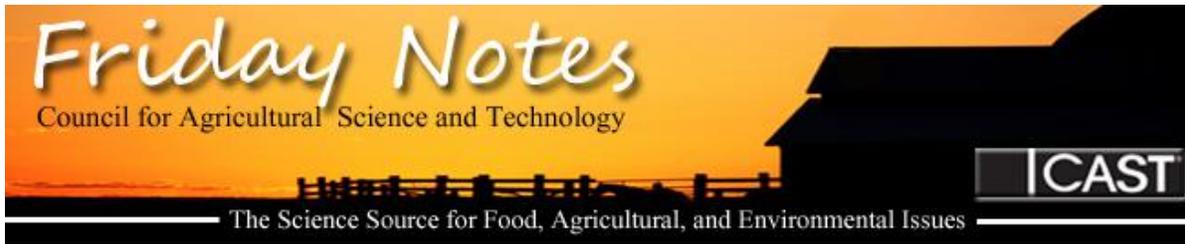


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Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible, 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](#)

[Food Loss, Waste, Research, and Innovation--P. 2](#)

[Animal Agriculture News](#)

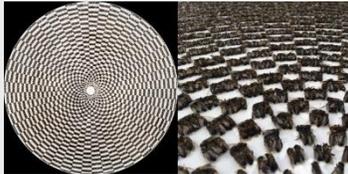
[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)

Frozen Swarm



This Canadian artist and former beekeeper, [Sarah Hatton](#), used 65,000 dead bees to create an optical illusion.

BCCA Presentation

During a special morning session on Oct. 17, CAST will present the 2018 [Borlaug CAST Communication Award to Dr. Marty Matlock](#). Watch for details.

Farm to School Month

Join thousands of students, teachers, farmers, food producers, food enthusiasts, and families in [celebrating National Farm to School Month](#) in October.

Food Safety

September is [National Food Safety Education Month](#), a focus that should last all year to raise awareness about ways to prevent food poisoning.

Make a Difference

September 7, 2018

Ag Communication

Keeping ag-science information in focus

Maybe effective communication is easier to talk about than to enact, but many in the world of agriculture are making an effort to keep positive information in the forefront.

Science isn't finished until it's communicated



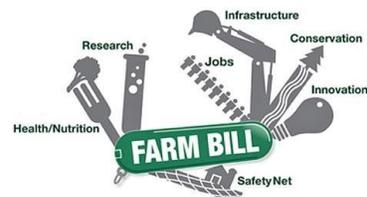
An Iowa State professor, concerned about the negative messages students receive about agriculture, still believes scientists should raise their voices. She says schools should "[use scientific evidence rather than popular media](#) to teach students about food and nutrition."

A recent widespread editorial in Britain spoke despairingly of the struggle to fight anti-science fake news. But a rebuttal looked at the progress being made and the need for a concerted effort. As the writer said, "Scientists [must keep fighting fake news, not retreat](#) to their ivory towers. Scientists have the public's trust, so the swell of fake news shouldn't put them off communicating."

With its [mission statement](#) to provide balanced, science-based information to the public and policymakers, CAST uses publications, social media, videos, presentations, and other methods to disseminate news. Check out these related CAST blogs about communication: (1) [Steps to Improve Science Communication](#); (2) [Don't Be Such a Scientist](#); and (3) [Humanize Yourself](#), by [Carl Winter](#).

News and Views

Farm Bill Focus: Committee members say getting the final [Farm Bill done on time is their top priority](#)--growing economic issues and the need for stability are stimulating their efforts.



"It's like a Swiss Army knife."

Questions about the Aid

Package: Several organizations want more information about the methodology officials used to



CAST

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

Animals and Autism

Temple Grandin, a renowned expert on animal behavior and an activist for people with autism, [will be speaking at Iowa State University](#) on Thursday, September 13, at 7 p.m.

Pig Farmer of the Year

The National Pork Board recently announced the four finalists who are vying to be [named 2018 America's Pig Farmer of the Year.](#)

Submit an Idea

We welcome suggestions for future CAST publications and projects. [Click here to submit ideas.](#)



Catch CAST Online!

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

determine the amount of money per bushel [each crop will get under the trade assistance package.](#)

New Faces: The [administration made several appointments,](#) including Jay Angle to be Director of the National Institute of Food and Agriculture, Alexandra Dapolito Dunn to be an Environmental Protection Agency Assistant Administrator, and Raymond David Vela to be Director of the National Park Service.

Cover Crop Benefits: More farmers are using cover crops to keep water, soil, and nutrients from running off fields. Some say the [benefits can be financial as well as environmental.](#)

Ag Progress: This link provides [a look back at the tech, the toys, and the ag talk](#) at the recent 2018 Farm Progress Show.

News from the Far Side of the Barn

Cutest Cooking Show Ever (video): Prepare for a sugary overload as [this two-year-old bakes his first cake.](#)



When Food Sampling Breaks Bad (video): This youngster snatched a bite of unsweetened cocoa from the kitchen, but [the results surprised him.](#)

Ain't from Around These Parts, Are Ya? Matt Parker lists ten ways to [spot an out-of-towner at the coffee shop.](#) One thing for sure, the locals know which cooler has the bait and which has the beer.

Another chance to see how [vending machines and robots are moving into food services.](#)

Food Loss and Waste

Research and Innovation

Many organizations, research institutions, and companies have been focused on food loss and waste. Two years ago, CAST joined with the University of Pennsylvania to promote the book [Food Waste Across the Supply Chain: A U.S. Perspective on a Global Problem.](#)

Later this month, CAST will roll out its new issue paper, *Food Loss and Waste*. This science-based publication will look at the causes, effects, and potential solutions regarding an issue that has global impact. Watch for details next week about the event and access to the publication.



Media outlets and other sources provide various looks at food loss and waste, and the following are a few examples from recent links:

(1) Researchers say that [food waste could rise substantially by 2030](#) when more than 2 billion tons will be binned. The United Nations set a task to cut waste in half, but many say current trends are alarming.

(2) According to some, food waste issues should be tackled in various ways--including [the proper use of genetically modified crops](#). A related article looks specifically at [how CRISPR might be a solution](#).

(3) Scientists say a new product called Apeel is an odorless, colorless, and tasteless edible coating for produce that could extend the shelf life of fruits and vegetables. Some think this [could cut food waste and save billions of dollars](#).

(4) A similar topic involves the packaging of food--especially with the [takeout industry](#). [This video](#) looks at culture, trends, innovation, and the environment.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 swarm pic from knowablemagazine.org, communication graphic from slideshare.net, Farm Bill graphic from usda.com, and robot pic from twistersifter.com. P. 2 waste pic from merced.croptmobster.com. Animal Sec. egg pic from pet-chicken.com. Food Sec. popcorn pic from daily.jstor.org. Plant Sec. graphic from news.cornell.edu. Inter. Sec. field pic from bbc.co.uk. Gen. Sec. turbine pic from greatbigstory.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Dairy Debut (video): An [on-farm milk processing system has been unveiled](#) that could help dairy producers with marketing directly to consumers and increase the amount of automation on farms.

Antimicrobial Resistance (video): Industry leaders are getting more questions from consumers regarding antimicrobial resistance in livestock. This video [addresses resistance in both animals and humans](#) to help keep the issue in perspective.

Feed Biosecurity: Research suggests more emphasis on biosecurity--particularly in imported feed ingredients--could help [reduce the risk of introducing foreign animal diseases](#) to U.S. livestock herds.

Livestock Diversity: Research shows that cattle and sheep are obvious sources for [expanding plant diversity and forage production](#).

Pig Digestibility Data: University of Illinois researchers are giving producers more [information about the feeding value of grain and oilseed coproducts](#) fed to young pigs.



Research found that [stress and lack of resources can trigger hormonal shifts](#), making it more likely for hens to produce female offspring.

Contagious Cow: A cow in South Carolina [tested positive for rabies](#) after potentially exposing three other people to the disease.

The Latest Buzz on Bees: This blog includes [links to several recent articles about bees](#)--(1) veterinarians and bee health, (2) bumblebees and pesticide addiction, and (3) how the sleeping habits of bees can benefit human sleep research.

Pork Patrol: Transportation represents a point in a farm animal's life when many experts say welfare is most at risk. This [new tool can help monitor pig welfare during transport](#).



Food Science and Safety News

Drive-thru Shopping (video): Is [drive-thru grocery shopping in our future](#)? This Russian architecture firm's concept could make it a reality.

Reconsider Low-dairy Diets: A 12-year study involving 24,474 adults shows that consuming dairy products, particularly cheese and yogurt, will [reduce your chance of death by 2 to 8%](#).

Excellent Eggs: A new literature review highlights the role eggs play in [improving infants' protein, vitamin, and mineral intake](#) during development.

#10GallonChallenge: In an effort to move milk off store shelves, this social media challenge [helps struggling dairy farmers and local families in need](#).

Illegal Labeling: It is [now illegal to label animal-free food products as "meat"](#) in Missouri, and the Iowa Cattlemen's Association says they support the law.

Food Deficit: Global leaders have warned of a looming food security crisis for decades, but recent research shows [the tipping point could occur as early as 2027](#).

Linked to Poultry: Research published last week discovered [a strain of E.coli found in retail chicken and turkey products](#) that could be causing a wide range of infections in humans.



Powerful Popcorn: Cornell researchers have discovered how to power a simple robot [using unique properties of popcorn](#).



Plant Agriculture and Environmental News

Farm Sees Success (video): A thoroughbred horse farm is reaping the benefits of healthier mares and foals [due to pasture renovations they made with guidance](#) from the University of Kentucky.

Soil to the Rescue? Soil holds the [potential to slow global warming](#), according to these researchers.

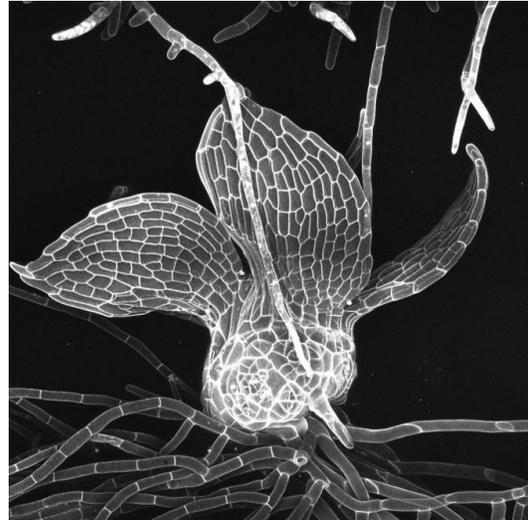
Biotech Promotion (opinion): Gene editing enables scientists to turn plant genes "on" and "off" in a way that is [precise, fast, and inexpensive](#).

Weed Killer: Researchers have developed [a precision spray assembly capable of delivering herbicides with precise accuracy](#) at speeds of two miles per hour.

Stressed-out Rice: A Mississippi State doctoral student received a prestigious grant to study how to use weeds as [a resource for finding stress-tolerant traits in rice](#).

Saving the Iconic Chestnut: To save the American chestnut tree, university [researchers plan to introduce a GE species into the wild](#)--one resistant to a deadly blight.

Unlocking Secrets of Plants: Researchers [discovered an internal messaging system that plants use](#) to manage the growth and division of their cells.



A new Cornell study shows that one innovation made by [the first land plants to transition from water to land 450 million years ago](#) was the ability to grow in three dimensions.



International News

Koala Care: A Cal Poly professor and Australian researchers are working [to protect the koala population that has been devastated](#) during the past century.

Welfare-friendly Eggs: Taiwan researchers say consumers' buying habits, age, income, education, occupation, and religion [all have an impact on egg purchases](#).

Spanish Ham Is Primo: A single [leg of Iberico ham costs hundreds of dollars](#), and the secret might be the acorns eaten by the pigs.

Evaluating Efficiency: Like their American counterparts, Swiss dairy farmers are [questioning whether or not extremely large cows are efficient](#) considering the effects of drought.

Battle over Australian Brumbies: Experts are calling for a [cull of the wild horses in New South Wales](#), but the government is reluctant.

Measuring Grass Growth: A Dutch farmer is using a [novel method to measure grass yield and height](#) to ensure he only uses fertilizer when necessary.



The Japanese village of Inakadate [transforms its rice paddies into a visual spectacle](#) annually. This year, the intricate rice art celebrates the 90th anniversary of an innovative manga artist.



General Interest News

Homo Sapiens 2.0 (video): Humans are on the verge of taking control of their genetics and influencing health care as we know it--[ultimately revolutionizing evolutionary trajectories](#).

Turning Sunlight into Fuel: The quest to find [new ways to harness solar power has taken a step forward](#) after researchers found a way to alter the photosynthetic machinery in plants.

Tornado. Lightning. What's Next? This wind turbine was damaged by a tornado earlier this summer, leaving one blade dangling. Then, [lightning struck it this week](#) during a storm.

Blowin' in the Wind (related to above): Wind energy has been expanding rapidly, although some think it is "[Tilting at Windmills](#)."

It Started a Century Ago with the Waterloo Boy (video): As the John Deere [Company celebrates its 100th anniversary](#), some of its classic machinery items [went on sale for record prices](#).

Underwater Research: A North Carolina State University [researcher is using underwater microphones](#) to help better understand the extensive array of animals living in the state's oyster reef.



Rock climber Jessica Kilroy loves the challenge of blade repair--[she climbs and fixes giant wind turbines](#). Related links at left.

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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- * 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

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