

*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**

# The Animal Agriculture Alliance

is currently seeking proposals for keynote presentations and panel discussions for the **2024** 

Stakeholders Summit that fit the theme "Ready, Set, Solve! Advancing Animal Agriculture." Proposals are being accepted through Nov. 22. For more information and to submit your proposal, visit the proposal guidelines and form.

#### **CAST Social Media**

Visit our website









CAST <u>welcomes</u> <u>ideas</u> for future publications and

### October 6, 2023

### National Farmer's Day Celebrates the Backbone of World Agriculture

As we near Oct. 12, we look forward to celebrating **National Farmer's Day**, a special day dedicated to recognizing the tireless efforts of the hardworking individuals



who form the foundation of the agricultural industry.

According to the USDA's <u>Census of Agriculture</u>, while most farmers are of an average age of 58 and older, there is a promising trend of increasing diversity within the farming community. Young men, women, and minority farmers are entering the field, contributing new and innovative perspectives to farming practices.

It's important to note that the majority of farms in the United States, approximately 97.1%, are owned and operated by families. These families play a crucial role in ensuring our nation has a secure food supply. On National Farmer's Day, we should recognize that despite only 2% of the population being farmers, their economic contributions go far beyond just producing food.

In fact, in 2019, the agricultural and food sectors provided 22.2 million full- and part-time jobs, which accounted for 10.9% of total U.S. employment. This impact extends beyond food production and includes industries such as transportation, textiles, grocery, manufacturing, pharmaceuticals, forestry, and fisheries.

On Oct. 12, use the hashtag **#ThankAFarmer** to express gratitude for their efforts to keep the nation well-fed and economically thriving.

projects.



### **News and Views**

**USDA**: The USDA (1) announces \$276 million for underserved and veteran farmers, (2) \$3 billion becomes available for climate-smart agriculture, and (3) launches a nutrition hub to combat diet-related diseases.

#### Far Side of the Barn

Asteroid: New research connects the <u>beginning of agriculture</u> to the collision of a comet with Earth.



## **CAST** Updates

### **Communications Internship Opportunity with CAST!**

We are seeking a dynamic and enthusiastic **Communications Intern** to collaborate closely with our communications team at the forefront of agricultural science and technology. As part of our team, the intern will play a pivotal role in delivering accurate, science-based news about agriculture advancements and in helping promote CAST publications.

Some key responsibilities include:

- Collaborate with our communications team to curate and communicate credible information related to agricultural science and technology in different formats;
- Help develop innovative communication strategies that effectively engage diverse audiences and amplify the impact of CAST;
- Assist in evaluating the effectiveness of existing communication strategies, making data-driven recommendations for improvements;
- Participate in brainstorming sessions to generate fresh ideas for content, campaigns, and outreach efforts.

Please share this news with other members of your organization or contact our Communications Manager, Carlos Back Vianna (<a href="mailto:cvianna@cast-science.org">cvianna@cast-science.org</a>), if you know someone with a flair for crafting compelling narratives and a keen interest in innovative science communication strategies.

Applications for the spring (and summer) 2024 should be received by **Nov. 30**, 2023. Click <u>here</u> for the full position description.



### 2023 BORLAUG CAST COMMUNICATION AWARD

Dr. Alison
Bentley
REGISTER NOW!

October 25, 2023

7:00 am - 8:30 am

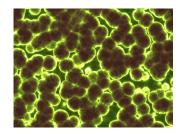
World Food Prize Iowa Events Center Des Moines

## Animal Agriculture and Environmental News

**Sustainability**: Research analyzes the role of <u>sustainability in building greater resilience</u> to current problems encountered in agricultural systems.

**Udders**: Udder and teat measurements can be used to predict milk production in Friesian cattle.

**FDA**: The FDA has released a new five-year antimicrobial stewardship plan to improve the monitoring of antimicrobial resistance and drug usage in animals.



Microbes: A new study aims to understand the microbial interactions in the rumen and their influence on production traits.

## Food Science and Safety News

**Health**: Produce prescription programs offering free fruits and vegetables can significantly improve food security and promote healthy eating, especially among those with diet-related illnesses.

**Community**: Researchers examine bioactive components' role in building future <u>self-sustaining</u> food systems.

**Organic**: A new study aims to track <u>consumer</u> <u>trends and purchasing attitudes</u> toward organic products.



Plant- Based Cheese:
Researchers investigate how
fermentation can be used to
create plant-based cheeses
that are appealing to
consumers.

# Plant Agriculture and Environmental News

**Nitrogen**: A team of scientists have worked to genetically engineer plants to potentially decrease dependence on synthetic fertilizers.

**Rice:** A 1% increase in <u>unbroken rice</u> could help feed millions more and boost producer profit.

**Antimicrobial**: The antimicrobial activities of garlic, turmeric, and ginger suggest possible <u>alternative antibiotic sourcing</u> to develop biopesticides for disease management in crops.



Drones: New drone technology helps farmers optimize vegetable yields using Al and monitoring software.

## International News

**Qatar**: Two students in Qatar have created a way to mass-produce vegetables through 3-D

printing.

**Iraq**: Researchers examine ways <u>irrigation</u> <u>practices and soil moisture</u> can affect the growth of crops in Iraq.

**China**: Traders in Asia and Europe claim that Chinese importers bought a significant amount of <u>animal feed corn from Ukraine</u> in the last two weeks.



Germany: Widespread palm oil plantations raise concerns about greenhouse gas emissions.

### General Interest

**GHG**: Researchers propose a <u>unified</u> <u>measurement system</u> to measure agricultural greenhouse gasses.

**Solar**: A new study aims to show possibilities for solar fields and agricultural land to work together, creating more efficient systems.

**Food**: Despite inflation driving up prices, Americans spent <u>11% more on food</u> away from home last year.



Greenhouses: Research looks toward latent heat and ventilation systems in greenhouses to increase hydroponic yields.

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- \* Agricultural & Applied Economics Association
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- \* American Association of Bovine Practitioners
- \* American Bar Association, Section of Environment, Energy, & Resources-Agricultural Management
- \* American Dairy Science Association
- \* American Farm Bureau Federation
- \* American Meat Science Association
- \* American Meteorological Society, Committee on Agricultural and Forest Meteorology
- \* 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

- \* Minor Use Foundation, Inc.
- \* Mississippi State University
- \* National Cattlemen's Beef Association, a

Contractor to the Beef Checkoff

- \* National Corn Growers Association/lowa 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
- \* Rural Sociological Society
- \* Society for In Vitro Biology
- \* Society for Range Management
- \* Soil Science Society of America
- \* Syngenta Crop Protection \* The Fertilizer Institute

- \* Bayer Crop Science
- \* Corteva Agriscience
- \* CropLife America
- \* Crop Science Society of America
- \* Global Teach Ag Network
- \* Innovation Center for U.S. Dairy
- \* Iowa State University

- \* The Mosaic Company
- \* 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

CAST, through its network of experts, assembles, interprets, and communicates credible, balanced, science-based information to policymakers, the media, the private sector, and the public.

#### **Members of CAST's Education Program**

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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



The Science Source for Food, Agricultural, and Environmental Issues

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

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