



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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Acrophobia, Anyone?

The world's longest and [highest glass-bottom suspension bridge](#) officially opened in China.

Young Farmer Opportunities

Over the next 20 years, half of all [farmland across the country will change hands](#), according to the National Young Farmers Coalition.

Young Farmers Needed in Africa, Too

Agriculture needs a [makeover to lure young people back to farming](#) in Africa, where 60% of the continent's population is under the age of 24. The average age of farmers is 60 years old.

Farm Progress

The [2016 Farm Progress Show](#) will be in Boone, Iowa, on August 30, 31, and September 1.

August 26, 2016

National Park Service Turns 100

Happy Birthday to a Monumental Idea



****Picture Perfect:** 2016 marks the 100th [anniversary of the National Park Service](#), and the *Smithsonian* magazine [offers these beautiful photos](#) to celebrate the occasion.

****Would Yellowstone Have Been "Geyser Fantasy Land"**

Instead? Award-winning filmmaker Ken Burns [celebrates national treasures](#) like the Everglades and Yellowstone National Park--and gives his opinion of what their fates might have been without the park system.

****Highest, Tallest, Hottest--Park Record Setters:** Yellowstone National Park is big, but six of them would fit in [the largest U.S. national park](#).

News and Views

****Gene Editing Stays in the Limelight:** This video claims to "perfectly explain" [why CRISPR will change the world](#). And this company announced what they call "the potential of [CRISPR-Cas as an advanced plant breeding technology](#) to increase the productivity and sustainability of agricultural products." In this case, the focus is a new variety of corn and its resistance to drought.

****Tech, Innovation, and Ag Productivity:** *AgriPulse* recently published a piece that takes a look at whether or not agricultural productivity gains

Newbie Pitfalls

Agriculture Secretary Vilsack hosted a roundtable of young and beginning farmers at Iowa State University and discussed the [seven biggest challenges facing novice farmers](#).

Bridges of Madison County--a Pokestop?



The Pokemon phenomenon might seem out of place [in the beauty of rural farm country](#), but apparently Pikachu likes to show up in fields, groves, and even country landmarks.

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

can be [sustained or even enhanced](#) with the application of new technologies in the short term. **Note:** CAST's ambitious 12-paper project will look at specific programs, policies, and techniques that will advance global food security: [The Need for Agricultural Innovation to Sustainably Feed the World by 2050](#).

****A Program Called "Cool and Connected":** The Obama administration is hoping to use [broadband service to help revitalize](#) main streets in ten small towns in six Appalachian states

****TPP Support in Debate:** The American Farm Bureau Federation claims most farmers--and most Americans--support the TPP agreement. But the [legislation faces an uphill climb](#).

News from the Far Side of the Barn

Cat Zen--Food Style (cartoons): Many fans love Garfield for the way he [declares his love for food](#).

Apparently, the Chicken Came First (video): This "how it's made" clip goes in reverse as we follow the [chicken getting back into the egg](#).



Friendly Dog Is a Legend (video): This dog walks four miles into town every day to hang out with friends--[Bruno is a local celebrity](#).

Ag Programs Gear Up for Fall Semester

The CAST Education Program includes some of the best ag/science universities in the world--and their departments focus on food production, research, communication, education, and many other aspects of agriculture. We encourage you to log onto their websites to check the student programs, research projects, and other cool happenings on campus.

Friday Notes will also include links to university stories of interest. This week, we include several articles that highlight the need for farmer "boots on the ground." Around the world, an aging farmer population means more young people are needed to maintain and invigorate food production systems. Check out these links:

-In the left column on page one above, the National Young Farmers Coalition and an organization in Africa both point out the need for young agriculturalists. Scroll down in that column for a link to a roundtable of young and beginning farmers hosted by Agriculture Secretary Vilsack.



-In the Animal Section below, read about a young man who uses a cooperative approach to go back to the family hog farm.

-In the International Section below, link to a piece about why young people in Japan are shunning country life.

Do You Know the Difference Between a Heifer and a Steer?

Throughout this newsletter, readers can learn about ag/science issues, historical reflections (see the Norman Borlaug link in the General Section below), ag communication, and many other topics. Students might also find insights about agriculture studies and careers from personal viewpoints. In this edition, we include a blog entry from an Iowa State University junior, Hannah Pagel, as she explains why she is going into Ag/Ed--and why it is sometimes necessary to inform fellow students about the differences between a heifer and a steer. [Click here for Rushing into Ag/Ed in a Major Way.](#)

Note: *Friday Notes* welcomes guest blog entries from other university students--pieces about ag/science education, farming, study abroad, etc. Send to dgogerty@cast-science.org.



In this earlier blog, Hannah explains the [allure of county fairs](#).

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 glass bridge pic from dailymail.co.uk, covered bridge pic from journeyj9911, park pic from smithsonianmag.com, and cartoon from garfield.com. Animal Sec. cowboy pic from media.npr.org. Food Sec. pig pic from dailymail.co.uk. Plant Sec. flood pic from nbcnews.com. Inter. Sec. woman pic from greencosystem.in. Gen. Sec. pic of Borlaug from worldfoodprize.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

AgWeb AgDay News (video): This site provides the [latest daily news](#) regarding agribusiness, farm equipment, livestock, marketing analysis, and more.

Animal Ag Under Fire (opinion): According to this editorial, [animal rights activists](#) are ramping up efforts to abolish animal agriculture.

Dairy and Science News: The American Dairy Science Association's official publication, [the Journal of Dairy Science](#), is available [here](#)--with insights into biochemistry, environment, genetics, nutrition, and much more.

Seminole Cowboys: Many historians believe the first cattle entered what is now the United States through Florida with the Spanish Conquistadors in the 1500s. The [earliest Florida cowboys were native people](#).

Top Porker: To help build consumer trust and foster transparency about pork production methods, the National Pork Board announced an expert judging panel to [select the second annual America's Pig Farmer of the Year](#).

Animal Treatment and Consumer Response

(opinion): An [undercover video surfaces](#) and a poultry producer is under fire. Animal treatment is becoming a major issue (check link below regarding award-winning poultry producers).



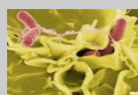
Ridin' the wide open range--of the Everglades?

Safety Awards and the Poultry Industry: At the 2016 National Safety Conference for the Poultry Industry, 122 chicken and turkey facilities received [awards by the Joint Industry Safety and Health Council](#).

Biosecurity and Avian Influenza (opinion): According to this expert, operations should focus on establishing [three disease barriers on the farm](#): a physical barrier, a chemical barrier, and a logical barrier.

Cutting the Cheese...Surplus: The USDA says it will spend an estimated \$20 million to [take about 11 million pounds of cheese off the market](#) and reduce the surplus that has helped keep prices low.

Called Back to the Farm--by a Pig's Squeal: Hog production partnerships give [young producers an opportunity to return](#) to the family farm full time.



Food Science and Safety News

Nutrition--From Molecules to Populations: The [American Society for Nutrition](#) advances research in nutritional sciences by fostering communication among scientists from diverse disciplines.

Ice Creamed: These photos show [classic ice cream failures](#) on Instagram this summer (can anyone handle a vanilla soft serve cone?).

It's a Wrap (video): Scientists are [using milk to make edible food wrappers](#).

The Future of Tea (opinion): From teas enriched with medicines to supposed hangover cures, the humble brew could see a [dramatic evolution over the coming years](#).

A Grounded Idea: The use of leftover [coffee grounds as an antioxidant dietary fiber](#) is a low-cost, value-added opportunity for an otherwise waste product.

You Say Potato, I Say Spuds: These folks think you are [most likely mispronouncing](#) these 30 food words.

Food--and More--at the Touch of a Button: Vending machines live on, but unlike the old days, they [offer incredible things from caviar to cupcakes](#).



This pig knows how to handle a melting cone.

The Siren Call of the Vending Machine (related to above): This blog looks at the [vending machine craze](#) in Japan--farm-fresh food to a robot vendor that can read your mind.



Plant Agriculture and Environmental News

Floods and Crops: Could the [deluge that dumped 2.5 feet of water on Louisiana](#)--killing 13 people and damaging 40,000 homes--also slow record grain exports?

Biofortification: University of Melbourne plant scientists created a [genetically modified rice](#) that produces grain with significantly more iron and zinc through a process called biofortification.

Q-Biotype Whitefly: An invasive whitefly--resistant to pesticides and carrying crop-devastating viruses--has been found in the United States for the first time, raising [concerns among fruit and vegetable growers](#).

Veggie Production in the Lone Star State: Texas retailers [want locally grown produce](#), and Texas A&M experts are helping to make that happen.

Oats--More Than Just a Cover Crop? Some Corn Belt farmers hope oats will help on [both the economic and environmental fronts](#).

Healthy Forests: Managers are researching strategies that can [keep forests resilient](#) so that they can continue to provide habitat for wildlife, clean air, clean water, carbon storage, and timber.

The Allure of a Virus: [Bumble bees have a thing for tomato plants](#), especially if they're harboring a destructive virus.

Plant Repository: UC-Davis is home to Foundation Plant Services, a [plant repository the world relies on](#) for plant importation and quarantine, disease testing, virus elimination, and DNA identification services.



Focusing on people in the bayou deluge.



International News

A Gold Medal Horse Whisperer: An Olympic athlete from the Netherlands dropped out of the Rio games [to save her horse](#).

Irradiation and Meat (opinion): Canadians have only days left if they wish to weigh in on the question of whether or not their government should allow [ground beef to be irradiated to kill pathogens](#) such as *E. coli*.

Restaurant in India Came Directly from the Streets: This restaurant owner spent his early [childhood on the streets of Mumbai](#), where food was key to survival but hard to come by.



"I couldn't risk my horse's life."

Could Robert Burns Still Say "My Heart's in the Highlands"? Research shows that Scotland's rare

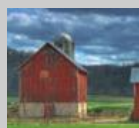
[mountain plants in the Highlands](#) and islands are retreating higher or disappearing entirely as the climate warms.

Pigs in India: The government of India's Punjab region is planning to build the country's [most advanced pig-processing facility](#) as India's consumption of pork and reliance on meat imports both continue to rise.

Big Fish: The famous Tsukji Market is the [biggest wholesale fish and seafood market](#) in the world.

Crying over Spilled Milk? Fans of an actor in India regularly [bathe pictures of him in thousands of gallons of milk](#), a sign of devotion usually reserved for Hindu idols. The milk dealers' association is not happy.

Help Wanted (opinion): Japan is [struggling to keep its farms running](#) as farmers age and young people shun the work. This has opened the door for more foreign workers--including a growing number working illegally.



General Interest News

Feeding Millions--A Borlaug Legacy (video): This [tribute features the challenges and successes](#) that Norman Borlaug and his team faced as they developed new varieties and pioneered new methods.

Mosquitoes, Disease, and Farming: Zika and West Nile virus cases are a concern for many, and [farm/ranch workers can be especially vulnerable](#).

Tractor Tussle (podcast): Four states are considering legislation that would require that farm machinery be [repaired only by a certified technician](#)--that has some farmers bristling.

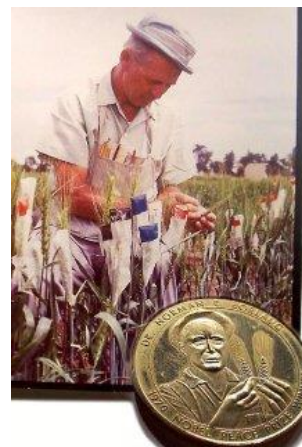
How to Communicate about Science Controversies (podcast): [Dr. Kevin Folta](#) (2016 Borlaug CAST Communication Award winner) hosts [Dr. Paul Vincelli of the University of Florida](#).

When Parasites Go Bad: USDA scientists and colleagues have provided new clues about the virulence of *Toxoplasma gondii*--[the most widespread parasite in the world](#).

A Parasite in the Park: Montana officials have indefinitely closed the Yellowstone River about concerns of a deadly [parasite that has killed thousands of fish](#).

Farm Safety and Visitors: With the growth of agritourism and more people visiting local farms, Connecticut officials are joining other states in educating farmers about how to [mitigate health risks for their new visitors](#).

Camel Cold: The virus that causes the common cold was originally [passed to humans from a camel](#), according to a new study.



Norman Borlaug--a gold medal winner in a big way.

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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Contact Colleen Hamilton at 515-292-2125, ext. 224 or chamilton@cast-science.org, or [CLICK HERE](#) for CAST membership information.

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- * American Society of Agronomy



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- * American Society of Plant Biologists
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Dan Gogerty (Managing Communications Editor)
The Council for Agricultural Science and Technology
4420 West Lincoln Way
Ames, Iowa 50014-3347
Phone: 515-292-2125, ext. 222; Fax: 515-292-4512; E-mail: dgogerty@cast-science.org



**** With assistance from Carol Gostele (Managing Scientific Editor), Mikayla Dolch (Student Administrative Assistant), and Hannah Pagel (Student Administrative Assistant)**