



*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.

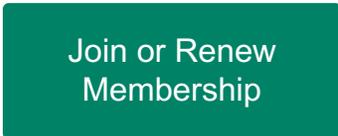
### In This Issue....

- [Animal Agriculture News](#)
- [Food Science & Safety News](#)
- [Plant & Environmental News](#)
- [International News](#)
- [General Interest News](#)

### Announcements

There's an opportunity to [provide comments](#) to the *Request for Information: Identifying Ambiguities, Gaps, and Uncertainties in the Coordinated Framework for the Regulation of Biotechnology* that the White House Office of Science and Technology Policy published in the Federal Register in December.

Interested in joining or renewing your membership with CAST? More information can be found by clicking on the button below. Thank you for your support of CAST's work and mission!



### CAST College Corner

[University of Florida](#) archaeologists will study hurricane damage to key Florida indigenous sites.

### CAST Social Media



## January 13, 2023

### Renewable Energy Evolves

Renewable energy has been around for a long time, but it's continuously evolving through research. Ethanol plants in Iowa produced an estimated [4.5 billion gallons in 2022](#)—a new record for the state.



The [growth of offshore wind farms](#) comes as climate change intensifies and need for clean energy grows.

Solar panels over parking lots produce clean energy and provide shelter for drivers, but they still aren't as common as some would hope. This is mostly due to the [high upfront costs of installing solar panels](#). A pilot project is providing [rooftop solar for low-income residents](#) through fundraising.

Chemical engineers have invented a [solar-powered artificial leaf](#), built on a novel electrode which is transparent and porous, capable of harvesting water from the air for conversion into hydrogen fuel.

### News and Views

**USDA Updates:** The USDA 1) released the latest [World Agricultural Supply and Demand Estimates](#) report and 2) is hosting the [USDA Agricultural Outlook Forum](#) on February 23 and 24.

### Far Side of the Barn

**Flying Squirrels:** Kansas State University researchers are on the lookout for Southern Flying Squirrels—which [might exist in higher numbers](#) than originally thought. A new



Visit our website



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

discovery found that all flying squirrels glow hot pink under ultraviolet light.

**Forest to City Living:** The Puerto Rican crested anole lizard has sprouted special scales to better cling to smooth surfaces like walls and windows, and grown larger limbs to sprint across open areas, scientists say. This adaptation has [allowed them to live in cities](#) instead of forests.

## CAST Updates

### Nominations are Open for the 2023 Borlaug CAST Communication Award



Nominations are now open for the 2023 Borlaug CAST Communication Award (BCCA), an honor that recognizes professionals actively working in the agricultural, environmental, or food sectors who are promoting agricultural science in the public policy arena.

[Completed nomination packets](#) and questions should be sent electronically to Anne Owens, Director of Council Operations, by **Monday, February 27, 2023**.

## Animal Agriculture and Environmental News

**ASFV:** A Pork Checkoff study looking at transmission of the [African swine fever virus](#) (ASFV) through artificial insemination demonstrated clear evidence the virus can be transferred from boar studs to recipient gilts.

**Animal Welfare:** This article discusses the reality of the U.S.'s [approach to animal welfare](#).

**CAST Report (related to above):** CAST released the Task Force Report—[Scientific, Ethical, and Economic Aspects of Farm Animal Welfare](#)—in April 2018.



**A University of Nebraska-Lincoln professor comments that the current percentage of heifer placements into feedlots is at its [highest rate since 2002](#).**

## Food Science and Safety News

**Egg Prices:** Avian flu and supply chain challenges from the COVID-19 pandemic are [keeping egg prices high](#), and some areas are experiencing shortages.

**Spray-on Wrapper:** A new spray-on wrapper offers a plastic-free [food packaging alternative](#).

**Food Insights:** Jayson Lusk (2017 BCCA) released the latest edition of the [Consumer Food Insights](#)



**Many students are not following recommended food**

## Plant Agriculture and Environmental News

**Corn Hybrid Guide:** The corn hybrid guide is a good source of information for farmers and agronomists looking for data on hybrid performance and [contains trial results](#) from extension centers.

**Warm Weather:** This warmer winter weather might feel nice to us, but it's bad for fruit trees, which need a certain number of hours of ["chill time" for ideal spring growth](#).

**Weed Control:** A new study shows that [variable-density planting](#) can be a cost-effective tool for weed control.



Cornell University researchers found that [broccoli looks more like cauliflower](#) in a warmer world.

## International News

**Adaptation:** Climate change is impacting what foods can be grown in the UK—farmers are learning how to [adapt to different crops](#).

**Flying Robots:** An Israeli start-up is replacing farmhands with flying robots that are [able to pick fruit from trees](#).

**Grain:** Grain trade is ramping up between Brazil and China, with corn exports possibly reaching [50 million metric tons](#).



The Falkland Islands, known for their high-quality wool exports, average [153 sheep and 300 penguins per citizen](#).

## General Interest

**Future Farm:** The University of Illinois was named the recipient of a USDA grant to develop a "farm of the future." The signature feature of this farm is that it utilizes robots to [assist humans in farming](#).

**Equipment Sales:** Combine harvester sales finish the year with healthy gains in unit sales while ag tractors [finish the year below 2021 levels](#) according to the Association of Equipment Manufacturers.

**Right to Repair:** A memorandum of understanding has been recently signed that ensures farmers can [repair their own farm equipment](#) or take it to independent repair shops.



A rare western bumblebee [discovery will help scientists determine the reason for the decline of the species](#).

## Photo Credits

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

- \* Agricultural & Applied Economics Association
- \* American Association of Avian Pathologists
- \* 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
- \* Innovation Center for U.S. Dairy
- \* Iowa State University
- \* Minor Use Foundation, Inc.
- \* Mississippi State University
- \* 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
- \* National Turkey Federation
- \* North Central Weed Science Society
- \* Northeastern Weed Science Society
- \* Nutrien
- \* 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
- \* Zoetis

*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

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

---

*\*\* With assistance from Colleen Hamilton (Membership Specialist) and Nick  
Plaucher (Communications Project Coordinator)*

*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 Kent Schescke  
(kschescke@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.*

**Council for Agricultural Science and Technology**  
[www.cast-science.org](http://www.cast-science.org)

