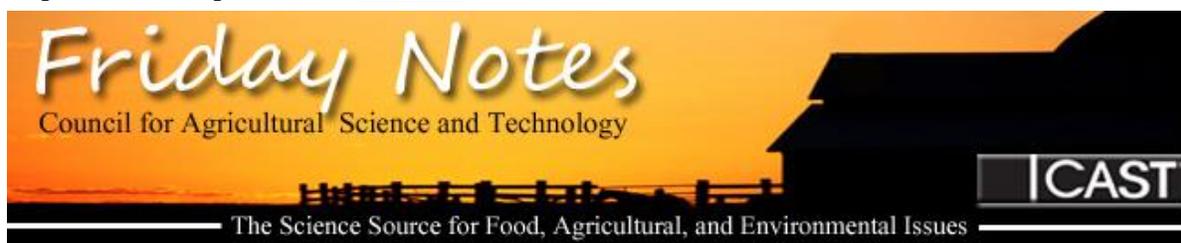


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Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible, unbiased, science-based information. Material contained in linked articles is from the original authors and does not necessarily reflect the views of CAST.

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Beauty Is the Beast



This orchid mantis is beautiful [when it hides or attacks.](#)

Publication Rollout

CAST invites you to attend a presentation of its newest issue paper, *Food Loss and Waste*--two sessions on Sept. 28 in Washington, D.C. [Check here for details.](#)

USDA Wants Your Input

USDA officials want to understand the types of USDA-source data industry needs, and [they ask for input through this survey.](#)

Precision Ag Ed

According to this site, these are 20 of the [top U.S. community colleges and technical schools for precision agriculture](#) and related fields.

Ag Education

September 14, 2018

From Semantics to Results

Focusing on multiple methods to feed the world

Food production terminology includes words such as biotech, organic, and conventional. While some debate connotations, many in the world of agriculture focus on results. What best practices from various methods will produce abundant and nutritious food while also supporting the environment? Can we consider traditional techniques while also implementing the best science, technology, and innovation?



A word that commonly occurs in such discussions is "sustainability." How can farmers maintain financial security while also considering social and environmental responsibilities? These issues will come up often during this year's World Food Prize symposium, "[Rise to the Challenge](#)," as experts discuss ways to feed the world. CAST will host a special morning session during this event on October 17. [Dr. Marty Matlock, 2018 BCCA winner](#), will speak about sustainability--technologies, techniques, and the resilience of ecosystems.

While considering efficient food production, many farmers are also concerned about how to "leave the land better than when they started." A specific focus is soil health. From [cover crops](#) to [no-till](#) to the use of [biotech crops](#), farmers are looking for ways to revive the soil. Three agronomy societies (including CAST members ASA and CSSA) will host the "[Enhancing Productivity in a Changing Climate](#)" meeting November 4-7, and several universities have valuable research about sustainable land use, including a Stanford study of [soil and carbon emissions](#) and a University of Kentucky report about the [efficiency of rye grass to promote healthy soil](#). For one more opinion regarding "sustainability," check this video about a skeptic who interviews [farmers about their practices](#).

News and Views

Ridin' the Storm Out: Ports are closed, farmers moved hogs to high ground, and residents of North and South Carolina prepared for power outages as [Hurricane Florence hit the coast](#).

[National Teach Ag Day](#) will take place September 20, as the nation recognizes the [important role agriculture teachers play](#) in our schools and communities.

Make a Difference

CAST relies on members and donations to succeed at being a voice for sound science and innovative agriculture. [Click here to help.](#)



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

Disease Control

A Sept. 28 event at Tuskegee University will provide information about [managing ruminant diseases.](#)

Husker Digital

The University of Nebraska-Lincoln is hosting a [workshop about unmanned aircraft systems](#) on Sept. 20 and a digital agriculture all-hands meeting on Sept. 21.



Catch CAST Online!

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

Storm Safety: The USDA issued [food safety recommendations](#) for those who may be impacted by Hurricane Florence.

Trade and Crops: Prices for crops like corn and soybeans have declined, but exports of those crops have not plummeted yet. Farm groups continue to [push for a speedy resolution](#) with China and for completion of NAFTA negotiations with Canada and Mexico.

Farm Bill Update: The current Farm Bill is set to expire at the end of the month, so time is running out for the House and Senate to reach an agreement. [Some are talking about an extension.](#)

Meaty Meeting: The USDA and the FDA will host a joint public meeting Oct. 23-24 in Washington, D.C., to address [concerns about cell cultured meat.](#)

News from the Far Side of the Barn

Silo Singing (video): Farmer Derek invited Bethel College's choir to visit and perform "[Down to the River to Pray](#)" inside his new grain bin.

If George Jetson Flew a Drone (video): After years of work, this inventor made the first successful [test flight of his drone-like flying car.](#)

Tasty Delights and Terminal Heartburn: Critics announced the [best and worst of the food offerings](#) at the Minnesota State Fair.



Scientists say [goats are drawn to humans with happy facial expressions](#), but the researcher in this video--who "lived for a few days as a goat"--probably just made them perplexed.

Mizzou Joins Education Program

Another highly rated ag school now with CAST

The most recent addition to the [CAST Education Program](#) is the University of Missouri-Columbia. They join an impressive list of respected ag/science schools--and CAST's mission to communicate credible, science-based information will be enhanced with the inclusion of yet another top university.

CAFNR is the [University of Missouri's College of Agriculture, Food and Natural Resources](#)--a collection of academic programs merging personalized teaching, advanced research, and extension programs that have global and Missouri-based connections.

As the university's web page states, "CAFNR is changing the core components of society that impact what we eat, where we live, and how we'll face tomorrow. As the University



of Missouri's College of Agriculture, Food and Natural Resources, we are at the forefront of research and education, working toward global sustainability."

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 mantis pic from npr.org, hands pic from agroamerica.com, and goat pic from lottery.com. Animal Sec. shark pic from wallpaper-xs.blogspot.com. Food Sec. moose pic from zazzle.com. Plant Sec. Ohio pic from osu.edu. Inter. Sec. elephant pic from elephantjournal.com. Gen. Sec. drone pic from ncsu.edu. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Storm Riders (video): These North Carolina wild horses will ride out the storm.

Food on the Hoof (video): Researchers studied several ungulate species--including bighorn sheep--to determine [how groups of grazers compare to historical herds in using crowd sourcing](#) to find food.

Farmer to the Rescue (video): This dramatic cure for deadly bloating shows what a farmer might do [in order to save his animal](#).

The Future of Hatcheries: This business is launching a program to [hatch chicks inside a poultry house](#).

Stopping Hog Diseases: The National Pork Board, the USDA, and other [organizations are working closely together](#) to keep the country free of [African swine fever](#) and other animal diseases.

Reducing Methane Emissions (video): Researchers from the University of California-Davis and the University of Wisconsin-Madison are looking for ways to [reduce methane production in a dairy cow's diet](#).

Pig Production Resources: This research looked at [phytogenic feed additives for pigs](#)--and this University of Arkansas work examined [outdoor and indoor hog production practices](#).

New Leg (video): When Hurricane Irma blew through, this horse was stranded and contracted a waterborne illness. After a long road to recovery, he now [has a prosthetic leg and a renewed sense of purpose](#).



A small [tooth fragment plucked from a 13-year-old boy's leg after he was bitten by a shark](#) gave scientists the chance to test a new tactic--using DNA evidence to identify the species involved.



Food Science and Safety News

Worker Safety in Meat and Poultry Plants (video): This clip takes you inside a meat-packing plant to [show the many procedures in place to keep workers safe](#), and it details what happens if an injury occurs.

Food Safety (video): NC-State's food safety specialist shares tips to help families [prepare for power outages by safely preserving and preparing](#) common household food items when the power goes out.

Food Insecurity: An estimated 15 million (11.8%) [U.S. households were food insecure in 2017](#)--down from 2016, but up from 2007.

Edible Landscapes: Some [university students have rooted themselves](#) in the world of campus gardening, and in another case, a city main street planted [vegetables for the needy rather than flowers](#).

Fresh or Frozen? When it comes to nutrition in produce, [is fresh always best or is frozen equally as nutritious?](#) This article compares the advantages of both options.

Pork Preparation: The National Pork Board says that most people don't use a meat thermometer and end up overcooking their pork when [we should be cooking it to medium rare](#).

Educating on GE: The genetic improvement of food crops sometimes gets a bad rap, but [University of Florida researchers plan to educate consumers](#) so they can make more informed decisions.



This photo gallery looks at [one ridiculous food law from each state](#)--so don't give an alcoholic beverage to a moose in Alaska.



Plant Agriculture and Environmental News

Spicing Things Up (video): Researchers in Florida are [trying to breed the next commercial crop--vanilla](#). Production could develop a niche economy for the state and help diversify its agricultural offerings.

The Power of a Pit: University of Kentucky researchers are examining whether peach pits and walnut shells can be used to [create cheaper, longer-lasting lithium ion batteries](#).

Mapping the Amber Waves of Grain: These maps show that since the mid-1990s--around the time that genetically modified crops became prevalent in U.S. agriculture--[the diversity of American fields has decreased](#).

Carbon-capturing Engines: Scientists have [engineered tiny carbon-capturing engines from blue-green algae](#) into plants that promise to boost yields of important food crops.

Pathway Regulation in Plants: Research shows that plants can regulate their epidermal layer, providing a strategy to [optimize their productivity while taking into account environmental changes](#).

Riparian Buffer Strips: The word "riparian" refers to [the place where streams meet land](#). This important intersection controls a lot of processes--especially with regard to water quality.



Precision agriculture brought the Ohio State Marching Band's [famous script to a soybean field](#). What, no room for its famous "The"?



International News

Drought in the Outback (video): Drought-hit Australian farmers and their children receive sympathy in a country that mythologizes [the inhospitable "bush" and its inhabitants](#)--but some question such agriculture in marginal Outback regions.

Swine Fever Update: African swine fever outbreaks in China [will have far-reaching consequences](#) in Asia.

Afghan Agriculture: USAID will invest \$110 million in Afghanistan's agriculture sector in the next five years. The money will be invested in two [major projects to create jobs and increase rural income](#).

Here Comes the Sun: China has [more solar energy capacity](#) than any other country--130 gigawatts.

Devastation Affects Dairy: Japan's dairy industry is at risk as [a widespread power outage persists following a strong earthquake](#) on the country's northern island of Hokkaido.

Bigger and Better Beets: Plant biologists from the Ryan Institute in Ireland have [identified genetic breeding strategies to develop bigger and better sugar beets](#).



The carcasses of 87 elephants were discovered near a Botswana protected sanctuary. They were [killed and stripped for their tusks](#).



General Interest News

Burgers Not Bogeys (videos): A golf course in North Dakota is providing refreshments on the links [delivered to players by drone](#).

Drones Not Tractors (related to above): This educator explains why [drones will be as common as tractors](#) for farmers in the near future.

Drones in Bib Overalls: Check out this blog about "[Pocket Drones, a Trillion Data Points, and Chewin' Tobacco](#)."

As the World Warms: Most of us can expect to see more days when temperatures hit 90 degrees or higher. [See how your hometown has changed so far and how much hotter it will get](#).

Putting Furry Friends First: Research shows that millennials are having a love affair with pets--so much so that they are often [putting their furry friends' first when shopping for a home](#).

Giving Tortoise a Head Start: Research indicates that raising Georgia's gopher tortoises [in captivity and releasing them into a protected habitat](#) will make them less vulnerable to predators.



A North Carolina State [drone project involves placing sensors](#) over corn crops to assess weather damage (related drone links at upper left).

Harvest Heparin: Cornell scientists have created microscopic beads that efficiently recover heparin, an ingredient used as [a pharmaceutical blood thinner made from agricultural 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.



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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
- * 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
- * Corteva Agriscience, Agriculture Division of DowDuPont
- * Croplife America
- * Crop Science Society of America
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * 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
- * 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.

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- * Kansas State University
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- * 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
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- * University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources



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Dan Gogerty (Managing Communications Editor)
Kylie Peterson (Communications and Social Media Specialist)
The Council for Agricultural Science and Technology
4420 West Lincoln Way
Ames, Iowa 50014-3447
Phone: 515-292-2125, ext. 222 (Dan) and 230 (Kylie)
E-mail: dgogerty@cast-science.org and kpeterson@cast-science.org



**** With assistance from Carol Gosteale (Managing Scientific Editor)**