

*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 Minor Use Foundation is hosting the fourth Global Minor Use Summit in Madrid, Spain, Feb. 5-9, 2024. The summit aims to guide growers, researchers, and regulators on minor use crop production, discuss global pesticide regulation challenges, and lay the groundwork for future research collaborations. Register now!

Join the Mississippi State University community on Oct. 26, 10 a.m.-noon, for the grand opening of the Agricultural Autonomy Institute, the first institute in the U.S. dedicated to autonomous ag systems research and development. Send an email to RSVP now!

The National Institute for Animal Agriculture will host the **13th Annual Antibiotics Symposium** in Atlanta, Georgia, Nov.

### October 20, 2023

### National Pumpkin Day Celebrates the Versatile Gourd in Culture and Science

As National Pumpkin
Day approaches on
Oct. 26, it's time to
celebrate the vibrant
and versatile gourd that
has carved its place
into our culture,
traditions, and even the
realm of science. With



their rich history, pumpkins not only take center stage on Halloween but also play an integral role in scientific research.

Pumpkins have been the subject of recent research for their potential use in various applications. Studies have investigated the <u>functional food potential</u> of pumpkin seeds, the bioactive elements present in <u>cold-pressed oil</u> from different pumpkin varieties, and the purification, structure, and biological activity of <u>pumpkin polysaccharides</u>. In addition, recent research has explored the use of pumpkins in fields such as <u>medicine</u> and biodegradable materials.

On National Pumpkin Day, let's enjoy the aesthetic charm of pumpkins in our holiday decorations and pumpkin-flavored treats and appreciate their growing role in scientific advancements. Pumpkins continue to prove their versatility, from enriching our cultural traditions to contributing to our understanding of health and nutrition.

Whether you're carving a pumpkin for Halloween, savoring a pumpkin-spiced latte, or exploring the latest research articles, the pumpkin remains a captivating and multi-faceted symbol of autumn.

7-9, 2023. This year's theme for the Symposium is Thriving in a Changing Landscape. Register now!

#### **CAST Social Media**

Visit our website









**CAST welcomes** ideas for future publications and projects.

#### **News and Views**

**USDA**: The USDA (1) partners with farmers to increase innovative domestic fertilizer production; (2) commits more than \$1.77 billion to U.S. producers to support climate-smart agriculture; (3) and issues a Crop Production report with a lower September corn and soybean production forecast.

#### Far Side of the Barn

Pun King: This year's heaviest pumpkin weighs 2,749 pounds and could be used to make almost 700 pies.



## **CAST Updates**

## 2023 Borlaug CAST Communication Award to Honor **Dr. Alison Bentley**



The 2023 Borlaug CAST Communication Award (BCCA) will be presented to Dr. Alison Bentley, Plant Geneticist and Bayer Visiting Scholar in the Plant Breeding Center at the University of Minnesota, in recognition of her outstanding contributions to wheat research and her exceptional dedication to science communication. The award ceremony will take place Oct. 25, 7-8:30 a.m., during a breakfast side event at the Iowa Events Center in Des Moines, Iowa, as part of the World Food Prize's Borlaug Dialogue.

Dr. Bentley's remarkable career in research has made her a revered figure in the agricultural science community. Her groundbreaking contributions to the field have

advanced our understanding of wheat and significantly impacted global agriculture, food security, and nutrition.

Beyond her scientific achievements, Dr. Bentley is celebrated for her exceptional mentorship and advocacy efforts. During her career, Dr. Bentley has demonstrated an unwavering commitment to nurturing the next generation of researchers. Her ability to communicate complex scientific concepts to diverse audiences while considering their unique backgrounds and interests has been pivotal in raising awareness and garnering support for vital agricultural research. Dr. Bentley's media prowess and dedication have been instrumental in advancing the cause of agricultural science, particularly in the critical areas of food and nutrition security.

What: 2023 Borlaug CAST Communication Award Presentation to Dr. Alison

When: Oct. 25, 2023, 7 a.m. to 8:30 a.m. Where: Iowa Events Center, Des Moines, Iowa



## Animal Agriculture and Environmental News

**Gene Editing**: Scientists work with <u>gene editing</u> in <u>chickens</u> in an attempt to lessen the risk of spreading bird flu and disrupting food supplies.

**Feed**: The innovation of conversion technologies leads to discoveries in turning <u>food waste into</u> livestock feed.

**HPAI**: Minnesota has reported its first case of highly pathogenic avian influenza (HPAI) this fall in a <u>commercial turkey flock</u> of 140,000 birds located in Meeker County.



**Milk:** Milled <u>rapeseeds and</u> <u>oat</u>s can reportedly decrease milk-saturated fatty acids and dairy cow methane production.

## Food Science and Safety News

**Genetics**: Scientists have identified genetic markers that allow the use of <u>Omega-3 and Omega-6</u> fatty acids to unlock health benefits.

Carbohydrate Shortage: A shortage of carbohydrates such as wheat, bread, pasta, and cereal within the UK's food system may trigger civil unrest.

**Food Trends**: The first-ever "Consumer Curiosity Report" measured 700 food-forward consumers on their interest in culinary, nutrition, and sustainability topics.



Salmonella: A new study examines the risks and outcomes of possible antimicrobial-resistant strains of salmonella.

## Plant Agriculture and Environmental News

**Fertilizer**: A study suggests global fertilizer consumption could be reduced while maintaining crop production if <u>nitrogen fertilizer</u> was used more uniformly across croplands.

**Harvest**: Researchers explore the evolution of horticultural harvesting tools to track technological growth over the years.

**Nutrient Management**: An lowa State University study examines factors influencing farmers' use of nutrient management practices.



Pollinators: Due to declining pollinator numbers, important crops such as coffee, cocoa, and watermelon may be at risk.

### **International News**

**EU**: European Union governments failed to decide on extending EU approval for glyphosate by 10 years.

**Russia & China**: Russia and China signed a \$25.7 billion export deal for 70 million tons of grains, legumes, and oilseeds.

**China**: China approves <u>GM corn and soybean</u> seeds for planting to boost production and reduce reliance on foreign supplies.



Poland: Researchers examine

<u>African swine fever</u>

transmission risks between
domestic and wild pigs.

### General Interest

**Food Security**: According to USDA's International Food Security Assessment (IFSA), global food security is expected to improve in 2023.

**Crops**: A study finds that crop responses to higher seeding or <u>nitrogen application</u> rates vary significantly yearly, with weather being the most unpredictable factor.

**Chemicals**: The <u>crop protection chemicals</u> market is projected to exceed \$132.4 billion by 2032.



Cattle: According to an Oklahoma State agricultural economist, cattle prices will remain high for several years.

### **Photo Credits**

Unless otherwise noted, photos courtesy of the USDA ARS, Constant Contact, Pixabay, or CAST.

# Societies, Companies, and Nonprofit Organizations Serving on the CAST Board of Representatives

- \* Agricultural & Applied Economics Association
- \* American Association of Avian Pathologists
- \* Minor Use Foundation, Inc.
- \* Mississippi State University

- \* 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
- \* 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

- \* 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
- \* 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**

- \* Cornell University
- \* Iowa State University
- \* Kansas State University
- \* Mississippi State University
- \* North Carolina Agricultural and Technical State University
- \* North Carolina State University
- \* Penn State University
- \* Purdue University Libraries and School of Information Studies
- \* Texas A&M University College of Ag & Life Sciences
- \* The Ohio State University
- \* Tuskegee University

- \* University of Arkansas System Division of Agriculture
- \* University of California-Davis
- \* University of Florida Institute of Food and

**Agricultural Sciences** 

- \* University of Georgia
- \* University of Illinois College of Agricultural, Consumer and Environmental Sciences
- \* University of Kentucky
- \* University of Missouri-Columbia
- \* University of Nebraska Agricultural Research Division
- \* University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources

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

CAST provides Friday Notes as a benefit to its members. Please do not forward, edit, copy, or distribute the Notes in any form to nonmembers without the express permission of the CAST CEO/EVP Chris Boomsma (cboomsma@cast-science.org). Instead, please encourage your colleagues to join CAST and thereby become eligible for all membership benefits. Contact Colleen Hamilton at 515-292-2125 or chamilton@cast-science.org, or CLICK HERE for CAST membership information. For media inquiries, please contact our Communications Manager, Carlos Vianna, at cvianna@cast-science.org or 515-292-2125 ext 222.

# Council for Agricultural Science and Technology [www.cast-science.org]









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

Unsubscribe gosborne@cast-science.org

<u>Update Profile |Constant Contact Data Notice</u>

Sent bycast@cast-science.orgpowered by



Try email marketing for free today!