

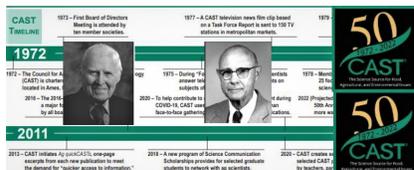


Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. Friday Notes advocates the pursuit of credible, unbiased, science-based information. Material contained 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 CO<sub>2</sub> 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

**WASDE Report:** The USDA released its latest [World Agricultural Supply and Demand Estimates](#).

**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

NASA launched a SpaceX Falcon 9 rocket carrying the [Imaging X-ray Polarimetry Explorer](#) into orbit.

## 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.

concerned that [rising production costs](#) are contributing to a growing weakness in farmer sentiment.

**Biofuels--Mixed Reactions:** The [Administration says it will set the ethanol mandate](#) at its highest level ever in 2022 and reject 65 small refinery requests for exemptions from the RFS, but biofuel proponents are disappointed by proposals to retroactively set the RFS for 2020 and 2021 at lower levels.

**COVID News:** 1) Many are optimistic about two [new Covid-19 pills](#) coming soon, 2) a promising new [vaccine comes from plants](#), and 3) this site shows [vaccination rates state-by-state](#).

**Vaccine Rollouts:** Iowa State University researchers helped evaluate 17.5 million [possible strategies the CDC could have originally recommended](#) for COVID-19 vaccine rollouts.

## Far Side of the Barn

**Pet Pics:** This website's "[comedy pet photos of the year](#)" apparently evoked at least one horse laugh.

**What Does the Fox Say? (video):** Maybe rescue [foxes](#) [do know how to giggle](#).

**Wine's Favorite Cookie?** A wine company teamed up with a popular cookie to make [Oreo Thins Red Blend Wine](#).



## 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 sign up 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.



Although these cattle have a “what are you lookin’ at stare,” they enjoy [grazing in tree-filled areas](#), and their owner hopes it reduces pollution and sequesters carbon.

## 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.

**Labeling Publications:** Check out the CAST issue papers 1) [Process Labeling of Food: Consumer Behavior, the Agricultural Sector, and Policy Recommendations](#) and 2) [The Potential Impacts of Mandatory Labeling for Genetically Engineered Food in the United States](#).

**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](#).



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](#).

California plans to start converting residents’ [food waste into compost or energy](#)—joining Vermont, a state with a similar program.

## Plant Agriculture and Environmental News

**Corn Harvest Report:** The U.S. Grains Council released its 2021/2022 Corn Harvest Quality Report providing details about this year’s [corn crop at harvest as it enters marketing channels](#).

**Corn and Biofuels:** The National Corn Growers Association issued its [response to the EPA proposals](#) on biofuel blending volumes.

**New Plant Registration:** This article looks at how and why [new varieties of plants are registered](#)—and it uses a Texas A&M research program as an example.

**World Soil Day:** This event occurred on December 6. Click here to access many articles from ASA/CSSA/SSSA [about soil health](#).



This year, [U.S. soy set a record for exporting more product in](#)

**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 markets than ever before, and this article looks at the [many uses soybeans provide](#)

## 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 eenews.net. Plant Sec. soybean collage from sustainablesecure.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

- \* 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
- \* Cal Poly State University
- \* Corteva Agriscience
- \* CropLife America

- \* Bayer
- \* 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
- \* Poultry Science Association
- \* Rural Sociological Society
- \* Society for In Vitro Biology
- \* Soil Science Society of America
- \* Syngenta Crop Protection
- \* The Fertilizer Institute
- \* 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

- \* Cal Poly-San Luis Obispo
- \* 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
- \* 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

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*\*\* With assistance from Colleen Hamilton (Membership Specialist)*

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