



*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 the CAST organization.

#### In This Issue..... Click to Read

[August Is "Celebrate CAST Members Month"--P. 2](#)

[Animal Agriculture News](#)

[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)

#### Astronomy Photographer of the Year



From the northern lights to noctilucent clouds, the range of subjects in this year's competition [covers all things astronomical](#).

#### Food Evolution

Check here for information about a [free screening of the film](#) *Food Evolution* on Monday, August 7, at the National Academy of Sciences Building in Washington, D.C.

#### Seed to Supper

Cornell University's new Seed to Supper course looks at the [effects of gardening on low-income communities](#) to build engagement.

#### Best Sun Spots

This clip features the "five best places" to [view the upcoming eclipse](#)--including Oregon's wine

August 4, 2017

## Do We Have the Wisdom?

*Amazing gene editing advances  
and challenging questions*

An international team of researchers used CRISPR-Cas9 gene editing to correct a disease-causing mutation in dozens of viable human embryos. The study represents a [significant improvement in efficiency and accuracy](#) over previous efforts. This video shows [how scientists successfully repaired the genetic mutation](#)--a process that has the potential to prevent a human birth defect.



This video interview features Jennifer Doudna, a scientist and [coinventor behind the gene-editing technology](#).

According to many, [this breakthrough raises questions](#). Public policy and the field of bioethics have trouble keeping up with the science of genetic intervention--some think the technology is advancing more rapidly than society's discussions about human genetic engineering, the specter of eugenics, and even the seemingly mundane topics of who will own the patents.

## News and Views

**Immigration and Ag:** Some Senate Republicans are not sure about [Trump-backed immigration bill proposals](#), and this Democrat [thinks they could hurt agriculture](#).

**Farm Bill Update:** Most farm groups appear to favor the [status quo regarding a new farm bill](#).

**The Hypoxia Zone:** According to the National Oceanic and Atmospheric Administration, the "dead zone" in the Gulf of Mexico is [bigger than it has ever been](#).

**A Honeybee Bounce:** According to a USDA survey, the [number of U.S. honeybees rose](#) in 2017 from a year earlier. [Check the General Section below for more bee-related links](#).

**Nervous about NAFTA:** Some U.S. [farm groups worry](#) that NAFTA renegotiations will disrupt trade or make agriculture a bargaining chip.

country, Nashville's music capital, and Charleston's historic streets.

### Poultry, Science, and Camping

North Carolina State celebrates its tenth anniversary of the [Poultry Science Summer Institute](#) for high school students.

### 4-H University

The University of Florida helps students from around the state get a taste of the real world, [from health to finances to rocket science](#).



Follow CAST on Social Media

**CAST Social Media**

Click here for [links to CAST sites](#): Twitter, Facebook, LinkedIn, Pinterest, videos, and blogs.

**Supporting Sound Science:** Communications expert Vance Crowe [wants to counter activists](#) who spread fear of modern agriculture.

## News from the Far Side of the Barn

**Hurts So Good:** We all scream for ice cream, especially [when a brain freeze hits](#). What causes them, and could they give relief for those who suffer from migraines?



Ohhh yeah. The brain freeze is worth it.

### What Sharp Teeth You Have!

**(video):** A [great white shark takes a bite](#) of a researcher's Go Pro camera in the waters near Cape Cod.

### Face Paint and Lolling Tongues

**(video):** A newborn calf--appropriately named Genie--is taking the internet by storm as rocker [Gene Simmons' doppelganger](#).

## August is "Celebrate CAST Members Month"

This month, CAST is recognizing the importance of its members. Societies and individuals continue to play key roles in CAST's ability to fulfill its mission, and the excerpts from CAST's most recent blog entry highlight examples of these contributions. [Click here for the entire story](#).

### Respectfully Representing Our Roots

A document written by Charles A. Black states that the scientific society members control CAST's activities and are essential to the unity of agricultural science and the effectiveness of CAST. "In a very real sense, the scientific society members are CAST. Each member contributes to CAST's progress, credibility, acceptance, and prestige." One of the seven founding members, the [American Society of Agronomy](#) (ASA), has served as a loyal member of CAST since its inception during a meeting in O'Hare Airport in 1971.



Dr. Drew Lyon has been an individual member and ASA liaison for more than 20 years. Drew explains why it is so important for ASA and other organizations to have a seat at the table when these topics are being discussed. "It serves as a platform and opportunity for our perspectives and opinions to be heard. It also provides great resources to help direct information to the appropriate audiences." He encourages all agriculture-related science groups to become a member of CAST. "There are a lot of myths and misinformation out there, and it seems to become increasingly problematic--that's why CAST is so important, as it is a source of information that people can trust and rely on."

# Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 astronomy pic from [bbc.co.uk](http://bbc.co.uk), Doudna pic from [news.berkeley.edu](http://news.berkeley.edu), and pig pic from [dailymail.co.uk](http://dailymail.co.uk). Animal Sec. cow pic from [thebullvine.com](http://thebullvine.com). Plant Sec. Audrey pic from [nwitimes.jpg](http://nwitimes.jpg). Inter Sec. Ireland infographic from [worlddartsme.com](http://worlddartsme.com) and Mister Ed pic from [dailyhaggis.jpg](http://dailyhaggis.jpg). Gen. News drone pic from [agreport365.jpg](http://agreport365.jpg). Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



## Animal Agriculture and Environmental News

**Chicken Processing--Three Insights:** (1) As this video explains, the U.S. broiler industry has been steadily [reducing the prevalence](#) of *Salmonella* and *Campylobacter* on chicken parts. (2) This site examines "[myths and misconceptions](#)" about how broiler chickens are raised. (3) This article contends that the EU ban on [chickens processed with chlorine rinse](#) is more precautionary than evidence based.

**Pig News Review:** Check here for a look at recent company dealings, nutrition innovations, and other [happenings in the world of hog production](#).

**The Icarus Project:** Scientists use sensors to turn animals into something like environmental buoys--to [predict and monitor things like earthquakes](#) and more.

**Antibiotic Use (opinion):** This veterinarian is [concerned about the antibiotic situation](#). He advocates minimal use, but he worries that a blanket ban could have negative ramifications, especially for poultry.

**Cud Chewing Ain't No Myth:** Everyone knows that cows give us milk, cheese, yogurt, ice cream, and more--but this site [looks at some fun bovine facts](#). Did you know they drink 30 to 50 gallons of water a day?



A U.S. company developed a warning light to [alert the farmer if an animal is sick](#). Other apps are also available.

**Fiber and Pig Health:** Dietary [fiber affects pigs' responses](#) to *E. coli* diarrhea, according to this study.

**Bison Meat Boom (opinion):** Nearly 60% of bison marketers [reported an increase in demand](#), and even more say they plan to expand their businesses.

**Fish Sustainability (opinion):** Most legal sturgeon products come from aquaculture farms; this farmer [says aquaculture is good](#) "if it's done right."



## Food Science and Safety News

**Food Safety Positions:** This editorial explains why [top food safety positions](#)--especially the FSIS administrator and the USDA under-secretary for food safety--need to be filled.

**Food Labels and Peer-reviewed Research:** Click here for a free download of two CAST issue papers--one about [process labeling of food](#) and one about [mandatory labeling of biotech food](#).

**Discussion about Labels (video opinion):** This conversation--involving a farmer, nutritionist, and two parents--focuses on [food labels and confusion](#).

**Food Safety Report:** A Pew Charitable Trusts study examined food safety control measures on farms and feedlots and concludes that [efforts require a comprehensive farm-to-fork approach](#).

**What Does Farm to Table Really Mean? (opinion):** This writer thinks the ubiquity that makes farm-to-table meaningless also gives it power. He asks for an [examination of nutrition, inequity, and other relevant issues](#).

**I, Food Robot (opinion):** This article explains [why food robots are here](#), whether we want them or not.



**Should I Throw It Away? Nearly 60% of Americans have discussed the meaning of [date labels on food products](#)--and confusion often ensues. Related research papers at left.**



## *Plant Agriculture and Environmental News*

**Dicamba Update:** Governments in [17 states are investigating](#) more than 1,400 complaints of dicamba problems. This ag company official claims that in most cases, buffer zone [guidelines were not followed](#), and this company says that the [use of illegal products](#) is a major problem.

**Watching Our Water (video):** This 25-minute film looks at agriculture, [water pollution, and environmental techniques](#) such as chemigation, fertigation, and cover crops.

**Water Filtration Research:** University experts have done extensive work to demonstrate the potential of woodchip-filled trenches in [removing nitrates from tile drainage water](#).

**Biotech and the Environment (opinion):** Biotech techniques allow agriculturalists to make changes in crop plant genes that will enable farmers to produce [more food with fewer adverse environmental impacts](#).

**Biotech Seeds or Not? (opinion--related to above):** This Indiana farmer discusses his views about the [seeds he chooses to plant](#) each year.

**Raising the Dead:** Not quite a zombie story here, but plants discovered in ghost ponds are being [revived after lurking underground](#) as dormant seeds for up to 150 years.



**Along with Audrey II, these [nine plants are considered deadly](#).**



## *International News*



**Community Action in Kenya:** By adopting [agroforestry and improved agricultural practices](#), a community in western Kenya has improved citizens' income and living standards.

**Number One in Pigs:** Not only is Spain's pig industry steeped in tradition with its cured hams, it also recently emerged as the EU's [largest pig-producing state](#).

**Beef Tariff:** Japanese officials confirm rising imports of frozen beef have triggered a safeguard, [resulting in an automatic increase](#) to Japan's tariff rate under the WTO on imports of frozen beef from the U.S.

**Climate, Food, and Crises:** This report looks at how [climate change threatens to increase the chaos](#) that arises as food producers try to feed a growing global population.

**Horse Meat Scandal:** Two British food company executives are behind bars for the role they played in Europe's 2012 scandal that saw [horse meat passed off as beef](#).



**A Horse Is a Horse, Of Course, Of Course:** This blog [adds more to the horse issue](#) (related to story above).

**Imports Interrupted:** Chinese authorities stopped import shipments from six Australian packing plants because of [alleged labeling inaccuracies](#).



Irish food is changing, and its [restaurants have received multiple awards](#).



## General Interest News

**Combustible Grain (video):** [Grain bin explosions](#) can occur if conditions are in place. Watch this collapsing bin flame up during the second half of the video--luckily, no one was hurt.

**Intelligent Farming? (video):** This [high-tech farm uses artificial intelligence](#) to better control pests and diseases in its greenhouses.

**Sky Farming:** From mapping and surveying to crop dusting and spraying, agricultural [drone technology is booming](#).

**Big Data, Small Use?** While 84% of U.S. farmers reported that they have equipment that captures big data, [only half say they really use it](#).

**Regenerative Agriculture (opinion):** These farmers use compost, cover crops, and minimal tilling--practices that have been around for decades. Some [say it goes further than most organic](#) practices.



Not everyone is impressed, but it seems [all farmers eventually will have a drone](#).

**Bees in the Wild:** [Wild bees are important pollinators](#), and this study says their numbers can be increased by using simple means. Also, check out the [CAST Commentary Why Does Bee Health Matter?](#)

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.



If you have a good idea for a CAST publication, contact us by [clicking HERE for the "Proposal Format](#) and Background Information Form."

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- \* American Society of Animal Science
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- \* 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
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- \* 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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