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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 CAST.

#### In This Issue..... [Click to Read](#)

[Biotech Regs Publication Coming Soon--P. 2](#)

[Animal Agriculture News](#)

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#### Sleep Tight



Adventurous travelers are able to [sleep in glass lodges precariously situated](#) on the side of a cliff in Peru's Sacred Valley.

#### Ag Roots

Kylie's latest blog looks at programs and activities that help [build a foundation for young farmers](#).

#### WFP Encourages Young Agriculturalists

This World Food Prize global youth participant says the experience helped her continue working with fellow hunger fighters to [provide safe and sufficient food supplies for our ever-growing population](#).



#### Water Experts Needed

Two respected science groups are [seeking experts to examine issues](#)

March 2, 2018

## Agriculture and Politics

Abraham Lincoln said, "No other human occupation opens so wide a field for the profitable and agreeable combination of labor with cultivated thought as agriculture." But various elements such as weather, economics, and politics can sometimes turn this "agreeable cultivation" into "hard labor with uncultivated results."



This week's news items cover a few of the many political twists and turns in the "agreeable" world of agriculture:

\*\* Some U.S. agricultural leaders are concerned about President Trump's decision to impose tariffs on steel and aluminum imports. They say [tariffs might trigger trade retaliation](#) and negatively impact U.S. agricultural exports.

\*\* Russia has reportedly been sowing seeds of discontent in the U.S. political scene, and now the country has been accused of spreading anti-GMO articles on the Internet. According to researchers at Iowa State University, [Russia is trying to influence American opinions about genetically modified organisms](#) by funding articles shared online.

\*\* President Trump asked for more talks between representatives of the [oil and corn industries](#), after a recent meeting failed to yield an agreement between Big Corn and Big Oil.

\*\* Secretary of Agriculture Sonny Perdue spoke to corn and soybean farmers gathered at the Commodity Classic in California--about the [RFS, the USDA, and other agricultural issues](#).

\*\* After months of political tugs and pulls, [Bill Northey was confirmed](#) as the Under Secretary for Farm and Foreign Agricultural Service. [Check here for a reaction](#) from Iowa Farm Bureau President Craig Hill.

## News and Views

**NIFA Annual Report:** The USDA's 2017 Annual Report of the National Institute of Food and Agriculture (NIFA) includes examples of many NIFA-funded [research, extension, and education outcomes](#)--*User Inspired Science Transforming Lives*.

pertaining to irrigation technologies that can reduce water use in agriculture and create water savings.

### Send 'Em In

[Click here to submit an idea](#) for a CAST publication.

### Calling All Pork Producers

This team of researchers is asking for [your participation in a 15-minute anonymous survey](#) to assess the link between antibiotic-free production and animal welfare.

### Equine Programs

The [University of Kentucky Ag Equine Program](#) will host its 10th annual UK Equine Career and Opportunity Fair on March 6.

### Hooked on Plants

This North Carolina State student started as a kid interested in backyard weeds, and he is [now a senior in horticultural science](#).



### CAST Social Media

Click [here for links to CAST sites](#):

Twitter, Facebook, LinkedIn, Pinterest, videos, and blogs.

**The Paradox of Gene Editing (Opinion):** This geneticist says [comparing selective breeding with molecular methods](#) is like driving a screwdriver with a sledgehammer.

**Mergers and Names:** DuPont Pioneer will get a new name--[Corteva Agriscience](#)--after it spins out of DowDuPont next year and becomes part of a new stand-alone agriculture business. This is one of three companies to be formed as a result of the merger.

## News from the Far Side of the Barn

### Whole Lotta' Heart

**(video):** These veterinarians are working to [preserve the hearts of these massive mammals](#).

### Caterpillar Catapult

**(video):** Caterpillars might seem like easy prey to a hungry predator, but [this species doesn't give up without a fight](#).

### Curling--Farmer Style

**(video):** The Olympics was an inspiration to many all over the world, but [this farmer has taken the game to a new level](#).



Zoo caretakers confront a curious case--the zoo's [lioness has suddenly sprouted a mini mane](#).

## Forthcoming CAST Publications

*Spring will bring the release of three important papers*

On March 22-23 in Washington, D.C., CAST will roll out a timely [publication about biotech regulations](#). This issue paper will (1) give a historical background about biotech crop safety, (2) inform the public of the barriers for small companies and academic institutions to deregulate biotech crops, (3) influence federal policies that have led to the high degree of expensive and intrusive regulations, (4) examine the options for more streamlined and scientifically based approaches, (5) discuss the regulation of technologies on the frontier such as CRISPR/Cas and genetically engineered animals, and (6) provide information that the general public can understand regarding the importance of genetically engineered plants and animals for prosperity and food safety.



In late April, CAST will feature its [task force report about animal welfare: Scientific, Ethical, and Economic Aspects of Farm Animal Welfare](#). Note: related article about poultry production in the Animal Section.

In early May, CAST will release a special publication about *Omega-3 Fatty Acids: Health Benefits and Dietary Recommendations*. In this CAST "Top 50 Food Questions" video, we get [basic information about omega 3s](#)

[and omega 6s](#). Note: related article about omega-3 nutrition in the Food Section.

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 mountain pic from cnn.com and lion pic from lion.png. P. 2 plant pic from shutterstock. Animal Sec. bull pic from drovers.com. Food Sec. vending pic from foodsafetynews.com. Plant Sec. grape pic from transparent.com. Inter. Sec. buffalo pic from shoeuntied.wordpress.com. Gen. Sec. penguin pic from de.fotalia.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



### *Animal Agriculture and Environmental News*

**Understanding Sow Mortality:** This report looks at [sow mortality and the various situations](#) that need to be addressed to tackle the problem.

**Boars Going Global:** This U.S. company ships boar semen around the world--here's [how and why](#).

**Bovine Grazing Behavior:** A new system automatically [monitors the outdoor grazing of dairy cattle](#)--allowing farmers access to an array of reliable and valuable data.

**Modern Production (video):** This clip looks at some of the [techniques a family egg farm uses](#) to make the system work efficiently and safely.

**Egg-law Update:** This Iowa law requires grocers participating in a supplemental food program to [offer conventional eggs if](#) they sell eggs from chickens housed in "cage-free" environments.

**Fish and Innovation:** The [fish farming industry produces nearly 100 million tons a year](#)--producers are turning to lasers, automation, and artificial intelligence to boost production and cut costs.

**Fish and Depletion (opinion):** This high-tech look at global fishing offers a powerful glimpse at the [problem of overfishing on the hard-to-regulate high seas](#).

**Is It Time to Clone Fido?** If you have \$50,000 and a desire to be like Barbra Streisand, you too [can arrange to have your dog cloned](#).



**A Lotta Bull: This Angus [sold for a record-breaking \\$800,000](#)--his genetics will trickle through America's cow herds for years.**



### *Food Science and Safety News*

**Willy Wonka Wonderland (video):** Draped in chocolate-covered lab coats, [these Cal-Poly students take the sweetest class on campus](#)--developing, packaging, and marketing various chocolate products.

**Milk Date Labels (video):** Do you throw out milk once the date on the carton or jug has passed? [Ohio State University researchers say not so fast](#)--that pasteurized milk is still safe to drink.

**Omega 3, Milk, and Nutrition:** Alison Van Eenennaam looks at the link between [omega-3 fatty acids and beneficial health outcomes](#).

**Conversations with Consumers:** Is connecting with consumers one of your goals? How effective are you? [These tips to make engagement far more meaningful may surprise you](#).

**Bugs for Breakfast? (opinion):** The idea of [eating bugs might make most turn up their noses](#), but this crunchy snack is common in some countries--possibly becoming a solution to the world's food demands.

**Milk, Light, and Taste:** To battle bad taste, grocery stores should [consider moving away from plastic packaging](#) that allows light infiltration-- according to these Cornell University food scientists.



**Mr. Roboto Meets Polk Salad Annie:** Chowbotics hopes to deploy [Sally the Salad Robot vending machines](#) in break rooms and cafeterias.



## *Plant Agriculture and Environmental News*

**Plant-based Vaccine Methods (video):** Scientists [are on the hunt for ways to make better vaccines](#), and they may have found one--by growing them in plants.

**Florida, Cuba, and Pest Research:** The University of Florida is sending an interdepartmental [team of scientists to Cuba to research](#) a wood-boring pest species and other ag-related issues.

**Cheaper Pastures:** In a world with an increasing demand for meat and limited land access, scientists have discovered [a gene that could make grass more digestible](#) and efficient.

**Rock Research:** [Farming crops with crushed rocks could help](#) improve global food security and capture carbon dioxide from the atmosphere.

**Consumers and Biotech (research paper):** Jayson Lusk (Purdue), Brandon McFadden (Florida), and Norbert Wilson (Tufts) authored this paper [about public reactions to GMOs](#)--with a look at consumers' perceptions of outcomes, origin, and benefits.



**Frozen Harvest:** This video looks at the difficult but rewarding [process of making ice wine](#).



## *International News*

**Fighting Ants Play Doctor (video):** African Matabele ants are fighters--they often battle termites. Scientists found that these ants also work hard as "medics," [cleaning wounds and reducing mortality](#).

**Buffalo Bravery (video):** In an act of interspecies bravery, an [African buffalo saved a baby elephant from lions](#).

**Living Way Off the Grid:** This French farmer shuns modern techniques and uses the manual subsistence farming [methods once followed by his peasant ancestors](#).

**Chinese Pig Production:** The development of [artificial intelligence sensors and video tracking](#) is allowing China to dramatically modernize and increase production efficiency.

**Egg Whites and Clean Energy:** Japanese scientists are trying to use egg whites for the [production of carbon-free, "clean" energy](#).



This famous "Battle at Kruger" video has 79 million hits. African [buffaloes cooperated to fend off lions](#) (and a crocodile!) that attack a baby of the herd. A similar, more recent incident is in a link at left.



## General Interest News

**Arctic Meltdown:** Temperatures around the North Pole have [surged above freezing in the dead of winter](#)--a once rare occurrence, but now more routine.

**Temperature Flip (related to above):** The [Arctic is warm while Europe freezes](#)--a chilly analysis.

**Lakes Fading Away:** Warming climates, drought, and overuse are [draining crucial water sources](#), threatening habitats, and affecting cultures.

**Irrigation Impact:** A University of Nebraska-Lincoln researcher has shown that [widespread irrigation results in a net moisture loss](#) in the state. More study is needed to confirm results.

**Insect Inspiration:** Drawing inspiration from the flexible wings of insects, [scientists found a way to make wind turbine blades 35% more efficient](#) at producing energy.

**Tech Predictions:** This tech group announces its "annual [list of the 10 technology advances](#) that will shape the way we work and live."



The world's king [penguin population faces threats](#), because its primary food source is moving farther due to temperature changes. Note: related climate stories at left.

## 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.



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- \* American Dairy Science Association
- \* American Farm Bureau Federation
- \* American Meat Science Association
- \* American Meteorological Society, Committee on Agricultural and Forest Meteorology
- \* American Seed Trade Association
- \* American Society for Nutrition Nutritional Sciences Council
- \* American Society of Agricultural and Biological Engineers
- \* American Society of Agronomy



- \* American Society of Animal Science
- \* American Society of Plant Biologists
- \* American Veterinary Medical Association
- \* Aquatic Plant Management Society
- \* BASF Corporation
- \* Croplife America
- \* Crop Science Society of America
- \* DuPont
- \* Elanco Animal Health
- \* Entomological Society of America
- \* Innovation Center for U.S. Dairy
- \* Land O'Lakes
- \* Monsanto

- \* National Corn Growers Association/Iowa Corn Promotion Board
- \* National Milk Producers Federation
- \* National Pork Board
- \* North Carolina Biotechnology Center
- \* North Central Weed Science Society
- \* Northeastern Weed Science Society
- \* Poultry Science Association
- \* Society for In Vitro Biology
- \* Soil Science Society of America
- \* Syngenta Crop Protection
- \* The Fertilizer Institute
- \* Tyson Foods
- \* United Soybean Board
- \* Weed Science Society of America
- \* Western Society of Weed Science

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\*\* *With assistance from Carol Gostele (Managing Scientific Editor)*