



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.

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- [Animal Agriculture News](#)
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## Announcements



The [Arecibo Observatory radio telescope](#) in Puerto Rico [collapsed recently](#). For 57 years, it played key roles in astronomical discoveries, the search for alien life, and as a setting for films like James Bond in *Golden Eye*.

Members help CAST achieve its mission of communicating credible science to the public and policymakers. Click here for information about [renewing your membership](#) or [joining CAST](#).

Nominations are now open for the "Nobel Prize for food and agriculture," [the World Food Prize](#).

Registration is open for the [USDA's 97th Agricultural Outlook Forum](#). "Building on Innovation: A Pathway to Resilience" February 18-19, 2021.

## CAST College Corner

[Mississippi State University](#)

**December 4, 2020**

## Finding the Right Balance

Farmers, ranchers, and food producers continually look for the best ways to increase production, stay economically sound, and promote environmental sustainability. The following links look at a few of the many programs working on the right mixture of these goals: (1) [Solutions from the Land](#) farm leaders offer [programs designed to meet global challenges](#). The [video host is A.G. Kawamura](#)--former California Ag Department leader and former CAST Board of Trustee member. (2) This [Agri-Pulse](#) feature looks at ["Agriculture's sustainable future"](#) and features experts like Marty Matlock—University of Arkansas and [2018 BCCA winner](#). (3) FFAR's website features links for "Pioneering the [Next Frontier of Food and Agriculture Research](#)." (4) [High tech advances](#) are part of agriculture's future, as CAST's latest [paper about agricultural robots](#) explains. (5) Universities such as Texas A&M are involved with [innovative agriculture solutions](#). Many sectors of the agriculture community are looking for the "right balance" as food production evolves and improves.



## News and Views

**Vaccine Distribution and COVID Numbers:** The United Kingdom will be first to distribute COVID-19 vaccines, and U.S. governors learn the [number of doses they should receive](#). Check here for current pandemic [statistics from Johns Hopkins](#) and here for the [CDC COVID Data Tracker](#).

**USDA Info:** (1) The USDA says [net farm income increased](#), but the rises are uneven and due to unusual conditions, (2) USDA-NIFA announced [investments to support educators](#) at various school levels and through 4-H programs, (3) and the [USDA radio newsline](#) includes stories about the farm economy, government programs, and even Christmas tree selection.

**International Grain Trade:** Check here to view [recent export sales](#) for soybeans, corn, wheat, and other grains.

researchers received a Department of Energy grant to study the benefits of growing trees for biofuel production.

The [Ohio State University](#) College of Veterinary Medicine reappointed their dean for another five-year term.

[University of Florida's](#) IFAS is developing an app to help treat the avocado laurel wilt disease.

**Check throughout [Friday Notes](#) to see more featured articles from member universities.**

## CAST Social Media

Visit our  
website



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

**Rural Health:** This site provides links and information about [rural hunger programs](#) and finding access to healthy food.

## News from the Far Side of the Barn

**Kangaroo Court (video):** Wally the [wallaby is a junior law associate](#) at a Tennessee law firm where its main skill is comforting clients.



**Very Hungry Caterpillars:** Researchers say monarch butterfly caterpillars will turn on each other, [fighting it out for the rights to food](#).

**No More Noah's Ark in the Air (video):** The U.S. government says [only dogs can be service animals on airplanes](#) companion animals used for emotional support don't count. "Comfort" animals had included roosters, pigs, monkeys, peacocks, and more.

## CAST Updates

### CAST Board of Representatives



During the 2020 CAST Board Meeting, there were some updates to the [Board of Representatives](#). In the Animal Agriculture and Environmental Issues work group the new representatives are Tina Saitone (Agricultural and Applied Economics Association), Christine Navarre (American Association of Bovine Practitioners), and Steve Loerch (Penn State University). The Food Science and Safety work group now has Kaitlyn Compart (American Meat Science Association) as a new representative. The Plant Agriculture and Environmental Issues work group's new representatives include Christian Maus (Bayer Crop Science), Jim Prince (Cal Poly State University), and Beth Guertal (Crop Science Society of America).

Be sure to check out the [new CAST mission and vision](#) statements on the website.

***Ground and Aerial Robots for Agricultural Production:  
Opportunities and Challenges***

## Nominations Open for 2021 Borlaug CAST Communication Award

Nominations are now open for the 2021 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. Learn [how to nominate](#) someone for the 2021 BCCA and download the 2021 [nomination packet form here](#).

## Animal Agriculture and Environmental News

**High-tech Lifeguards:** Cal Poly student researchers [developed drone and AI technology](#) to protect beachgoers from sharks.

**Hard Lessons:** A National Pork Producers Council official says the [pandemic has taught the pork industry lessons](#) that will help pork producers mitigate future challenges.

**Grow-NY Competition:** A startup using AI to determine [sex development in poultry embryos](#) was awarded \$1 million.

**New Johne's Test:** The IGFS developed a [test for Johne's disease](#). It works with milk, feces, and blood samples.

**Measuring Genetic Success:** Kansas State experts say an animal's performance at sale time is often considered the [test for the outcome of cattle breeding decisions](#).

**Poultry Impact:** An updated economic impact study highlights the [positive impact the poultry industry](#) has on jobs, wages, and government revenue.

**Vaccine Help for Cattle:** Scientists at UC-Davis and the University of Nevada-Reno worked on a [vaccine recently approved by the USDA](#); it promises to turn the tide against Epizootic Bovine Abortion.



The [APHIS National Feral Swine Damage Management Program](#) is designed to protect agricultural and natural resources, property, animal health, and human health.

[Penn State's Poultry Welfare Certification webinars](#) cover topics like animal welfare, poultry behavior, employee motivation, management, environment influences, and more.

## Food Science and Safety News

**Bobarista Robot (video):** Whether you like Bobacino tea or not, it might be exciting to [watch a robot make the drink for you](#). You can lay bets on whether or not it spills anything.

**Food Support:** *FarmLink* partners with the agricultural community to [move food from the farm level to food banks](#) and distribution centers.

**Charcuterie Chalet (video):** Instead of gingerbread houses this holiday season, some people are getting creative with a ["cheesy and meaty"](#) snack.

**Food Safety:** Iowa State University experts have spent the past three years developing [programs that help fruit and vegetable growers](#) fight foodborne illnesses.

**In the Bag:** With flavors like "maple bourbon bacon," [packaged salad components](#) read like menu items.

**Concentration Crises:** A University of Missouri report says agribusiness [concentration isn't helping feed people](#).



A new study looks at FOP ([front of the package labeling](#)) to consider its influence on manufacturers.

[Click here for free access](#) to the CAST Issue Paper *Process Labeling of Food: Consumer Behavior, the Agricultural Sector*,



**Lab-grown Meat:** Singapore has approved lab-grown "[cultured chicken](#)" for sale as an ingredient in chicken nuggets. **Note:** Check out the CAST Commentary [Producing Food Products from Cultured Animal Tissues](#).

## Plant Agriculture and Environmental News

**Faith in Farmers:** An American Farm Bureau Federation survey says a majority of U.S. adults have a [positive view of farmers' sustainability practices](#).

**EPA Misses Ethanol Deadline:** The EPA missed the statutory [deadline to finalize the Renewable Fuel Standard](#) that assures a share of the gasoline market for biofuels such as corn ethanol for 2021.

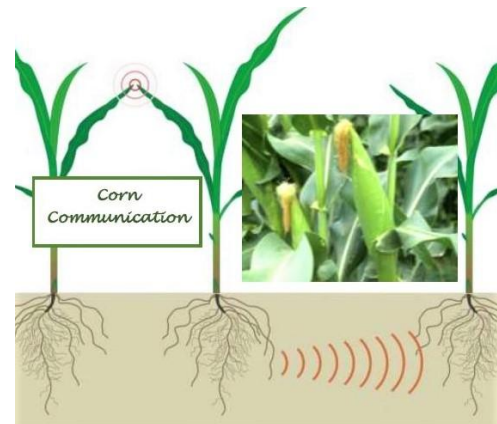
**Pest Control:** Company officials say a new insect control technology will help farmers [protect crops against pests](#) in an effective, environmental manner. **Note:** [Click here for free access](#) of the CAST Commentary *Stewardship Challenges for New Pest Management Technologies in Agriculture*.

**Forestry Changes:** The USDA Forest Service announced the publication of a final rule implementing key changes to its [National Environmental Policy Act regulations](#).

**Hybrid Rye:** Researchers are testing hybrid rye to see if it could [replace corn](#) in finishing pig diets.

**Sustainable Methods:** This North Carolina State student is focused on [raising protein and produce with aquaponics](#)-a system for raising fish and plants together.

**Corn Pallets:** A Texas company will be building a plant in Iowa that will make environmentally friendly shipping pallets from [cornstalks, husks, and leaves](#).



In another look at plant-to-plant communication, **Weed Science Society of America** experts say [corn seeds can detect whether or not weeds are growing above ground](#).

ARS scientists explain how a fungus transforms itself into colorful, petal-like structures that mimic the yellow flowers of its host plant, likely [tricking pollinators such as bees to land on them](#).

## International News

**Futuristic Bio-bandage (video):** British researchers said they found a [bio material that helps heal broken bones](#).

**Moon Rocks (video):** China's Chang'e 5 spacecraft lifted off from the moon after a 19-hour operation to [collect lunar rock samples](#).

**Lonely No More (video):** Pop icon Cher was instrumental in the [relocation of a zoo elephant](#) that was malnourished and isolated for years. The Smithsonian Channel plans a documentary about the event.

**Risk and Growth:** An Australian study says [development of risk management tools](#) should be a priority if the country's red meat industry is to fulfill its future growth potential.

**Biotech Crops:** Africa [doubled the number of biotech countries](#) using biotech crops from three to six in 2019.

**Honey Forest:** Hornbeam trees host the [famed black beehives of Turkey](#). Age-old beekeeping practices are used to preserve the traditions of this prized honey.

**Not So SAD (related links in caption at right):** Many Scandinavians use a winter mindset [to beat SAD \(Seasonal Affective Disorder\)](#).



The Norwegian "free-air life" concept--*Friluftsliv*--[helps them get through the long winter](#), and it has proponents in places like Seattle.

Last year, a Norwegian village (photo above) used a [mirror to transfer the sun's light to the town's square](#) in the dead of winter.

# General Interest News

**Waste Not (podcast):** This “[Farms, Food, and You](#)” audio episode from NC-State University looks at waste solutions that benefit farmers, consumers, and the environment.

**Top Ice Cream Choices:** For some, ice cream is a pandemic comfort food. This report says the nation’s top flavor choices this year are [vanilla, coffee, and strawberry](#).

**Fighting Insidious Diseases (podcast):** Dr. Kevin Folta ([BCCA 2016 winner](#)) looks at the history of [mRNA vaccines and their role](#) in the fight against diseases.

**Bio Find:** An artificial intelligence network made progress in solving one of biology’s big challenges—[determining a protein’s 3D shape](#) from its amino-acid sequence.

**Ranch Sales:** Real estate industry professionals say the coronavirus is one of the likely factors fueling [a boom in large ranch sales](#) in the U.S. West.

**For the Birds:** U.S. pollution regulations meant to protect people from dirty air [also save birds](#), according to a study from university scientists at Cornell and Oregon.

**COVID-19 Costs:** JBS announced they will be [paying 100% of costs](#) associated with COVID-19 for their employees.



The December Geminids event might be the [best meteor shower of the year](#), and the nearly moonless night of December 13 might be a top viewing opportunity.

Activities are limited during the pandemic, but many families are able to keep [the tradition of shopping for a Christmas tree](#).

## Photo Credits

P. 1 Arecibo pics from man.com, 9news.com, and seti.org, and wallaby pic from gettyimages.com. Animal Sec. pig pic from georgesoutdoornews.com. Food Sec. aisle pic from fortunewallstreet.files. Plant Sec. corn graphic from theguardian.com. Inter. Sec. mountain pic from medianpr.org. Gen. Sec. meteor pic from time.com. 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
- \* 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 for Nutrition Nutritional Sciences Council
- \* American Society of Agricultural and Biological Engineers
- \* American Society of Agronomy
- \* American Society of Animal Science
- \* American Society of Plant Biologists

- \* Crop Science Society of America
- \* Entomological Society of America
- \* Innovation Center for U.S. Dairy
- \* 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
- \* North Carolina Biotechnology Center
- \* 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

- \* American Veterinary Medical Association
- \* Aquatic Plant Management Society
- \* BASF Corporation
- \* Cal Poly State University
- \* Corteva Agriscience
- \* CropLife America

- \* 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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The Science Source for Food,  
 Agricultural, and Environmental Issues

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