



Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible, unbiased, science-based information. Material contained in linked articles is from the original authors and does not necessarily reflect the views of CAST.

In This Issue....

[Animal Agriculture News](#)
[Food Science & Safety News](#)
[Plant & Environmental News](#)
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Announcements

The National Academies' Committee on Soil and Human Health is hosting a public meeting on **September 18**. Speakers include **Virginia Moore** of Cornell University, **Jean-Michel Ané** of the University of Wisconsin-Madison, and **Lee DeHaan** of The Land Institute. To attend, tune in to the **live stream** on the [event webpage](#) at **12:00 p.m. ET**.

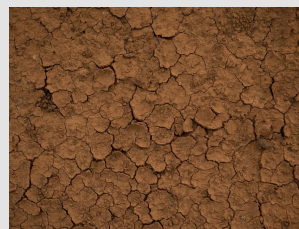
AI Tank, an entrepreneur and consultant in agriculture and food, will give the 2023 [William K. Deal Leadership Lecture](#) on **September 27, 5:30 p.m. CST, at Iowa State University**, highlighting the significance of innovation in agriculture. The event is free and open to the public.

CAST Social Media

September 15, 2023

As Temperatures Fall, the Corn Belt Takes Stock of Drought's Toll on Crops, Cattle, and Logistics

The Corn Belt experienced its fifth hottest and driest week in over 30 years during the first week of September, causing considerable damage to the Midwest's corn crop. Farmers in Nebraska, Iowa, Illinois, Wisconsin, Kansas, and Missouri are experiencing the impact of high temperatures. The latest [USDA crop](#) report rates national corn conditions as 52% good to excellent, down 6 points in two weeks, with Kansas' and Missouri's being the worst-rated. The report also found that the national rate of corn reaching maturity has almost doubled from the prior week.



[Cattle in feedlots in the Midwest](#) are also vulnerable to elevated temperatures. To ensure the well-being of the cattle, temperatures in feedlots should be in the mid-60s for around five hours at night during hot periods, allowing the animals to cool down. However, if the temperature remains in the 90s for four days and nights are in the 70s, it could lead to fatal consequences.

Pastures and rangelands have also been affected by the drought. The USDA has reported that, by the beginning of September, over 60% of pastures and ranges in Minnesota and 46% in Iowa were in poor to very poor condition. In recent years, many cattle states like Nebraska and Kansas have experienced persistent drought that has caused grazing pastures to dry out. Consequently, ranchers have been forced to reduce the size of their herds instead of purchasing costly hay to feed their livestock.

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CAST [welcomes ideas](#) for future publications and projects.

Logistics could also experience setbacks due to the drought. [The Mississippi River is facing a critical situation this year](#) with lower levels, leading to worries about costly shipping delays for the second consecutive year. Last fall, the drought caused severe water shortages in certain parts of the Mississippi that had not been seen in years, with [estimated losses of \\$20 billion](#). As the harvest season for this year approaches, the river is again receding. According to the National Integrated Drought Information System, most of the Mississippi is expected to experience low water levels in September, impacting industry and navigation.

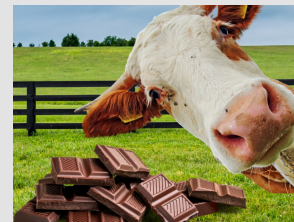
Despite the severity of the drought and questions about why [early summer forecasts](#) might have been wrong, the [weather should cooperate](#) for most of the Midwest with cooler temperatures and no expectations of excessive rainfall as harvest activities ramp up in mid-September. The second week of September 2023 was expected to be the ninth coolest in more than 30 years for the Corn Belt, with transient hit-or-miss showers and thunderstorms that should not affect fieldwork activities.

News and Views

USDA Updates: The USDA (1) released September's [World Agricultural Supply and Demand Estimates](#) (WASDE), (2) reported a change in the [distribution of irrigated acreage](#), with a shift towards the east, and (3) released the latest [farm income and wealth](#) statistics report.

Far Side of the Barn

Sweets: A project is repurposing discarded chocolate and other sweets into a "[candy meal](#)" to feed farm animals.



CAST Updates

Dr. Alison Bentley to Receive 2023 BCCA on October 25

The **2023 Borlaug CAST Communication Award (BCCA)** will be presented to **Dr. Alison Bentley**, Director of the Global Wheat Programme at the International Maize and Wheat Improvement Center (CIMMYT), on **October 25** in a breakfast and presentation event from **7-8:30 a.m. at the Iowa Events Center in Des Moines**. The award ceremony is



a side event at the [World Food Prize](#).

Dr. Bentley is a renowned figure in the field of **wheat research**, celebrated not only for her groundbreaking contributions to agricultural science but also for her **exceptional mentorship and advocacy**. Her dedication to nurturing the next generation of wheat researchers is evident in her remarkable ability to tailor her **communication** to diverse audiences, acknowledging their unique backgrounds and interests. Dr. Bentley's media prowess has played a pivotal role in **raising awareness and garnering support for vital agricultural research**, particularly in the realms of **food and nutrition security**.

The Borlaug CAST Communication Award honors the legacy of **Dr. Norman Borlaug**, a Nobel Prize winner and author of the first CAST publication, and **Dr. Charles A. Black**, the first executive vice president of CAST. It is presented annually for outstanding achievement by a scientist, engineer, technologist, or other professional working in the agricultural, environmental, or food sectors for contributing to the advancement of science through communication in the public policy arena.

Animal Agriculture and Environmental News

Dairy: Agriculture extension educators at the University of Wisconsin-Madison advise on [proper injection sites](#) to reduce lesions and enhance effectiveness.

Livestock: The USDA's Wildlife Services has established [new standards to verify livestock kills](#) by Mexican wolves in Arizona and New Mexico.

Forage: Ranchers cleaning up their winter wheat harvest [can boost soil and cattle production](#) by planting a cover crop for grazing.



Wild Boar: Scientists use movement sensors to detect when [wild boars](#) are infected with a fatal disease.

Food Science and Safety News

Waste: [Dynamic pricing](#) could be a solution for grocery stores to keep food from landfills and increase profits.

Diet: A new study finds [weight loss more crucial](#) than protein type for managing Type 2 diabetes.

Alternative Protein: Researchers suggest that [replacing 50% of meat and dairy with plant-based alternatives](#) could significantly decrease greenhouse gases by 31%.



Genes: Scientists find that [dietary patterns and taste preferences](#) are associated with specific areas of our genome.

Plant Agriculture and Environmental News

Interactions: Disease-resistant rice and wheat plants may [affect the disease susceptibility](#) of neighboring varieties.

Proteins: A new study may have discovered a method to [neutralize a mysterious family of microbial proteins](#) that hijack crops' cellular plumbing, preventing \$220 billion in annual crop damage.

Labels: The National Association of State Departments of Agriculture (NASDA) is calling for [clear and consistent labeling](#) for cell-based meat products.



Crops: The current [state of corn and soybean](#) in the US is at its lowest point in ten years.

International News

India: India has recently [lowered the tariffs](#) on various agricultural products imported from the United States.

Russia: The [UN rights chief criticizes Russia](#) for quitting Black Sea grain deal.

China: Xi Jinping calls for [transformation of China's northeastern breadbasket](#) to bolster food security and self-reliance.



Italy: [Italy loses wine-making leadership](#) to France after a 12% fall in output in 2023.

General Interest

Farmers: An Aimpoint report gives insight into US [farmers' current mindset and attitudes](#).

Antimicrobial Use: The World Organisation for Animal Health (OIE) reports a 13% [decline in global antimicrobial use](#) in animals over three years.

Regulations: The US SEC chief tells Congress that upcoming regulations will not require private [farmers to report climate emissions](#).



Ecosystem: Researchers in Florida are using artificial intelligence to measure the value of [ecosystem services](#).

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- * Innovation Center for U.S. Dairy
- * Iowa State University
- * Minor Use Foundation, Inc.
- * Mississippi State University
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- * National Corn Growers Association/Iowa Corn Promotion Board
- * National Milk Producers Federation
- * National Pork Board
- * National Turkey Federation
- * North Central Weed Science Society
- * Northeastern Weed Science Society
- * Nutrients
- * Penn State University
- * Poultry Science Association
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Contact CAST:
 cast@cast-science.org
 The Council for Agricultural Science and Technology
 4420 West Lincoln Way
 Ames, Iowa 50014-3447
 Phone: 515-292-2125



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Council for Agricultural Science and Technology | 4420 West Lincoln Way, Ames, IA 50014

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