



The Science Source for Food, Agricultural, and Environmental Issues

*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](#)
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### Announcements

**Sarah Evanega, Ph.D.**  
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Research Professor, Department of Global Development and School of Integrative Plant Sciences  
Director, Cornell Alliance for Science  
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[#BCCA2021](#)

CAST and the Farm Journal Foundation will honor the [2021 Borlaug CAST Communication Award](#) winner—[Dr. Sarah Evanega](#)—during a World Food Prize Foundation breakfast event, October 21 at 7:00 a.m. with limited in-person attendance and a post-event video available to all.

Contact Melissa Sly at [msly@cast-science.org](mailto:msly@cast-science.org) for further information.

Registration for the [World Food Prize Foundation 2021 Borlaug Dialogue](#) will close October 13.

Check here for details about the October 20 World Food Prize virtual side event featuring the launch of Virginia Tech's 2021 Global Agricultural Productivity Report—[Strengthening the Climate for Agricultural Growth](#).

The EPA announced the [appointment of Rod Snyder](#) to become its Agriculture Advisor, focused on fostering outreach and engagement efforts.

**October 8, 2021**

## Secure Food Is Crucial

*Universities promote research and programs*

A classic proverb says, “The belly rules the mind.” Food security leads to productivity, creativity, and social harmony—and universities lead the way with research and programs that promote nutrition and health.



These are a few of the many links from the 18 university members of [CAST's Education Program](#) that demonstrate these concepts: 1) North Carolina State University's Food, Bioprocessing, and Nutrition Sciences department takes the [initiative in research and innovation](#). 2) University of Arkansas researchers are working to understand [safety for dine-in customers](#) in the age of COVID-19. 3) A University of Kentucky-led research project has helped local and regional [food systems become more connected](#) and resilient. 4) Ohio State University research is part of a National Science Foundation [grant aimed at reducing food waste](#). 5) University of Nebraska research looks at why [children and vegetables](#) don't usually mix. 6) University of Florida research examined consumer [preferences regarding increasingly popular meal kits](#). 7) UC Davis researchers looked at the positive results of fortified food-based supplements added to [young children's daily diets](#) in low- and middle-income countries. Note: Also see the Food Section below for articles about campus and community food programs.

As Norman Borlaug said, "Food is the moral right of all who are born into this world." In diverse ways, universities are working to keep the food supply chain safe and secure.

### News and Views

**USDA Updates:** The department 1) hopes to [address food systems challenges](#) with another \$100 million in funding from the American Rescue Plan Act, 2) released its [climate adaptation and resilience plan](#), and 3) announced grants to ensure [broader access](#) in its programs for historically underserved farmers and ranchers.

The University of Missouri  
CAFNR celebrates Hispanic Heritage Month featuring notable Hispanic scholars in agriculture, food, and natural resources.

A Cornell University graduate fellowship program will support students from Minority Serving Institutions to become next-generation leaders in global crop improvement.

A Kansas State University professor is part of a \$10M grant to study artificial intelligence in agriculture.

The Ohio State University is part of a collaboration to grow the next generation of teachers and students focused on innovation and STEAM—science, technology, engineering, arts, mathematics, and medicine.

## CAST Social Media

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CAST welcomes ideas for future publications and projects.

**Trade Talks:** U.S. Trade Representative Katherine Tai said the United States will [negotiate with China over its compliance with the phase one trade agreement](#) including that it has not lived up to its commitments to buy U.S. agricultural products.

**Good News on the Medical Front:** A [new vaccine is projected to save thousands of lives a year in the fight against malaria](#), a disease that killed more than 260,000 children in Africa during 2019 alone. The World Health Organization calls the discovery among medicine's greatest achievements.

**COVID Rates:** The Rural Policy Research Institute says [COVID-19 deaths among rural residents](#) were twice that of urban residents in the week ending October 1st.

## Far Side of the Barn

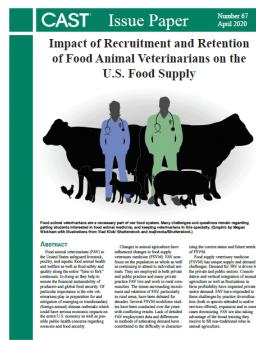
**Fat Bear Otis (video):** After a record-breaking week of voting, [the 2021 Fat Bear Champion is a four-time winner, 480 Otis](#). The bears bulk up for hibernation, as Otis' sushi meal in the photo demonstrates.



**Elephant Rescue (video):** Forest officials in India [rescued a baby elephant](#) after it fell into a pit.

**Playing with Sharks!?** (video): Researchers wonder why [juvenile great white sharks](#) have been swimming in peace alongside surfers and families.

## CAST Updates



## Impact Report Available

The 18-month impact report for the CAST Issue Paper *Impact of Recruitment and Retention of Food Animal Veterinarians on the U.S. Food Supply* is [now available for viewing](#).

## The Continuing Impact of BCCA Recipients

Jayson Lusk (Purdue and [2017 BCCA](#)) is an agriculture economist, and [in his latest blog](#) he says certain trade moves could actually increase food and ag vulnerability to random supply shocks.

Kevin Folta's ([2016 BCCA](#)) latest podcast discusses how two scientists' work on comparative anatomy in embryos has unveiled additional [similarities between birds and dinosaurs](#), and pharmacological and molecular evidence has shown that chicken embryos can be affected to present subtle dinosaur-like traits.

Alison Van Eenennaam ([2014 BCCA](#)) is enjoying her new title change to "Professor of Cooperative Extension," and she has a [newly released paper](#) titled *Animal agriculture and alternative meats – learning from past science communication failures*.

## Animal Agriculture and Environmental News

**Cow Burps and Common Sense:** Frank Mitloehner (UC Davis and [2019 BCCA](#)) looks at high-tech troughs and snack-dispensing methane detectors as [possible ways to reduce enteric emissions](#).

**A Win-Win Situation:** Findings about ammonia by researchers from North Carolina State University and Poland [could improve human health and poultry production](#).

**Swine Day Agenda:** Swine Day on November 18 at Kansas State University will include talks on [improving nutrition and mitigating risk](#) in the swine industry.

**Cows and CRISPR/Cas9:** Texas A&M University is researching gene knockout technology to determine the role of [glycoproteins in embryo loss](#).

**Finishing Mortality Closeouts for Hogs:** This article provides an [analysis of various mortality comparisons](#) spanning across multiple years for finishing group closeouts between the months of January through August.



**Irish Goats have been deployed to protect [Dublin hills from wildfires](#).**

**University of Nevada-Reno specialists are involved with [research about the virtual fencing benefits](#) for cattle producers.**

## Food Science and Safety News

**Food Giant Goes Green:** The retail and grocery giant [Walmart is getting into the regenerative farming business](#) with goals around improved sustainability practices and greenhouse gas emissions for its farming suppliers.

**Health and Rural Communities:** The University of Georgia is involved with an important program [helping with rural health and obesity prevention](#).

**Bumper Crop, Bumper Donations:** The North Carolina A&T State University Farm produced a bumper crop and [record food donations this year](#).

**Pumpkin Power:** Texas A&M AgriLife Extension Service experts have some tips on how to use [pumpkins in recipes](#) and as home décor.

**Brain Food:** According to this dietitian, these six foods will help out with taking [care of your brain's health](#).



**As the [National Turkey Federation](#) explains, "Team Turkey "has [recipes that bring a snack buzz](#) to game day.**

## Plant Agriculture and Environmental News

**Water Quality and Nutrient Impacts:** Iowa State University economists are studying [nutrient impacts through the lens of local recreation and tourism](#)—with a focus on the economic impacts on rural and lower-income communities.

**Water and Sustainability:** The University of Arkansas Office for Sustainability incorporates design principles in its projects, and this [site looks at effective water action plans](#).

**Soil and Carbon:** In light of the buzz about soil carbon, storing carbon in soil, or carbon markets, this blog looks at [the relationship between soil and carbon in basic terms](#)

**Pumping Ethanol:** U.S. [ethanol exports saw a sharp month-to-month improvement](#) during August, with Canada and South Korea as big customers.

**Oil Spill Disaster:** The current oil spill could have [sweeping impacts on Southern California's coastal wildlife](#)—especially



**A farmer and seed saver has**

for birds that migrate through the area. Officials are [investigating the possible causes](#).

**Balancing Bioenergy Goals:** North Carolina State University researchers are [evaluating biomass crops and land-use strategies](#) to help growers assess bioenergy trends.

revived many nearly extinct plant species—the latest being **Jimmy Red**—a variety of corn used in items ranging from grits to whiskey.

## International News

**Plastic Not on the Menu (video):** Japan's largest family restaurant chain plans to [stop offering plastic cutlery](#) starting next year as part of a push to become more sustainable.

**Plastic as a Museum Highlight:** Environmentalists in Indonesia are sending a message about the world's worsening ocean plastics crisis by featuring a [museum made entirely from discarded plastics](#).

**Best Chicken for the Job:** As reported by the Poultry Science Association, Ethiopian [scientists evaluated three promising chicken breeds](#) in rural and small-scale systems.

**Crop Adjustments:** These Nigerian [farmers are fighting climate change with special techniques](#) to plant yams and by growing tomatoes in a hydroponic farm.

**Green Push:** Panama will advance a [clean-energy push by embracing ethanol](#) in its gasoline and ending the use of heavy fuels and coal for its power plants by 2023.

**Open Sesame:** Around the world, sesame is [one of the most versatile crops](#), and many tout its nutritional content and health benefits.



The earliest bird reared by humans may have been the cassowary, a large, flightless bird native to Australia and Papua New Guinea. Often called the [world's most dangerous bird](#), it is also [considered a threatened species](#).

## General Interest News

**Genomes and Early Detection:** Penn State researchers are sequencing the genomes of 700 *Bacilli* bacteria to [enhance early detection and prevent outbreaks of infectious diseases](#) and public health emergencies.

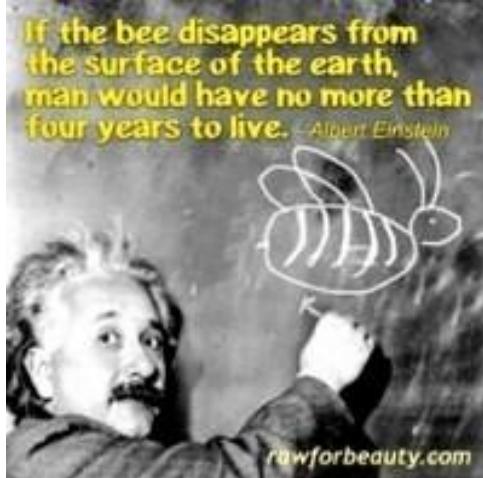
**Hitch Pin Invention:** An inventor from Kansas State University created a hitch pin that makes [disconnecting from an implement faster](#).

**Tractor Technology:** Researchers started a project to [optimize the hydraulic systems](#) that connect tractors and implements.

**Bee Health (related link in photo caption):** The CAST Commentary about "[why bee health matters](#)" looks at scientific issues, research, and recommendations.

**Hypertension Study:** This new study, *Treating Resistant Hypertension Using Lifestyle Modification to Promote Health*, evaluates the [impact of lifestyle modifications](#).

**Hypertension Research (related to above):** The American Heart Association awarded a [grant to Tuskegee University](#) researchers to study hypertension prevention.



We're not privy to Einstein's reasoning, but this new USDA/ARS research says honey bees could be [bred to thrive on local plants](#) or even solely on artificial diets.

## Photo Credits

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- \* 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
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- \* Corteva Agriscience
- \* CropLife America
- \* Crop Science 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
- \* 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
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- \* 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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