



*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.

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

[New CAST Paper Will Be Featured Next Week--P. 2](#)

[Animal Agriculture News](#)

[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)



#### Harbor at Night

National Geographic asked [photographers to share their stories](#) about climate change, and the night view of Singapore is one of the photo examples.

#### CAST Retrospective

In 1997, CAST sponsored a major international food conference--*Food Safety, Sufficiency, and Security: Domestic and International Dimensions*--in honor of its 25th anniversary. Three new societies joined CAST that year, making the total count 36 member societies. [Click here for a further look](#) at CAST's history of ag/science communication.

#### Lookin' Good for Ag

U.S. college graduates will find many [professional employment opportunities](#) in the next five years if they have expertise in food, agriculture, renewable natural

*December 2, 2016*

## Bridging the Gap

*Communicating with a public that has moved far from the farm*

The agriculture community might joke about those who think chocolate milk comes from brown cows, but the education gap is wide for most sectors of the public when it comes to knowing about farming and food production. Many schools, organizations, government agencies, bloggers, and companies make efforts to communicate, but most people have little or no connection with agriculture. The 14 university members of the [CAST Education Program](#) have courses and research studies that help the cause. More farmers, ranchers, and foodies are telling their stories online. The following links lead to a few of the many efforts to bridge the gap between agriculture and the public:



\*\* This blogger teamed up with the U.S. Farmers and Ranchers Alliance to discuss the [importance of connecting kids and agriculture](#), and she provides her five favorite ways to teach kids where food comes from.

\*\* The USDA provides students, parents, and teachers with youth-geared [information and resources related to agriculture](#). Mainly for elementary students, the topics range from nature and nutrition to soil and weather.

\*\* The NAAE [website features agriculture teachers who write](#) about the joys, challenges, and everything in between regarding teaching agriculture in the United States. They look at a good mix of programs--from urban to rural--plus folks teaching in high schools, a college instructor, and even a couple of students who are preparing to get their degrees and venture into the classroom next year.

\*\* The [AgVocate program](#) encourages and enables those who are passionate about modern agriculture to discuss the importance of agriculture, food production, and the innovation needed to feed a hungry world.

\*\* [HungerU is an educational and advocacy program](#) that engages and educates university students on issues related to the role of modern agriculture in feeding the world.

\*\* [Let's Talk Farming engages children--and adults--across England and Wales](#) with facts and figures about farming and the hard work British

resources, or the environment--according to USDA research.

### Making Connections

The UC-Davis College of Ag and Environmental Sciences has made several changes in student advising to build a [network of support and success](#).

### Speak Science

With experience at NASA, the Univ. of Georgia, and the Weather Channel, this expert offers [nine tips for communicating science to nonscientists](#).

### Video Contest

The "Favorite Farmer Video Contest" was established to honor Roger Cain and other American farmers--and to raise the issue of farm safety. [Click here to find out about the details](#).

### Send 'Em In

If you have a blog entry you wish to share with CAST members, send it to [dgoerty@cast-science.org](mailto:dgoerty@cast-science.org).

Access the latest article here:

[Football, Goats, and Time Travel](#).



### CAST Social Media

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

farmers do to produce food for the nation. The roadshow travels the country from spring to autumn--attending school events, county shows, food festivals, and more.

## News and Views

**\*\*Who Will Lead Food Safety Agencies?** The 15 federal agencies that together enforce at least 30 [federal food safety laws](#) are getting new leadership soon under President-elect Trump.

**\*\*Farm Forecast and Economic Update:** The USDA's Economic Research Service predicts a [drop in farm income for the third consecutive year](#). Ag Secretary Tom Vilsack focused on positives from the report such as the healthy household income figure and low debt to asset and equity ratios.

**\*\*A Boost for Biofuels:** The Environmental Protection Agency gave a lift to the renewable fuels industry by finalizing [biofuel usage mandates for 2017](#) higher than originally proposed.

**\*\*Ag Land Prices:** This Midwest real estate broker says prices for high-quality farmland are [holding surprisingly steady](#)--possibly because low prices are offset by high yields.

## News from the Far Side of the Barn

**Like a Running Back Plowing Over a Linebacker (video):** This *Planet Earth* clip shows a galloping [giraffe steamrolling a hungry lion](#).

**Major Meltdown after Executive Brain Freeze (video):** Many were outraged at a Japanese theme park's [decision to freeze thousands of fish](#) in a skating rink.

**Making Truffles Seem Like a Bargain:** How much would you [pay to eat a delicate fungus](#) growing out of a dead caterpillar's head? Probably not \$20,000 per kilo, the going Chinese rate.



"Gotta be an easier way to get lunch."

## CAST on the Hill

*Presentations of research paper include Senate and House venues*

### New CAST Paper Examines Biotech and Trade

The Council for Agricultural Science and Technology will roll out its latest paper on December 8, with a presentation for Senate staffers and a working luncheon for House staffers. CAST invites you to a presentation and discussion on *The Impact of Asynchronous Approvals for Biotech Crops on Agricultural Sustainability, Trade, and Innovation* cohosted by The U.S. Biotech Crops Alliance. This event (Dec. 8, 3:00-4:30 EST) is free and open to the public with options to attend in person (Washington, D.C.) or online via webinar. [Click here for information](#). In related news, U.S. Trade Representative Michael Froman was disappointed with the response from China regarding the [biotech approval process](#) at a recent trade conference.



## Biotech Crop Symposium--National Academies of Science, Engineering, and Medicine

With influential speakers and a lively panel discussion scheduled, the December 7 symposium about biotech crops will no doubt be interesting and worthwhile--[Forum of Scientific Society Leaders on Genetically Engineered Crops: Experiences and Prospects](#), 7:45 a.m-4:45 p.m. EST at the National Academy of Sciences Building in Washington, D.C. [Click here to access a four-page "Report in Brief"](#) of the report.



### #CAST4AgScience

Consider the theme and importance of Giving Tuesday: CAST continues to carry on the mission of Norman Borlaug and others as the organization works to communicate credible ag/science information. [Visit the donation site here](#).

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 harbor pic from [terencechiewnationalgeo.com](#), cow pic from [pinimg.com](#), lion pic from [i.ytimg.com](#), and goat pic from [robotssystem.fr.jpg](#). P. 2 Capitol pic from [daylight.jpg](#). Animal Sec. pig painting from Hannah Pagel. Food Sec. ad from [flashbak.com](#). Plant Sec. Mr. Potato Head pic from [thecoli.jpg](#). Inter. Sec. reef pic from [theday.co.uk](#). Gen. Sec. tractor pic from [agprofessional.com](#). Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



## Animal Agriculture and Environmental News

**Faces of Farming--A Day on a Pig Farm (video):** These pig farmers [specialize in day-one care of pigs](#), and they maintain a carefully managed environment to nurture the newborns.

**The Beef Industry and Sustainability:** UC-Davis specialist Frank Mitloehner demonstrates how the [beef and dairy industries produce more with less](#). And other experts also look at beef sustainability.

**Animal Ag and Air Issues (related to above):** Dr. Mitloehner was a task force member and presenter for CAST Issue Paper #47, [Air Issues Associated with Animal Agriculture: A North American Perspective](#).

**What Might Be in Your Stocking?** The Pork Checkoff heads a holiday campaign called #HamsAcrossAmerica, encouraging farmers and others to give [gifts or donations of ham](#) or ham-based products.

**Cutting the Fat (opinion):** According to this writer, a new CDC study shows that the basis of healthier diets, and thus the [improvements in obesity rates](#), is due in large measure to ample access to animal foods.

**In a Fowl Mood (opinion):** Some U.S. chicken farmers are [concerned about the ethanol volume standards](#), as they say they will divert corn from food and feed use.

**Meat Concern:** A 14% decline in U.S. consumer meat consumption in the past decade has caused some alarm, with one Texas A&M scientist warning that overall human [health and child development could suffer](#).

**Value-added Beef:** These experts say that even though cattle prices have come down from historic highs, beef cattle producers still have ways to capture more dollars for their calves by [adding value at the ranch](#).

**Antibiotic Info Source:** Kansas State University offers this new [antibiotics in livestock production website](#)--billed as accurate and timely information.

**Pets on Pot:** More and more [pet owners are turning to cannabis-based products](#) to help their animals with anxiety, arthritis, seizures, cancer, and other ailments.

**Wild Pig "Bomb"--Facts, Myths, and Info:** This specialist places the U.S. wild pig population at 6.3 million--with an overall possible range of 4 million to 11 million--and he [considers them a scourge](#).



ISU student and CAST intern Hannah Pagel captured the sophisticated side of this pig.



## ***Food Science and Safety News***

**Touting Turmeric (video):** The substance that makes turmeric so colorful--a compound called curcumin--is what some researchers say also makes it a [powerful weapon against disease](#).



**Food Photos That Were NOT Enhanced:** These adverts from decades past show food that may or may not have tasted fine, but the [presentation makes things look downright inedible](#) by today's standards.

**Milk Misconceptions:** This Ohio State University scientist has made it his mission to demonstrate scientifically the [nutritional benefits of milk](#) in the face of "fear mongering."

**Toxic Tator:** A technique called "near-infrared spectroscopy" can rapidly [estimate the amount of acrylamide](#) in white-potato French fries, according to scientists from the USDA and from North Carolina State University.

**Without Cooking the Life Out of It:** These experts have come up with an intervention capable of killing pathogens on seeds and grains [without killing the flavor or texture](#) of the product.

**Good Things from the Bottom of the Food Chain:** Microalgae may become a top-tier [contender to combat global warming](#), as well as energy and food insecurity, according to a study by Cornell researchers.

**It Ain't Pretty, but It Cuts Waste:** For these entrepreneurs, cutting back on food waste starts in a maggot bucket. They use waste to feed [insects used for livestock feed](#).

**U.S. AID Grant:** Kansas State University received \$1.08 million to establish a [genomics-assisted sorghum breeding program](#) in Haiti.

**Food, Fiber, and Microbes:** This research explains how [fiber protects the gut and could prevent diseases](#). It also suggests that real plant food as a source of fiber is better than processed or refined fiber.

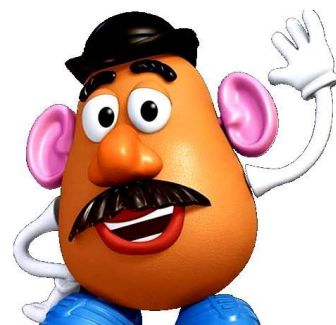


An oldie ad that must have been created by real "madmen."



## *Plant Agriculture and Environmental News*

**Biotech Back and Forth (opinion):** This Iowa farmer challenged activist Vandana Shiva after an anti-GMO lecture filled with ["myths and misperceptions."](#)



**Potato Power (video):** White potatoes are now the [single most-eaten vegetable in the United States](#)--and recent guidelines recommend them depending on what might be added as toppings.

"I don't need fancy toppings.  
I'm already pretty cool."

**Science Solutions (opinion--audio included):** Citrus growers can play a key role in promoting genetic engineering as a [partial solution to citrus greening](#) disease, according to the Univ. of Florida's Kevin Folta.

**Here Comes the Sun:** Scientists have hacked a plant's genes to [make it use sunlight more efficiently](#)--a breakthrough that could eventually increase the amount of food grown.

**Soil on the Mend:** After as little as one year, these [cover crops are producing measurable increases](#) in microbial activity, organic carbon, and water infiltration.

**Stay Off the Grass? (opinion):** This report says the [Great Plains lost more grassland to agriculture](#) in 2014 than the Brazilian Amazon lost to deforestation--and that could threaten birds, pollinators, and drinking water.

**Herbicide Resistance:** These Kansas State experts give us [three items to know about the status](#) of new herbicide-resistant crops--and certain herbicides with soybean and corn traits.

**Crops in Court:** Hawaiian counties that sought to ban biotech crops or impose conditions on pesticide use have lost in the Ninth Circuit Court of Appeals--it ruled that [state and federal laws preempt local ordinances](#).



## *International News*

**Coral Collapse (video):** Australia's Great Barrier Reef suffered its most devastating die-off on record. In nine months, [bleaching caused by warmer water killed](#) about 67% of the coral in a previously pristine section.

**How Does Your Garden Grow?** A company headquarters in Tokyo doubles as a promotional tool for farming: [it is a garden in the sky](#) that provides Tokyo with a striking display of foliage--roses, vines, citrus, and more.

**Cherry Crop Cut in Half:** Adverse weather conditions seriously affected Argentina's agricultural production, with [fruit and vegetable crops hit](#) by frost and heavy rains.



Ecological reefer madness.

**Super Chicken in India?** According to this report, [a unique breed of broiler chicken](#) can multiply three times as fast as ordinary hens, lay more eggs, and survive in the open without extra care.

**Growing Insect Cities from Seeds:** In Fiji, [ants have learned to grow plants](#) to house their massive colonies.

**British Pork:** Average [pig production costs in Great Britain](#) fell by 6% in 2015, but even bigger falls in other EU countries meant that British costs remained among the highest in Europe.

**Beef Capital of India:** For the last three decades, this restaurant has [served up spicy, red meat dishes](#) and a variety of popular culinary delights.

**Wired and in the Mood:** Unlike human Fitbits, the purpose of this device is not to monitor bovine endurance or agility--its aim is to let Japanese farmers know, via mobile phone, [when the cow is ready to breed](#).

**Gotta Get a Fitbit for Bossy (related to above):** This blog looks at ["wearable digital devices"](#) for cows.



## General Interest News

**Look, No Hands--Autonomous Tractor Update (video):** An implement company showed off a demo tractor offering a look at their [work with driverless machines](#).

**After a Big Loss, Restaurant Becomes Big Winner (video):** This Atlanta restaurant [nourishes the soul as well as the body](#). Food is like artwork, and sellout crowds love the friendly ambience.

**"Do You REALLY Want to Farm? (video):** Two [sisters work hard to keep up the farm](#) after their father was killed in a boating accident.

**Clearing the Air?** Thanks to a decrease in coal use in North America and better technology to [make the fossil fuel less harmful](#), the amount of mercury in the atmosphere is on the decline, according to this study.

**Promoting Prairie Strips (audio available):** This Iowa State University professor speaks about the first scientific field study promoting the use of prairie strips [as a water quality and conservation practice](#).

**Global Effort for Water Management:** The University of Nebraska's Water for Food Institute is building global connections to address the [need for groundwater management](#)--and it connects with agencies worldwide.

**Why Do We Have Time Zones?** The expansion of transport and communication during the 19th century created a [need for a unified time-keeping system](#).

**Fake Olive Oil or False Comments?** A trade group representing [olive oil importers sued television personality](#) Dr. Mehmet Oz under a largely untested Georgia food libel law.

**Cutting Food Waste:** The U.S. [Food Loss and Waste 2030 Champions Initiative](#) is about recognizing those organizations that have committed to cutting food loss and waste in their own operations in half by 2030.



The invisible man doing field work.

## 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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Contact Colleen Hamilton at 515-292-2125, ext. 224 or [chamilton@cast-science.org](#), or [CLICK HERE](#) for CAST membership information.



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- \* American Society of Agronomy



- \* American Society of Animal Science
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- \* Weed Science Society of America
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