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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

[Universities Get into a 2019 Buzz of Activities--P. 2](#)

[Animal Agriculture News](#)

[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)

Land of Ice and Snow



These photos come from the [Harbin Ice and Snow Festival](#) in China.

Nominations Open for Prestigious Award

Nominations are open for the 2019 Borlaug CAST Communication Award--[forms and instructions are available here](#).

FFA on RFD

The FFA announces a brand-new, [student-led national television program](#) to air weekly on RFD-TV.



Farm Bureau Convention

The American Farm Bureau's [annual convention](#) begins on Jan. 11 in New Orleans.

Send In Ideas

January 11, 2019

Massive Tech Show Includes Ag

A.I., smart tractors, and digital everything



Las Vegas has been the [focus of the consumer technology industry](#) as executives, investors, and analysts convened for the annual CES conference--featuring digital items involving televisions, smartphones, cars, and even amazing food production items.

As first-time exhibitors at the show, John Deere hauled in [self-driving tractors](#) and a [20-ton combine harvester](#) aided by artificial intelligence. Futuristic transport equipment is also on display. Hyundai's [Ultimate Mobility Vehicle](#) is a highlight. It supposedly can climb a five-foot wall, step over a five-foot gap, and walk over diverse terrain while keeping its body and passengers completely level.

[Artificial intelligence](#) is a key theme again this year. Old-time farmers might not spot a robot that can use a pitchfork, treat a sick cow, or put in a new pasture fence, but A.I. is coming to the barnyard. "Hey Google, cancel my appointment tomorrow with the biotech seed dealer, and tell Siri to let the implement store know I'll be driving the driverless tractor in for repairs. Hey Alexa, set the thermostat at 70 degrees, and make sure Cortana pays the feed bill. Now which one of you can whip up some tacos and pour me a cold beer?"

This [Agricultural Technology Event Calendar](#) provides a list of shows and other events taking place during the next few months.

News and Views

EPA Nomination: President Trump [nominated acting EPA chief Andrew Wheeler](#) to run the agency permanently.



CAST [welcomes suggestions](#) for future publications and projects. Click here for a look at how to get [involved with CAST social media](#).

Ag Communication

Agri-Pulse announced that Philip Brasher, an experienced ag journalist, will be [promoted to Executive Editor](#) of the company.

Ranch Seminars

Kansas State University will host its annual [Winter Ranch Management seminar series](#) at four Kansas locations in February.



Research Honor

The University of Nevada-Reno recently achieved an "R1" honor, a Carnegie classification reserved for doctoral universities with the [highest levels of research activity](#).



Catch CAST Online!

Follow us on [social media](#) to stay up to date on the latest ag trends and recent CAST news!

Shutdown Updates: The USDA extended the deadline to apply for [Market Facilitation Program](#) payments; the federal government has stopped many--not all--[food safety inspections](#); food stamp [benefits will be available](#) for the entire month of February; and an ethanol industry leader is concerned that the shutdown could delay the EPA's [rule allowing summer sales of E15](#).

Supreme Court Says No to Ag Cases: The U.S. Supreme Court declined to consider challenges to a pair of state laws restricting [the use of confinement in animal agriculture](#). The case claimed that California and Massachusetts are interfering with interstate commerce.

China, Trade, and the "New TPP": An Ohio State University economist says [China is benefiting from a new Asia trade agreement](#) that does not include the United States.

News from the Far Side of the Barn

Tree Removal Service with Ivory

Tools: If an [elephant wants to knock over a tree](#), let him.

Road Inspector with Big Ears

(video): This elephant set up its own type of [road block to check every truck for sugar cane](#).

Young Elephant with Swimming

Trunks (video): When an elephant became trapped in a canal, [townspeople helped the gentle giant](#).



The three links at left show that elephants are popular--and often persuasive.

University Happenings

Programs, research, and activities continue as new semester begins

Many universities switch modes between semesters--some with long breaks, alternate programs, or study-abroad options. But in some form or another, the buzz of education continues. The 17 well-respected universities involved with the [CAST Education Program](#) show that learning and progress never let up. Every edition of *Friday Notes* includes links to university programs, and this week we include some listed below and others located in the various sections of the newsletter:

** Purdue University experts are looking at the social and economic situations regarding [rural areas in Indiana and the lack of broadband access](#).

** A new class being offered at Iowa State University is the first to examine the history and [changing roles of women in agriculture](#) in the United States.



** A Cal Poly [student is running a pop-up restaurant](#) out of his studio apartment in San Luis Obispo--and the experience is leading to a forthcoming cookbook and guest spots on various TV shows.

** After years of gathering data from more than 1,000 pigs infected with porcine circovirus 2, University of Nebraska-Lincoln researchers [identified the gene associated with the deadly disease](#).



Also, check out the following university links located in other sections of this week's newsletter:

-University of Arkansas research looks at hog sustainability--in the Animal Section.

-An Ohio State University student works on food waste, Texas A&M experts tout barbecue beef, and a UC-Davis professor examines lab meat--in the Food Section.

-A Mississippi State University article looks at environmental concerns, a University of Kentucky scientist helps with important plant research, and a Cornell student is pursuing exciting new research--in the Plant Section.

-University of Missouri students and faculty members made a rewarding science-focused trip to China--in the International Section.

-A Tuskegee University program helps beginning farmers, North Carolina State professor will make you squeamish about your drinking water, the University of Florida is focused on community concerns, and Purdue University looks at climate change on campus and beyond--in the General Section.

-The University of Nevada-Reno received accolades for its research programs, and Kansas State announces a series of seminars--in the left-side column on page one above.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 ice festival pic from gettyimages.com; collage from time.com, cnn.com, and telegraphherald.com; and elephant pic from elephantjournal.jpg. P. 2 student photo from the tribunenews.com. Animal Sec. horse pic from nytimes.com. Food Sec. cereal box pic from mattbowker.com and roadkill sign pic from newser.com. Plant Sec. soybean pic from ars.com. Inter. Sec. coffee pic from cheesemaking.com and jellyfish from gettyimages.com. Gen. Sec. dog pic from barkpost.com and farmer photo from pinterest.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Pig Production Study: A new study from the University of Arkansas confirms that America's pig farmers are producing a product that [has become increasingly sustainable](#) during the past five decades.

Another "Ag Gag" Ruling: A federal judge ruled that Iowa's [so-called ag gag law is unconstitutional](#), saying the industry-backed statute violates the First Amendment's free-speech protections.

Countering Sensationalism (opinion): Livestock expert Nevil Speer [counters what he calls the headline sensationalism](#) about the beef industry's contribution to climate change.

Cellular "Clarity": As this pork website points out, [cellular agriculture has changed](#) from an internet curiosity to a serious policy issue--producers and consumers alike are looking for greater clarity. Related link in Food Section below.



Learning about Poultry: Young people from around the United States participated in the National 4-H Poultry & Egg Conference in Louisville, Kentucky. Students [learned about poultry and egg industries](#).

Looking at Free-Range Poultry Systems: Click here to access [CAST Issue Paper 61](#), *Impact of Free-Range Poultry Production Systems on Animal Health, Human Health, Productivity, Environment, Food Safety, and Animal Welfare Issues*.



Bucking bulls have been intensively bred like racehorses to make them harder to ride--it's a [tough challenge for the cowboys](#) who take them on.

Food Science and Safety News

Put Another Steak on the Barbie: Texas A&M officials say continued [strong demand for Texas barbecue](#) will help fuel the need for steady supplies of beef in 2019.

Something to Moo About: The National Dairy Council shows that [milk contains essential nutrients](#) like high-quality protein, calcium, vitamin D, and more.

Lab Meat and the Environment (opinion): Alison Van Eenennaam--professor at UC-Davis--explains that cattle efficiently produce more than just hamburgers, while a closer look at cell-based meat shows this potential source has quite an [impact on the environment](#).

The Outlook for Meat: This *Feedstuffs* article [examines meat markets and price](#) forecasts.

Allergic to Allergies: More than 10% of adults in the United States--about 26 million--are [estimated to have a food allergy](#). However, 19% think they have one.



A Dartmouth study shows that kids will [request brands they have seen recently advertised on TV](#). Well snap, crackle, and pop. You mean the silly little rabbits are persuaded to be cuckoo for Cocoa Puffs? And all this time we thought the products were just "magically delicious."

Attacking Food Waste: This Ohio State University student hopes to [reduce Ohio food waste](#), now that he has won the school's President's Prize. Click here to access CAST's recent issue paper, [Food Loss and Waste](#).



Roadkill on the Menu: Oregon became the latest of 20 [states that allow people to scoop dead animals off the road](#) and serve them for dinner--the menu item must have been produced by accident, not "hunting with cars."

Can't Fool Me: As this research shows, chemists can now determine [whether or not organic milk is fraudulent](#).

Plant Agriculture and Environmental News

Exciting Plant Research: A Cornell student is focused on [tests for soilborne plant pathogens](#) for use by growers and industry stakeholders. She developed a technique for extracting DNA directly from soil to measure pathogenic nematodes.

A New Biofuel Method? (video): An eccentric inventor is trying to [turn inedible plant life into fuel](#), and some big names are taking him seriously. This *60 Minutes* clip is 13 minutes long.

Rising Carbon Emissions: America's [carbon dioxide emissions rose](#) by 3.4% in 2018, the biggest increase in eight years, according to this preliminary estimate.

Plant Breeding Discovery: A University of Kentucky researcher contributed to an important discovery about [plant breeding and weed management](#).

Algae Expanding: The new Farm Bill includes a policy for the [expansion of federal support for algae](#) agriculture. Some think the change will lead to food, clothes, and plastics made from the substance.

Biotech Crop Boost? This opinion piece from the Genetic Literacy Project says that a [boost for gene-edited crops](#) has come because the U.S. anti-GMO movement has faltered.



Soybean Goals: The [American Soybean Association set its priorities](#) for 2019, including a focus on achieving key federal legislative and regulatory priorities.

Advice about the Environment: This Mississippi State article explains issues regarding the forestry commission, the Clean Water Act, and [the responsibilities of land owners](#).



This archived CAST Task Force Report [provides background information](#) about perspectives regarding climate change. See [related article](#) at left.

International News

The Uff Da Snow Removal Service (video): These Norwegians came up with a [clever method to quickly remove a large amount of snow](#) from their barn roof.

Sharing Research and Fellowship: University of Missouri faculty, staff, graduate students, and post-doctoral fellows [traveled to China for an exciting, rewarding scientific workshop](#).

From Ecuador to Minnesota to Outer Space: A photographer and a writer spent three years traveling the world and documenting the [eating habits of 80 people from incredibly diverse backgrounds](#).

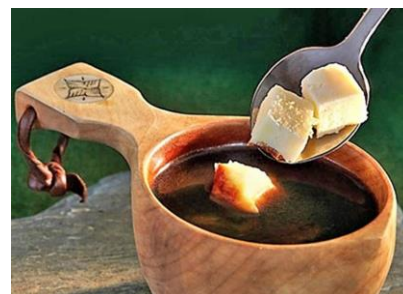
African Swine Fever in China and Europe: African [swine fever continues to spread](#) in China, and Belgian officials fear the disease may cross its southern border into neighboring France.

U.S. Beef Exports to Asia: Japan remains the number-one [export market for U.S. beef products](#), but South Korea is closing in, according to the Iowa Beef Industry Council.



A Sting in a Bottle: Vast numbers of [bluebottle jellyfish swarmed beaches](#) in Queensland, Australia, stinging thousands of people and forcing the closure of swim spots.

The Moo App: An Australian agri-tech company believes gamifying data analytics is the way to [help a million dairy farmers in India](#).



Cheese coffee is popular in Sweden. Cubes of cheese (often from reindeer milk) are released into a cup of coffee. They float to the top and absorb the flavor. A version using cow's milk is growing popular in the United States.

General Interest News

Helping Them Get Started: Tuskegee University offers the [Beginning Farmer and Rancher Development Program](#)--a project developed to help a diverse group of people as they become growers and producers.

Home Alone? A North Carolina State professor says [tap water teems with amoebas, bacteria, and more](#). His informative book *Never Home Alone* might make readers feel different about "house guests."

Big Data and USDA Forecasts: This article uses statistics and research to [look at the potential implications](#) of "Big Ag Data" for USDA forecasts.

Science as a Mission: The University of Florida's mission as a land-grant university is to [deliver science to communities](#), as this article explains.



Solar-powered Slug Fading Away: The photosynthetic sea slug lives off the U.S. East Coast and is becoming [almost too rare to research](#).

Is It OK to Take a Pillow to a Sale Barn? Mark Parker provides a list of the [10 ways a farmer knows he is getting older](#).

Ch-ch-ch Changes: [Climate change means changes on campus](#), and a series of reports shows how Purdue is a microcosm of its effects across Indiana.



Pet obesity is on the rise for the eighth straight year--so chillin' may be fine, but too much grazin' could be a health concern.

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.



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- * 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
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- * Land O'Lakes
- * Monsanto
- * 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
- * Tyson Foods
- * United Soybean Board
- * Weed Science Society of America
- * Western Society of Weed Science

CAST assembles, interprets, and communicates credible, science-based information regionally, nationally, and internationally to legislators, regulators, policymakers, the media, the private sector, and the public.

Members of CAST's Education Program

- * Cal Poly-San Luis Obispo
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- * University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources



Note: Land O'Lakes provides sponsorship for the distribution of *Friday Notes* to the National Association of Agricultural Educators.

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