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

A Fall Filled with Events and Publications--P. 2
Animal Agriculture News
Food Science and Safety News
Plant and Environment News
International News
General Interest News

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

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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).

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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 (Fluojo de genes en alfalfa: Biología, Mitigación y Efectos Potenciales en la Producción).

Upcoming Rollouts

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 iflic.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 pbstwimg.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.
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.

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**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.

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**Plant Agriculture and Environmental News**

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.

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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.
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.

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.

**CAST Information**

Check out CAST's page at the YouTube site to view highly regarded ag-sciene 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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