



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
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Announcements



The [IPCC report](#) assesses the state of the global climate. The [Cornell Alliance for Science explains](#) the terminology, a [Texas A&M expert looks at the findings](#), the "Solutions from the Land" organization emphasizes the focus on [climate tools offered by agriculture](#), a commentary points out [ways to avoid the crises](#), and this video explains [how the research was undertaken](#).

Three CAST society members—ASA, CSSA, and SSSA—crafted a policy statement dealing with [recommendations to address climate change](#).

The fourth edition of *Building Soils for Better Crops* is available [online for free](#).

Nominations are open until August 18 for a Blue Ribbon Panel about the important roles performed by [Land Grant Universities and Colleges](#).

CAST College Corner

August 13, 2021

Labor Shortage a "Top Priority for Agriculture"

Labor shortages are [affecting many facets of agriculture](#) and food production, from field laborers to [truck drivers](#). For some sectors, such as pork production, [the situation has been long term](#) as this Iowa State University study documents. These Nebraska ag experts say the overall [situation is preventing growth](#) and should be a top priority.



Many solutions are underway, from employment strategies to immigration policies. Automation can also play a part. For example: 1) Deere & Company acquired a robotics startup to [accelerate the development and delivery of automation](#) on the farm, 2) UC Davis researchers published guidelines for [growers to make the best use of machines](#) and 3) a fast food restaurant in Chicago employs [Flippy, a robotic fry cook](#) with a specialty of French fries.

News and Views

USDA Updates: The department is 1) hosting a roundtable on [food waste solutions](#) in the U.S. and abroad, 2) accepting applications to [support rural microenterprises](#), and 3) providing millions of dollars to [expand broadband in rural areas](#) where [shortages and long waits](#) for equipment are causing problems.

Matlock Appointment: The USDA announced more [key staff members including Dr. Marty Matlock](#) (University of Arkansas and 2018 BCCA) who will serve as Senior Advisor for Food Systems Resiliency with Marketing and Regulatory Programs.

Infrastructure Bill: The Senate passed an infrastructure bill that includes investments in roadways, broadband, ports, and inland waterways. [Ag groups have mixed reactions](#), and USDA [Secretary Tom Vilsack commented](#) about the issue.

U.S. Census: The U.S. Census Bureau released [additional 2020 Census results](#) that highlight local population changes and

[Cal Poly University's](#) message about the pandemic is an example of how schools are trying to lay the foundation to reduce the risks of COVID-19.

[Tuskegee University's](#) communication program is growing quickly, and Dr. Jennifer Bender explains why students in all fields benefit from it.

The [University of Nevada-Reno](#) helped support the creation of a unique space that encourages young people's interest in robotics, computer science, engineering, and automation.

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

the nation's racial and ethnic diversity.

Pandemic News: Many [U.S. rural counties](#) increased their pace of new vaccinations as the delta variant spreads.

Far Side of the Barn

Hot Dog Apple Pie (video): The [ultimate ballpark snack](#) was available at the Major League Baseball game that turned Iowa cornfields into a [magical Field of Dreams](#). The game even [featured a Hollywood ending](#).



Mr. Roboto on the Court (video): A robot basketballer put on an [impressive halftime show](#) at the Tokyo Olympics.

Bad Luck? The *Farmers' Almanac* staff compiled a list of the most popular articles about [Friday the 13th superstitions](#).

CAST Updates

CAST Opening for Director of Council Operations



CAST is [seeking a Director of Council Operations](#) with proven project management, communication, systems, and leadership skills. The position calls for a mid-October start with applications due by September 1.

The Relevance of CAST's Climate 21 Publication

As reported at the top of this edition, the IPCC report assesses the state of the global climate. The Climate 21 Project is the blueprint for how the USDA hopes to advance the role of agriculture and forestry to mitigate and adapt to climate change pressures. CAST's recent publication, [The Role of Agricultural Science and Technology in Climate 21 Project Implementation](#) summarizes each of the key recommendations and priorities where current agricultural science and technology for plant and animal production can be applied and where new investments will be critical. Topics covered include:

- Managed Landscapes
- Animal Agriculture's Role in Climate Mitigation
- Role of Advanced Technologies in Climate Mitigation
- Food Supply Chain and Waste in Climate Mitigation
- How do we Make Carbon Markets Work for Agriculture?



The Role of Agricultural Science and Technology in Climate 21 Project Implementation

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Note: The [Ag quickCAST](#) and [webinar](#) about this paper are available here.

Beat the Heat: As extreme heat moves in, ranchers and farmers [struggle to keep animals cool](#).

Spotty Liver Disease: Research in *Poultry Science* looks at how isoquinoline alkaloids induce partial [protection of laying hens](#) from the impact of *Campylobacter hepaticus*.

Pulp for Pigs: Researchers from the University of Florida are looking into feeding [ensiled citrus pulp](#) to finishing pigs.

Cattle and Carbon: Proper grazing management can reduce the [industry's carbon emissions](#), according to a Texas A&M researcher.

Cattle and Firebreaks (related to above): This article says [using cattle grazing to create firebreaks](#) has successfully contained three rangeland wildfires in Nevada.



Wild elephants packed their trunks and [went for a road trip](#) in China, where they fascinated locals, raided farms, and caused a media buzz.

Food Science and Safety News

Food Prices (webinar): Guests [Jayson Lusk and Sarah George](#) joined host [Charlie Arnot](#) to discuss food prices, the responses from food companies, and prospects for consumers. Note: Lusk is the [2017 BCCA](#) winner.

Drought in the Supermarket? California officials say the state provides a third of the country's vegetables and two-thirds of the country's fruits and nuts—and the [megadrought is affecting availability and prices](#).

Consumer Friendly Labels? The [Food Labeling Modernization Act](#) that would update labeling requirements has been introduced in the House and the Senate.

Food Labels (see above): Access the CAST publication about the "[process labeling of food](#)" and an earlier paper about the "[labeling of genetically engineered food](#)."

Eat By, Best By, Throw By: This podcast provides information about why food labels "[may not mean what you think](#) they mean."



The USDA is offering a [September 15 virtual roundtable](#) titled "Exploring Food Waste Solutions: Success Stories from the U.S. and Beyond." Click here for the CAST publication [Food Loss and Waste](#)

Plant Agriculture and Environmental News

Crop Prospects and WASDE Report: According to the latest crop report, U.S. [corn yield prospects fell](#) below trade expectations and markets reacted. The full [World Agricultural Supply and Demand Estimates report](#) is here.

Citrus Greening: California officials expanded a [quarantine to prevent the spread](#) of a deadly citrus disease in the San Diego area.

Meat on the Menu for This Plant: For the first time in 20 years, [botanists identified a new carnivorous plant](#); it traps insects with sticky hairs on its flowering stem.

Diversity Helps: Penn State research looks at why planting a [variety of wheat with different traits](#) can increase genetic diversity and help resist pests and diseases.

Prairie Revival: University of Nebraska faculty and staff are involved with the [rehabilitation of a once-neglected prairie](#).

Almond Crush: Overwhelmed by drought and new water



A [devastating derecho struck](#) the Midwest on August 10, 2020. It is now considered [the most destructive thunderstorm ever](#) in the United States.

Producers have several alternative methods to [harvesting drought-](#)

restrictions, this rancher [had to pull thousands of valuable almond trees](#) from his California farm.

[stressed corn](#) by using it as forage.

International News

Consumers and Gene Editing: Several studies in Europe found that consumers are [receptive to using gene editing tools in agriculture](#) if they bring social, economic, and environmental benefits.

Farmers on the Frontline: As the IPCC report surfaced, this Australian agriculture group says farmers are on the frontline of those [trying to mitigate climate change effects](#)

Siberia Alight: Fires burning across Siberia are [larger than all the other blazes](#) around the world.

Ag in the Shadow of the Pyramids: The *Agriculture in Egypt* report provides a comprehensive study of factors affecting [the country's expanding market opportunities](#).

A Boost for Barley: University of Queensland researchers are helping [barley growers improve yield stability](#), particularly in the dry seasons.



Experts are looking at [solutions for global water shortages](#) that include iceberg transportation and salt water desalination.

General Interest News

"Forever Chemicals" and Water (video): Colorless, tasteless man-made substances known as [PFAS chemicals are a growing concern](#) for U.S. communities and the EPA.

Ocean Optimism: Although there are reasons to be worried about the state of the world's oceans, some scientists say it's important to point to the [successes that are occurring](#).

Cancer Research: Researchers at North Carolina State and the NIH used a [technique known as exon skipping](#) to work on a treatment for mast cell cancers.

Plastic Attitudes: This article looks at how the pandemic affected [consumer attitudes toward plastic packaging](#).

Methane: A [methane natural gas leak](#) in California led to a lawsuit as well as massive greenhouse gas emissions.

Weed Whacking: As the growing season hits final stages in the Northern Hemisphere, Iowa State University specialists give advice about [controlling weeds in yards and gardens](#).



The [pet revolution became bigger](#) during the pandemic, and dog ownership leads the way. Nearly 54% of American households are now part of the canine parade.

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- * American Meat Science Association
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- * Crop Science Society of America
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- * Bayer
- * National Cattlemen's Beef Association, a Contractor to the Beef Checkoff
- * National Corn Growers Association/Iowa Corn Promotion Board
- * National Milk Producers Federation
- * National Pork Board
- * North Central Weed Science Society
- * Northeastern Weed Science Society
- * Poultry Science Association
- * Rural Sociological Society
- * Society for In Vitro Biology
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * Tuskegee University
- * United Soybean Board
- * University of Nevada-Reno
- * U.S. Poultry and Egg Association
- * Weed Science Society of America
- * Western Society of Weed Science

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The Science Source for Food,
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