

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

The Borlaug Blogs--P. 2

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Ag Research in the Shadows of the Roman Empire



CAST intern Caryn Dawson traveled <u>5,000 miles to Rome</u> for hands-on

ag communication experience this summer--and it's only her first stop.

Horse Expo

University of Kentucky Ag Equine Programs will host the <u>annual Farm</u> <u>and Facilities Expo</u> May 30 in Lexington--free and open to the public, with a meal provided.

Grass-fed Beef Info

Those interested in grass-fed beef production and marketing will receive in-depth information at a Texas A&M conference occurring May 31-June 1.

Veterinary School Info

The Association of American Veterinary Medical Colleges developed this Cost Comparison

May 17, 2019

Tech, Trade, and LLP

With international disputes rising, one focus is on smoother authorization of biotech crops







The Ministers of Agriculture from Argentina, Brazil, Canada, and the United States say food demand is rising and agricultural innovation is crucial. They also point out that biotechnology is a key, but regulatory processes in many jurisdictions create time gaps in their authorization. This can lead to trade disruptions resulting from occurrences of low-level presence (LLP) of biotechnology crops that are approved in growing countries but not yet approved in importing countries. LLP occurs when a small amount of a biotechnology crop that has been assessed as safe in one or more countries is unintentionally present in a shipment to a country where the product has not yet been approved.

The ministers are committed to increased collaborative work with thirdparty countries and global approaches for the management of LLP that are practical, science-based, predictable, and transparent. These efforts will include the universal use of international science-based guidelines.

Note: Check out this related CAST Commentary, <u>The Impact of Asynchronous Approvals for Biotech Crops on Agricultural Sustainability, Trade, and Innovation.</u>

News and Views

Farmer Aid to Offset Tariffs: President Trump said his administration was planning to provide about \$15 billion in <u>aid to help U.S. farmers</u> whose products may be targeted with tariffs by China in a deepening trade war. Farmers and agriculture leaders have mixed responses.

USDA Positions: The U.S. Senate Committee on Agriculture, Nutrition, and Forestry <u>voted to favorably report the USDA nominations</u> of Mindy Brashears to be Under Secretary of Agriculture for Food Safety, Naomi Earp to be Assistant Secretary of Agriculture for Civil Rights, and Scott Hutchins to be Under Secretary of Agriculture for Research, Education, and Economics.

Tool to help prospective students
with financial planning for
veterinary school.

Professor Honored

An accomplished Mississippi State plant and soil sciences faculty member is now a fellow of the Southern Weed Science Society.

Farming is Coming



There is more agriculture in *Game of Thrones* than meets the eye, according to <u>this article</u>.

Send in Ideas

CAST <u>welcomes suggestions</u> for future publications and projects.

CAST Social Media













"New NAFTA" Vote on Hold? Senator Charles Grassley said a vote on the "new NAFTA" free trade agreement could be delayed for a year or more due to "politics."

Fighting the Fever: The USDA is furthering its overall <u>African swine</u> <u>fever preparedness</u> efforts with the implementation of a surveillance plan. The Animal and Plant Health Inspection Service will work with the swine industry, the states, and veterinary diagnostic laboratories.

News from the Far Side of the Barn

Too Cute to Eat (video): This British farmer is <u>raising sheep to</u> sell for their "cuteness."

But the Rain Might Mess Up My Fur! (video): These gorillas are determined to avoid the rain.

Nesting on the Hot Seat (video): A Russian wildfire sweeps through, but this <u>mama</u> <u>stork takes care of her eggs</u>--and the subsequent hatchlings.



Come for the Food--Stay for the Toilets: Some eateries have <u>facilities so stunning</u> they've become as legendary--and photographed--as the food.

Borlaug Blogs

World Food Prize site offers insights into "the man who fed the world"

The "Borlaug Blog" section of the World Food Prize website features stories, research, and expert opinions about Norman Borlaug, the amazing agriculturalist who worked to alleviate world hunger. Two of the entries have direct CAST connections.

One blog entry looks at the <u>connections Dr. Borlaug had with the land and with the mission of the Council for Agricultural Science and Technology</u>. The following paragraph is an excerpt from "The Father of the Green Revolution--Agriculturalist, Scientist, and Communicator."

Borlaug's fame may have come from his agricultural innovations, but just as important was his success as a communicator. His entire life was a promotion for the positive endeavors of those who produce food--and one specific avenue he used to get his message across was his relationship with the Council for Agricultural Science and Technology. As CAST EVP Kent Schescke said, "Because CAST members come from scientific and professional societies, nonprofits, universities, and companies, many of the scientists we work with share Dr. Borlaug's ideals, motivation, and commitment. Every day, they use science, technology, and innovation to enhance food security, safety, and sustainability."



Norman Borlaug received the CAST Charles A. Black Award.



Marty Matlock

Another blog entry comes from <u>Dr. Marty Matlock</u>--Executive Director, University of Arkansas Resiliency Center and the winner of the 2018 Borlaug CAST Communication Award. The following paragraph is an excerpt from Matlock's insights--<u>Borlaug's Vision and Impact</u>.

In order to know where we are going, we must know where we came from and how we got where we are.

Norm, together with M.S. Swaminathan, Jerry Grant, Orville Vogel, and an army of dedicated scientists, educators, and political leaders, advanced the science of modern agricultural production. We are on the threshold of the greatest advancements in agricultural and life sciences in human history! The combined advances in biotechnology, sub-field-scale monitoring, big data science, automation across the food supply chain, plant-scale robotics, and integrated

systems communications will transform global food systems within this generation. If we learn the lessons of the successes and failures from the Green Revolution, we can reach the aspirational heights of the UN Sustainable Development Goals.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 colosseum pic from iises.nte and toilet pic from annabelsmayfair.instagram. Animal Sec. meat judging photo from sportsillustrated.com and feral pig pic from columbiamissourian.com. Food Sec. student photo from iptv.com. Plant Sec. veggies pic from veggies.jpg and basil pic from Melanie Gonick. Inter. Sec. elephant pic from cnn.com and durian pic from ntd.tv.jpg. Gen. Sec. Whitson photo from collectspace.com and airplane pic from Phys.org. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Pork on the Menu (video): The National Pork Board released its latest findings from the comprehensive Insight to Action research, this time examining <u>trends in</u> consumer behavior related to dining out.

Poultry Info: AgWeb's <u>poultry news</u> includes market information and projections about global meat output.

Cow Count: The <u>2018 world cattle inventory</u> shows that India has the largest number of cattle, followed by Brazil and China--but that number includes water buffalo.

From Hemlock to Locoweed: Toxic plants can hide in the pasture and <u>harm grazing cattle</u>.

Dairy Solutions: Proposed Wisconsin <u>legislation would</u> <u>pour millions into dairy research</u>, as the state seeks solutions to problems frustrating the industry.



The "high-steaks" world of competitive meat judging pits college teams against one another to evaluate cuts of beef, pork, and lamb. Texas Tech often leads the standings, but Texas A&M, Kansas State, and others are in the hunt.

Year of the Goat? For various reasons, goats are popular worldwide. In the United States, the cow is queen, but <u>dairy goat herds are expanding rapidly</u>.



Feral Hogs Cause Havoc: As this University of Missouri article notes, many <u>farmers and landowners in southern Missouri struggle with feral hogs</u>. Large and aggressive, some weigh 400 pounds or more.

Hog Apocalypse? (related to above): Missouri and Texas ranchers, farmers, and specialists are debating the <u>best way to deal with the damage attributed to wild pigs</u>.

Food Science and Safety News

Reaching Grill Master Status: These 55 barbecue suggestions might get you ready for grilling season--from beer marinade to an onion as a cleaning tool.

Sprouting Success: A broccoli-derived compound shows promise in assisting in <u>the treatment of schizophrenia</u>.

A Biologist's Toolbox: This plant biologist says sustainability means using every tool in the toolbox-including high tech and organics.

Heritage and Popularity: Chickpea flour, a staple of Indian cuisine, <u>has become a food sensation</u>.

E-tongue for Fiery Job: Spicy food is huge business,

Students in small-town Nebraska are organizing a grocery store to help with the "food desert" problem.

and researchers say that an electronic tongue is more

effective and accurate in taste testing fiery foods than sensitive human taste buds.



Food Waste Reduction: Jayson Lusk (Purdue professor and <u>2017 BCCA honoree</u>) acknowledges "demand-side strategies" to reduce waste, but he is also interested in "supply-side efforts." He encourages research into <u>methods that could reduce the cost of</u>

food preservation.

Research Paper (related to above): Check out the CAST publication *Food Loss and Waste.*

Plant Agriculture and Environmental News



Improving Water Quality: Layered fertilizer technology from Purdue University could help improve water quality and lower costs for farmers.

Tree Symbioses: An international collaboration of hundreds of scientists has developed the world's <u>first global map of tree symbioses</u>.

Combining agriculture, computer power, statistical models, and chemical analysis, researchers are performing what they call cyber-agriculture to enhance plants such as basil so that it has "maximum flavor."

Cover Crops and Weeds: An article in the journal *Weed Science* shows that cover crops can play an important role in slowing the development of herbicide-resistant weeds.

Using Agricultural Waste: By upcycling biomass, innovators aim to <u>reduce greenhouse gas emissions and</u> improve the economic viability of farming.

Soybean Oil Use: Iowa State University researchers are developing a <u>bio-based polymer to replace the petroleum-based polymers</u> used as the binding agent in asphalt.



So Many Chromosomes, So Little Time: Polyploidy is one more tool that scientists can use to learn about the genetics of crop plants.

CRISPR Veggies: In order to get consumers on board with gene-edited vegetables, Greg Jaffe (CSPI Biotechnology Director) says <u>a registry should be compiled</u> to create awareness and acceptance.

Developing Better Tomatoes: Cornell researchers joined with other experts to create a pangenome that captures all of the <u>genetic information of 725 cultivated and closely related wild tomatoes</u>.

International News

Womb to Pouch (video): These <u>rare images of a baby</u> <u>wallaby</u> show how tiny the joey is when it crawls into the mother's pouch after birth.

Thai Food Like You've Never Seen Before:

Bangkok's first Michelin Guide looks at the city's culinary quirkiness that comes from its <u>weird restaurants</u>.

Global Meeting: Nearly 100 agricultural sustainability experts from around the world met in Senegal for the annual meeting of the Kansas State University-based Feed the Future Innovation Lab for Collaborative Research on Sustainable Intensification.



Officials in Laos estimate there are <u>only about 800</u> <u>elephants left in the country</u> that used to be known as the "Land of a Million Elephants."

GMO Decision: Kenya officials will make a <u>decision</u> <u>about the lifting of a ban on genetically modified organisms</u>. Other African countries are watching this debate.

Small Farmer Is "Big Cheese": A farmer from Norway with only 12 Norwegian Red cows is <u>apparently the</u> best cheese producer in the world.



Durian Strikes Again: A library in Australia was evacuated because of a suspected gas leak that turned out to be <u>the pungent smell of the durian fruit</u>.

Water Wars? In the Middle East, many have feared that water wars could occur, but desalination technology might help lessen the threat.

General Interest News

Positive about Ag (video): This young farmer won an award for his achievements, and he <u>talks optimistically</u> about the future of agriculture in his family.

Like Father, Like Daughter (video): This Nebraska farmer passes on his expertise and passion to his daughter--he acknowledges many challenges, but he is optimistic about the next generation on the land.

Plastic is Everywhere: A deep-sea explorer claims he found <u>plastic at the bottom of the Challenger Deep</u>--part of the Mariana Trench, one of the ocean's deepest spots.

Massive Food Waste: Amazon is digging itself out of the trash after a Seattle resident discovered <u>a 6-foothigh heap of unopened Amazon Go plastic containers</u>-filled with untouched food--at a waste facility.

Back from Extinction: A new study finds a flightless-bird species in the Indian Ocean <u>died out, then "re-</u>

evolved" from a species that shares the same ancestor.

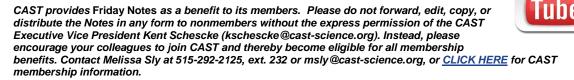
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Chemical Exposure: This report says that <u>pesticide exposure is tracked unevenly</u>--if at all--across Midwest farm fields. Sometimes workers on the ground are affected.

3D Printed Organs: Scientists say they are closer to solving the problem of <u>how to</u> supply printed organs with blood--and a common food dye could be the answer.

CAST Information

Check out CAST's page at the <u>YouTube site</u> to view highly regarded agscience videos about probiotics, food safety, and water issues--or the latest video dealing with proposed mandatory labeling of GMO food items.









If Peggy Whitson was still setting space flight records, she might be one of the astronauts on the International Space Station who will test a device called a photobioreactor. It uses living algae to convert carbon dioxide to breathable oxygen and produce edible food.

- * American Association of Avian Pathologists
- * American Association of Bovine Practitioners
- * American Bar Association, Section of Environment, Energy, & Resources-Agricultural Management
- * 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
- * BASF Corporation
- * Cal Poly State University
- * Corteva Agriscience, Agriculture Division of DowDuPont
- * CropLife America
- * Crop Science Society of America
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * 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
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * Tuskegee University
- * Tyson Foods
- * United Soybean Board
- * University of Nevada-Reno
- * Weed Science Society of America
- * Western Society of Weed Science

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