

Friday Notes

Council for Agricultural Science and Technology

ICAST

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.

February 24, 2017

Food Security--Looking Ahead

Food production works on a "micro scale." Seeds need planting, animals need tending, and agriculture relies on the millions who do the pragmatic tasks. On a "macro scale," we get thousands of reports, predictions, laws, regulations, debates, editorials, and other forms of input that are less specific--but often necessary.



The USDA [Agricultural Outlook Forum](#) meets on Feb. 23-24 in Arlington, Virginia. With the theme "A New Horizon: The Future of Agriculture," participants consider broad issues including economic implications of policies and programs affecting the U.S. food and fiber system. Links for [Friday sessions are posted here](#).

Taking an even larger scope, the U.N.'s Food and Agricultural Organization is warning that mankind's future [ability to feed itself is in jeopardy](#) due to intensifying pressures on natural resources, mounting inequality, and the fallout from a changing climate.

Committees will be formed, laws will be passed, negotiations will be debated--and people around the world will work on the daily tasks of tilling the earth and putting food on the table.



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More Than a Nemo Thing



These underwater pics were selected as the [Photographs of the Year](#)--and they will make you want to get your snorkel and mask out.

Agriculture--Food for Life

This site provides the [latest about National Ag Day](#)--March 21, 2017.

Water and Food Security

Registration is open for the 2017 [Water for Food Global Conference](#)--

April 10-12 at the Nebraska Innovation Campus. The three-day event will include experts from around the world.

News and Views

****Agriculture and Trade:** As the Trump administration signed a memorandum to drop out of the Trans Pacific Partnership and made plans to renegotiate the North American Free Trade Agreement, these ag business leaders--and others--stressed the [importance of trade for agriculture](#). Note: Click here for a free download of CAST's recent [commentary about trade and biotech crops](#).

****Science March:** Some scientists are debating [whether or not to support a march](#) planned for April 22 in Washington, D.C.--designed to take a stand for the importance of public policies based on science.



Barrels, Broncs, and Bulls

These Texas A&M [rodeo performers](#) [went for it all](#) and won big at RFD-TV's American Rodeo.

Students Visit Vietnam

Ten Cornell students spent two weeks of their [winter break in Vietnam](#), listening to farmers and community members and seeing the effects of climate change firsthand.

Smart Farm Initiative

USFRA's new 360-degree video utilizes a virtual reality headset so visitors will have a chance to [experience life inside an Illinois pig farm](#)--from the beaches of south Florida. Virtual smell included?

A Boost for Bees

The Foundation for Food and Agriculture Research is committing \$10 million toward [reversing the decline of the pollinator population](#) in the United States.



CAST Social Media

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

****Sugar Taxes:** Seattle has become the [newest front in the war over soda taxes](#). If the mayor's plan goes through, the city would join San Francisco and Philadelphia in using such measures.

****Biotech Backer:** This University of Florida Ph.D. student specializes in molecular genetics and plant biology--and he believes GMOs are [safe, healthy, and more ethical than ever](#).

****More Than Facts Alone?** When it comes to controversial science issues, scientists need to [rethink their approach to engaging the public](#), according to the authors of this Australian study.

News from the Far Side of the Barn

Funny Bones in the Animal

Kingdom: These photographers [show a side of the animal kingdom](#) many of us rarely see--with a bit of humor as the theme.



A croc-meets-Croc moment.

Cat Power

(video): This [cat saves a puppy](#) that was trapped in a construction ditch--although we don't see what happens after the rescue. Speaking of felines, some say [cats might have olfactory potential](#) when it comes to sniffing out missing persons, bombs, drugs, and diseases.

They Won't Win Any Beauty Contests (video): Using its ultra-strong jaws, the Humphead [Parrotfish can eat coral reefs](#) and rocks. It then defecates sand that eventually adds to the beauty of tropical beaches.

More Than Wearing a Blue Jacket

National FFA Week Highlights Year-round Activities

As [National FFA Week wraps up](#), check some of the ways local, state, and national participants have been involved--the organization impacts members on a daily basis. Long-term programs are also important--the [National FFA Agriscience Fair](#) recognizes student researchers studying the application of agricultural scientific principles and emerging technologies in agricultural enterprises. Open to middle and high school students, participation begins at the local level and progresses to state and national levels.

This Kansas FFA member wrote a blog about a group experience in which they were asked to look at a series of pictures and determine what they saw. It turns out that each picture contained two images--it was reflective of a [larger matter of perspective](#).

This Ohio State University junior is studying agriscience education. Inspired by his FFA experiences, he hopes to return home to be an agriculture education teacher in southeastern Ohio. "My [ag teacher has had a huge impact on my life](#). I hope that one day I can be there for future students who want to succeed."



Drive (or pedal) your tractor to school day.

how to tie a tie.



Old? Young? An FFA group looks at perspective.

The USFRA website highlights this National FFA member's essay. She says the organization is more than wearing a blue jacket--[it becomes part of who you are](#). It represents what you stand for and where you are going. "I give credit to FFA for making me a farmer and leader with spirit."

Read about why the Indiana State FFA treasurer says FFA Week is a time when he connects with a wide variety of people to [explain exactly what FFA is and the benefits it can provide](#) to students and their communities.

This university student uses her farm background and FFA experiences to look at the [top 10 ways FFA helps turn youngsters into adults](#), from keeping records to seeing the world--oh yeah, and learning

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 fish pic from [quinlin.digg.com](#), food globe pic from [nutritionforthehealthofit.com](#), hands pic from [zipcar.com](#), and croc pic from [dailymail.co.uk](#). P. 2 tractor pic from [franklinfavorite.com](#). Animal Sec. Grandin pic from [d.umn.edu.jpg](#). Food Sec. cartoon from [twitter.com](#). Plant Sec. student pic from [cbconline.com](#). Inter. Sec. tomato pic from [hungryforever.com](#). Gen. Sec. map from [agripulse.com](#). Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Like Father, Like Son (video): This youngster seems as [enthused about animals](#) as his famous father was--Steve Irwin's son visited the *Tonight Show* armed with an armadillo, a boa, and a dwarf crocodile.

Award for Animal Specialist: Temple Grandin, a Colorado State Univ. professor of animal sciences and world-renowned autism spokesperson, was named to the [National Women's Hall of Fame](#).

Feral Hog Apocalypse? (update): Texas officials [consider poisoning wild pigs](#), but hunters and conservationists are afraid other animals may be exposed to toxin.

Chickens and Antibiotics: Tyson Foods announced that it will [eliminate the use of all antibiotics](#) from its chicken carrying the Tyson brand sold at retail--starting in June. The company points out that "sick chickens" will be treated.

Hands-on Experience: At Kansas State's Beef Cattle Research Center, students [experience hands-on learning](#) and gain knowledge from researching operation systems.

Biotech Hog Breeding: Gene-editing techniques may help to [enhance stocks of swine](#) by boosting supplies of sperm from prized sires, joint American and British research has shown.

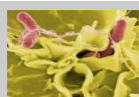
Say Cheese? Some folks are hoping that fancy cheese might [save certain small-scale dairies](#).

Sheep Milk: This report says [sheep milk has significant but neglected potential](#) for use in functional foods, with some suitability regarding probiotic and prebiotic applications.

Pig Virus Research: Scientists from several universities describe the novel type of porcine circovirus called PCV3--and they look at related strains. [Research links are provided at this site](#).



Teacher, celebrity, and renowned animal specialist Temple Grandin. She readily gives [her opinions about animal production and welfare](#).



Food Science and Safety News

USDA Sponsors Fight against *E. coli* (video): Shiga toxin-producing *E. coli* is rare, but it can be deadly. This Univ. of Nebraska clip explains how [researchers are joining to identify and wipe out the strain](#) in beef.

Food Label Follow-up (video): The nation's food industry announced plans to cut through the food label confusion with easier-to-understand language--and it will soon be [coming to a grocery store near you](#).

Related to Above: [Click here to access the CAST Issue Paper](#) Process Labeling of Food: Consumer Behavior, the Agricultural Sector, and Policy Recommendations.

Eggs--Refrigerate or Not? Why do most Americans store [eggs in their refrigerators](#), while consumers in Europe and Asia leave them out in bowls on the counter?

Killing Norovirus: Researchers are trying to zap norovirus on fresh lettuce [with blasts of ionized gas](#).

You're Old? You Are What You Eat: Older organisms have more molecular damage, and some think they [might cause an animal to age faster](#) than one that eats younger organisms with less molecular damage.



UC-Davis food safety expert Carl Winter fights food toxins with humor--check out [his videos here](#). Dr. Winter was the [2012 BCCA winner](#), and he is currently a task force chair for a CAST Issue Paper.

Olive oil shortage? Spain, Italy, and Greece produce the bulk of the world's olive oil, but erratic weather, fruit flies, and bacteria [have damaged crops](#).

Detergent Foods: This dentist office blog lists [eight foods that help clean your teeth](#)--apples and carrots made the grade, but apparently black licorice did not!



Plant Agriculture and Environmental News

Corn, Radiation, and Food on Mars: This ISU student is trying to prove that [growing food on Mars](#) is not as far-fetched as it might seem.

Rooting out Arsenic: Scientists have identified enzymes that [help rice plant roots tame arsenic](#), converting it into a form that can be pushed back into the soil.

Editing Our Veggies: This expert spoke about the promise of the CRISPR-Cas9 gene editing technology as a way to both [boost supplies of vegetables](#) to consumers and increase the nutrition that diners get from those vegetables.

Predicting Pesticides: This Mississippi State publication helps farmers [estimate the performance of various insecticides](#) on cotton, soybeans, corn, peanuts, and other crops.

Plant Utility: This University of Kentucky graduate student is researching [ways to find an efficient, sustainable method](#) to produce biofuels and chemicals from plants that we cannot eat.

Soil Restoration: This report looks at the [complicated nature of soil restoration](#) and says that, in some situations, even small soil health improvements from a single year of cover cropping might impact yield.

Spinach in the Lone Star State: Research at Texas A&M could help re-establish the Texas Winter Garden as one of the [premier areas for spinach production](#)--including organic varieties.

Carolina Soybeans: This look at North Carolina soybean yields suggests that--when it comes to seeding rates--narrow rows are better, and fungicides have a place in the [high-yield soybean system](#).



Not up to Matt Damon standards yet, but research continues on Mars food.



International News

Tie Me Goanna Down, Sport (video): An unexpected visitor showed up at a local Australian restaurant, but it was [no match for a feisty waitress](#).

A Fun Way to Make Tomato Sauce (video): A [tomato war](#) happens every year in this part of Chile.

Fighting Tooth and Nail against Foot and Mouth: South Korea plans to set up a plant to [manufacture a locally developed foot-and-mouth vaccine](#) by 2020 as part of the efforts to combat outbreaks of the viral animal disease.



I'll never drink tomato juice again.

Rural China Reforms (opinion): This writer contends that [one way to unleash the economic potential of rural China](#) is to implement reforms that encourage farmers to take out mortgages.

Cowpea Breakthrough: Sub-Saharan African farmers will soon have [access to improved cowpea varieties](#) that will lead to increases in yield.

Flu Threat: France's agriculture ministry ordered 600,000 ducks in a key poultry-producing region slaughtered to [stem an outbreak of bird flu](#)--the virus does not transmit via food and is harmless to humans.

How Do You Say "Y'all" in Spanish? A Spanish and American partnership has invested much time and money in a [project to raise the famous black-footed Iberico pig](#) on Georgian grasses and nuts.

India's Johnny Appleseed: Once ridiculed, this man in India spent fifty years planting trees and [changing barren land to something beautiful](#)--and now the government has honored him for his efforts.



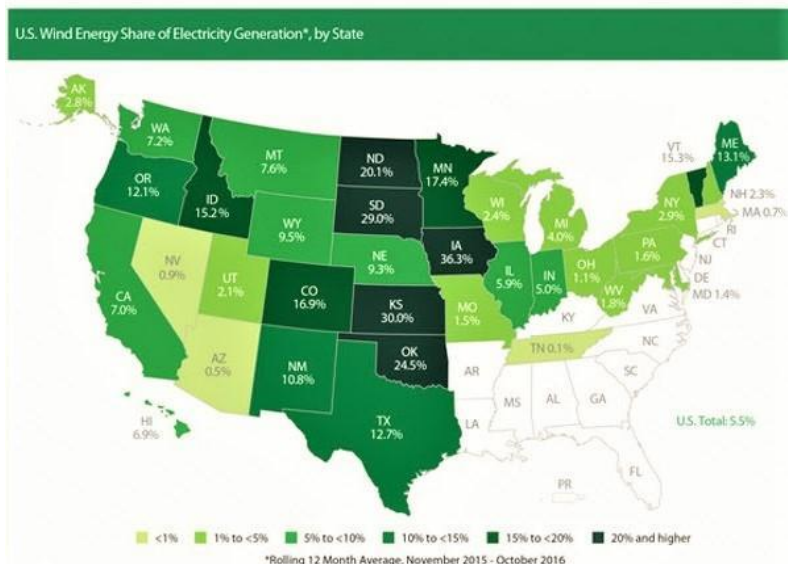
General Interest News

Tiger Versus Drone (video): These Siberian Tigers decided a hovering [drone had hung around long enough](#), so they did something about it. Note: check [this blog for more drone links](#) and a look at life before drones.

Wind Gusts: American wind power just achieved its [second strongest quarter](#) ever for newly installed energy-generating capacity, according to the American Wind Energy Association.

From Photovoltaic Paint to Thermal Fuel: The [future of solar power](#) technology is bright, according to this report.

Business Stinks! This woman says the USDA is sponsoring a blog that captures stories of "amazing women in agriculture." Her tale is about marketing a nutrient-rich, [biodegradable seed pot made from manure](#).



Farm Numbers: The USDA says there were 500 fewer farms in Iowa last year and the average farm size rose slightly, but the amount of [total land in farms remained about the same](#). Similar trends were reported in Nebraska and nationwide.

Health and Poverty: A Kansas State study adds to considerable evidence that [links poor health to low income](#), low educational attainment, and poverty--which is higher in rural areas.

Look--No Hands! No Anything? (opinion): This article says that [autonomous equipment offers hope](#) for ag labor needs.

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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Note: WinField Solutions (Land O'Lakes) provides sponsorship for the distribution of *Friday Notes* to the National Association of Agricultural Educators.

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), Hannah Pagel (Student Administrative Assistant), and Mikayla Dolch (Student Administrative Assistant)**