

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 National Oceanic and Atmospheric Administration website provides climate news—and another heat wave is forecast for western Canada and the U.S.

Registration for the July 12 Agri-Pulse <u>Food & Ag Policy Summit</u> is available here.

The Foundation for Biomedical Research site provides many stories about animals and research, including this article about zoo animals receiving COVID-19 vaccines.

### **CAST College Corner**

<u>Tuskegee University</u> will be part of a Western Hemisphere project looking at diversity and equity regarding access to safe water.

Cal Poly announced 2021-22 research projects, including studies of species extinction and food microstructure.

The <u>University of Nebraska</u>
<u>Lincoln</u> is part of a program to expand the Agricultural Genome to Phenome Initiative.

## July 9, 2021

## **Climate Solutions Are Coming**

Australian brewery scientists are <u>using algae</u> to cut carbon emissions. As one researcher said, "The planet needs our help and the solutions are here." Ideas are coming from many sources. As

CAST's recent publication

—<u>The Role of Agricultural</u>



Science and Technology in Climate 21 Project Implementation—shows, large government projects and farmer/rancher initiatives can all make a difference. The following are just a few of the many projects underway: (1) The Foundation for Food & Agriculture Research supports the U.S. Dairy's Net Zero Initiative, (2) North Carolina A&T State provides professional training in solar and wind installation, (3) Frank Mitloehner (UC Davis and 2019 BCCA) says animal agriculture could lead the way to climate neutrality, (4) Cornell University is a global leader in sustainability and climate change research, (5) Alexa Lamm (University of Georgia and 2020 BCCA) and colleagues wrote about environmental communication to promote increased use of evidence-based findings, and (6) this University of Kentucky program is designed to fight climate change with ag research.

### **News and Views**

**USDA News:** The department announced (1) efforts to strengthen <u>enforcement of the "Made in USA" standard</u>, (2) an investment in <u>rural water infrastructure</u>, and (3) a boost for <u>highspeed</u>, <u>rural broadband</u> in New York state.

**Ethanol in Court:** Despite losing two high-profile court cases, the ethanol industry says the future is bright for the biofuel.

**Farmer Options:** Reports say President Biden will give farmers more power in negotiating the <u>sale of livestock to big processors</u> and in <u>deciding who repairs</u> their tractors. The <u>equipment industry responded</u> to this proposal.

**Vax Updates:** This regularly updated site looks at how COVID-19 <u>vaccination campaigns are going in each state</u>

### Far Side of the Barn

Mississippi State University's research website features many opportunities, but the big news on campus was the school's first national championship at the College World Series

#### **CAST Social Media**











CAST welcomes ideas for future publications and projects.

Robots and K-Pop: The "creepy but awesome" dancing robot dogs are back, this time teaming up with the popular K-Pop band BTS.



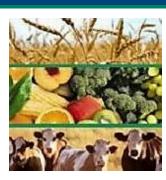


Following the Flock: An Israeli's fascinating drone footage of sheep has gone viral.

# **CAST Updates**

## **Society Members Perform Key Roles**

Society members are an important component in the effort to fulfill CAST's mission—communicating credible, science-based information to a wide audience. Society members include those representing medicine, plants, food, animals, and other types of science and agriculture. CAST's society members enjoy several benefits such as access to publications and a weekly newsletter. But just as notable, these groups share information with others through CAST's publications and social media, and their members keep aware of science-based research and information from the many sources available through CAST.



Member societies have a voice on the CAST Board of Representatives, a group made up of the member societies, universities, commercial companies, nonprofit or trade organizations, and the Board of Directors. Each member of the board serves on one of three work groups—Animal Agriculture and Environmental Issues, Food Science and Safety, or Plant Agriculture and Environmental Issues. The work groups meet at an annual board meeting, hold monthly conference calls, and help CAST identify, clarify, and prioritize national issues it should address in its publications to support the science, technology, and innovation of food and agriculture.

### **CAST** Commentary **QTA2021-1** is available for free download.



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

This CAST Commentary released June 28 summarizes 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 to meeting the goals of the administration's Climate 21 Project. 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
- Making Carbon Markets Work for Agriculture

Download the paper and Ag quickCAST for free on the CAST website, and a video of the recorded webinar is available here.

# Animal Agriculture and Environmental News

Veterinary News: The Ohio State University's Department

of <u>Veterinary Preventive Medicine</u> focuses on global diseases of food animals and humans.

**Meat Exports:** U.S. <u>beef and pork export values</u> shattered previous records in May, according to USDA data.

**Beef Podcast:** This Kansas State University's <u>Beef Cattle</u> <u>Institute podcast</u> covers cattle-focused stories.

**Poultry Science Students:** This article looks at "preparing the <u>next generation of poultry science graduates."</u>

**Virus Wars:** The world and pig growers are focused on the fight against viruses. This specialist compares the fights against COVID-19 and the battle against African swine fever.

Poultry Health and Safety: In August, several prominent poultry organizations will participate in Safe + Sound Week.



In some cases, hunting might hurt efforts to control feral hogs. Also, a Texas program is trying to use contraception through feed to control the wild hog population.

# Food Science and Safety News

**Time-restricted Eating:** A University of Kentucky study suggests that time-restricted eating may <u>help people with Type 2 diabetes</u> reduce nocturnal hypertension.

**Steak-flavored Hot Dog:** This hot dog is <u>made from beef trimmings</u> and has a flavor that has "real depth and smoky undertones."

**A Gutsy Study:** Scientists at Iowa State University are employing innovative artificial intelligence to study how the microbiome interacts with the human immune system.

**Digital Groceries:** The <u>digital grocery delivery market</u> is becoming increasingly crowded, and some retail experts say a wave of consolidation is approaching.

**Got Yer Goat:** Hawaii officials issued rulings against those engaged in the <u>illegal sale of unpasteurized goat milk</u>



In a science fiction setting, 2,000 robots organize a grocery warehouse with "hive mind" efficiency.

# Plant Agriculture and Environmental News

**Genome Research:** UC Davis <u>researchers identified a</u> <u>genomic region</u> in chromosomes of the group responsible for differences in root growth, drought tolerance, and grain yield.

**Bio Plastics:** A Texas A&M study says <u>biodegradable</u> <u>plastics made from biological substances</u> can be created in an environmentally friendly way from the byproducts of corn stubble, grasses, and mesquite.

**Soil Match:** North Carolina State University research shows that <u>traditional crops are not a good match for all farmland</u>, such as parts of the North Carolina Piedmont region.

**Climate Change Diseases:** University of Missouri specialists say <u>new crop diseases</u> pervading Missouri are linked to climate change, directly impacting crop production.

**Field Tiling and Nitrogen:** Farmers often install underground tile drains in fields, but it can be <u>difficult to balance drainage with nitrogen retention</u>.



The U.S. soybean industry hopes to "dig up half a billion dollars at the bottom of the Mississippi River" by dredging the river and securing better transport logistics.

## **International News**

The Heat is On: <u>Canada battled more than 180 wildfires</u> in British Columbia amid an intense heat wave that left hundreds dead in the Pacific Northwest.

**Sustainable Beef:** With the help of fast-growing eucalyptus trees, Brazil <u>created its first carbon-neutral beef.</u>

**Sustainable Ag:** Many producers in Japan are<u>using digital farming</u>, hoping to make agriculture sustainable.

**Team Lioness (video):** These women in Kenya defy gender norms and use their skills to <u>succeed as anti-poaching rangers</u>.

**Cattle and Butterflies:** Grazing cattle in Scotland are being used to help a rare butterfly make a comeback.



Eye of Fire: A Mexican oil company's ruptured undersea pipeline in the Gulf of Mexico sent flames boiling to the surface.

## General Interest News

**Equipment Supply Chain:** Farm <u>equipment dealers are</u> struggling to keep stocked amid supply chain challenges.

**Vulnerable to Attacks:** A ransomware attack on the world's biggest meatpacker raises <u>questions about cybersecurity in</u> the food industry.

**National Mammal Survey:** The first national mammal survey included a Penn State biologist and other experts. The information helps <u>explain wild animal populations and conservation strategies</u> for threatened species.

How to Avoid Tick Bites: <u>Tick-borne diseases are at an all-time high</u>, with about 50,000 cases reported each year.

**Fertilizer Info:** The Fertilizer Institute provides information and opinions about current issues for the industry.



"Scourge of the Earth" grasshoppers are proliferating in the drought-stricken U.S. West.

### **Photo Credits**

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- \* American Farm Bureau Federation
- \* American Meat Science Association
- \* American Meteorological Society, Committee on
- \* Crop Science Society of America
- \* Innovation Center for U.S. Dairy
- \* Bayer
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- \* National Milk Producers Federation
- \* National Pork Board

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  - \* Soil Science Society of America
  - \* Syngenta Crop Protection
  - \* The Fertilizer Institute

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  - \* 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, Agricultural, and Environmental Issues

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