



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....

- [Animal Agriculture News](#)
- [Food Science & Safety News](#)
- [Plant & Environmental News](#)
- [International News](#)
- [General Interest News](#)

Events and Announcements



This edition of *Friday Notes* uses a new template with certain font, color, and placement adjustments. As always, the newsletter is designed to provide credible science and agriculture information for its member universities, companies, societies, and individuals. If you have comments, please contact [Dylana Luett](#) or [Dan Gogerty](#).

Organizers say that the [2020 Farm Progress Virtual Experience](#) will include the most extensive field demos in the history of both the Farm Progress Show and Husker Harvest Days.

The NAAE provides [professional development specific to agricultural educators](#) and allows them to earn credit hours for participation in our learning sessions and programs.

CRISPRcon is a unique forum bringing diverse voices together to discuss the [future of various gene editing technologies](#) across applications in agriculture, health, conservation, and more.

July 31, 2020

Research in the Pandemic Era

For many, research funding has been more difficult to secure in a time when it is most needed. Science and technology will play a huge role in combating COVID-19, and agricultural innovation continues to contribute to the food chain during trying times.



Societies, companies, universities, and others associated with the CAST community are actively involved in research during these challenging times. Some examples: (1) An Ohio State professor and USDA expert looked at [research realities at the beginning of the pandemic](#), (2) [USDA-NIFA](#) have a long list of research awards, while ARS produced a video highlighting [recent scientific discoveries](#) and a [website of research projects](#), (3) University of Georgia experts joined USDA [poultry scientists](#) for a research project, (4) American Seed Trade Association and CropLife International researchers are [using gene editing](#) to solve a major food problem in developing countries, (5) Penn State University is supporting many [ecology research](#) projects, (6) this site provides news about funding and [resources for global health researchers](#), and (7) as with other land-grant universities, North Carolina State has a [list of noteworthy research projects](#).

CAST has been facilitating a steady flow of research publications this year—including this week's new paper, webinar, and study guide about hormones in food animals (see page two below for information and links).

News and Views

USDA News: (1) The USDA website now includes features to help facilitate the [employment of H-2A workers](#), (2) as reported in *Feedstuffs*, the USDA will launch a third round of [Farmers to Families Food Box Program](#), and (3) the USDA continues to invest in [broadband service](#) for rural areas.

Trade Relations: China rejected U.S. claims regarding a [WTO ruling about price supports](#); the next day, Chinese buyers booked their [largest ever purchase of U.S. corn](#)

CAST College Corner

[Iowa State University](#): A professor turns manure into fuel with a \$10 million grant....

[University of Missouri](#): The school gets research investment in animal reproduction research....

[University of Arkansas](#): The FDA provides funding to support food safety education at the school....

Check throughout *Friday Notes* to see more featured articles from member universities.

CAST Social Media

Visit our website



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

Land Ownership: Aging farmers, absentee managers, and big-money investors—[questions about land ownership](#).

Time to Get Counted: Only a few weeks remain to [respond to the 2020 Census](#) before local census takers start knocking on doors. This video explains [why it is important](#) for communities across the country—including rural areas.

News from the Far Side of the Barn

No Joke--An Emu Walked into a Bar (video): An Australian [Outback pub banned two emus for bad behavior](#). An emu is a flightless, fast-running, ostrich-like bird with sharp claws.



Perseverance Rover to Mars: The next NASA mission to Mars includes [a rover with a miniature helicopter](#), and recent images of Saturn have been stunning.

Beetle Juiced: Scientists [strapped tiny cameras to beetles](#) to get a bug's-eye view of the world.

CAST Updates

Impacts on Human Health and Safety of Naturally Occurring and Supplemental Hormones in Food Animals
CAST Commentary QTA2020-4

Robert Collier
University of Idaho

Laura Hernandez
University of Wisconsin-Madison

Jimena Laporta
University of Florida

Jim Lauderdale
Upjohn/Pharmacia (retired)

Zachary Smith
South Dakota State University

On Monday, July 27, the new CAST commentary, *Impacts on Human Health and Safety of Naturally Occurring and Supplemental Hormones in Food Animals*, was released. The webinar with a Q&A session was held on Tuesday. You can access the webinar recording, publication, Ag quickCAST, and Student Study Guide [here](#).

Catching Up with Alison Van Eenennaam

CAST caught up with Alison Van Eenennaam about her recent research. Van Eenennaam said, "Well you probably heard about Cosmo from the [Wired article](#). He is a genome-edited bull calf with extra copies of SRY, the gene that is responsible for initiating male development, knocked-in or inserted onto chromosome 17. We produced him by embryo-mediated genome editing with the CRISPR/Cas9 system. We predict he will produce 75% male

offspring, but only data and experimental outcome can confirm that prediction. Stay tuned for results in a couple of years!"

You can read more about what VanEenennaam has been up to on CAST's [latest blog](#).



Upcoming Publications

- *Agriculture and the Microbiome* (August 24 release, webinar at Noon Central on August 25)
- *The Importance of Communicating Empirically Based Science for Society* (September release)
- *Food Biofortification--Reaping the Benefits of Science to Overcome Hidden Hunger* (October release)
- *Ground and Aerial Robots for Agricultural Production: Opportunities and Challenges* (November release)

Animal Agriculture and Environmental News

Cattle Ranching in the Shadow of Disney World (video):

This Florida rancher [protects water flowing to the Everglades](#) and supports multiple wildlife species while producing high-quality grass for his animals.

Packing Plants: (1) Comments coming from [meat packing companies](#) about the coronavirus crisis are examined, (2) the [number of new COVID-19 infections](#) reported at meatpacking plants appears to have slowed, (3) Jayson Lusk [examines what went wrong](#) at processing plants during the pandemic, (4) this story looks at the impact of the coronavirus on [minority workers](#) at processing plants, and (5) Tyson Foods will now [administer more tests](#).

Stepping Up: During the pandemic, this [University of Nevada-Reno operation](#) has not only been able to continue providing quality meat, fruits, and vegetables to the community, it has increased production.

Belgian Biotech Company Purchase: Boehringer Ingelheim acquired GST--a company that develops [stem cell products](#) for horses and pets.

Livestock Disease: Seven states report animals infected with [vesicular stomatitis virus](#), causing blister-like lesions around the mouths of horses and other livestock.



The [top five choices for backyard chicken breeds](#) include the "Leghorn," chickens known to be flighty and noisy—remember the animated Foghorn Leghorn?—but also known as good egg layers.

According to this [global report](#), poultry accounts for half of the world's increase in [meat consumption during the pandemic](#).

Food Science and Safety News

Fast Food Fragrance (video): KFC, Burger King, and McDonald's are using [scented shoes, perfume deals, and candle sets](#) to promote products.

Perfect Porridge: Check out this infographic on the [science behind making porridge](#).

Food Shortages? Serious shortages at most grocery stores [never materialized for several reasons](#), according to this Iowa State University economist.

Cinnamon and Sugar: Cinnamon apparently [improves blood sugar control](#) for those dealing with diabetes, according to this study.

Food Program: Many University of Kentucky alums are helping with an important food project that involves [giving away milk products](#).



Once again, the [health benefits of chocolate](#) are in the news, but moderation is still a key. And this article looks at how [Toberlone chocolate](#) became the darling of air

Plant Agriculture and Environmental News

Mystery Seeds (video): Agriculture officials in multiple states issued warnings about [unsolicited shipments of foreign seeds](#) (related story in caption at right).

Protein Power: Diets high in protein--particularly from plants--have been linked to [lower risks of developing diabetes, heart disease, and stroke](#).

Microorganisms on the Move: This study shows a link between [animal operations and orchard contamination](#).

GM Crops and the Environment: According to this study, [genetically modified crops](#) have achieved significant environmental benefits by reducing pesticide use and greenhouse gas emissions--while increasing yields.

Vertical Agriculture: An Israeli company has developed [vertical urban farms and active living walls](#) as possible solutions for "smart cities."



China is apparently offering to help the United States [investigate the unsolicited seed packets](#) (related story upper left).

International News

Plastic Bags and "Plastic Food" (video): The Japanese government set a [mandatory fee for plastic bags](#) in an effort to stop excessive use. This link also provides a clip about the making of plastic "model food" in Japan.

Smallholder Livestock Farmers: [Uganda's agricultural ministry](#) is helping farmers by providing training and more access to improved animals.

Bird Cull: Philippine officials slaughtered 39,000 chickens at a poultry farm near Manila to [curb a bird flu outbreak](#).

Tech and Problem Solving: Scientists are urging governments across the globe to [adopt technology](#) to reduce agriculture's impact on the environment.

Return of the Tigers: Tiger numbers have increased [across five countries](#).



Researchers from two universities in Denmark have developed an additive that could [reduce emissions of gases from manure](#)--and reduce odor.

General Interest News

A "Horror Movie" for Honey Bees (video): In yet another story with a "murder hornet" angle, this story is actually about [the honey bees they threaten](#). Note: Check out this CAST paper [focused on honey bee health](#).

Some Gift! Tuskegee University [received a \\$20 million gift](#) from philanthropist, activist, and author MacKenzie Scott to help the school maintain "its reputation as one of the nation's leading institutions of higher education."

Mental Health: A [farmer mental health bill](#) has cleared the Senate and is included in the National Defense Authorization Act.



Back to the Basics: Some [members of the Navajo Nation](#) see a [farming Renaissance](#) during the pandemic.

Volcanic Processes: Researchers at Penn State are finding ways to [better predict volcano activity](#).

Student Research: Kansas State University associate professor Cassie Jones is deliberate about [involving undergraduate students in research](#).

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- * American Dairy Science Association
- * American Farm Bureau Federation
- * American Meat Science Association
- * American Meteorological Society, Committee on Agricultural and Forest Meteorology
- * American Seed Trade Association
- * American Society for Nutrition Nutritional Sciences Council
- * American Society of Agricultural and Biological Engineers
- * American Society of Agronomy
- * American Society of Animal Science
- * American Society of Plant Biologists
- * American Veterinary Medical Association
- * Aquatic Plant Management Society
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- * Cal Poly State University
- * Corteva Agriscience
- * CropLife America
- * Crop Science Society of America
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * 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
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * Tuskegee University
- * United Soybean Board
- * University of Nevada-Reno
- * U.S. Poultry and Egg Association
- * Weed Science Society of America
- * Western Society of Weed Science

CAST, through its network of experts, assembles, interprets, and communicates credible, balanced, science-based information to policymakers, the media, the private sector, and the public.

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Note: Land O'Lakes supports the delivery of Friday Notes to NAAE

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The Science Source for Food,
Agricultural, and Environmental Issues

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