HEARING ON THE HIGH PLAINS:
Combating Drought with Innovation

TESTIMONY

Presented to:

Senate Agriculture Subcommittee on Conservation, Climate, Forestry, and Natural Resources

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Burlington, Colorado

Presented by:

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Thank you Chairman Benett, Ranking Member Marshall, and members of this Subcommittee for the opportunity to speak at today's Hearing on the High Plains: Combating Drought with Innovation. My name is Amy France and my family and I farm and raise livestock in western Kansas. It is an honor to discuss how the farmers and ranchers on the High Plains are managing, conserving, and extending the life of our limited water resources, particularly the Ogallala Aquifer, in this important agricultural region. I also want to express my gratitude to Senator Marshall for his leadership and commitment to Kansas agriculture throughout his time in Congress and to the grassroots, bipartisan work across state lines being done with the Senate offices down to the groundwater management and farmer levels.

I own and operate France Family Farms in Scott County, Kansas, alongside my husband and our oldest son. We primarily raise grain sorghum, corn, and wheat as well as Angus cattle on our 6,000 acre operation. As third-generation farmers in Western Kansas, we live with the impact of drought and limited water resources and have first-hand experience with the importance of water conservation efforts in agriculture.

The High Plains is a harsh climate that includes limited precipitation and extreme temperatures. Figure 1 shows the evapotranspiration line established by the US Geological Survey (USGS) which contrasts potential evapotranspiration with average precipitation. Lands to the west of this line, which encompasses much of Kansas including my county, typically lose more moisture to evapotranspiration than they received via annual precipitation[1]. Additionally, we continue to see more erratic weather patterns with precipitation becoming increasingly variable.

According to the U.S. Drought Monitor, Scott County in western Kansas has consistently experienced drought conditions for the past several years and was categorized as the most severe, a D4 Exceptional Drought, from June 2022 though May 2023.[2] The outlook for this area is grim, as the Climate Prediction Center anticipates that current drought conditions will persist for at

[1] https://www.usgs.gov/media/images/map-gridded-values-1971-2000-avg-precipitation-minus-avg-pet
[2]https://www.drought.gov/states/kansas/county/scott

least the next several months.[3] In Scott County alone, moderate drought conditions persist over more than 25% of the county, with the remainder being considered abnormally dry by USDA.[4]

Many farmers throughout the High Plains have had the luxury of using the region's aquifer as a resource to irrigate their crops. Unfortunately, the Ogallala Aquifer is on an unsustainable trajectory due to over-appropriation and prolonged drought conditions. However, conservation practices, collaborative partnerships, and resource conserving crop rotations are helping to preserve this critical water resource for agricultural, industrial and municipal needs.

Because sorghum is more efficient in the use of water than other crops, it is a key tool for enhancing the overall sustainability and profitability of my family farm. Sorghum, the Resource Conversing Crop®, is a drought tolerant, non-fragile, high-residue crop that conserves soil moisture and reduces soil erosion. Adding sorghum to a typical high input crop rotation allows the entire rotation system to become resource conserving, according to the USDA.[5] Despite the harsh and fragile nature of the High Plains, this region still produces three-fourths of the entire sorghum crop in the U.S. as a result of these cropping systems and other practice changes.

As farmers, we must do our part to implement effective water management. In doing so, we look to new technologies and improved practices that can be tailored to the region such as precision planting, chemical and nutrient applications and precision irrigation technology. According to a study conducted in 2020, 24% of irrigated acres over the Ogallala aquifer will no longer be able to support irrigated agriculture by 2100.[6] This of course, is assuming no changes in water management occur. From my perspective, federal, state and local policies need to deliver actual water savings in the Ogallala aquifer.

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[3]https://www.drought.gov/data-maps-tools/us-monthly-drought-outlook
[4]https://downloads.usda.library.cornell.edu/usda-esmis/files/cj82k728n/sj13bs95f/mk61t777r/wwcb2424.pdf
[5] https://www.regulations.gov/document/CCC_FRDOC_0001-0413
[6] https://www.sciencedirect.com/science/article/abs/pii/S0378377419318062

My family farm has a limited amount of irrigation, and the vast majority of our crops are grown under dryland, rainfed production practices. While my family has chosen dryland crops, there are many producers in my area looking to introduce innovative solutions to on-farm irrigation.

The Southwest Kansas Groundwater Management District #3 (GMD3) has actively engaged with farmers in their region, as well as with Colorado producers and elected officials on both sides of the state line. GMD3 helps producers benchmark their irrigation performance against other area producers, provide technical assistance for growers to make improvements to their irrigation practices, and educates producers and the public about the need for water savings to help stabilize the Ogallala aquifer.

We appreciate the efforts of Senator's Bennet, Moran, Lujan and Heinrich for introducing legislation (S. 2250) to allow farmers to convert irrigated acres to dryland by placing their water rights into a voluntary conservation easement. This creates water savings that are attributed directly back to the aquifer, helping to reduce over-appropriation and to stabilize this important resource.

Innovation in water conservation spans beyond irrigation practices and easements. Farmers should be encouraged to implement practices that decrease resource use and increase sustainability. On France Family Farms, we make every effort to ensure that our farming practices are good for the land - for today and for future generations.

The agriculture sector has put great time and effort into keeping pace with technological advances and other conservation efforts in response to both market and environmental demands. As a farmer on the High Plains, my vision is to make agriculture more sustainable so that future generations can have the same opportunities we have today. Farmers are tasked with the difficult challenge of feeding the world. Our livelihood, as well as those generations who follow us, are absolutely dependent on a stable water supply. Mr. Chairman, we can do this by adapting new technologies, improving practices and policies, and harnessing the inherent attributes of drought resilient crops like sorghum. I thank you and the subcommittee for your time today and for your

proactive and collaborative approach to this critical issue for agriculture. I am happy to answer any questions.

FIGURE 1

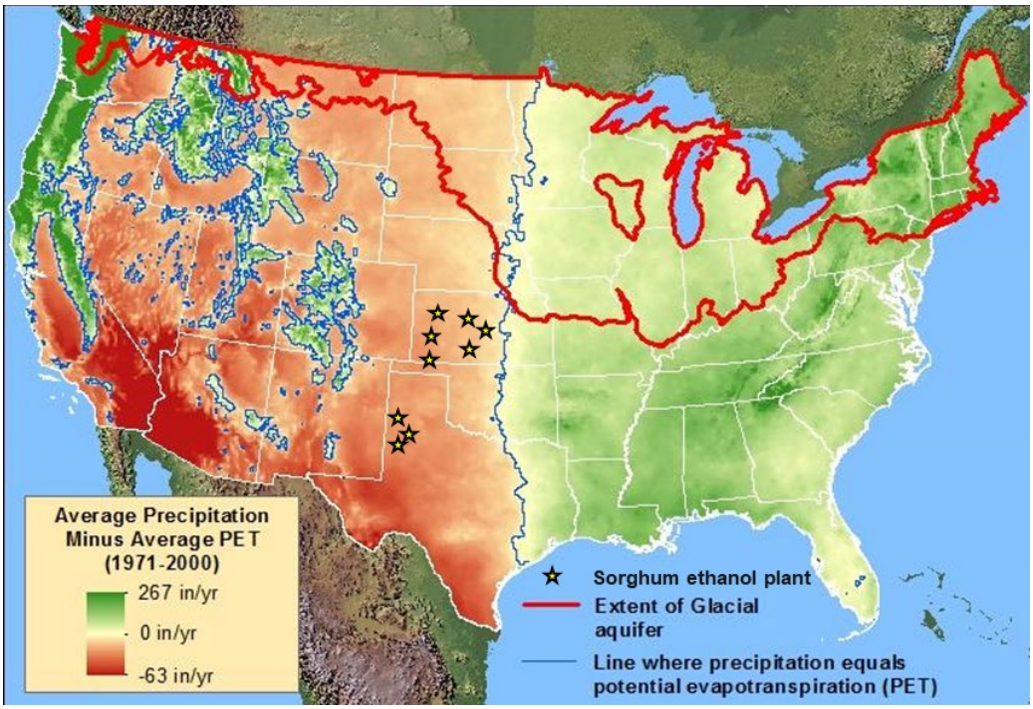

Figure 1. Precipitation and Potential Evapotranspiration as well as Sorghum Ethanol Plant Locations

Data Source: https://www.usgs.gov/media/images/map-gridded-values-1971-2000-avg-precipitation-minus-avg-pet

FIGURE 2

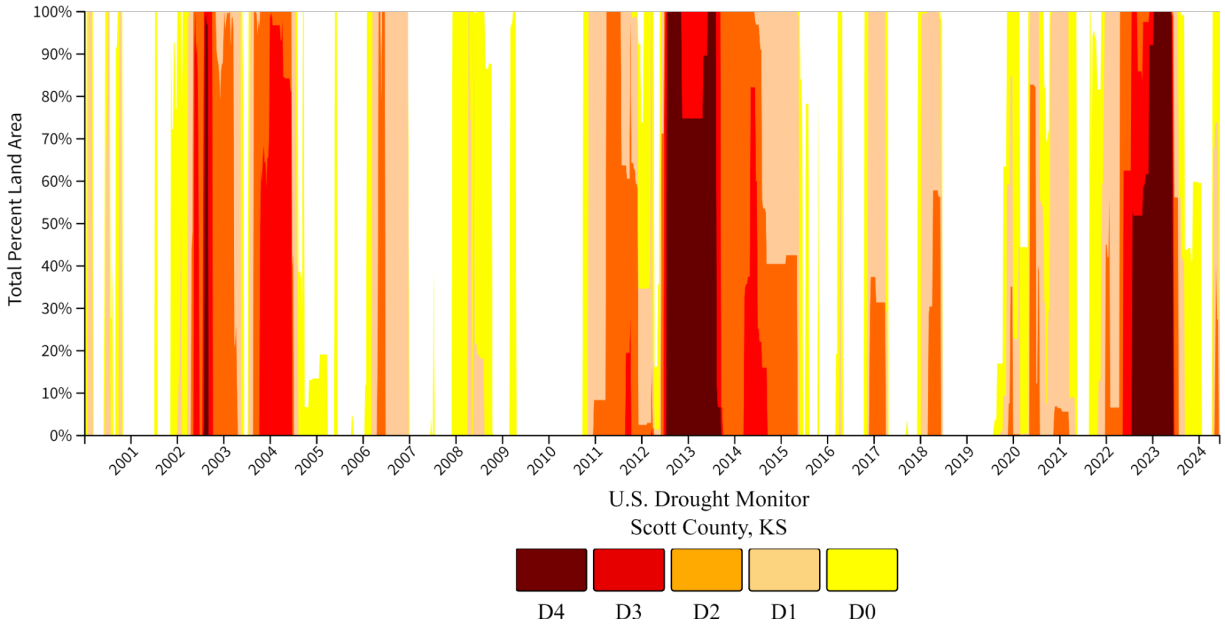

Figure 2. Summary of Drought Conditions, 2000 through 2024 for Scott County, KS.

Data Source: https://www.drought.gov/states/kansas/county/Scott.

FIGURE 3

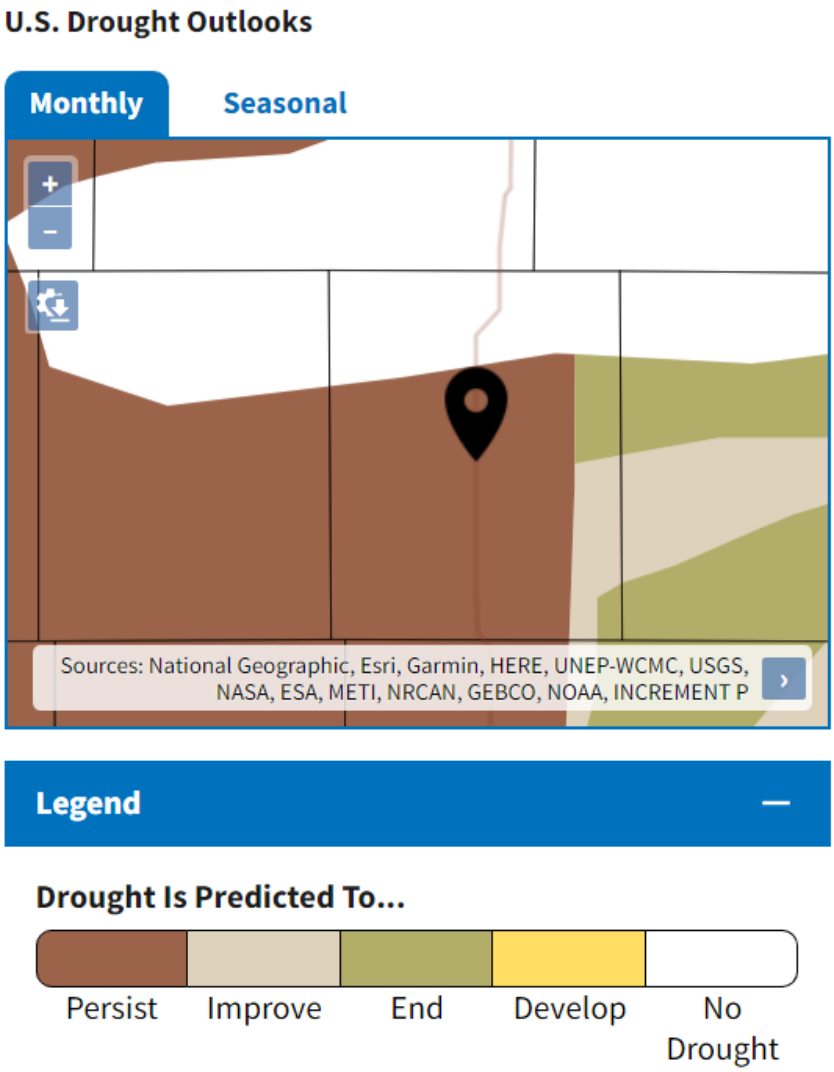

Figure 3. Drought Outlook for Scott County, Kansas

Data Source: https://www.cpc.ncep.noaa.gov/