



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
- International News
- General Interest News

Announcements



Dr. Mahalingam Govindaraj has been named the [2022 recipient of the Norman E. Borlaug Award for Field Research and Application](#).

The World Food Prize Borlaug Dialogue in partnership with the Consortium for Innovation in Post-Harvest Loss & Food Waste Reduction [are calling for abstracts](#)—the deadline is September 12.

Thirteen speakers will discuss efforts to combat food loss and waste at the second [USDA Food Loss and Waste Innovation Fair](#), scheduled for September 14.

CAST College Corner

[Purdue University](#) has launched a free access “meat sentiment” dashboard to track meat’s mention in social media and online news.

September 2, 2022

Green Tech and Agriculture

Agrivoltaics—solar projects on actively used farm or grazing land—represent a possible dual use for the estimated 900 million agricultural acres in the U.S. A Colorado sheep farm will welcome a large solar farm while [continuing to keep sheep on pasture](#).



Scientists in Saudi Arabia have developed and piloted what could be a useful tool to help curb food insecurity in regions facing water accessibility issues. The technology, called WEC2P, is a [green energy system that uses solar panels](#) to suck up moisture from the air and convert it into water to feed plants while also producing electricity.

A group of students built a solar-powered greenhouse that [produces 50% more energy](#) than it uses.

News and Views

USDA Updates: The USDA announced 1) applications for [Biofuel Infrastructure Grants](#) with \$100 million available to increase sale of biofuels and usage, 2) grants to further [strengthen meat and poultry supply chains](#), and 3) an investment in [clean water, roads, and trails improvement](#).

White House Conference: The Biden administration announced it will host the White House Conference on [Hunger, Nutrition, and Health](#) next month in D.C. This conference will be the first of its kind in more than 50 years—the last one influenced the food policy agenda. President Biden has a [goal to end hunger by 2030](#).

Ukraine Update: Ukraine’s agricultural [exports could rise to 6 million-6.5 million tonnes](#) in October, double the volume seen in July, as its sea ports gradually reopen.

A [North Carolina A&T State University](#) researcher is looking for a food-based cure for type 2 diabetes.

CAST Social Media

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

Far Side of the Barn

Delivery for the Dairy:

A dairy farmer [hired an Amazon Prime truck](#) to haul alfalfa hay from his hay ranch in Utah to his dairy farm in California. Unfortunately, it didn't qualify for free shipping.



Hitchless Towing: A car company is working on hitchless towing, where two [vehicles are only connected through Wi-Fi](#).

CAST Updates

CAST Internship Opportunity

CAST is hiring a Communication Intern for spring and summer 2023. The Communication Intern works with the Communication and Social Media Specialist to deliver credible, science-based news about agricultural science and technology through CAST communications. This position also works on developing new communication strategies and evaluating existing strategies.

Position is open for an internship or practicum experience and designed to meet academic requirements. Preference will be given to students with an agricultural background, and currently attending a CAST Education Program member institution. Applications should be submitted by November 11, 2022. [More information can be found on the CAST website](#).

CAST Members Partner Together

This joint project between Iowa State University (ISU) and the Iowa Soybean Association (ISA) was showcased at the [Farm Progress Show](#), August 30-September 1 in Boone, Iowa. ISU and ISA announced the [completion of a large-scale, soy-based asphalt project](#). Sponsored by ISA, the 42,560 square foot asphalt base showcases the versatility of homegrown soybeans and research advancements toward its use. It is a great example of agricultural innovation.

Join CAST's efforts to communicate the science, technology, and innovation so critical to our food and modern agriculture system through [society](#), [nonprofit](#), or [company membership](#)!

Animal Agriculture and Environmental News

Poultry Health: With many poultry operations switching to [no-antibiotics-ever \(NAE\) production](#), management and disease control have become even more critical components.

Pork Plants: Two Midwest pork plants have been [allowed to increase speed](#) after 2021 regulations slowed production.

Gray Wolves: Agricultural groups have been



Virtual fencing is an innovative technology that

[granted the right to debate](#) in matter over Gray Wolves and their status on the endangered species list.

offers ranchers and managers [increased precision and flexibility](#) in how they graze cattle.

Food Science and Safety News

Pulsing Light on Pathogens: Penn State University researchers found that pulsing light can effectively kill pathogens like E. Coli and Salmonella, which [could be used in the food industry](#).

Carbon Dioxide: A carbon dioxide shortage is [making operations difficult](#) and more expensive for a range of food companies, especially breweries and those needing dry ice to preserve meat in transit.

Seasoning with Bugs: Researchers are using mealworms to create [protein-rich, "meat-like" seasoning](#).



Researchers suggest that [breadfruit may show resolve](#) for hunger as climate warms and food insecurity grows.

Plant Agriculture and Environmental News

Grape Varieties: A UC Davis professor emeritus successfully bred and created five new grape [varieties resistant to Pierce's disease](#), which targets water-conduction in grapes.

Crop Fertilizer: Researchers around the world are [investigating various unconventional sources](#) of nutrient potential as alternatives to chemical fertilizers.

High-Speed Farming: With the help of technology, the speed at which farmers planted fields has [increased over the years](#).



Researchers from North Carolina State University have [developed a wireless system](#) that uses radio transmitters and receivers to estimate soil moisture in agricultural fields at multiple depths in real time.

International News

New Coffee Bean: Taiwan's [first domestically bred coffee bean](#) could potentially help the island's coffee farmers overcome agricultural and climate challenges.

ASF Vaccine: Vietnam has temporarily suspended the use of its [African swine fever \(ASF\) vaccine](#) after pigs that received the shot died.

Olive Oil: Plains full of olive trees that stretch across Spain have made this country the world's biggest producer of olive oil, but the plains are devastated by the [worst drought ever recorded](#).



Brazil, the world's top producer and supplier of soy beans, seems well-positioned to chip into U.S. export share over the next year [based on staggering harvest pegs](#).

Botanic Matchmakers: Undomesticated plants could help their farmed cousins adapt to climate stresses, but that requires [tracking them down around the world](#) while also “decolonizing botany.”

Digitizing DNA: Scientists around the world are racing to [record the genetic blueprints](#) of every known species on the planet.

Africa's Oldest Known Dinosaur: An international team of paleontologists has [discovered and named a new, early dinosaur](#). The skeleton—incredibly, mostly intact—was found over the course of two digs.



[The Phytopoetry Project](#), a multimedia venture by Iowa State University's Integrated Pest Management program, features a mustached character—a savant in both poetry and pest management.

Photo Credits

Announcements from World Food Prize. Lead from Werner Slocum, NREL. Far Side from Maddox Dairy. Animal from Tony Capizzo/TNC. Food from Malcolm Manners/Flickr. Plant from Joel Dunn. International from Benson Hill. General from Integrated Pest Management at Iowa State University. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service, Constant Contact, or CAST.

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- * American Association of Bovine Practitioners
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- * American Dairy Science Association
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- * American Seed Trade Association
- * American Society of Agricultural and Biological Engineers
- * American Society of Agronomy
- * American Society of Animal Science
- * American Society of Plant Biologists
- * American Veterinary Medical Association
- * Association of Equipment Manufacturers
- * Aquatic Plant Management Society
- * BASF Corporation
- * Bayer Crop Science
- * Corteva Agriscience
- * CropLife America
- * Crop Science Society of America
- * 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
- * Nutrien
- * Penn State University
- * Poultry Science Association
- * Society for In Vitro Biology
- * Society for Range Management
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
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- * Zoetis

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The Science Source for Food,
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*** With assistance from Colleen Hamilton (Membership Specialist) and Nick Plaugher (Communications Project Coordinator)*

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