculture. *Journal of Agromedicine*, 25(1), 1.
- Russell, K., Hossfeld, L., & Rico Mendez, G. (2021). "Not a new pattern": Black farmers' perspectives on barriers to participating in federal farm programs. *Journal of Agriculture, Food Systems, and Community Development*, 10(4), 195–209. doi: 10.5304/jafscd.2021.104.007
- Schulman, M. D., & Armstrong, P. S. (1990). Perceived stress, social support and survival: North Carolina farm operators and the farm crisis. *The Journal of Sociology & Social Welfare*, 17(3), 3–22.
- Smolski, A. R., Schulman, M. D., Tutor-Marcom, R., & Bynum, D. (2022). Farmers' perceptions of information and resources for navigating economic hardship and stress. ATTRA Sustainable Agriculture. Retrieved from <https://attra.ncat.org/wp-content/uploads/2022/10/Farmer-Well-Being-Report-RAFI.pdf>
- Tutor-Marcom, R., Grafft, L., Wilson, E., Bruce, J., Jayaratne K. S. U., & Robertson, G. (2018). Behavioral health issues of NC farmers: What can't be fixed with tape and twine. *North Carolina Medical Journal*, 79(6), 378–381.
- Yunker, T., & Radunovich, H. L. (2022). Farmer mental health interventions: A systematic review. *International Journal of Environmental Research and Public Health*, 19(1), 244. doi: 10.3390/ijerph19010244

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