

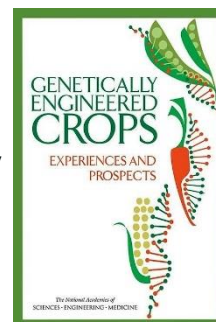


*Friday Notes* is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible, unbiased, science-based information. Material contained in linked articles is from the original authors and does not necessarily reflect the views of the CAST organization.

May 20, 2016

## The Buzz about a New GMO Report *Safety, Productivity, Regulations, and More*

The National Academies of Science promoted scientific study, rational debate, and further research by releasing an insightful study regarding GMO crops and food. The experts stated that biotech food is safe to eat but not necessarily a silver bullet to feed the world--not yet anyway. They also made statements about the environment, herbicide-resistance, and food labels--but as with all the findings, a reader would be best served by examining a variety of comments--and [the report itself](#).



\*\*The report says biotech food is [safe to eat but other issues](#) need to be addressed, including earning the public's trust.

\*\*The academy committee was chaired by North Carolina State's Fred Gould. [In this interview, Gould](#) emphasizes that the most efficient way to improve and stabilize crop yields will involve a combined approach using biotech and conventional methods.

\*\*Three [other members of the committee comment here](#), with a key theme that discussions need to move past broad pro/con statements to address the complexities of this fast-evolving field.

\*\*The study's authors said [labels are not needed for food safety reasons but](#) potentially could be justified because of transparency, social, and cultural factors.

## News and Views

\*\***On the Menu:** The U.S. House of Representatives Education and Workforce Committee [backed a bill that would scale back](#) the number of students receiving free or reduced-price meals and some nutrition rules championed by the Obama administration.

\*\***Corporate Moves:** German drug and chemicals-maker Bayer [made a takeover bid](#) for agricultural giant Monsanto in a deal that could create the world's biggest supplier of seeds and pesticides.

### In This Issue..... Click to Read

[Summertime and the Students Are Busy--P. 2](#)

[Animal Agriculture News](#)

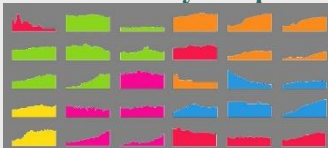
[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)

### Food History Graphs



Scroll down to the Food Section for some cool interactive charts in the "Changing American Diet" link.

### Top 50 Food Questions

CAST's [series of 50 informative, entertaining 90-second videos](#) focuses on important food information. This week's featured topic is *What Exactly is Organic Food?*

### AgProfessional Day

Several [Farm Journal College events](#) are scheduled for this summer, and the new one is the AgProfessional Day--July 18 in Heyworth, Illinois.

### Baked Bread Smells Good in Any Language

Store-bought loaves are available around the world. But, as this blog explains, the [reasons for baking bread](#) stretch across continents.



### Hands-on Cattle Education

The 2016 [K-State Cattle Feeders College](#) will occur May 24 in Garden City, Kansas.

### Big on Pork

The 2016 [World Pork Expo](#) will take place June 8 in Des Moines, Iowa. It is the world's largest pork-specific trade show.

### Squirm with the Worms

NC State offers a [conference about earthworm farming and commercial vermicomposting](#) taught by industry experts for beginners or seasoned earthworm farm operators--June 2 and 3 in Raleigh, North Carolina.

### CAST Social Media

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

**\*\*Building Smart Ag:** Agriculture Secretary Vilsack announced the first results of the USDA's [Building Blocks for Climate Smart Agriculture and Forestry](#)--and a new \$72.3 million investment to boost carbon storage in healthy soils.

**\*\*More USDA Funding:** NIFA announced that \$130 million in funding will be made available for education, research, and extension projects that seek to [improve plant and animal production systems](#).

## News from the Far Side of the Barn

### Out on a Limb for Beauty

(video): This [expensive beauty product](#) sells for as much as \$300 a liter, but it is actually the "end product" of tree-climbing goats.



### Sheep Thieves and Police

Humor: Suspected sheep thieves were in custody after the animals were discovered in the back of a truck; the [police blurred the wooly faces](#) to conceal their sheepish identities.

**Slow but Deadly (video):** As this short clip shows, it literally sucks to be the [little fish in a cone snail's world](#).

## Summertime

*the livin' may be easy but students are busy*



Even though 2016 is the 30th anniversary of the release of *Ferris Bueller's Day Off*, we realize most students enter the summer focused on jobs, courses, or other opportunities to gain experience, money, and knowledge. CAST's mission includes a desire to communicate ag/science information to young agriculturalists, and we encourage students to continue using the organization's resources throughout the summer. They can access papers, videos, and links to social media at CAST's [home website](#), and *Friday Notes* will continue to be forwarded to the usual education outlets.

CAST sends out congratulations to graduates and a happy summer message to all--including agricultural educators, students, FFA members, the National Association of Agricultural Educators, and the 14 universities in the CAST Education Program.



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## Ag, Youth, and Optimism

According to this university article, the [future of agriculture lies with a wave](#) that goes by many names: young blood, new crop, a generational turn. Whatever they're called, they seem confident agriculture will give them satisfying, enduring careers. Even though ag jobs are diverse and may be found in many places, this AgCareers.com report indicates the states and provinces with [the most agriculture jobs posted](#) last year by employers.

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 chart from graphic.png, report cover from sciencebasedmedicine.ag, goats from cbsnews.com. Animal Sec. student pic from brianball.thehorse.com. Food Sec. grocery pic from aisle.jpg. Plant Sec. plant pic from digg.com. Inter. Sec. selfie from uwa.edu.au. Gen. Sec. robot pic from theland.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



## Animal Agriculture and Environmental News

**Pig Farming "Legends" (video):** These guys have been farming for decades and their [passion for pigs is obvious](#). In this clip, they also open up about hog production insights and some of their other interests.

**Ag Antibiotics and Homeopathy (opinion):** Ag specialist Jude Capper considers the concern about bacterial-resistant antibiotics, the search for alternatives, and the [importance of biologically sound methods](#).

**Multiple Antibiotic Resistance:** Michigan State University researchers uncovered a troubling [trend toward multiple antibiotic resistance](#) in concentrated animal feeding operations.



**A Day in the Life of an Equine Veterinary Student:** Follow [fourth-year veterinary student](#) Hayley Rasmussen-Ball of Washington State University's College of Veterinary Medicine through a typical day.

**Cattle, Horns, and Biotech:** An article published in this month's *Nature Biotechnology* journal reports about the precise [genetic dehorning of dairy cattle](#) using TALENs.

**Antimicrobial Regulations:** The FDA last week issued its final [rule on annual reporting requirements](#) for drug sponsors of all antimicrobials sold or distributed for use in food-producing animals.

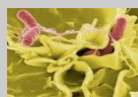
**Five Opportunities to Optimize Gut Health for Poultry:** One of the most [common intestinal diseases](#) in both conventional flocks and flocks raised without antibiotics is necrotic enteritis.

**Could Be a Grind:** The new rule 79 FR 42464 will be in full effect starting on June 21 and will [alter the way facilities](#) manage the beef grinding process.

**Tale of Tails (video):** This *National Geographic* list describes [animals that have the longest tails](#)--including the lizard that can "walk on water."



Hayley's dream job includes a gassy horse, a sick baby camel, a pet yak with bladder stones, a fawn with a broken leg, and a few cows with mastitis.



## Food Science and Safety News

**Sell By, Use By, and Lose By (opinion):** Food expiration dates and labels can be confusing, and premature tossing of edible food [contributes to waste in various ways](#) (see two related links below).

**Widespread Waste:** CAST and the University of Pennsylvania offer a free download for members of the impressive book, [Food Waste Across the Supply Chain: A U.S. Perspective on a Global Problem](#).

**Listeria Hysteria:** How much [should you worry](#) about the flurry of food recalls?

**Fat Chance--Really!** A new study finds the dairy fats found in milk, yogurt, and cheese [may help protect against Type 2 diabetes](#)--and possibly help control body weight.

**Read--but Understand?** According to this FDA survey, 50% of U.S. adults [read the nutrition facts label](#) "always" or "most of the time."

**The Changing American Diet:** This interactive chart is a [time sequence for major food items](#) (1971 to present), based on their ranking in each group during a given year.

**You Are--and Look Like--What You Eat:** Nutrition, not genetic differences, [may control human appearance](#) and certain physical traits, a U.S. study indicates.

**New Performance Enhancer in High School Sports?** Sports nutritionists concede that getting kids to eat healthfully remains a struggle, but they are [making some advances](#).

**Canned Edible Evolution:** In 38 pictures, see the fascinating [evolution of canned food and drink](#).

**Texture, Flavor, Color?** Our food preferences are personal, but scientists have tried to figure out why some people are so [picky about the things they eat](#).



Maybe it could just say "eat this" or "avoid at all costs!"



## *Plant Agriculture and Environmental News*

**Lightning and Plant Growth (videos):** The rain, of course, provides a key ingredient for plants and flowers to prosper, but [lightning also plays a role](#).

**Canola Crop? (video):** Texas A&M AgriLife Research is conducting [several studies on canola](#), as wheat producers consider it for crop rotations.

**Up a Tree--in a Good Way:** Agroforestry--the use of trees in farming--benefits both farmers and the environment. According to a recent report, forests contribute to the [livelihoods of more than 1.6 billion people](#).

**Carnivorous Plant Has Style (video):** The Cape sundew has a slow, artful manner in its [ability to dispose of insects](#).

**Untangling the Maize Gene Maze:** In a landmark finding, Cornell and Florida State University researchers report they have identified 1 to 2% of the [maize genome that turns genes on and off](#).

**Orange Comeback:** According to a USDA crop estimate, [Florida oranges are climbing back](#) despite the monumental challenge posed by citrus greening.

**Biofuel Sustainability in the Aloha State:** A biofuels plant in Hawaii receives the first United States-based [certification of sustainability](#).

**Biotech and Crop Disease:** Scientists have created three genetically modified crops to [combat troubling plant diseases](#). Each was tweaked in a slightly different way to be resistant to those specific diseases.



More entertaining than the usual fly swatter.



## *International News*

**Tomatoes in My Cubicle (video):** In one of the most crowded cities of the world, this company gives up 43,000 square feet of valuable [work space to grow food](#)--from fruit to vegetables to rice.

**Cassava Warriors (video):** These researchers are working on a cassava plant that is [resistant to viruses](#) and whitefly in hopes that will help to end extreme poverty there.

**Water Worries (video opinion):** A World Bank report says water scarcity and climate change could hinder economic growth, spur migration, and spark conflict. However, most countries could [neutralize some of the adverse impacts](#).



Selfie time for the Cassava Warriors.

**Restricting Antibiotics:** The British government is expected to [ban the preventative use of antibiotics](#) in animals to tackle the growing problem of drug resistance.

**Food Costs on the Rise:** The Food and Agriculture Organization reports that global [prices of key food staples rose](#) for the third consecutive month in April, after four years of previous decline.

**Honeybees and Elephants:** Biologists in Kenya have discovered a [deliciously ingenious method](#) of balancing the needs of farmers, bees, and marauding wildlife.

**Agriculture Is Life:** According to this report, 70% of Africans [make a living through agriculture](#), and technology could transform their world.

**Dry Creep:** Creeping [desertification in China](#) is swallowing thousands of square kilometers of productive soil every year.



## *General Interest News*

**Sad Song of Fire and Ice (photos and video):** Canadian [wildfires have been out of control](#), with more than 1,370 square miles torched so far. And this clip shows how Alberta's wildfires took a [sudden shift toward major oil sands plants](#).

**Trying to Survive the California Dry (videos):** The small town of Stratford has been [plagued by drought for years](#). The citizens just don't know what to do anymore.

**Water Regulations (related to above):** California recently [suspended its mandatory statewide](#) 25% reduction in urban water use.

**Thomas Jefferson, Agriculture, and Micro-climates:** One of America's Founding Fathers was also a [founding farmer and weather pioneer](#).

**Aussie Ag-bots:** Farm robots are getting smaller and cleverer, with [autonomous machines able to count fruit](#) on trees, spray weeds, and even herd cows.

**Robots, Drones, and Precision Ag:** Growers continue to move further into the realm of [high technology down on the farm](#).

**Agrihoods Take Root:** Feeding off the continuing interest in eating fresh, local food, developers are ditching golf courses and [designing communities around farms](#).



How do you say "moo" in robot speak?

**Eating Your Lawn:** This Florida man is working on a project that is turning his neighbors' [lawns into working farms](#).

**Indianapolis 500 Milk Woman:** Check out an interview with Janet Dague, a dairy farmer who will hand a bottle of [ice-cold milk to the winner](#) of the 100th running of the Indianapolis 500.

## **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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