

# Drought serves as a magnifier for stress

By Mandy Archer, Great Plains Center for Agricultural Health May 12, 2024



The corn crop in east central Iowa is showing heat and drought stress, with much of the crop burning up toward the end of August.

Photo by Aaron Viner

**F**armers know better than anyone that weather conditions come and go, and that the next harvest isn't promised. Yet, they continue plowing the fields, seeding and growing through it all.

Part of that grit and perseverance makes them farmers, but facing these hardships does not go without mental health hurdles.

Drought adds psychosocial stress to farmers' already stressful lives. Awareness of constantly changing weather conditions is just the first step. It is also necessary to understand how the changing climate in your area affects you.

I spoke with Jesse Berman, who is an assistant professor at University of Minnesota in the Division of Environmental Health Sciences. He is interested in the relationship between humans and complex weather events like drought, heat and air pollution.

For this conversation, I looked at Berman's 2021 paper, "The association between drought conditions and increased occupational psychosocial stress among U.S. farmers: An occupational cohort study," written with co-authors Marizen R. Ramirez, Jesse E. Bell, Rocky Bilotta, Fredric Gerr, and Nathan B. Fethke.

Drought has continued to worsen in the years since the paper, and the psychosocial stresses of extreme weather are as present as ever.

In the study, Berman and the team found that psychosocial stressors measured by farmers' reported job strain substantially increased during the growing season in times of drought. In fact, the farmers' job strain increased more due to drought than other challenges, such as farmers reporting physical pain.

When I asked if Berman felt that there were differences between today and the time of this study, he responded, “Absolutely not.” The link between farming and weather conditions remains strong, and with severe drought rising, it is likely that farmers will experience heightened occupational strain.

Berman said drought is a “creeping type” of natural disaster. It is slow but mighty, and it affects more people in the world than other extreme weather events.

Drought is not a high-visibility disaster but is an enduring disaster, unlike an incoming tornado which you can see approaching on the weather radar — or if it gets close enough to wreak havoc on your farm, outside the window. This disaster strikes and dissipates while drought sticks around.

Drought stressors for farmers include lack of water for crops and animals, and it heightens the severity for other weather events we are already aware of, such as thunderstorms, floods, heat waves and wildfires.

As the climate continues to change, weather events due to drought will be more frequent and damaging and can occur much earlier in the season, as witnessed by the first-ever December derecho in 2021. Warmer winters are now par for the course.

As a farmer, predicting these events and setting your course for the year is imperative.

Part of our conversation led to unique methods to mitigate the impacts of drought conditions. Berman pointed to recent articles highlighting farming in Africa and in the western United States. Operations in both areas have updated practices to fight off the effects of drought conditions.

In East Africa, livestock handlers switched some cattle to camels. Though the cattle are culturally significant to the areas affected, the community adapted to a more drought-resilient livestock.

Similarly, in the southwest U.S. where drought conditions are significant, a story of a rancher's ingenuity shines through. Check out the article here [nyti.ms/44gh6zo](https://www.nytimes.com/2012/08/27/us/44gh6zo).

In the story, the rancher stops fighting with nature and joins forces with the “destructive” beavers he had been trying to get rid of. The beavers' dams were able to save fresh water for his cattle to drink and recharge his groundwater, especially during spring runoff.

Stories like these should encourage farmers to seek out other options for their land. This does not mean all crops or animals must change, but making incremental modifications may lead to less work anxiety.

Internet is not always an available resource, but if you have connection, check out this drought toolkit from the Upper Midwest Agricultural Safety and Health Center at [tinyurl.com/44bcfwdn](https://www.tinyurl.com/44bcfwdn).

And the Suicide and Crisis Lifeline is available to call or text 24/7, just dial 988.

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