



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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Forest Palette



The U.S. Forest Service has a new mobile [app to help us take in the beauty of the fall colors](#) in our national forests.

BCCA Event

CAST and CropLife Foundation [invite you to honor Dr. Frank](#)



[Mitloehner](#), the 2019 Borlaug CAST Communication Award winner, on the occasion of the 2019 Borlaug Dialogue hosted by the World Food Prize Foundation--October 16 in Des Moines, Iowa.



Teaching Ag

A Cal Poly graduate explains why she [decided to become an agriculture teacher--](#)

September 27, 2019

Cooperation and Innovation

Using Ideas, Science, and Common Sense

The agriculture community shares the frustrations and opportunities that arise with global challenges ranging from water quality to nutritional needs to climate change.

Nonprofit organizations, universities, and companies are developing programs and projects to work on these issues. The following examples are just a few of the many opportunities for positive, innovative minds to gather and face these challenges.



The [World Food Prize](#) (WFP) offers many venues for the "meeting of creative minds," including the [Borlaug Dialogue](#). This year during WFP week, Corteva Agriscience plans a sideline gathering of company executives to [discuss ways to address climate change](#). CAST also contributes to the WFP offerings with its [Borlaug CAST Communication Award event](#)--a session that always raises important agricultural topics.

Throughout the year, universities provide settings for sharing ideas and developing programs. The University of Nevada-Reno recently held the [2019 Global Climate Change Summit](#) to discuss how businesses and organizations are responding to climate change. A recent event in New York City also tackled climate change and many other issues. The ["Future of Food Summit"](#)--sponsored by IFIC and the Meredith Corporation--provided sessions about technology, innovation, and agricultural practices. CAST's Communications and Social Media Specialist Kimberly Nelson attended the meeting in the Big Apple, and her [blog post is here](#). She pointed out that this conference supported collaboration to solve challenges and advance food production.

The gatherings listed above and the many more occurring in the agricultural community highlight the need for such cooperation. Plants, animals, the environment--all of us depend on one another.

News and Views

the challenges and the rewards.

Showcasing Agriculture

The University of Missouri's [South Farm Showcase](#) on September 28 offers families an opportunity to see the uniqueness of what a quality agriculture, food, and natural resources program has to offer.

Campus Research

UC-Davis is investing \$4 million over three years to launch [four new research centers](#) that align campus strengths with unique opportunities for global impact.

Digital Environment

The ASA, CSSA, SSSA International Annual Meeting in San Antonio, Texas, Nov. 10-13 will focus on "[Embracing the Digital Environment](#)."

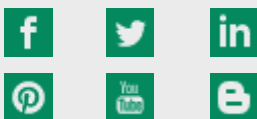
Ag Education Scholarships

The College of Agriculture and Life Sciences at Iowa State University has awarded nearly \$3.5 million in [scholarships to students](#) for the 2019-20 academic year.

Send in Ideas

CAST [welcomes suggestions](#) for future publications and projects.

CAST Social Media



USMCA Status: While politicians assess the [status of the USMCA trade deal](#) in Congress, many [agricultural sectors encourage ratification](#), and some point out that even the [medical field could benefit](#) from the deal.

Climate Reports: According to a UN panel of scientists, [climate change is devastating our seas](#) and frozen regions as never before. Even the unusual term "[ocean heat waves](#)" entered the discussion.



U.S.-Japan Agreement: U.S. Secretary of Agriculture Sonny Perdue issued this statement about the benefits resulting from the signing of the new [United States-Japan Trade Agreement](#).

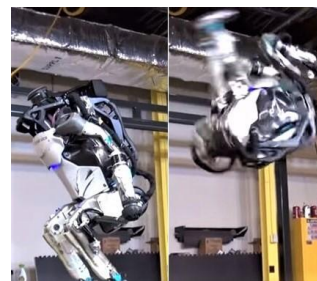
Crisis for Renewables: At last count, 18 ethanol plants and nine biodiesel [facilities have shut down in recent months](#). Leaders in the renewable fuels industry are asking the administration to take action.

News from the Far Side of the Barn

Robots Go Mobile (video): Atlas, the bipedal robot, [does a gymnastics routine](#). The company is also about to let its [robotic dog](#) hit the streets.

Voice from Above (video): A drone operator in Australia alerts a surfer about [a circling shark](#).

Cows on a Beer Run (video): The Wisconsin brewery famous for their "Spotted Cow" farmhouse ale got a late-night [visit from the beer's namesake](#)--a group of spotted cows.



A Robotic Front Flip: See related links at upper left.

Protecting Food Animal Gene Pools for Future Generations

Three Rollout Events in Washington, D.C., September 30

Livestock and poultry products are keys to the world supply of protein, but genetic diversity of livestock is fading. The number of breeds has declined as farming practices have focused on a small number of high-producing breeds to meet low-cost market demands. In fact, up to 25% of global livestock breeds are either at risk of being lost or have already been lost. In the face of the mounting depletion in genetic diversity among livestock species, there is an urgent need to develop and maintain an intensive program of sampling and evaluation of the existing gene pools. This paper addresses several important challenges regarding the effective protection of remaining livestock and poultry genetic diversity.



CAST will provide three options to attend informational seminars.

[Click here for sign-up details](#)

10:00 - 11:00 a.m.

328A Russell Senate Office Building

Noon - 1:00 p.m. (Lunch Provided)

1300 Longworth House Office Building

2:30 - 3:30 p.m.

USDA 107-A Whitten Building

A narrated PowerPoint of the presentation will be available post event on the CAST website and social media.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 fall forest pic from usforests-service.com, circle collage from blueprints.com and clipart, tree in hand pic from nationofchange.org, and robot pic from NDTV.com. P. 2 collage from M.Wickham. Animal Sec. chicken collage from thetimes.com and fish pic from npr.org. Food Sec. graph from usda.com and beef pic from watsonxiamen.com. Plant Sec. collage from npr.com and water drop pic from linkingsustainability.jpg. Inter. Sec. snake photo from bbc.com and seaweed pic from youtube.com. Gen. Sec. shellfish pic from cornell.edu and pumpkin spice pic from animalagengage.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.



Animal Agriculture and Environmental News



Nurturing the Young (video): These [sea otters adopt orphaned pups](#) and raise them to be wild.

Considering Careers in Poultry Production:

This blogger encourages young people to consider robotics, engineering, and other skills to go along with traditional [backgrounds needed for modern poultry production](#).

Potential for Beef Exports? China consumes more beef than any other country in the world, but per capita it ranks low. Some see a [market ripe for growth](#), but trade disputes are hindering the opportunities.

Pork Production: Eyes are focused on the African swine fever's spread throughout Asia, and many wonder [what this means for U.S. pork producers](#).

Changes in the Beef Industry: These Kansas State experts look at [notable changes in the beef industry](#) during the past two decades regarding the changes in retail and export demand. The [full report is here](#).

Rising from the Ashes: A multi-million-dollar facility went up in flames in less than two hours, and thousands of pigs were dead. This farm family [worked through the despair to rebuild](#).



Fish Farming Debate: Aquaculture advocates say farming fish is the best way to keep up with the [rising demand for seafood](#), but opponents think such production could threaten wild fish stocks.

Bye, Bye, Birdie (video): According to this report, [North America has lost nearly 3 billion birds](#) in 50 years.

Horse Sense: Baxter Black writes about those [folks who are good with horses](#).

Food Science and Safety News

WGS and Food Safety: This article describes how researchers and public health officials use [whole genome sequencing](#) (WGS) for genetic typing of bacteria, including pathogens relevant to food safety.

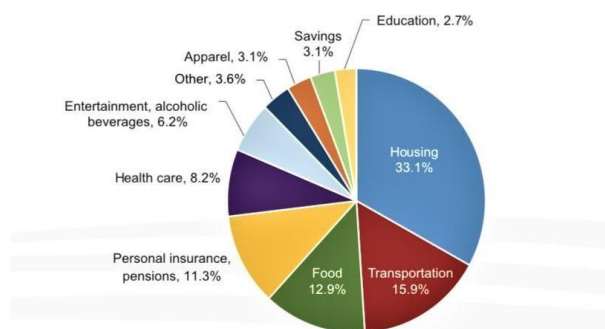
The Milk of Human (and Cow)

Kindness: Prehistoric evidence shows that some [infants received milk from ceramic "baby bottles"](#)--with indications that domesticated animals were important as a milk source.

Positive about Meat: Sales continue to grow for plant-based protein, but Elanco CEO Jeff Simmons ([2013 BCCA recipient](#)) says the agriculture industry should not be concerned. [Meat consumption is growing](#).

Beef and Emissions: Frank Mitloehner ([2019 BCCA recipient](#)) and a colleague explain why "four pounds of beef [does NOT equal the emissions](#) of a transatlantic flight."

Share of U.S. household consumer expenditures by major categories, 2017



Note: "Other" includes personal care products, tobacco, and miscellaneous expenditures. Source: USDA, Economic Research Service using data from U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, 2017.

The statistics from 2017 indicate that food expenses come in third for most Americans. And this USDA report provides a look at current ["food prices and spending."](#)

Communicating about Food and Agriculture (related to above): Along Simmons and Mitloehner, eight other respected experts have been named BCCA recipients. The [winners of this prestigious honor](#) have consistently communicated clear, thoughtful ideas to the public and policymakers.



Beef Trends: This meat scientist says millennial demand for [taste and visual appeal](#) is changing how beef is cut and merchandised.

Another Entry in the Protein Smorgasbord: The giant food company Nestlé has joined the [plant-based meat trend](#) with the Awesome Burger.

Plant Agriculture and Environmental News

Life Cycles in the Treetops (video): This inspiring scientist helps us understand [canopy-dwelling plants, insects, and microorganisms](#)--and she somehow involves *National Geographic* and a tree-top Barbie doll.

Cotton Production and Tech: Many farmers are using technology to [grow more cotton sustainably](#).

Organic Farming Growth: Organic commodity farmers will [harvest a record number of acres](#) across the United States this year despite the weather and trade challenges plaguing agriculture in 2019.

Rice Yields and Quality: University of Arkansas scientists are investigating the [effects of high nighttime air temperatures](#) on rice quality.

A Big "Apple Release" Has Nothing to Do with iPhones: Washington orchard producers hope [the Cosmic Crisp apple](#) will boost production and sales this year.

Keeping Those Worms Out of Your Apples: University of Kentucky researchers are working to develop ways to quickly and noninvasively [identify moth-infected apples](#).



Cleaner Water: A USDA expert joined an Iowa State professor to find [ways to remove nitrogen from tile water](#)--saturated buffers are the key.



An adventurous scientist, canopy soils, and tree-top Barbie dolls (see link at top left).

International News

Furniture Farmers (video): These farmers in England are working on [an unusual alternative](#) to the process of cutting down trees to make furniture.

From Purdue to Tajikistan: Purdue University experts are analyzing markets and advising with the [production of dried apricots](#) in southern Tajikistan.

Potatoes Gone Wild: Using [genetic material from wild potatoes](#) grown in the Andes, scientists can improve disease resistance and other traits.

Edible Forest: Himalayan villagers use a traditional practice that can slow land clearing and feed people--[growing and collecting food from the forests](#).

Valuable and Challenging: Ginseng is the [most valuable field crop](#) grown in Ontario, but the production process is complicated.



Does My Breath Smell Like Seaweed? A puffy pink seaweed in Australia might help [reduce the amount of methane cows burp out](#).

Myanmar Dairy Program: International efforts are [helping Myanmar build its dairy industry](#) from scratch.



Snakebite Squad: Thousands die every year from snakebites. As this video shows, [a team in Kenya is using motorbike ambulances](#) to rush people who have been bitten to a hospital.

General Interest News

Farm Safety and Children (video): The National Children's Center estimates [one child dies every three days](#) in an agriculture-related incident. An emotional farm mother tells of her loss--and the importance of farm safety.

Precautions, Danger, and Healing (related to above): This blog describes [dramatic grain bin rescues](#), provides links to farm safety sources, and describes the way communities come together to heal.

Real World in the Classroom: When it comes to translating classroom lessons into real-world experiences, this dietetics major says Tuskegee University is fostering her love for a [career addressing nutritional needs](#).



Pumpkin Spice Pumpin' Up Dairy: It's that time of year, and some say the public's [pumpkin spice addiction supports dairy farmers](#)--from cream to butter to ice cream.



Cornell University is [using its aquaculture expertise to rejuvenate Long Island's waters](#) by spawning millions of oysters and hard clams and planting them in five coastal sanctuaries.

Student Leaders: A Mississippi State University student was named a Kirchner Food Fellow as part of an international program that connects student leaders who are [working toward long-term, global, sustainable food security solutions](#).

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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- * National Milk Producers Federation
- * National Pork Board
- * North Carolina Biotechnology Center
- * North Central Weed Science Society
- * Northeastern Weed Science Society
- * Poultry Science Association
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- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * Tuskegee University
- * Tyson Foods
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- * Weed Science Society of America

*** Western Society of Weed Science**

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