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.

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- Giving Tuesday Campaign and Student Videos--P. 2
- Animal Agriculture News
- Food Science and Safety News
- Plant and Environment News
- International News
- General Interest News

Aerial View of Ag

These aerial photos reveal the hypnotic geometry of farming around the world.

Nominations Are Open
Nominations are open for the 2019 Borlaug CAST Communication Award, an honor that recognizes professionals who promote agricultural science in the public policy arena.

Best Wishes
Happy Thanksgiving week to all, and note that the next edition of Friday Notes will be published on Nov. 30.

Cornell Gets Creative
Cornell's College of Vet Med has introduced state-of-the-art artificial canine cadavers so vet students can practice their surgical skills.

Dairy Kids, Don't Delay
College students with an interest in

November 16, 2018

A Season to Give Thanks
Although turkeys might quibble with that sentiment

From Canada to Vietnam, many countries celebrate some form of harvest-ending observance. In the United States, the roots of Thanksgiving go back to the 1620s, and it has been celebrated on and off since 1789—it now falls officially on the fourth Thursday of November.

For most, the holiday focuses on family and food—according to one survey, 88% of Americans eat turkey on Thanksgiving. Quite a fall from grace for the fowl, considering that Ben Franklin supposedly promoted the turkey as the official United States bird.

The internet is filled with "fun facts" about the holiday—54 million Americans are expected to travel 50 miles or more this year; the average American gains 1 to 2 pounds during the holiday—but one statistical release that gains attention every year is the American Farm Bureau Federation's cost index for a typical Thanksgiving Day meal.

The survey actually shows a decrease from last year: "The average cost of this year's feast for 10 is $48.90, or less than $5.00 per person."

At those prices, many probably wish the Farm Bureau would cater their family gathering. The organization has been conducting the survey since 1986, but this blog goes back even further. Click here to join a Thanksgiving holiday when TVs were black and white, Black Friday was still sane, and table conversation was analog, not digital.

News and Views

Tragedy Continues: The losses mount, as authorities search through the blackened aftermath of California's worst-ever wildfire. Many are dead or missing, and communities have been devastated.

Environment and Productivity: The Environmental Defense Fund and the National Corn Growers Association are joining forces to improve environmental outcomes while optimizing productivity and profitability.

A Turnaround? Following six years of population loss, rural America is
Agriculture Data Act: More than 60 scholars representing 30 leading U.S. universities supported the Agriculture Data Act of 2018 in a letter sent to Senate and House Agriculture Committee leaders.

Finance on the Farm: Financial experts gathered at the National Agricultural Bankers Conference are worried about rising interest rates for farmers.

**Support CAST During This Season of Giving**

Throughout the month of November, CAST is celebrating this season of giving through a social media campaign that highlights the importance of improved science communication. Five graduate students from the University of California-Davis participated in the efforts by submitting a 30-second video explaining why they chose a career in scientific research and how science communication directly impacts their discoveries. These students are future members, task force participants, and leaders—and they may end up helping with the work CAST does assembling, interpreting, and communicating credible, science-based information about food and agriculture.

Take some time to get to know them throughout the last few weeks of November and consider supporting CAST and the future of science communication this year.

Sarah Klopatek, a graduate student in beef cattle sustainability at UC-Davis, shares why she is so passionate about people, the planet, and animals.

"Receiving the CAST scholarship and having the opportunity to attend the CAST annual meeting provided me with a once-in-a-lifetime opportunity to improve my skill sets as a beef cattle sustainability specialist—enabling me to become an engaged teacher, a more informed scientist, an innovative communicator, and one day a leader in environmental and climate change policy."

Mackenzie Batali, a graduate student researcher at the UC-Davis’s Coffee Center, is crazy about coffee...
"It is incredibly easy for poor communication to result in misinformation that ends up in pop science articles all over social media. Quality science communication allows our research to immediately and effectively reach all interested and enthusiastic members of the community to improve their business and craft with data-backed evidence."

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**Friday Notes News Categories**

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 aerial pic from qz.com, chart from fb.org, fire pic from mydaytondailynew.scom, turkey graphic from blogher.jpg, and hoverbike pic from rideapart.com. Animal Sec. egg pic from thepoultrysite.com and meat pic from sxc.jpg. Food Sec. Julia Child photo from npr.org and beer pic from fau.edu. Plant Sec. robot pic from businessinsider.com and map from coastalscience.noaa.gov. Inter. Sec. waterfall pic from sfbrit.flickr.jpg. Gen. Sec. cat pic from boredpanda.jpg and map from farmersalphanac.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.

**Animal Agriculture and Environmental News**

**Antibiotic Safety (video):** Two dairy groups promote sensible use of antibiotics while making sure residues stay out of the milk supply. And this story looks at how America's pig farmers remain committed to using antibiotics responsibly.

**Hands-on Experience (video):** Urban students from across the state of Pennsylvania got up close and personal with their state's ag industry.

**Confinement Law:** California Proposition 12, the Farm Animal Confinement Initiative, passed. Some speculate about its national impact.

**No Problem for Pigs?** Modern genetics have created hyperprolific sows, resulting in more piglets than teats—but these young researchers are using supplemental milking innovation to overcome the imbalance.

**Speed Gene:** Scientists pinpointed the genetic basis that explains why some thoroughbred racehorses are better at sprint distances and others at long distances.

**Smart Collars for Cows:** This solar-powered system for livestock enables cattle producers to create "virtual fences" using technology that can be managed and monitored anywhere in the world.

**Animal Ag:** In this editorial, Alison Van Eenennaam looks at why cattle are getting a bad rap in the "meat debate."

**Meat or Not?** Chuck Jolley looks at the USDA, the FDA, "fake meat," and opinions from national beef officials.

**Protein from the Lab? (video):** Scientists are developing "mock meat" and dairy substitutes that appeal to some—but the overall jury is out on taste, cost, and nutrition.

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**Food Science and Safety News**

From the Plate to the Farm (video): This Minnesota pork
"Drink beer and live a hundred years" is a common Italian saying that may prove to be more accurate than previously expected, according to recent research.

The Not So Non-GMO Project (video): This video explains that although products may be labeled non-GMO, it doesn't necessarily mean they are free of genetic engineering.

Next-generation Biotech Food: Gene-edited food is coming, but will shoppers buy?

Nutritious Milk: This study says sustained light exposure can deplete half the nutrients--especially vitamin A--in milk unless it is properly protected.

Encouraging Data for Dieters: This Purdue research says participants' health started to improve relatively quickly after they adopted a better diet.

Science Makes Safer Food: New technologies such as cold plasma and high-pressure systems might help reduce the risk of foodborne disease outbreaks.

Cranberry World: Whether you prefer whole-berry sauce, jellied sauce, or relish, these facts may raise your Thanksgiving cranberry conversation to the next level.

Cook the Bird Safely: Food handling errors and inadequate cooking are the most common problems that lead to poultry-associated foodborne disease outbreaks in the United States. Follow these four safety tips.

Plant Agriculture and Environmental News

Rice Farming TV (video): This California rice farmer uses YouTube to show consumers the hard work that goes into production-quality grain rice. In this episode he calculates how much rice one plant can produce.

Soybeans in Transit--or Not: According to this podcast interview, U.S. soybeans that typically went to China through the Pacific Northwest are piling up in the northern Midwest because of the trade war.

Ethanol Exports: The Renewable Fuels Association says ethanol exports are expected to set a new record.

Cutting GHG Emissions: A new study says better management of forests, grasslands, and soils in the United States could offset as much as 21% of the country's annual greenhouse gas emissions.

Making Sweet Strides: Sweet corn breeding has lagged behind advances in field corn, but this agronomist is contributing to a national effort aimed at narrowing that gap.

Spray or Spread--Say When: A new app developed by The Ohio State University can be used to help advise farmers when to apply fertilizer and pesticides so they aren't washed away by rain.

Help Shrink the Dead Zone: Engineers at Iowa State and the University of Florida are working on a new system of "bury-and-forget" soil sensors and remote data-collection networks that could help reduce fertilizer runoff.

International News

Slip Sliding Away (video): Sensing the earth rumbling, these men in India kept their distance from a rock outcropping--and it's a good thing they did, as a landslide ensued.

Finding the Flavor: German researchers have developed a new methodical approach for faster identification of flavor-giving
Famous for beautiful waterfalls, Brazil is ironically facing water shortages, and many farmers are diversifying crops to counter the lack of rain.

Cats are cool, but as this science writer points out, it is dangerous to transport unvaccinated and/or stray cats across state borders—rabies are just one possible concern.

Here's the Beef: In Argentina, the sixth-largest ranching nation, grilled beef is so ingrained in social habits that consumption is proving resilient to belt-tightening economic challenges.

Dairy Influence: Australia is wielding its soft power to teach workers in Asia more efficient dairy production techniques as income from exports to the region continues to rise.

High-tech Gathering of Bee Data (video): This global organization is developing a network of AI "smart hives" to give scientists real-time data into the relationships between bees and their environments.

Bee Health Matters (related to above): Check out the CAST Commentary Why Does Bee Health Matter? The Science Surrounding Honey Bee Health Concerns and What We Can Do About It.

General Interest News

Tick Insider (video): Researchers at Purdue are working with Indiana 4-H youth and high school students to collect and analyze ticks throughout the state.

Do Well by Doing Good (opinion): University of Nebraska-Lincoln researchers say agricultural biotechnology companies can profit by lowering the price of genetic modification technologies in hunger-stricken areas.

Attacking Waste: An influx of money is going to companies that prevent food from going to waste. Check out CAST IP 62, Food Loss and Waste.

Climate Change Hits Home: The Cornell Institute for Climate Smart Solutions has developed an online tool that shows climate change in your backyard.

Ag Tech Investment: Many venture capitalists are attracted to the area of agricultural technology. Hundreds flocked to the Forbes Ag Tech Expo to check out cutting-edge ag production advances.

The Art of Forecasting: Students at the University of Missouri are learning how to forecast weather events—a skill that is as much a science as an art form.

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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Note: Land O’Lakes provides sponsorship for the distribution of Friday Notes to the National Association of Agricultural Educators.