



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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Fall Colors Coming



Autumn has begun in the Northern Hemisphere--and beautiful places like Kentucky will soon show their fall colors.

BCCA Event at WFP

CAST and DuPont [invite you to honor the 2016 Borlaug CAST Communication Award winner](#)--Dr. Kevin Folta--on the occasion of the 2016 Borlaug Dialogue hosted by the World Food Prize Foundation.

Gathering in the Desert

The American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America will host more than 4,000 scientists, professionals, educators, and students at the [2016 International Annual Meeting](#), "Resilience Emerging from Scarcity and Abundance," Nov. 6-9, 2016, in Phoenix, AZ.

September 30, 2016

Parting the Clouds

Natural disasters spark positive behavior

By necessity, media sources heap layers of bad news on us, and natural disasters are certainly one part of that barrage. But underneath the headlines we often find acts of kindness, heroism, and volunteerism that take some of the edge off the tragedies. From floods in Louisiana and wildfires in California to hurricanes on the shores of Jersey, we just need to look behind the scenes to know that many citizens reach out to help others.



Farmers and livestock fighting the flood.

Recent heavy rains in north central Iowa provide an example of some silver linings that shine through in dark times. Flood damage is extensive in various communities, but throughout the region folks worked together to mitigate the effects. The largest city affected, Cedar Rapids, demonstrated [what can be done when people work together](#). Leaders, citizens, volunteers, the Army Corps of Engineers, and many others mobilized and succeeded in saving much of the community. As usual, [farmers joined in](#). One example came when 160 acres of grain were saved as family, friends, and neighbors gathered with combines, grain carts, and semitrailer trucks to harvest a field near the town of Palo. Sometimes it takes a few extra clicks on the Internet to find them, but plenty of shining stories pop out from behind the clouds.

News and Views

****Water Legislation and the Government Funding Bill:** The U.S. House passed a \$5 billion water infrastructure bill that was critical in efforts to [keep the federal government open](#).

****Politics and Agriculture:** The American Farm Bureau Federation began posting responses from the Democratic and Republican presidential nominees on a range of [issues that concern farmers and ranchers](#)--biotechnology, trade, immigration reform, regulatory reform,

Hear Them Roar

The Foundation for Food and Agriculture Research opened the [Rapid Outcomes from Agricultural Research](#) (ROAR) program, making available up to \$150,000 in matching funds per one-year grant to combat new or emerging pest and pathogen outbreaks that threaten the U.S. food and agriculture systems.

Raising a Stink

At North Carolina State University, the rare titan arum--also [known as the corpse flower](#) due to the odor of its flower--has been blooming and unfolding into a magnificent flower around three feet wide.



Hygiene Hypothesis Hype?

Research continues to claim that farm kids are healthier because of the hygiene hypothesis. Fine, but [maybe they are missing one element](#) in their studies.



CAST Social Media

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

food safety, and more.

****Fighting a Different Type of Plague:** Agriculture Secretary Tom Vilsack has been asked to oversee the administration's response to the [opioid crisis that is damaging rural America](#).

****Biotech Battle in the Rice Fields:** Frustrated by anti-science rhetoric, this expert [pushes for the acceptance of Golden Rice](#).

****The Shape of Things to Come:** Topics such as vertical farms, 3-D food printing, and insect production will shape the agricultural industry of the future, according to a [keynote speaker at the GlobalGAP Summit 2016](#). And in this article we see how [biological products offer new methods](#) of control, but they require some new-tech thinking. Note: Check out the titles in CAST's forthcoming 12-paper project--*The Need for [Agricultural Innovation](#) to Sustainably Feed the World by 2050*.

News from the Far Side of the Barn

Orange Is the New Baaaaa (video): A British farmer had more [than 300 sheep stolen](#) in three years, so he dyed his sheep orange.



I don't like orange but, hey, I'm a sheep; I'll go along with it.

Set Free the Bears (video): A [gallivanting black bear](#) took police officers on an hours-long chase around the streets of downtown Anchorage, Alaska. In a more serious tone, check out this blog about [bear bile farms--Unbearable?](#)

Snorkel with Salmon, Swim with Pigs, and Match Wits with Beluga Whales: This site lists a variety of [bizarre and beautiful water destinations](#)--all replete with some animal presence.

University Diversity News

The varied happenings at some of the nation's best ag schools

Member universities of the CAST Education Program have plenty going on--research, activities, programs. *Friday Notes* routinely includes some of these in its links throughout the year--and a few samples from this week are below.

Ag School Diversity: Kansas State's College of Agriculture appears to be filled with those who grew up on a farm, but [less than 10% of the students come from a farming background](#). As one student said, "It is crazy how

many different routes you can take in agriculture. There is something for all different backgrounds. We need more ideas, opinions, and viewpoints in a field that is working to grow and diversify for the better."

The Importance of University Research: Mississippi State University's President Mark Keenum highlighted the [important role universities and open data play](#) in addressing world hunger.

"Get Fruved": This acronym stands for "Get Your Fruits and Vegetables." It is a \$4.9 million [collaborative project among eight American universities](#), including the University of Florida. A new study shows a correlation between gardening and healthy eating.

Nailing Down That Fatty Molecule: The lipid (fatty molecule) has been hard to study because there have been no good tools for imaging where it gets produced--but Cornell [researchers have developed a new method](#).

Hydroponic Is the Tonic? Hydroponic growing systems have [more health and crop benefits](#) compared to some soil-grown foods, a University of Nevada-Reno project found.

Intelligent Grazing: This University of Arkansas professor outlines a [300-day grazing plan](#) to manage current forage resources and maximize opportunities.

Feelin' the Burn: Earlier this year, fifteen students who were enrolled in a core forestry and natural resource management class at Cal Poly [assisted with a prescribed burn](#) in the southern Sierra Nevada Mountains.



Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 horse pic from universityinny.com, flood pic from avax.news, sheep pic from cbc.ca, flower pic from interesting.wordpress.jpg, and boy pic from corbisimages.jpg. Food Sec. cereal pic from img-s.msn.com. Plant Sec. coffee pic from precisionnutrition.jpg. Inter. Sec. rhino pic from dailymail.co.uk.jpg. Gen. Sec. tractor pic from statehistoricalsociety.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Planning and Implementing Water Quality Procedures (video): This farmer tells his story of raising cattle from the top of the watershed--with help from the University of Kentucky [aq water quality plan](#).

Cooperation Is the Key: This "beef story" shows that various [segments can work together to identify and solve an issue](#) that is of importance to all, while improving product integrity and consumer trust.

Chickens and Algae: Algae-based antioxidants [might support broiler chickens](#) through mycotoxin problems and heat stress, according to these researchers.

Dreaming of Sheep (photo essay): A [sheep dairy is hard work](#), but this Alabama couple shows that it can be rewarding--and maybe even fun.

Antibiotic Use and Pork Production: The National Pork Board and Pork Checkoff joined efforts to [combat antibiotic-resistant bacteria](#) and preserve the responsible on-farm use of antibiotics.

War of Words? Antibiotics and Ag (opinion): This writer thinks anti-industry activists (example below) dominate the dialogue regarding livestock, antibiotics, and bacterial resistance. He [would like more definitive scientific assessment](#).

Antibiotic Overuse or Slanted Views? (opinion--related to above): Routinely feeding antibiotics to animals raised for food has been linked to the [surge in resistant strains of bacteria](#) that cause human illnesses.

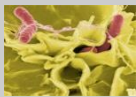
Dealing with Avian Flu: An outbreak of highly pathogenic [avian influenza in Cameroon](#) resulted in nearly 3,000 dead birds, and 100 [birds died in Taiwan](#) due to an outbreak in a backyard poultry operation.

Euro Dairies Fading Away: According to this ag group, there will be 40% [fewer dairy farms in Western Europe](#) by 2026--and global milk prices are increasing.

Tigers, Pandas, and Oryx--and More: Giant pandas and a few other [animals are fighting back](#) after being declared almost extinct.



Algae? Of course I'll eat it. I'll peck at anything except poached eggs.



Food Science and Safety News

Pumpkin Spice Fanaticism (video): Two food experts, a self-avowed pumpkin spice fanatic, and an artificial flavoring skeptic try to figure out the [best pumpkin spice seasonal specialty](#).

Airline Food--From Lindbergh to Today (video): *Bon Appétit* editors [served airplane foods of the past 10 decades](#) to a group of nervous children--with varying results.

Healthy Regulations? The FDA is [considering new regulations](#) for foods labeled "healthy" in light of changing scientific thinking about fats, vitamins, and minerals--and they ask for public input.



Wanna Eat Some Green Slime Cereal? A host of weird cereals have decorated shelves for a limited amount of time, including [these 21 failed cereal ventures](#).

From Freakies and Pac-Man to Sir Grapefellow and Quangaroos.

Cereals in Trouble? (opinion): [Global warming could threaten grasses](#)--including staple foods such as wheat and rice--that provide half of all the calories consumed by humans.

A Matter of Taste: The flavorings found in many foods and beverages [may come from surprising sources](#)--maple taste could even be from an herb called fenugreek.

Corporations, Waste, and Cattle: Leftover, damaged, or undesirable fruit, vegetables, and bakery items that can't be donated to food banks are being [delivered to feedbunks every day](#).

Universities, Waste, and Cost Cutting (video): Some university dining halls have instituted [programs to divert waste from landfills](#)--and this can also save on waste-hauling costs.

Note--Related to Above: [Access the related publication](#)--*Food Waste Across the Supply Chain: A U.S. Perspective on a Global Problem*--from CAST and the University of Pennsylvania (including Professor Zhengxia Dou who contributed to the article above and the special publication).

Organic Millennials: Millennials--perhaps the most important generation in terms of retail sales--are [big consumers of organic food and other products](#), according to this study by the Organic Trade Association.



Plant Agriculture and Environmental News

Organic or Conventional? Maybe Cooperation Is Best? (opinion): Many organic farmers say their methods [help preserve the environment](#), while conventional farmers often point at the higher yields they get.

Gene Editing: CRISPR-Cas can help develop new seeds more quickly for less cost, and big ag companies are betting that mergers will allow them to use these [powerful new gene-editing technologies](#) to fuel growth.

Rootin' Out Rootworms: Researchers have discovered a protein from a non-*Bacillus thuringiensis* (Bt) bacterium source that exhibits promise as an alternative [means for controlling corn rootworm](#).

Caffeine History: Many love the buzz, and thanks to new research we now have a better idea of [how some plants evolved to make caffeine](#).

Get Their Drift? (opinion): Herbicide spray drift from 2,4-D and dicamba [can damage wine grapes](#) planted near agronomic crops, according to a study from The Ohio State University.

Stewards of the Land: According to this article, farmers should use the "[4Rs of nutrient stewardship](#)" to improve the sustainability of their land and waterways--and to stay profitable through efficiency.

Berry Nice: Scientists have developed [two new berry varieties](#)--a blueberry and a blackberry--and recently released them to the public.

Johnny Appleseeds of the 21st Century: A third nonbrowning, [genetically modified apple has been approved](#) by the USDA.



Tell me more about the history of caffeine.



International News

EU Poultry Meat Production: The EU's [broiler sector is expected to continue its growth](#) in 2016 and 2017, and Poland seems to be leading the way.

Ag Issues Tough to Smooth Out: China has enacted new food safety laws, but the public's [hostility toward GMOs--and other simmering issues](#)--is not fading.

Would Bioengineered Horn Save Rhinos? Some think poachers would lose economic incentive if biotech rhino horns are made, while others [worry that the move might increase demand](#).

Parlez Vous Label-language? France will [test out four nutrition labels](#) for a trial period to see which is the most efficient in encouraging healthier food choices--but some cry foul in the battle of labels.

Plastic Unfantastic: France became the first country to pass a [law banning plastic plates, cups, and utensils](#) unless they contain a large proportion of compostable or biologically sourced materials.

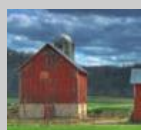
Ag Power: According to this report, Africa's [agriculture is powering economic transformation](#) in the region, although progress is uneven across the continent.

Great Danes--When It Comes to Food Waste: Denmark holds thrift, trendiness, and basic cooking skills in high regard as the [country has reduced wasted food](#) by 25% in recent years.

Blue Crab Blues: Nearly 500 [horseshoe crabs washed up dead](#) on Japan's southern beaches, mystifying experts. The famously blue-blooded creatures come to lay eggs, but this year they are dying in high numbers.



An ailing rhino getting a lift--many face poachers who kill for horns.



General Interest News

But It's Too Far for My Therapy Turkey to Fly by Itself (video): Airlines are dealing with a [variety of therapy animals brought on board](#) by passengers--dogs, cats, pigs, turtles, monkeys, and even a turkey.

Tractor Timeline: As this *History of Tractors* shows, a [culture of innovation](#) in America's farming industry took us from the steel plow blade to today's smart devices.

On a New Mission: After serving for 12 years in the army, this veteran wanted to [start a beef cattle ranch](#).

Ag Policy Wonk (opinion): This ag commentator outlines [eight ideas for improving ag policy](#) to benefit farmers, the environment, livestock, ag workers, and eaters.

CIG Program: This big ag company announced a \$1.6M investment in a collaborative effort to help farmers better understand and adopt farming practices that [help reduce climate change impacts](#).

Wings of an Eagle? Wind turbines are known to [kill some large birds](#), and this research says the effects are even wider spread than originally thought.



Steampunk--old school tractor style.

Aw Nuts--Where Did I Leave Them? This research team worked to unravel the mystery of [how ground squirrels remember](#) where they've stashed their food--using, as it turns out, the position of the sun.

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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- * American Society of Agricultural and Biological Engineers
- * American Society of Agronomy



- * American Society of Animal Science
- * American Society of Plant Biologists
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