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

CAST is entering its 50th year as an organization focused on communicating science-based information. Click here to access the 50th anniversary publication. During the coming year, watch for related information and presentations about the occasion. Click here to learn about ways to donate and support CAST’s mission.

Nominations are open for the 2022 Borlaug CAST Communication Award, an honor that recognizes professionals actively working in the agricultural, environmental, or food sectors who are promoting agricultural science in the public policy arena.

The Plant and Animal Genome Conference on Monday, January 13, will feature noted speakers, tech presentations, exhibits, workshops, and a chance to share ideas. Registration info.

The Alliance for Science site includes articles about key issues such as misinformation, biotech, and food production.

December 10, 2021

Sustainability in the Air
Diverse environmental programs underway

Air quality specialist Frank Mitloehner (UC Davis and 2018 BCCA) says methane is creating another “gold rush” for California farmers. Air emission projects range in size, cost, and effectiveness—and many focus on agricultural sectors. A pipeline proposal in the Midwest would be the largest carbon capture project in the world with the goal of sending ethanol production CO2 to deep storage in North Dakota. And some companies are trying to earn forest credits as incentives to offset their global carbon footprint. In a more specific sense, Penn State researchers say growers might be able to use vineyard cover crops (photo above) to promote improved sustainability as part of a marketing strategy that could result in consumers being willing to pay more for wine.

This national report looks at sustainability efforts and trends focused on biodiversity, soil carbon, and water quality.

In a recent CAST Commentary, a task force of agriculture specialists focused on various environmental issues including carbon capture: The Role of Agricultural Science and Technology in Climate 21 Project Implementation.

News and Views


USDA Updates: The department announced 1) a huge investment to reduce the impacts of climate change, 2) the establishment of the Local Food Purchase Assistance Cooperative Agreement Program, 3) funding through the American Rescue Plan Act to back private investment in processing and food supply infrastructure, and 4) the release of $800 million to support biofuel producers and infrastructure.

Rising Farm Profits and Rising Costs: The USDA’s Economic Research Service updated farm sector profit projections, and they are expected to increase in 2021. However, many are
CAST College Corner

The University of Nebraska–Lincoln received a grant from the National Science Foundation that will advance cutting-edge work in subatomic physics at CERN’s Large Hadron Collider—the world’s biggest particle accelerator.

Kansas State University’s economic development plan emphasizes innovation in agriculture, biosecurity, and extension services—creating hundreds of jobs and millions of dollars in investment.

The University of Nevada, Reno LaunchNevada Initiative promotes student entrepreneurship and advances students’ business concepts.

CAST Social Media

Visit our website

CAST welcomes ideas for future publications and projects.

CAST Updates

New Director of Council Operations

Anne Owens is the new Director of Council Operations for CAST. She is from central Iowa, where she grew up on a family Christmas tree farm and small crop farm. Anne has worked with many different community nonprofit organizations as she and her husband moved through the upper Midwest and New England states.

Anne is excited to be joining the team at CAST. You can learn more about Anne’s background in her blog. Melissa Sly, prior DCO, is semi-retiring and reducing hours and will be managing special projects at the office.

New Board-Level Nonprofit Member

The National Turkey Federation (NTF) is the newest addition to the list of CAST Nonprofit Members at the board level. This level of support for CAST allows the organization the opportunity to appoint a representative to serve on a work group and network with other professionals to help CAST address agricultural issues through its publications. Lindy Froebel will represent NTF and serve on the Food Science and Safety work group.
Animal Agriculture and Environmental News

Dairy News: 1) Crop management is vital to control mycotoxin contamination in feed given to lactating cows, heifers, and especially calves. 2) The USDA opened signup for the Dairy Margin Coverage Program.

Poultry Science: A North Carolina State University recent graduate explains why a major in poultry science and minors in genetics and biology can be stimulating and rewarding.

Swine Embryos: This publication looks at challenges and considerations during in vitro production of swine embryos.

Poultry Processing: Advances in design and automation can finally tackle unpredictable and unstructured environments.

Oh, Deer! Mississippi State University Deer Lab scientists look at nutrition, genetics, habitat, and population health.

Food Science and Safety News

Food Labels and Biofoods: Starting January 1, 2022, the USDA's National Bioengineered Food Disclosure Standard rule requires food labels to disclose information about bioengineered food and BE food ingredients.


Processed Food Risks: Research at the American Heart Association's 2019 Scientific Sessions looked at how ultra-processed food is putting heart health at risk.

Online Food Trends: This social media influencer looks at some of the most viral food trends of 2021.

How to Wash Produce: While experts advise not to wash a turkey before cooking, many say it is best to wash produce right before using it.

Food Loss and Waste

A university food specialist says an average American wastes $1,500 worth of food in one year. This article provides suggestions for lessening this problem. The CAST publication Food Loss and Waste is available here.

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**Urban Trees:** University of Florida and Iowa State University experts are leading a USDA project to survey urban tree preferences and production from coast to coast.

**International News**

**From Wine to Dairy Cow Feed (video):** Year-end demand is adding new strain to global supply chains in Japan, and agriculture sectors are experiencing shortages.

**Avian Influenza:** A second suspected case of bird flu has been identified in a flock in Northern Ireland.

**Swine Influenza:** African swine fever continues to spread beyond containment areas in Germany, with a recent wild boar case in Poland.

**Reef Color Burst (video):** The Great Barrier Reef has "given birth" in its annual coral spawn, creating a cacophony of color beneath the waves.

**GM Crops in China:** Commercial planting of genetically modified soybeans and corn in China moved a step closer.

**A street dog named Boji has become a celebrity in Istanbul**—where he travels around the city on its ferries, trams, and subway cars.

**General Interest News**

**Genome Revolution:** The genome revolution could be a game changer—from better treatment strategies in medicine to improved production of nutrient-rich food crops.

**Multitasking with CRISPR:** Researchers have developed methods to edit genes in multiple organisms within a diverse community of microbes simultaneously.

**Giving a Good Gut Punch:** A North Carolina State University scientist is using CRISPR-Cas to develop customized probiotics that restore the gut microbiome.

**Regenerative Ag 101:** This group interviewed more than 100 farmers and ranchers who are building healthy soil and growing climate-resilient communities across the country.

**This Successful Farming site offers some fun holiday ideas geared specifically toward farm kids.**

**Photo Credits**

Page one vineyard collage from psu.edu, horse pic from comedypetphoto.com, and hope graphic from allianceforscience.com. Animal Sec. cow pic from enews.net. Plant Sec. soybean collage from sustainablessecure.com and chinadaily.com. Inter. Sec. dog pic from RKNTV.com. Gen. Sec. toy pic from agriculture.png. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.

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

* Agricultural & Applied Economics Association  
* American Association of Avian Pathologists  
* Crop Science Society of America  
* Innovation Center for U.S. Dairy
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**

* Cal Poly-San Luis Obispo  
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* Iowa State University  
* Kansas State University  
* Mississippi State University  
* North Carolina Agricultural and Technical State University  
* North Carolina State University  
* Penn State University  
* 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 Kentucky  
* University of Missouri-Columbia  
* University of Nebraska Agricultural Research Division  
* University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources

Dan Gogerty (Communications and Friday Notes Editor)  
dgogerty@cast-science.org

Dylana Luett (Communications and Social Media Specialist)  
dluettt@cast-science.org

The Council for Agricultural Science and Technology  
4420 West Lincoln Way  
Ames, Iowa 50014-3447  
Phone: 515-292-2125

** With assistance from Colleen Hamilton (Membership Specialist)

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