



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



During the [past 50 years](#), CAST [Society Members](#) have been an important component in the effort to communicate credible, science-based information. CAST includes [many types of membership categories](#), and by joining, you can support agriculture and science communication.

The [USDA's annual Agricultural Outlook Forum](#) February 24-25 —“New Paths to Sustainability and Productivity Growth”—will feature many noted speakers.

The [2022 American Meteorological Society](#) Summer Policy Colloquium in June gives scientists a chance to engage with colleagues from academia, government, and the private sector.

CAST College Corner

[Iowa State University](#) has been awarded the Norman E. Borlaug Medallion, making the university the ninth recipient of the award.

A [North Carolina State University](#) expert explains the differences

February 4, 2022

Alternative Protein

Could alternative protein become a new food sector? Over the past decade, food companies have been creating meals with plant proteins in the hope of mimicking the texture and flavor of meat. Now



the alternative protein industry is producing chicken, beef, and seafood. Dr. Alison Van Eenennaam ([2014 BCCA](#)) and other professors from UC Davis are researching if alternative protein can be a viable prospect or if it could [supplement traditional production](#). Dr. Van Eenennaam also [discusses if animal ag](#) will need to rebrand because of alternative protein and misinformation. Dr. Jayson Lusk ([2017 BCCA](#)) offers multiple [articles on his blog](#) covering meat alternatives, including this one on [consumer preferences](#). Dr. Frank Mitloehner ([2019 BCCA](#)) has researched the carbon footprint of livestock vs. alternative protein via [life cycle assessments](#).

Check out the following CAST publications that cover aforementioned topics:

- *Producing Food Products from [Cultured Animal Tissues](#)*
- *The [Importance of Communicating Empirically Based Science for Society](#)*
- *Goals, Strengths, and Limitations Governing the Use of [Life Cycle Assessment \(LCA\) in Food and Agriculture](#)*

News and Views

USDA News: The department has announced 1) investments to help rural America [keep resources and wealth](#), 2) members to [serve on the department's](#) inaugural Secretary's Advisory Committee for Urban Agriculture, and 3) a USDA Market News Mobile Application that provides [instant access to current](#) and historical market information.

Lip-Reading Scientist: Supporting deaf and hard-of-hearing researchers requires thought and planning from colleagues, but [science benefits greatly](#).

Anti-GMO Stances: Science advocates in Africa and Asia reject claims that [genetically modified crops](#) have been hijacked by big companies from the West to promote “a neo-colonialist agenda.”

among N95, KN95, and KF94 masks, and how to choose a type to help most during the pandemic.

A [Texas A&M University](#) webinar on February 15 will cover the basics of managing early season aquatic vegetation.

CAST Social Media

Visit our website



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

Invasive Species: A study found the economic costs of biological invasions in the U.S. have exceeded [\\$1.2 trillion since 1960](#).

Far Side of the Barn

Night of the Falling Iguana (video): When temps drop in Florida, so do iguanas—but the lizards come back to life [when their bodies warm up](#).



More Winter (video): Punxsutawney Phil [saw his shadow](#), which means there should be six more weeks of winter—according to folklore and an apathetic rodent.

Dances with Whales: This drone shot shows a southern whale “dancing” with a [paddle-board surfer](#) off the coast of Argentina.

CAST Updates

Welcome Zoetis!



CAST is pleased to welcome a new board-level corporate member. [Zoetis](#) delivers quality medicines, vaccines, and diagnostic products, complemented by biodevices, genetic tests, and precision livestock farming. 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.

Wendy Feik Pinkerton (*left*)—head of Industry Relations and Strategic Partnerships, Public Affairs for Zoetis—will be serving on the CAST [Board of Representatives](#) and is involved with the Animal Agriculture and Environmental Issues work group. Pinkerton said, “We believe in CAST’s work and see strong alignment between it and Zoetis business objectives.”

Black History Month—Ag Science Edition

Two of CAST’s [Education Program Member](#) schools—Tuskegee University and North Carolina A&T State University—are recognized as Historically Black Colleges and Universities (HBCUs), and this [CAST blog features](#) agriculturalists and scientists who have had an impact on those universities—and on the entire realm of science and agriculture.

Tuskegee University is recognizing Black History Month by offering a four week long virtual series to spotlight African American heritage and issues of relevance to the Black community. You can learn more and register on [Tuskegee’s website](#). Also, the university announced it is [teaming up with USAID to promote diversity, equity, and inclusion](#) in the international development workforce. Dr. Channapatna Prakash—Tuskegee and [2016 BCCA](#)—applauded the efforts of Professor Rhonda Collier and the Tuskegee University Global Office in making this possible.

[North Carolina Agricultural and Technical State University](#) received a four-year corporate investment to provide opportunities for underrepresented minorities and build a pipeline of diverse future talent.

The USDA has a long history of investing in and supporting our nation’s Historically Black Colleges and Universities. The [19 HBCUs established under the Second Morrill Act of 1890](#), along with the two HBCU land-grant universities established in the original 1862 legislation, are a critical link in ensuring public access to agricultural education, research, and outreach programs are equitably distributed to all Americans. The USDA’s National Institute of Food and Agriculture [supports research at these institutions](#) with both capacity and competitive funding.

Animal Agriculture and Environmental News

Chicken Care: For farmers to ensure their flock is comfortable at all times sometimes they need to use [tunnel ventilation](#) to cool the houses as the chicks grow more feathers.

Dealing with Risk: This Kansas State University expert explains how [cow-calf producers are “risk experts,”](#) as they deal with weather, markets, and more variables.

Pig Health: The Pork Checkoff explains how [protecting the U.S. swine herd](#) from foreign animal diseases is a joint effort with producers, state and federal agencies, and border protection.

Veterinary Orthopedics: This university uses 3-D printing to develop [patient-specific](#) orthopedics.

Fish Talk: A Cornell study finds that [fish communicate with sound](#) more regularly than once thought.



Approximately every nine years, [polar bears take up](#) residence at this abandoned Arctic polar station.

Food Science and Safety News

Food as Medicine: Focusing on nutrient-dense foods may [effectively lower cholesterol](#) among patients with hyperlipidemia without the use of drugs.

Food Safety: This ARS online database has more than 65,000 records to [help companies implement better food safety programs](#), document regulatory compliance, and test new model interfaces.

Milk Fat: This article covers the [differences in fat percentages](#) in milk.

Fruits, Veggies, and Cereal: Fruits and vegetables are essential, but there are [three reasons why](#) it takes cereals to feed the world—they are important sources of bioactive food components.

Bean Time: This article claims beans are a “superfood” because of their [nutrition, versatility, and economics](#).



What's in a Name? Ohio State University research says chocolate chip cookies—and other food items—[can be ruined by the wrong name](#).

Plant Agriculture and Environmental News

Vertical Farming: More alternatives to outdoor farming—such as hydroponic or indoor farms—are emerging around the world, but there are [many factors to consider](#).

Crop Varieties: UC Davis researchers are using plant genetics, artificial intelligence, and three-dimensional modeling to develop new varieties of [crops that will be able to withstand future climates](#).

Crop Productivity: University of Nebraska–Lincoln researchers looked at the relationship of [climate, field management, and genetics](#) in regards to crop productivity.

Wheat Breeding: A new study found that climate change [slows wheat breeding progress](#) for yield and wide adaptation.

Regenerative Agriculture: The Ecdysis Foundation is



As part of Prescribed Fire Awareness Week, University of

launching a [study that aims to investigate regenerative agriculture](#) across the United States.

Florida experts explain how to help the ecosystem and [prevent destructive wildfires](#).

International News

Flying Milk: A Norwegian dairy company has tested [drone transport of lab milk samples](#).

Failed Organic Farming: A million farmers from Sri Lanka whose crops failed under a botched scheme to establish the world's first [100% organic farming](#) nation will be compensated.

GMO Cowpeas: Nigerian consumers are enjoying the taste of the [genetically modified cowpea](#).

Green Revolution: High-yielding staple crops improve [health and prosperity](#) in developing countries.

Crop Shifts as Climate Changes: The parts of the world suitable for growing coffee, cashews, and avocados will [change as the world heats up](#), according to a new study.



The World Wildlife Fund published a list of [224 newly discovered species](#) from the greater Mekong region—including a “ghost-faced monkey” and a “fat-faced frog.”

General Interest News

Natural Resource Science and Management Program

This University of Missouri student is taking advantage of successful [programs that integrate academic and social support with mentoring and paid research](#) opportunities.

Songs by Birds: Biologists have found an animal for the first time that [communicates with the complexity](#) of human language: song sparrows.

Population: The pandemic has only accelerated a [decline in U.S. birth rates](#), even as immigration has plummeted.

Pot of Gold: A rancher turned archaeologist and found a [12,000-year-old corn "pot of gold"](#) in a classic clay pot.

Frog Legs: Scientists have triggered long-term growth of legs in adult frogs, which are [naturally unable to regenerate](#) limbs. The new legs were functional enough to enable sensation and locomotion.



A Texas teen [raised thousands of dollars with her show pigs](#)—and donated the money to the hospital that treated her cancer.

Photo Credits

Page 1 iguana pic from newsfeedplus.com. Animal Sec. pic from Dmitry Kokh/The Guardian. Plant Sec. fire pic from nature.org. Inter. Sec animal collage from bbc.com. Gen. Sec. teen and pig pic from postguam.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service, Constant Contact, 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 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
- * Bayer
- * Corteva Agriscience
- * CropLife America
- * Crop Science Society of America
- * Innovation Center for U.S. Dairy

- * Iowa State University
- * Mississippi State University
- * 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
- * Penn State University
- * Poultry Science Association
- * Rural Sociological Society
- * Society for In Vitro Biology
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * The Minor Use Foundation
- * 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
- * Zoetis

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

- * 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

Dan Gogerty (Communications and *Friday Notes* Editor)
 dgogerty@cast-science.org
 Dylana Luett (Communications and Social Media Specialist)
 dluett@cast-science.org
 The Council for Agricultural Science and Technology
 4420 West Lincoln Way
 Ames, Iowa 50014-3447
 Phone: 515-292-2125



The Science Source for Food,
 Agricultural, and Environmental Issues

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

CAST provides Friday Notes as a benefit to its members. Please do not forward, edit, copy, or distribute the Notes in any form to nonmembers without the express permission of the CAST CEO/EVP Kent Schescke (kschescke@cast-science.org). Instead, please encourage your colleagues to join CAST and thereby become eligible for all membership benefits. Contact Colleen Hamilton at 515-292-2125 or chamilton@cast-science.org, or [CLICK HERE](#) for CAST membership information.

Council for Agricultural Science and Technology
www.cast-science.org

