

# Friday Notes

Council for Agricultural Science and Technology

CAST

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 the CAST organization.

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### Full Moon on Fire

Another summer month--another beautiful full moon. [Scroll down in this blog](#) to recall how the full moon can light a house on fire.



### Ag Explorer

National FFA and Discovery Education have joined forces to create a robust, comprehensive [career resource to help students](#) explore the broad range of ag/science careers within the industry of agriculture.

### NC State Ag Research Boosts Plant Sciences

The Golden LEAF Foundation awarded North Carolina State University a \$45 million grant that will help [support a new research facility for the North Carolina Plant Sciences Initiative](#).

August 19, 2016

## Fire and Rain Coping with the Elements



As James Taylor sang, "I've seen fire, and I've seen rain." This August has brought record floods to Louisiana and continued fire storms to the western part of the United States. The effects are numerous, including a big hit on agriculture.

From underwater fields to drowned cattle, the [damage to Louisiana farmers and ranchers](#) from the recent storms and continued flooding is extensive, but state officials say they are doing what they can to prevent losses. The water is still rising in some areas of Louisiana, and the priority is saving human lives. One rescue crew had been working for days to help others, and then they encountered something new--[a pack of cowboys and a herd of cattle](#). Maybe the [most amazing rescue](#) involved a woman, a dog, and a submerged car.

Wildfires continued to [rage through rural communities](#) in California, triggering a state of emergency and evacuation orders. Still suffering from drought, [many parts of the state are experiencing wildfires](#)--as are other western U.S. states.

## News and Views

## CAST in "The Triangle"

CAST's 2017 Annual Meeting will be held in the prestigious Research Triangle Park in North Carolina, and as CAST EVP Kent Schescke said, "CAST is looking forward to working with experts at NC State to highlight the exciting ag research and innovation going on there." **Note:** The 2016 Annual Meeting will be in St. Louis, Missouri, October 25-27.

## Ag, Biotech, and Careers

This site provides information about [biotechnology in agriculture and some of the careers](#) that stem from the study of plants, animals, and microorganisms.

## Grants Program

This government agriculture expert says that in the next few years "we expect to see a significant number of job [openings for graduates with degrees in agricultural sciences](#)."

## Fall Forums

USDA officials announced Fall Forums across the country that will gather information for the transition to the USDA leadership of the next administration. [Many of the gatherings will be on campuses](#) such as Arkansas, Florida, and North Carolina.

## CAST Social Media



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

**\*\*Neonic Debate:** By some accounts, the [neonicotinoid class of insecticide seed treatments](#) is a runaway success, but others say the product [could be causing harm](#) to bee colonies. A look at recent findings led this scientist to declare that the chemical [definitely does not cause bee deaths](#). Many say the substance [probably causes no harm](#) when used in "real-world settings."

**\*\*TPP Update:** President Obama is taking the [fight for the Trans-Pacific Partnership](#) trade deal to America's streets--countering the fusillades from Donald Trump and, increasingly, from Hillary Clinton.

**\*\*Ties with Cuba to Benefit Both Countries?** The University of Florida's senior vice president of agriculture and natural resources believes it is in the national interest to tap into Cuban expertise on crops and [establish strong scientific links](#) as well as economic opportunities.

**\*\*Beginning Farmer and Rancher Development Program:** Agriculture Secretary Tom Vilsack awarded almost \$18 million in funding for projects [impacting beginning farmers and ranchers](#).

**\*\*Our Farm Song:** The Peterson brothers rolled out [another farm-friendly parody compilation](#)--and one segment of this uses their version of "Stressed Out" to take a nostalgic look back at playing farm as kids.

## News from the Far Side of the Barn

**Close Encounter with a Whale (video):** Yet again, we [paddle with kayakers](#) who seem to be channeling their "inner Jonah."

**Closer Encounter with a Big Cat (video):** A 4-year-old girl is lucky to be alive after a [mountain lion tried to carry her off](#) from a campsite in Idaho.

**Too Close an Encounter with Insect Spaghetti? (video):** This business in northeastern France is [making pasta out of crickets](#).



This French cricket looks like a grasshopper--but it all tastes the same in their insect spaghetti.

## Agriculture on Display

*Sorry Shakespeare--Fair is NOT Foul*

Many states claim the "Best State Fair in the Land" moniker. From Minnesota to Texas, from the Atlantic to the Pacific, we've heard tales about unusual entertainment and even more unusual food. But the concept of the fair stems from agriculture, and some states have an inside track on that focus. This week we highlight the Iowa State Fair because it symbolizes the way farming and food production dominate the traditional fairs. Grab a corn dog and put on a ragged farmer's cap while you look through videos that represent just a sliver of the activities.

**\*\*Mutton Busting--Kids Crash, Wool Flies (video):** Let's start with the most fun. This excellent video comes from Kyle Munson at *The Des Moines Register* from last year, but it captures the [annual fun at the mutton-busting event](#).

**\*\*The Big Animal Contests (video):** Rams, bulls, boars--they're [looking for size here](#). This little piggy weighs well above 1,000 pounds, and the bull nearly made the 3,000 pound mark.

**\*\*Anything on a Stick:** The Iowa State Fair released a [list of new culinary adventures](#)--the items included everything from fudge to bacon, from peaches to jalapenos, and from pork to pineapple.

**\*\*Music to Your Ears--If You're Foghorn Leghorn:** The [chicken calling contest](#) brings out a flock of interesting humans.



Even 5-year-olds like to experience a little woolly bully.

State fairs include talent shows, thrilling rides, farm implement demonstrations, and contests of all types. But for many, it is the "zen feeling" of the fair--the crowds, the community sharing, and the look back at "simpler" times. In her recent blog, Hannah Pagel (ISU student and CAST administrative assistant) [captures that spirit as she returns to her county fair](#).

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 full moon pic from washingtonpost.com and cricket pic from cnn.com. P. 2 sheep pic from buzzquotes.jpg. Animal Sec. hunting pic from abcnews.go.com. Food Sec. Julia Child pic from starchefs.jpg. Plant Sec. man pic from freshplaza.org. Inter. Sec. snake pic from dailymail.co.uk.jpg. Gen. Sec. spider pic from tarantulaheaven.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



### *Animal Agriculture and Environmental News*

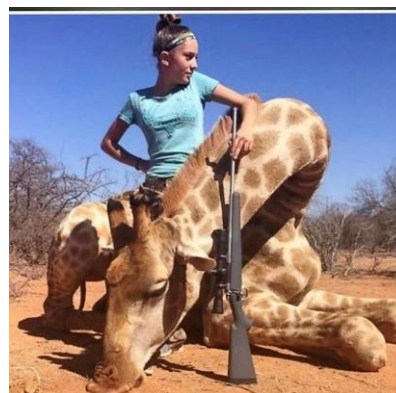
**Hunting in the Spotlight (video):** A 12-year-old girl sparked an online firestorm when she posted photos of herself with a [giraffe and a zebra that she killed while hunting](#) with her dad. And a Canadian province is reportedly [considering a ban on bear hunting](#) after a graphic online video showing a man killing a bear with a spear.

**Meaty Issue (follow-up):** The [average American eats roughly 193 pounds](#) of beef, pork, and/or chicken a year--up from about 184 pounds in 2012. And in this editorial, Dan Murphy [gives a big carnivorous thumbs up](#).

**Pig Producers on the Go:** Farmers can [evaluate herd health with new free mobile apps](#) that assist swine veterinarians and farmers in maintaining healthy herds and productive farms.

**Cheese Support?** Some farm groups asked the USDA to spend millions of dollars to buy cheese off the market to help dairy farmers [suffering from record low prices](#), weak exports, and strong domestic supplies.

**Antibiotics and Livestock Research:** This research team found [no conclusive evidence](#) of a definitive link



Another hunting controversy brings varied reactions.

between the use of antibiotics in food animals and the emergence of drug-resistant *Campylobacter*.

**Cryptic Codes of Cattle Brands:** Beyond simple marks of identification and deterrents to cattle theft, cattle brands have [evolved into a language of their own](#).

**Pig Productivity:** [Pig productivity measurements](#) involve the number of pigs weaned per sow per year, the number of pigs born alive, preweaning mortality, and the nonproductive days of female pigs.

**Manure Fumes Tragedy:** According to initial reports, a Wisconsin farmer and more than a dozen cows died when they became [overcome by fumes](#) from a huge manure holding tank.

**Where's the Beef Going?** These [beef market highlights](#) include a look at international trade.



## *Food Science and Safety News*

**Bon appétit from the Original Iron Chef (video):** This [video-song remix](#) brings out Julia Child's exuberance. She would have turned 104 on August 15--but [her quotes are timeless](#).

**Sure Beats That Leftover Mac and Cheese (video):** This master chef's midnight snack is a bit [more elaborate than yours or mine](#).

**Healthy Eating Myths (opinion):** This website lists [eight myths we need to stop believing](#) about healthy eating.

**Nano Nano?** Nanotechnology used to encase a bioactive ingredient within a food grade carrier may provide a solution in reducing fortification difficulties and [deliver healthier foods](#).

**No Happy Meals Here!** Food historians discuss (and even give some recipes for) the depressing [food served during the Depression](#).

**Tomatoes--Fruit or Vegetable?** The USDA Center for Nutrition Policy and Promotion [offers these quizzes for adults and kids alike](#)--designed to challenge, teach, and even entertain.

**X-ray Vision Carrots and Championship Beets:** The U.S. government has a secret [weapon in its battle against food waste](#) in public schools--adjectives.

**Scanner Data and Food Safety:** These scientists have apparently come up with methodology for [analyzing retail scanner data](#) from grocery stores to dramatically speed up foodborne illness investigations.



"A party without cake is really just a meeting."



## *Plant Agriculture and Environmental News*



**Really Vegging Out (video):** This [gardener grows gigantic vegetables](#)--most more than 100 pounds--and he appears very pleased about it.

**Atrazine Issue (opinion):** The EPA released its draft ecological [risk assessment for atrazine and is accepting public comments](#). Many think this would result in a ban of atrazine and subsequent problems for many farmers.

**FYI--FAQ about GMOs; YW (YAA)\*\*\*:** The Genetic Literacy Project provides this FAQ [website focused on GMO labeling](#) around the world.



An industrial-sized squash for this British gardener.

**Nitrogen Fixing in a Big Way:** The University of California-Davis is involved with a seven-year, multi-institutional assessment that identifies [how much nitrogen enters the state](#), where it is used, and its eventual fate.

**Worm Poop and Soil Quality--Vermicomposting:** Many believe that "[worm power](#)" can improve soil quality, produce more food for hungry mouths, and even increase income for some farmers.

**Fixing a Protein Bottleneck?** Engineers at Washington University in Missouri [found a way to boost biofuel production](#) in *E. coli* bacteria by altering its protein structure.

**Plants Talking about Weeds?** Weed Science Society of America scientists say [plants can sense and communicate](#), and those findings are opening the door for new approaches to weed control.

**Deciding Its Fate:** The 9th Circuit Court of Appeals has given the Environmental Protection Agency an additional three months to decide [whether or not to allow continued use of chlorpyrifos](#).

**Bring on the Honey Wagons:** Some scientists say thermally conditioned [sewage sludge serves as an excellent fertilizer](#) to improve soil properties.

**Winter Wheat Varieties:** Kansas State University and the Kansas Wheat Alliance released three [new hard red winter wheat varieties](#).

\*\*\***For the Acronym Challenged:** YW means "You're Welcome," and YAA means "Yet Another Acronym."



## *International News*

**Bunker Busting Harvest under London (video):** This bomb shelter farm is hidden deep under London, where [veggies flourish in an abandoned WWII bunker](#).

**Snakes Along the Mekong:** In Vietnam [the snake is equally revered and feared](#), a virile symbol whose implicit strength ironically led many of its species to be overhunted--for food, leather, liquor, and folk medicine.

**Sweet and Sour Tax?** Mexican shoppers bought less calorific and sugary foods in the year after the [controversial sugar tax](#) was introduced, say researchers.

**Making Ag "Cool":** The Kenyan government wants to make agriculture attractive in a bid to encourage the country's [youth to engage through modern technology](#).

**Brexit Funding Exit?** The British government [apparently promised to keep paying](#) for European Union-funded agriculture, infrastructure, and science projects until 2020, even if Britain leaves the bloc before then.

**Pig Research with a Spanish Accent:** The Swine Experimental Centre in Spain is full of measuring equipment with one goal--to [learn as much as possible about pigs](#) and sows.

**Pigs and Global Trade:** Apparently, the Russian pig industry has managed to [overcome the trade embargo](#) with both the United States and the European Union by expanding its total amount of breeding animals.



Snakes as foods, symbols, and controversies.



## General Interest News

**Curb Your Arachnophobia (video):** Zookeepers in Great Britain report that some [200 baby tarantulas have just burst forth](#) from the Earth--and they hope this can help save a rare species.

**Aeroponics in Jersey:** From the remains of an abandoned steel mill in Newark, New Jersey, this company is building what they say will be [the largest vertical farm](#), producing two million pounds of leafy greens a year.

**From Chasing Pigs to Chasing Olympic**

**Hardware:** Clayton Murphy, a small-town boy who grew up showing and selling pigs in Ohio, [won a bronze medal in the Rio Olympics](#) in the 800-meter run.



Baby tarantulas soon grow out of that "cute stage."

**Star Wars-type Laser to Repel Geese:** A farmer studying mechanical engineering in Canada joined other students to develop a laser prototype to [fight off geese and keep them from destroying crops](#).

**Leftover Meals in Rio:** Organized by chef Massimo Bottura, this gourmet soup kitchen [uses leftovers to feed the less fortunate](#) in Rio.

**Indoor Shrimp:** Americans love shrimp, but stories about slave labor and environmental issues have raised [concerns about the way shrimp is currently produced](#). One man in New York is trying a new method--indoors.

**Crazy Snake Worm:** A new invasive species known as the ["crazy snake worm"](#) has been found in Oregon, and officials fear it may have an adverse effect on forests.

## 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.



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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