



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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Ag Tech in Africa



Some say the continent could be the "food basket of the world," with [agritech as a key](#) for the transformation. See the International Section below for more global links.

Ag Education

This USDA website seeks to engage and educate young people in agriculture--either [in the classroom](#) or [in the community](#).

When in Rome



Many students benefit from university study-abroad programs. Caryn Dawson (center, front) explains the [relationships](#).

August 30, 2019

Farmers, Food, and the Land

Film and Paper Highlight the Connections

A new docudrama from the U.S. Farmers & Ranchers Alliance highlights the challenges farmers face as they embrace opportunities to meet increasing demands for food, while also working to sustain the land. The [short video is available here](#), and this media [analysis](#) provides insights and useful links.



USFRA also published a [companion paper that looks at climate-smart agricultural practices](#) and the opportunities available for those producing food, fuel, and fiber. Many experts joined the Science Advisory Council that produced this material--including Dr. Marty Matlock and Dr. Frank Mitloehner, two of the many Borlaug CAST Communication Award [recipients who continue to use science and communication](#) to inform policymakers and the public.

News and Views

Trade Agreement and Agriculture: The United States and Japan reached a preliminary deal to lower Japanese tariffs and [increase market share for U.S. agricultural commodities](#). Pork and beef producers--and others--are [celebrating the news](#).

Tariffs and Farmers: A new report on the [cost of retaliatory tariffs](#) shows U.S. farmers are paying a high price for global disputes.

Fires with Global Effects: Fires in the Amazon and other forests [affect weather and food production around the globe](#). The causes and solutions are [varied and often controversial](#).



[knowledge, and memories that come from such trips](#)--in this case, Rome.

Animal Ag Symposium

NC State's [Food Animal Initiative](#) is hosting the first international symposium on *Precision Systems and Data Analysis in Animal Agriculture*--September 9-10 in Raleigh, North Carolina.

Research Internships

Two Tuskegee University animal science majors participated in summer internships at UW-Madison that [helped them identify their career paths](#).

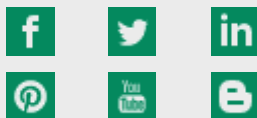
Ag and Civil Rights

This Mississippi State doctoral candidate is serving as a Fellow of the [USDA's Office for Civil Rights](#).

Send in Ideas

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

CAST Social Media



EPA and Methane Regulations: The Trump Administration announced a [possible easing of restrictions](#) on the oil and gas industry for methane emissions. Environmental groups and some oil companies do not back the cut in regulations.

Worried But Hopeful: Organizations, experts, and media outlets have been commenting about the climate and agriculture reports released this summer. Many of them focus on a paradox--global food production is threatened, but human [innovation that includes new and old approaches to food production](#) and land management can build climate resilience and redefine sustainable food on a grand scale.

Research Funding: Some scientists worry that [federal funding of university-level agriculture and food science research](#) will be affected by the USDA's agency relocation. Dr. Alison Van Eenennaam ([2014 BCCA recipient](#)) adds her insights.

News from the Far Side of the Barn

Lunch Menagerie (video): "My Pig" café and other animal-themed restaurants in Tokyo [offer everything from cats to snakes](#). The most popular attraction is the Shiba Inu puppy place.

Who Ya Gonna Call? (video): This Thai fireman--Snakebuster--[catches pythons with his bare hands](#) to help citizens in need.

Rhino Versus Car (video): Catch this not-so-gentle reminder that [adult rhinos are powerful](#). The zookeeper in the battered car escaped with some bruises.



A hedgehog doll house cafe is one of many restaurants with animal themes (see upper left).

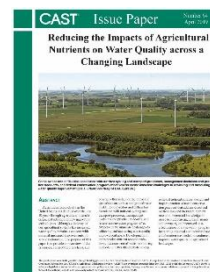
Presentations and Papers

CAST's Fall Calendar Continues to Expand

A [September 19 webinar](#) presented by CAST and the American Society of Agronomy, with support from the United Soybean Board, focuses on the publication titled *Reducing the Impacts of Agricultural Nutrients on Water Quality across a Changing Landscape*.

CAST will soon release a Spanish translation of its Special Publication titled [Gene Flow in Alfalfa: Biology, Mitigation, and Potential Impact on Production](#) (*Flujo de Genes en Alfalfa Biología, Mitigación y Efectos Potenciales en la Producción*).

Upcoming Rollouts





September 2019: *Protecting Food Animal Gene Pools for Future Generations--A Series on The Need for Agricultural Innovation to Sustainably Feed the World by 2050*

October 2019: *Interpreting Agricultural Chemical Residues Measured in Food or Milk*

November or December 2019: *The Microbiome's Positive Impacts on Crops*

November 2019: *Impact of Recruitment and Retention of Food Animal Veterinarians on the U.S. Food Supply*

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 ag tech pic from weforum.org, fire map from metro.co.uk, student group photo from Caryn Dawson, film poster from usfra.com, and hedgehog pic from timeout.com. Animal Sec. woman photo from dtnpf.com and egg pic from bigstockphoto.com. Food Sec. food poster from ific.com and map from digg.com. Plant Sec. bee keeper photo from cdn.net and locust pic from carbonated.tv. Inter. Sec. cow pic from farminguk.com and komodo dragon pic from theguardian.com. Gen. Sec. dog pic from pbstwing.com and sun pic from shared.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.



Animal Agriculture and Environmental News

Feral Pig Mayhem (video): This Mississippi State University expert looks at how feral pigs [alter their surroundings and affect other wild species](#).

EU Prepares: African swine flu has moved into Eastern Europe as of early August. [EU officials are now on high alert](#) to keep the disease from spreading.

Antimicrobials and Cattle: A recent survey from the USDA and several universities suggests "[antimicrobial use during U.S. cattle production](#)" has minimal to no impact on human exposure to antimicrobial resistance via ground beef."

Ag and Economics: The animal sector continues to add value, jobs, and rural economic activity. This commentary looks at the relative [economic importance of crop and animal agriculture](#) in the United States.

Livestock, Forage, and CO2: According to this ARS/USDA report, the [nutritional quality of forage grasses](#) in the Northern Plains is being altered by rising carbon dioxide levels.

Herder's Eye in the Sky: Monitoring small-herd cattle is a big job, but [automated drones might help](#).



This University of Nebraska student was beef ambassador for the state in 2017 and 2018, traveling and [talking to youth about the industry, and educating consumers](#) about where their food comes from--now she is helping a cattle operation grow.



I Am the (Artificial) Eggman: Artificial intelligence [offers many promises to the poultry industry](#), but these come with some catches.

The Buzz (video): Researchers are trying to "[speak mosquito](#)" so they can lure them away from populated areas. Floods in parts of the Midwest have [created a nirvana for "skeeters."](#) See the International Section for more about mosquitoes.

Food Science and Safety News

What's the Big Deal?: After releasing a report telling consumers not to wash their chicken, [FoodSafety.gov explains why](#) there is still lingering bacteria on a well-cleaned surface.

Food Health: The FDA is pressing ahead on [enforcement and prevention](#) activities for all foods regarding the occurrences of *salmonella* outbreaks.

Beef, Babies, and Nutrition: This research looks at how [meat as a complementary food](#) promotes optimal growth and helps to prevent micronutrient deficiency, especially with regards to iron and zinc, in breastfed infants.

Some "Can Do" Advice: The USDA gives tips about [food safety awareness regarding canned food](#)--expiration dates, when to use, how to store, and why to avoid dented or bulging cans.

Omega-3: British research looks at [omega-3 fish oil supplements](#) and type 2 diabetes. Click here for the [CAST Special Publication](#) about omega-3 fatty acids.



Cruisin' the Aisles: This map provides a visual impression of the [most popular supermarkets](#) in each region of the United States.

I Can't Believe It's Not Water: Food scientists at Cornell University have [whipped up a low-calorie spread](#) that consists almost entirely of H₂O.



EatingWell



INTERNATIONAL
FOOD INFORMATION
COUNCIL FOUNDATION

The [Future of Food Summit](#) on September 18 in New York City will feature farmers, scientists, journalists, and food producers discussing food and nutrition innovations--and ways to communicate with consumers.

Plant Agriculture and Environmental News

Plant Blooms Might Reflect CO2 Levels (video): For the first time in millions of years, an ancient plant (cycad) in Britain has [produced male and female cones](#).

Improving Wheat: A gene-editing technique serves as a model for [trait improvement in wheat](#), particularly for genetically recessive traits.

WOTUS Update: The 2015 Waters of the United States rule has been [deemed unlawful by a federal court](#).

Farmers and Water Quality: An Ohio State University scientist explains how to [attract more farmers to participate in water quality efforts](#) as they apply fertilizer to their fields.

Infiltration in Soils: These scientists look at the infiltration in soils--a key [process that partitions precipitation](#) on the land's surface into either runoff or water that enters the soil profile.



A Texas A&M study provides [insights into pollen abundance and diversity](#) for crops in Oregon and California--including the massive almond industry. Click here to [access the CAST Commentary](#) titled *Why Does Bee Health Matter? The Science Surrounding Honey Bee Health Concerns and What We Can Do About It*.

Locust Initiative: Locusts are a scourge in many parts of the world, and some think the [best way to control them](#) is by growing crops the insects don't like.

Organic Farming: The new Midwest Organic Center in Iowa is designed to provide [resources and support for organic farmers](#)--with a look at research, methods, and opportunities.

International News

Volcano Off the Starboard Bow (video): The occupants of a small boat in Italy frantically [outrun the blast effects](#) of a volcanic eruption.

Win Some, Lose Some: A [gene-editing project](#) to create a hornless dairy herd in Brazil has been halted, but another project to develop heat-tolerant beef cattle is still moving forward.

Learning to "Love" Mosquitoes: Millions of "altered" mosquitoes carrying bacteria are being released in Medellin, Colombia, [to stop viruses from spreading](#). Children are helping with the program.

Gene-drive Tech and Mosquitoes (video--related to above): [Genetically modified mosquitoes](#) are being released in this Burkina Faso village as part of a project to tackle malaria.



Using lines, shovels, and brute strength, firefighters in Wales [rescued a large cow stuck in the mud](#).



Keeping the Dragons Happy: The Indonesian government will close the national park on Komodo Island to [cut poaching and increase the prey available](#) for its Komodo dragons.

Fraud Concerns for Grain: Officials are scrutinizing millions of bushels of grain from an Argentinian farm because they [allege fraud concerning organic](#)

[claims](#).

General Interest News

A Delicate Operation (video): Cornell's wildlife veterinarians helped [mend a black bear cub](#) after a car collision in the Adirondacks.

Sniffin' Out Trouble: [Dogs and handlers have been trained to watch for](#) global wildlife trafficking and the proliferation of invasive species (related link in caption at right).

Farmer on Board: According to Mark Parker, these are the [top 10 signs that the guy driving ahead of you is a farmer](#)--think mud, dents, and dogs.

Garden of Learning: Purdue University commemorated a long-time professor of horticulture by naming a [new learning garden after him](#). Students will use the garden to identify various types of plants, such as herbaceous ornamentals.



Robotic Fish Blood? Researchers created a [robotic fish powered by a battery fluid](#) that its developers call "robot blood."

Going Green in the Desert: Utah will be the home for a [groundbreaking solar energy development](#) described as the "world's first virtual power plant of its kind."

Scallop Sitters: University of Florida experts are joining with a project to [protect the dwindling scallop population](#).



It was recently National Dog Recognition Week, so maybe it's a good time to look back at [why farm dogs are often best in show](#).

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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- * Land O'Lakes
- * Bayer

- * National Cattlemen's Beef Association, a Contractor to the Beef Checkoff
- * 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
- * Rural Sociological Society
- * Society for In Vitro Biology
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