

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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Ready for a Move?

Some scientists think a [potentially habitable planet about the size of Earth](#) is orbiting the star that is nearest our solar system.



Bioscience Conference

The Agricultural Bioscience International Conference is [celebrating its 20th anniversary](#) at an

international event in Fargo, North Dakota--Sept. 18-21. Speakers include [Kevin Folta](#), the 2016 Borlaug CAST Communication Award winner.

Annual Meeting

The American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America will host their [International Annual Meeting](#), "Resilience Emerging from

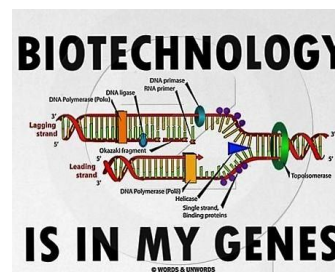
September 9, 2016

Biotech and Ag

Updates and Insights

With gene editing, biotech labeling, and other issues regularly in the headlines, we'll check on a few recent articles.

For the first time ever, plants modified with the "genetic scissors"--CRISPR-Cas9--have been [cultivated, harvested, and cooked](#). It is difficult to keep up with the biotech scene, so we recommend following [Alison Van Eenennaam's Twitter site](#). The UC-Davis researcher/teacher/communicator won the [2015 Borlaug CAST Communication Award](#).



CAST looked at the impacts of biotech label laws by publishing two respected research papers: one about [process labeling](#), and one examining the [impacts of mandatory labeling](#).

On the legal scene, disputing parties in the [Vermont GMO labeling lawsuit](#) agree to dismissal.

And in an editorial about the national labeling law, this writer says, "Clearly the uniform standard to be created by the new [federal law is a far superior alternative to the patchwork of state legislation](#) that developed in its absence. The new federal law, however, is not without its faults."

This editorial [encourages consumers to trust science](#) and read labels carefully--maybe even skeptically.

News and Views

****Report on Hunger:** The number of U.S. [households where people do not get enough to eat](#) dropped significantly last year, but the level of food insecurity still remains higher than before the 2008 recession, according to a USDA report.

****Comments about Hunger and Economics:** Agriculture Secretary Tom Vilsack issued a [statement about the food security report](#), and he

Scarcity and Abundance," Nov. 6-9, 2016, in Phoenix, Arizona.

Best Food on Campus?

Princeton Review deemed 20 colleges throughout the United States to have [the best campus dining food](#). The University of Massachusetts-Amherst apparently has the top fare.

USFRA Contest

The U.S. Farmers & Ranchers Alliance announced the finalists of its third class of [Faces of Farming and Ranching](#), a nationwide search to help put real faces on agriculture.

Snapchat and Twitter on the Old School Bus



The yellow school bus rolling along dusty rural roads had its

own types of [social media way before the digital age](#).



CAST Social Media

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

also spoke about the [positive economic trends and challenges](#) in the overall rural recovery.

****Farm Loans:** The USDA approved an additional \$185 million in [grants for the Farm Service Agency \(FSA\) to fund operating loans](#)--they are in high demand because of the current farm economy.

****Ag in the Schools:** The Kenyan cabinets of agriculture and education are teaming up to promote the concept of [making agriculture a compulsory subject](#) in both primary and secondary schools.

News from the Far Side of the Barn

The Fox and the Lions (video): A small, wounded fox is no match for a large, male lion--[unless the lioness steps in](#).

Macrophobia--Fear of Long

Waits (video): These tips are for those who have stood in long lines at grocery stores, supermarkets, banks, or anywhere else. The experts claim they can [pick the line that will move the fastest](#).

Yeah, sure. Check out the "cute" video at the bottom of the article.



They must be waiting for Godot.

It's Time for Them to Fly: These time-lapse [clips follow a pair eagles](#) over a two-month period as they grow from hatchlings to adult birds ready to leave the nest.

The Things I Learn in College

*From gene editing to "donating a proton,"
a look at research, activities, and fun on campus*

****Three graduate students from UC-Davis** wrote, filmed, edited, and produced a 3-minute video about gene editing entitled ["Can't Stop the Feeding"](#). It is an entry in the [World Food Day Video Challenge](#).

****If Ferris Bueller went to college**, we can only hope he'd have days like this. As this video shows, an Ohio State University [student has become a hero](#) after earning his whole class a 100% on their first organic chemistry quiz with one sweet paper ball throw.



Which university would Ferris attend?

****A 26-year-old from Brooklyn** runs the [first commercial farm in an NYC residential development](#), and she formed a base for her work while studying at the College of Agriculture and Life Sciences at Cornell University.

****This 2016 [cotton production update](#)** from the University of Arkansas looks at the approaching harvest.

**Texas [retailers want locally grown produce](#), and Texas A&M AgriLife has been working to make that happen.

**The University of Kentucky is teaming up with a [hemp research, development, and processing](#) company to do research that might make the crop more commercially viable.

**University of Florida researchers claim they have a better way to assess the [potential impacts of low doses of man-made chemicals](#)--like pharmaceuticals and personal care products--on water bodies and their ecosystems.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 space pic from media.npr.org, school bus pic from schoolbusdriver.org, biotech graphic from zazzle.com, and the line pic from chinasmack.com. P. 2 Bueller pic from ferris2.jpg. Animal Sec. pig pic from pbs.twimg.com. Food Sec. t-shirt pic from cafepress.com. Plant Sec. cucumber pic from funisforfree.com. Inter. Sec. eating pic from npr.org. Gen. Sec. woman pic from cattlennetwork.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Hog Production Experts: This interview with a [nominee for Pig Farmer of the Year](#) explains how they provide sows with a clean, comfortable environment. Links to the other nominees are available at this site.

Raising a Stink (video opinion): Some of the [sharpest opposition to hog confinements](#) in Illinois comes from lifelong farmers, small-town residents, and rural township commissioners.

Quality and Sustainability (video opinion): This site [claims the factory farming label is misleading](#)--the livestock growers' community includes dedicated people from many sectors of society.

Playing Chicken with Trade Talks? The [impasse over imports of poultry](#) from the United States to India continues despite expectations that trade talks between officials of both countries would end it.



Smells OK to me.

Now You See 'Em, Now You Don't: According to a U.N. agency, close to 17% of the world's [livestock breeds face extinction](#). Many are indigenous, with Africa as home to more than 150 cataloged breeds of cattle.

Hot Air, Or? A study using cows in glass boxes to measure their emissions found that [their methane emissions can be linked to genotypes](#)--this might speed up the breeding of more climate-friendly cows.

Ducks, Geese, or Both? This farmer raises ducks and geese, and he says [both species are serving the farm](#) in their own unique ways.

Head 'Em Up--The Wild West: [The Chisholm Trail](#) will honor its 150th anniversary beginning with a celebration in the town where it really all began--Abilene.

"Helicopter Parents" for Pets: Pet wearables and gadgets allow pet owners to not only watch, but now "gamify" and [even Skype their animal companions](#) while the house is empty of humans.

Safe--But? A Texas company charges \$21,000 to clone a bovine female and \$23,000 to clone a bull. The FDA rules the practice is safe for human consumption, but the [process has not become popular yet](#).

Be Precise: [Automatic data acquisition](#) on an individual level allows producers to know more about what each animal eats and how it grows--leading to targeted and precise feeding and nutrition management.



Food Science and Safety News

Food Prices Falling (video): American shoppers are enjoying what could be the longest streak of falling food prices in a half century. [Good news for consumers but not so for farmers](#).

The High Cost of Norovirus: Although it is emerging as a significant cause of foodborne disease around the world, [the true cost of a norovirus outbreak](#) is rarely appreciated.

"Steaking" a Claim (video): If you don't have a grill, or don't feel like going through the trouble of setting yours up, never fear. This site claims you can make a juicy, [delicious steak right on your stove top](#).

Carb Taste? Scientists have discovered a potential "[sixth taste](#)" to add to the ranks of sweet, salty, sour, bitter, and umami.

Pistachio Problem: The USDA says that the United States, one of the world's two main pistachio producers, will [cut the harvest by nearly half](#) this year, due mainly to California's punishing drought.

Babies, Fiber, and Heart Health: Consuming [more dietary fiber as a baby](#) could lead to better cardiometabolic health later in childhood.

Door Opens for Probiotic Intervention? Gut bacteria is likely to play a [role in the immune recovery](#) of HIV patients, according to this study.

Digging Up Menu History: Archaeological evidence shows that [ancient people in Alaska regularly ate salmon](#), just as their dogs did--and sometimes the dogs wound up on the menu.



Wanna see my holiday photos?
They're in technicolor!



Plant Agriculture and Environmental News

Building a Better Cucumber Farm (video): A [machine helps sort veggies](#) so farmers can focus on more important work.

Corn Disease: Bacterial leaf streak is starting to affect U.S. cornfields, and according to this expert, the disease is so new that it is [unclear whether or not it will pose a threat to yields](#).

Soil Sampling Renaissance: This Kansas State University agronomist says the quality of soil test data may be [more important now than ever](#) as farmers suffer through the current low profit margins.



Creative Cucumbers

Cover Crops: Planting small grain cover crops during late summer or early fall is becoming a more common and accepted practice, but some worry about the [accumulation of high levels of nitrates](#).

Public Plants Anyone? When "Wildman" Steve Brill hankers for a fresh meal, he heads to one of New York City's public parks and [picks a feast of edible plants straight from the ground](#).

Magnetic Resonance Imaging: Knowledge of [how plant roots grow](#) in their natural environment--soil--is vital to find plant genotypes that have improved yield or survival rates under stress.

Oregon Buzz: For the first time in the United States, [pot plants were shown at a state fair](#).

Plants vs. Oil: Hairy-leaved plants that selectively [soak up oil while repelling water](#) could inspire more efficient environmental remediation.



International News

Global Seed Vault (video): In the Arctic Circle, the [Svalbard Global Seed Vault](#) is not waiting for doomsday, but it is a secure backup for crop diversity--and [this video provides a rare look inside](#) the vault.

Shake Shack Fever: Since opening its first outlet in Seoul's Gangnam District--known as the city's Beverly Hills--the [American burger chain](#) Shake Shack has attracted incredibly long lines of people.

Nokejo--Women Studying Ag: More Japanese women are majoring in science at universities, and the [proportion of female students at agricultural high schools](#) is approaching 50%.

The Elephant Not in the Room: The Great Elephant Census shows that the [number of African savanna elephants has declined](#) by 30%.

Trickle Down Theory: At this demonstration in India, scientists emphasized water conservation for agriculture--such as [micro irrigation systems like drip irrigation](#) and sprinklers to grow crops.

Chicken Welfare: Chinese officials are making recommendations to producers about the [way chickens are treated in their final hours](#) before being butchered--"comfortable and relatively stress free."

Chicken Trade (related to above): A Chinese ban on U.S. breeders launched in 2015 in response to the avian influenza outbreak [threatens chicken supplies](#), according to a report from Reuters.

Africa Blooming: A decade of attention to farmers and food production has generated "[the most successful development effort](#)" in African history, according to a report from the Alliance for a Green Revolution in Africa.



Photo share your food--foodstagramming in South Korea is called *meok-stagram*.



General Interest News

Brave New Ag World (videos): This [driverless tractor relies on remote control, sensors, and autonomy](#). In one linked video, it detects an obstacle and alerts the farmer, who then steers it clear of the pole in its path.

Women Running the Farm (video): The last census by the U.S. Department of Agriculture reports that 14% of primary farm operators are women--[twice as many as the amount 20 years ago](#).

Government Programs for Newbies (video): The USDA provides advice and funding possibilities for [beginning and veteran farmers and ranchers](#).

They Are What They Eat (video): Take a peek at four animals that get their [coloration from the food they eat](#).

Pipeline Confrontation: A federal judge declined to halt construction on a part of the [Dakota Access oil pipeline route](#) that the Standing Rock Sioux Tribe identified as sacred burial ground.

Good News, Bad News: The collapse of corn and soybean prices makes it harder for beginning agriculturalists, but [some see opportunities for new farmers](#).

Coastal Research: As climate change transforms the state's coastline and marshes, Mississippi State University scientists are keeping tabs on [birds that are vulnerable](#) to shake-ups in their nesting grounds.



[Check out the FarmHer site](#) for information about various projects and media events.

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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