

Friday Notes

Council for Agricultural Science and Technology

ICAST

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..... Click to Read

[CAST Relies on Talented Leadership--P. 2](#)

[Animal Agriculture News](#)

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Welcome Penn State



CAST is pleased to announce that [Penn State University](#) has joined 18 other highly respected universities in the [CAST Education Program](#).

A Taste of Space

A Purdue professor's "Orange Corn Grits" were part of the [Apollo 12 moon landing anniversary celebration](#).

BCCA Nominations

Nominations are open for the 2020 Borlaug CAST Communication Award. [See details here](#).

New WFP President



The World Food Prize Foundation [announced Barbara Stinson as the](#)

November 15, 2019

Cold Adds to Harvest Challenges

The Upcoming Winter Could Be a "Polar Coaster" Ride



Farmers in much of the United States have been dealing with a [weather roller coaster ride since planting season](#) last spring, and now that snow and cold have invaded two-thirds of the nation, many are having [trouble with an already late harvest](#). The USDA announced that [crop yields have been affected](#), and from the Rockies to the East Coast, many cities are experiencing their [coldest, snowiest starts](#) to a winter season. With weather patterns seemingly becoming more extreme, this trend could change to a winter heat wave, but some are worried that a "[polar coaster](#)" will be the theme for the next few months. The *Farmers' Almanac* [predicts a cold winter](#), but scientists point out that the classic manual is correct "just about 50% of the time." Bundle up, [flip a coin](#), and hope for the best.

News and Views

WASDE Report: The USDA released the [latest World Agricultural Supply and Demand Estimates](#), and this tool might [help analyze](#) the numbers.

Collaboration: Former Secretaries of Agriculture Tom Vilsack and Dan Glickman joined current Secretary Sonny Perdue to support the US-Mexico-Canada Agreement (USMCA). Vilsack and Glickman wrote this article to say the "[entire food value chain must work together](#)."

[president of the organization](#), following Ambassador Kenneth Quinn who served for 20 years.

Collaborating With Farmworkers

Cornell received a national award for its [support of and collaboration with farmworkers](#) across New York state.

On, Under, and Over

Researchers at North Carolina State University are working on, below, and above the ground to [produce tech innovations](#).

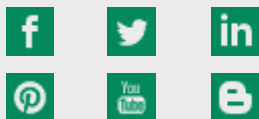
New Publications

CAST Issue Papers coming early in 2020: (1) *The Microbiome's Positive Impacts on Crops* and (2) *Impact of Recruitment and Retention of Food Animal Veterinarians on the U.S. Food Supply*.

Send in Ideas

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

CAST Social Media



USITC Encourages Input: The U.S. International Trade Commission (USITC) is investigating the global economic impact of missing and low pesticide maximum residue limits--the [deadline for filing written submissions](#) for the report is December 13. Click here to [access CAST IP66, Interpreting Pesticide Residues in Food](#).

Science, Ag, and Research: This editorial says agriculture cannot evolve without innovation--and [scientific research is essential and threatened](#).

Government Ag Payments: The Ranking Member of the Senate Ag Committee released a report claiming the [Market Facilitation Program](#) unfairly benefits big farms and specific producers.

News from the Far Side of the Barn

Elephant Auto Design (video): A bull elephant blocked the road, then ["redesigned" the back of a car](#) in Thailand.

Webbed Hooves? Three cows swept off an island in North Carolina during Hurricane Dorian were found alive after apparently [swimming for miles](#) to make it to the Outer Banks barrier islands.

Gonna Need a Bigger Board (video): A student's drone catches footage of a huge [whale swimming among surfers](#).



MIT's new [mini cheetah machine](#) demonstrates that the four-legged robot can now run, jump, and dribble a soccer ball.

CAST Leadership Updates

Many Dedicate Time and Expertise

Through its network of experts, CAST assembles, interprets, and communicates credible, balanced, science-based information to policymakers, the media, the private sector, and the public. The organization relies greatly on the support of dedicated members. Their generosity helps fund the studies and publications that educate the public and influence policy. Some members also contribute time and ideas as leaders of the organization.

As reported in last week's *Friday Notes*, [Juan Tricarico](#) (Vice President, Sustainability Research at Dairy Management Inc.) was installed as the new CAST President. During the next editions, *Friday Notes* will highlight new members from the [Board of Representatives](#), and this week the focus will be on new members with specific positions on the [Board of Directors](#):



President-Elect

David Baltensperger provides leadership and administration for a large program of research, teaching, and extension in the Department of Soil and Crop Sciences at Texas A&M University. He has been a member of CAST for many years, most recently as a representative of Crop Science Society of America. Earlier this year, Baltensperger was chosen as President-Elect for CAST.

Treasurer

Dirk Drost, a lifetime member of CAST, is the organization's new Treasurer. He has been on the Board since 2012, representing Syngenta, then becoming the Company Liaison. He has also served as a strategic plan team leader.



Society Liaison

Anna Dilger is an Associate Professor in the Department of Animal Sciences at the University of Illinois. She has served on the CAST Board of Representatives since 2014, representing the American Meat Science Association. She is the vice-chair of the Food Work Group and will now be the Society Liaison to the CAST Board of Directors.

Company Liaison

Luke Bozeman has represented the BASF corporation since May 2017. At BASF, he is responsible for the general management of R&D operations related to biological product performance. Luke is joining the CAST Board of Directors as the Company Liaison.



Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 Penn State pic from pennstate.edu, winter collage from rrfn.com, journalstar.com, and fwe.co.uk, Stinson photo from worldfoodprize.org, and robot pic from aolcdn.com. Animal Sec. cow diagram from crowdcow.com and pig cartoon from facebook.com. Food Sec. cartoon from foodinventory.com. Plant Sec. cartoon from futurity.com. Inter. Sec. tree pic from GiuliaDiSturco and melon pic from gstatic.com. Gen. Sec. map from stuff.co.nz. and cat meme from athensscienceobserver.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.



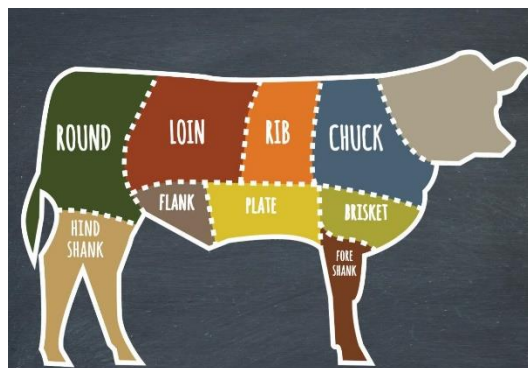
Animal Agriculture and Environmental News

Poultry to China: U.S. officials say they are pleased about China's decision to [lift its ban on poultry imports from the United States](#). "This is great news for both America's farmers and China's consumers."

Milk Bankruptcy (video): Dean Foods, [America's biggest milk producer](#), filed for Chapter 11 bankruptcy protection. The surge in popularity of milk alternatives has cut the company's sales.

Animal Health: Participants of the National Assembly of State Animal Health Officials met recently. Here are [five topics of interest they discussed](#).

Meat Production Safety (video): Workplace safety in America's meat and poultry processing facilities reached an [all-time low rate of worker injuries and illnesses in 2018](#), the federal government says.



A [web platform allows consumers to select](#) specific farms for their preferred, high-quality beef cuts, and now it is using consumer data for a "more personalized experience."

Livestock Feed: UC-Davis experts say farm animals have been [fed genetically engineered crops since 1996](#)-especially soybeans and corn. They found the practice equivalent to using unmodified feed in terms of nutrients and digestibility.



Social Networks and Pig Research: This study provides insights into pig behavior that could help limit aggression between pigs. Researchers use [social network analysis to understand pig interaction](#).

Protein Gap: This National Pork Board study examines China's [growing need for protein](#) and the effects of swine fever on the country (related links in [Inter. Sec.](#) below).

Food Science and Safety News

Tastes and Tests (video): Controlled taste-testing studies influence what food products get on the shelves. The [Sensory Evaluation Center at Penn State University](#) is part of this process.

Eat It: Research from the University of Kentucky says [a specific gene makes certain compounds taste bitter](#), and this may make it harder for some people to add heart-healthy vegetables to their diet. The "eat your vegetables" command may fall on bitter genes!

Beef Lipids in Perspective: Perceptions have changed about fat, and this research looks at [current dietary recommendations](#) regarding fat consumption and beef.

Process This: This research indicates that ultra-processed foods account for more than half of an average American's daily calories--and they [lead to lower measures of cardiovascular health](#).



Food Waste Research: [Food Loss and Waste](#) is a CAST paper in the series on *The Need for Agricultural Innovation to Sustainably Feed the World by 2050*.

Food Waste Frivolity (video): This classic George Carlin clip looks at the horrors of ["meatcake" in the fridge](#).



November 15 is [National Clean Out Your Fridge Day](#). Check out related links at lower left, and click here to access an infographic regarding [three tips to reduce food waste](#) during the holidays.

Plant Agriculture and Environmental News

Crop Protection and Apps (video): In a series that looks at the changing face of the crop protection industry, this clip [focuses on using diagnostic apps](#).

Genetics, Climate Change, and Tech: Since 2013, average soybean yields have exceeded the trend line, and this article looks into [factors that might be causing higher yields](#).

Living, Breathing Earth: Soil respiration provides information on greenhouse gas production, and new research describes a sensor that collects constant [measurements of soil respiration in real time](#).

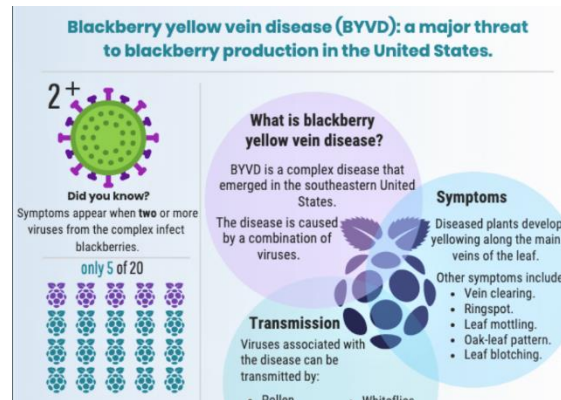
TxSON: The creation of the [Texas Soil Observation Network](#) (TxSON) is set to validate soil moisture retrievals from satellites and land surface models.

Plants and Tech: Purdue scientists show that [remote sensing technologies](#), coupled with advanced analytics, offer the promise of faster, more accurate data collection to help plant breeders bring better cultivars to the market.



Biofuel Battle: This CEO of an ethanol plant, along with many farmers and others, is afraid the EPA's supplemental biofuels proposal won't be changed to reflect [gallons lost to small refinery exemptions](#).

Soybean Asphalt: Iowa State University professors developed asphalt [created from newly developed soybean-derived biopolymers](#).



This infographic shares the details of a devastating disease affecting blackberries ([full image here](#)).

It was created by Andrea Sierra Mejia, one of the ten graduate students from the University of Arkansas who received the 2019 CAST Science Communication Scholarship. [View their work here](#).

International News

A City Under Water (video): Venice's mayor has called for the city to be declared a [disaster zone after high tides](#) have left 85% of the city under water.

Global Projections: This FAO [report looks at global projections](#) for meat, cereals, and bananas.

Swine Fever Updates: A Rabobank analysis says it will [take China until 2025 to stabilize \(and maybe alter?\) its pork market](#) after a devastating African swine fever outbreak. [Vietnam officials say](#) the death toll due to the virus and subsequent culling is up to 5.8 million.

Israeli Food Tech: Israel is home to more than 350 [agriculture and food technology companies](#), making it a strong player in a booming market.

Brazilian Wheat Imports: The Brazilian government is preparing to implement a tariff rate [quota to allow an increase in duty-free wheat imports](#). This could be important for American (and other) wheat growers.



[Living tree bridges in India](#) grow stronger with time-- some lasting for 500 years or more.



Fruit Loops: A few people will spend \$200 on a single melon. According to this article, Japan's high-end fruit [reveals certain attitudes about agriculture](#).

General Interest News

Food Production in the City (video): Some think [urban agriculture can enhance food security](#) as well as offer environmental, health, and social benefits.

Red Tide Returns (video): High concentrations of red tide were found near Venice Beach and nearby areas of Florida--with [reports of respiratory problems and fish kills](#).

Women, Ag, and Leadership: Female producers make up more than [one-third of the nation's farmers](#), and a Farm Bureau poll shows that 91% of them want to see more women in leadership roles.

Veterans and Agriculture: The Columbia Center for Urban Agriculture and Harry S. Truman Veterans' Hospital in Missouri held a ribbon-cutting ceremony to announce a [new veteran urban farm program](#).

Dung Power: University of Nevada-Reno researchers are using an environmentally friendly approach of [turning manure into fuel or fertilizer](#).



Flu Fighters: The CDC recommends a yearly flu shot for everyone ages 6 months and older. This site covers five of the [most common flu shot myths](#).



Summer fire season came early as [thousands of people have been displaced by bushfires](#) across the Australian states of Queensland and New South Wales. A [family-run shelter is protecting kangaroos](#) and other wild animals.

CAST Information

Check out CAST's page at the [YouTube site](#) to view highly regarded ag-science videos about probiotics, food safety, and water issues--or the latest video dealing with proposed mandatory labeling of GMO food items.

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 Executive Vice President Kent Schescke (kschescke@cast-science.org). Instead, please encourage your colleagues to join CAST and thereby become eligible for all membership benefits. Contact Melissa Sly at 515-292-2125, ext. 232 or msly@cast-science.org, or [CLICK HERE](#) for CAST membership information.



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
- * American Veterinary Medical Association
- * Aquatic Plant Management Society
- * BASF Corporation
- * Cal Poly State University
- * Corteva Agriscience
- * CropLife America
- * Crop Science Society of America
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * Land O'Lakes
- * 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
- * Tuskegee University
- * Tyson Foods
- * United Soybean Board
- * University of Nevada-Reno
- * 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
- * Purdue 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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