



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.

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Announcements

CAST, in a joint effort with the Institute of Food Technologists (IFT), is releasing a new **Issue Paper on food traceability** during three in-person presentations held on **Thursday, September 28**, in **Washington, D.C.** [RSVP now!](#)

C-FARE is promoting a webinar **today** at 12 pm EST, featuring three prominent experts to discuss **commodity, livestock, and specialty crop prices** and the factors influencing their trends. [Register now!](#)

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September 8, 2023

Water Reservoirs in the United States Remain at Historic Low Levels

Despite the torrential amount of water brought by Hurricane Hilary last month, the main [reservoirs across the United States](#) are still at [historically low levels](#), raising concerns about economic, social, and environmental impacts. Experts attribute this [persistent water scarcity to a combination of factors](#), including prolonged droughts, increased demand for water, and climate change.



The current water crisis significantly impacts society, particularly local economies in regions that rely heavily on agriculture and tourism. Farmers face reduced water allocations, decreased crop yields, and economic struggles. Some communities are experiencing water shortages, forcing residents to seek alternative sources or rely on trucked-in water.

To combat water scarcity, experts stress the importance of implementing long-term solutions, including increased water conservation, investment in water infrastructure, and development of more resilient water management policies.

CAST has published several papers proposing solutions to improve water management and conservation. The papers cover various topics, such as the [impact of agricultural nutrients on water quality](#), [water use in animal agriculture](#), [the state of streams in agricultural areas](#), and [access to water for agriculture in the US](#). An upcoming paper called "Irrigation and Precision Crop Management Technologies" will discuss the most recent discoveries and updates in the area, highlighting the

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

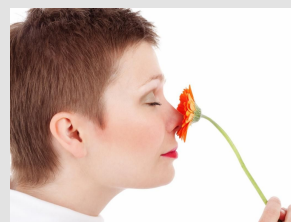
significance of irrigation in modern food production, exhibiting new methods for improving water efficiency, and analyzing the environmental consequences of precision irrigation management technologies.

News and Views

USDA Updates: The USDA (1) reports that good-to-excellent ratings for corn and soybean crops are [the lowest for this time of year](#) since 2012, (2) forecasts [farm profits to fall in 2023](#) from record highs in 2022, (3) breaks ground on [new plant research facility](#) on North Carolina State University campus.

Far Side of the Barn

Technology: Scientists are coming closer to [digitizing the sense of smell](#).



CAST Updates



CAST and IFT to release a new paper on food traceability in Washington, D.C., on September 28

The **Council for Agricultural Science & Technology (CAST)**, in a joint effort with the **Institute of Food Technologists (IFT)**, is releasing a new **Issue Paper** on food traceability, "**Food Traceability: Current Status and Future Opportunities.**" Three in-person presentations on the topic will be held on **Thursday, September 28, in Washington, D.C.** Publication Task Force Chair **Dr. Robert Gravani**, Professor Emeritus, Food Science at Cornell University, will be presenting, followed by a question-and-answer session.

Presentation Objectives:

- Investigate and discuss the development and use of various technologies to enable the traceability of food products and thus enhance food safety,

source transparency, and consumer confidence.

- Deep dive into the technological infrastructure underlying food traceability platforms and discuss the history of such platforms, the current state of the technology, ongoing U.S. food traceability regulatory initiatives, and the likelihood of commercial-scale deployment.
- Address current infrastructure limitations that may slow technology implementation.

Copies of the publication will be available at each session and on the **CAST** website following the presentations at www.cast-science.org. Following this in-person rollout of the publication, **CAST** and **IFT** will be hosting a **webinar** presentation at a **later date**.

Use the **RSVP** button below to select the presentation session you wish to attend.

RSVP NOW!

About Food Traceability

Food traceability is the tracking and tracing of food from production to retail. It has many benefits, including optimizing the supply chain, promoting sustainability, and improving food safety. With an effective traceability system, corrective actions can be taken quickly, preventing contaminated products from reaching consumers. Food traceability technology is advancing, and credible systems are becoming a reality in the US.

Animal Agriculture and Environmental News

Piglets: A new study investigates how [elevated ambient temperatures](#) impact the growth and development of piglets.

Sub-Saharan Africa: Research shows methods to [enhance dairy cattle performance](#) in sub-Saharan Africa.

Guard Dog: Motivations and perceptions of commercial livestock farmers are measured in a new study about [livestock guard dog programs](#).



Dairy: Researchers explore the potential of [outdoor cooling systems](#) to decrease stress in dairy cattle.

Food Science and Safety News

Potatoes: Scientists use the genome of over 399 potato species to [create a super potato](#).

Beef: A study at Tulane University uses updated statistics to shape messages about [American beef consumption](#).

Mycotoxin: New research shows how a [newly discovered fungus](#) can convert harmful mycotoxin into less harmful byproducts.



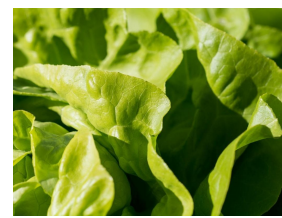
Onions: Onions could be the key to [unlocking the texture of plant-based proteins](#).

Plant Agriculture and Environmental News

Evolution: New discoveries shed new light on [evolution in the plant kingdom](#).

Nanomaterial: Researchers discover a way to [increase plant nutrient efficiency](#) using silicon-based nanomaterials.

Exports: [Brazil has surpassed the United States](#) in exporting corn and soybeans.



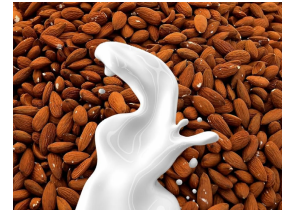
Lettuce: A new study finds that [artificial growing methods](#) help global food security.

International News

India: A study suggests that [groundwater depletion rates in India](#) may increase in the next few decades.

Egypt: [Egypt is still buying wheat from Russia](#) to meet its demand despite the shock of the war.

Pakistan: [Unprecedented monsoon seasons in Pakistan](#) have increased modern slavery, including indentured servitude.



France: France is reconsidering its proposal to [prohibit names related to animals](#) for plant-based food products.

General Interest

Ag-Tech: A Cornell University study finds that [ag-tech can help significantly decrease](#) greenhouse gases.

Wheat: New research sheds light on how the [behavior of individual wheat plants](#) can influence grain production.

Biodiversity: Scientists balance biodiversity, climate change, and agriculture [to find sustainable solutions for farmers](#).



Cotton: Researchers investigate the [environmental impact of cotton production](#) and ways to minimize it.

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The Science Source for Food,
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