

# Friday Notes

Council for Agricultural Science and Technology

ICAST

The Science Source for Food, Agricultural, and Environmental Issues

*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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## Honoring Dr. Borlaug



On the occasion of what would have been Norman Borlaug's 105th birthday, [the World Food Prize will celebrate his accomplishments](#) by posting on March 25 using the hashtag #RememberingBorlaug. The organization encourages all to share photos and memories about Dr.

Borlaug. As this website page demonstrates, [CAST had a close and rewarding relationship](#) with "the man who fed the world."

## A Seat at the Table

The Animal Agriculture Alliance's 2019 Stakeholders Summit May 8-9 in Kansas City, Missouri, will feature [conversations about hot issues in animal agriculture](#).

## Meaty Announcements

**March 22, 2019**

## Weather and Agriculture

*National and international floods affect thousands*



Natural disasters come in various forms--from droughts to blights--but when widespread flooding hits, the immediate damage can be stunning. Recently, water has [taken lives and destroyed homes](#) in the United States, and several [African countries have been affected by a devastating cyclone](#).

Heavy [rain and snow melt brought historic flooding](#) to parts of the Midwest, [killing several and forcing thousands to evacuate](#). The storms have also impacted farmers as they deal with [massive crop damage and livestock losses](#). The [USDA provides assistance information on this site](#), and federal weather officials are worried that this emergency is a [preview for a record-setting flood year in the United States](#).

During the same time period, [Cyclone Idai ravaged Mozambique](#) and two neighboring countries. United Nations relief officials call it ["the worst storm to ever hit the Southern Hemisphere."](#)

Hundreds are dead, thousands are homeless, and food production will be affected massively.



## News and Views

**Data-sharing Publication and Video:** CAST's [recent commentary](#), *Enabling Open-source Data Networks in Public Agricultural Research*, focuses on promoting the conversation among agricultural science partners to create a system that encourages data sharing. Access a [video of the presentation here](#) (panel discussion at the 32-minute mark).

Two announcements from the American Meat Science Association: (1) Dr. A. K. Pradeep will be the featured keynote speaker at the AMSA 72nd [Reciprocal Meat Conference June 24 in Loveland, Colorado](#), and (2) Dr. Surendranath Suman has been selected as the [2019 AMSA International Lectureship Award winner](#).



**Highly Ranked Ag Schools**  
Rankings can be variable, but this list of "[Top 50 Ag Universities in the World](#)" includes many institutions that are often touted as quality universities--including Texas A&M, Iowa State, North Carolina State, Purdue, Florida, Ohio State, UC-Davis, Kansas State, and Cornell.

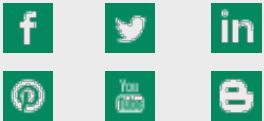
### Upcoming CAST Paper

Watch for information about CAST's next publication release on April 15--*Reducing the Impacts of Agricultural Nutrients on Water Quality across a Changing Landscape*.



**Send in Ideas**  
CAST welcomes suggestions for future publications and projects.

### CAST Social Media



**Tariffs and Trade:** President Trump said he is planning to leave [U.S. tariffs on Chinese products](#) in place "for a substantial period of time," even after some form of deal is reached with China.

**Analyzing the Lancet Report:** Authors of the EAT-Lancet report recommended a "transformation" of the human diet to solve climate change, and now [they are responding to criticism](#) that the suggestions are overblown and impossible to implement.

**Cancer Case:** A [federal jury ruled](#) that the weed killer Roundup caused a California resident to develop cancer. The Bayer company continues to affirm that "glyphosate-based herbicides do not cause cancer."

**Ag Economics:** This study shows that [U.S. food and agriculture industries contribute](#) more than 7-trillion-dollars a year to the nation's economy.

## News from the Far Side of the Barn

### Entertaining and Scientific (video):

The [naked mole rat cam](#) at the National Zoo is a popular attraction, and the peculiar rodent is a focus of study due to its [slow aging and anti-cancer traits](#).



Sure, they're cute and cuddly, but [naked mole rats can be aggressive](#). Check the links at top left for more.

**Crikey! There's a Koala in Me Car (video):** Relax, mate--the furry marsupial [just wanted to cool down](#).

**Drop from the Sky and Ski (video):** In case skiing on a daredevil slope in the Alps is not enough for you, try [dropping from a Zeppelin airship](#) to start the experience.

## Three New Members on the Board of Representatives

*CAST continues to benefit from professional insights*

CAST has benefited from the guidance and leadership of respected experts since 1972, and this week we note that since the beginning of the year, three more professionals have joined the organization's Board of Representatives. Kellie Bray, Leland Glenna, and Newell Kitchen will all be on the CAST Plant Work Group.



[Kellie Bray](#) is a chief of staff at CropLife America. She has covered both federal and state government relations, and she has been a leader in the organization's affiliation with youth groups such as National FFA and Ag Future of America.

[Leland Glenna](#) represents the Rural Sociological Society, and he is a professor of rural sociology and science, technology, and society at Penn State. Dr. Glenna focuses on social and environmental impacts of agricultural science and technologies.





[Newell Kitchen](#) represents the American Society of Agronomy. He is a soil scientist with USDA-ARS and an adjunct associate professor at the University of Missouri. Dr. Kitchen has been recognized for his research in integrated agricultural systems as related to precision agriculture systems, soil and water quality in agroecosystems, and nutrient management for improved fertilizer use efficiency.

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 Borlaug image from WFP.jpg, flood collage from KRUN.com, hoosiersagtoday.com, and denverpost.com, map from ecr.co.za, and mole rat pic from bbc.co.uk. Animal Sec. cow pic from twitter.com. Food Sec. cartoon from agescimarche.it. Plant Sec. biofuel graphic from futurity.org. Inter. Sec. road pic from hotcars.com, and phone pic from thebetterindia.com. Gen. Sec. family photo from twnnews.com and vaping pic from bwbx.io. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



### Animal Agriculture and Environmental News

**Farmer to the Rescue (video):** This farmer uses a tractor and front loader to [save a cow caught in the mud](#) during the Nebraska floods.

**Gene Editing and Livestock (opinion):** This editorial states why the [proposed U.S. regulation of gene-edited food animals](#) "is not fit for purpose."

**Ag Trespass Law 2.0:** Iowa lawmakers sent another "ag trespass bill" to the governor--a version that is [more narrowly tailored](#) than the previous rule that was called unconstitutional by courts.

**Pork and Blockchain:** The National Pork Board and Ripe Technology, Inc., entered an [agreement to pilot blockchain technology](#) use in the U.S. pork industry.

**Pork Seized at the Border:** U.S. Customs and Border Protection [agents seized about 1 million pounds of pork](#) imported from China amid concerns it could contain the African swine flu disease.

**Finding Safe Cattle Feed:** Drought has forced Missouri beef ranchers to find alternatives such as millet and sudangrass--but [nitrate poisoning can become an issue](#) in some cases.



This Cornell University program helps farmers [determine what to feed dairy cows](#) to make milk production more efficient and environmentally friendly.



**Poultry Resource:** This Purdue University site contains [information on aspects of poultry production and management](#), as well as valuable resources for use in education and outreach.

**Poultry Research Publication:** Click [here for access to CAST IP 61, Impact of Free-range Poultry Production Systems on Animal Health, Human Health, Productivity, Environment, Food Safety, and Animal Welfare Issues](#).

### Food Science and Safety News

**Pesticide Residue:** According to the [information in the graph at right](#), pesticide residue should not be a major concern for the nation's consumers.

**Eggs and Cholesterol:** A recent study cautions consumers about eggs and cholesterol, but the [lead scientist for the report provides analysis](#) that looks calmly at the overall results.

**Eggshells in Cosmetics, Ceramics, and Batteries?** Biowaste in the form of chicken eggshells has [proven to be effective for energy storage](#).

**What Is "Organic"?** As organic food shifts from a utopian movement to lucrative industry, a [struggle is going on regarding production and marketing](#).

**Is There a "Fiber Gap"?** According to this report, only 5% of people in the United States meet the Institute of Medicine's [recommended daily target of fiber](#) in their diets.



The Goldilocks Strategy and Its Implications for Agriculture

**Precaution about the Precautionary Principle (opinion):** This writer [says the precautionary principle is bad policy](#) because to fully comprehend the concept of risk, a person must have a very good understanding of statistics and data analysis--and most people

don't.

**Research about the Precautionary Principle:** To access science-based information about this topic, [check out CAST IP 52, Impact of the Precautionary Principle on Feeding Current and Future Generations](#).

**Worried About Pesticide Residue? We'll Give You a Bunch of Reasons to Stop**



Pesticide product labels provide critical information about how to safely and legally handle and use the product. Labels also tell you other facts; pesticide labels are legally enforceable.



More than 99% of samples tested have residues below EPA's tolerance levels.



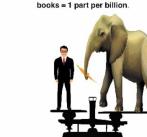
Detection does not equal harm. Modern detection tools are pretty good at detecting the sweet measurements, like parts per million and parts per billion. One part per million is like 10 bricks of the Empire State Building.



The book Harry Potter and The Order of the Phoenix contains a total of 257,045 words. If you had a stack of 3,899 of those books, one page of those books = one part per billion.



A horse contains 25,233 grains of carrots in one day without any harm from pesticides even if they had the highest pesticide residue recorded by USDA. This serves as approximately 1000 carrots, equivalent to the weight of a horse.



A male elephant has 25,233 carrots in one day without any harm from pesticides even if it had the highest pesticide residue recorded for carrots by USDA. This serves as approximately 12,659 carrots, equivalent to the weight of an elephant.



It is important to remember to wash all produce before eating it, regardless of how it is grown, not only rinse off any lingering pesticide residue but to wash away germs from the grocery store or farm.



The most important thing is to eat a diet filled with nutrient-rich fruits and vegetables. Your health depends on it!



## Plant Agriculture and Environmental News

**Purple Pastures (video):** This woman left her profession as a teacher 15 years ago to [run her family's lavender farm](#), and now she is the president of the firm.

**Citrus Greening:** A decade of ravages by citrus greening has left Florida with only hard-core, committed growers, and [more research is needed](#) to keep them in business. University of Florida experts are helping.

**Soil Quality:** Three global leaders in agricultural research and international development—including Kansas State—are joining to improve the livelihoods of the world's poorest populations by [increasing soil fertility](#).

**Heard It through the Grapevine:** A long-awaited federal grape-genetics research lab in New York will employ [cutting-edge genomic tools to aid traditional grapevine breeding](#).



**Good News, Bad News:** The ethanol industry cheered a proposed rule to allow year-round sales of 15% ethanol fuel blends but then soured at the news that the EPA is granting more waivers to refiners.



**Food Policy Discussion (video):** In this archived presentation, Marty Matlock, Executive Director of the Office for Sustainability at the University of Arkansas, joined other experts to [discuss food safety and sustainability](#). As Dr. Matlock said, "Climate change is driving food scarcity. We need to focus on food security, because that is where children die, where people suffer."

**Marty Matlock and Sustainability:** Dr. Marty Matlock is also Executive Director of the [University of Arkansas Resiliency Center](#) and Professor of Ecological Engineering in the Department of Biological and Agricultural Engineering, and he is the [2018 Borlaug CAST Communication Award winner](#).

## International News

**Watch in Wonder (video):** Narrated by Sir David Attenborough, the [latest trailer for the nature series Our Planet](#) looks at the wonders of our world.

**Fighting Climate Change:** Germany, one of the world's biggest consumers of coal, will [shut down all 84 of its coal-fired power plants](#) during the next 19 years.

**Brazil-U.S. Trade:** Brazil has [agreed to ease trade barriers](#) for U.S. wheat, pork, and beef. The U.S. will now be allowed to export 750,000 tons of wheat--tariff free--to Brazil, and the ban on U.S. pork imports has been lifted.

**Radiation and Soil Contamination:** Japan experienced the unprecedented Tohoku earthquake in 2011, with a massive tsunami that resulted in the meltdown of a nuclear power plant. Scientists are still [working on the resulting soil contamination](#).



**Plant App in India:** Plantix is an [AI-driven mobile application that aids farmers and gardening enthusiasts](#) with information on diseases, pest infestation, and nutrient deficiency--all by sharing a photograph of a leaf.

**Water Woes (opinion):** This writer claims that certain [large agricultural concerns in Colombia are controlling water interests](#) and making it tough on peasant farmers.



A vicarious trip on these white-knuckle vistas may help you leave your comfort zone as you [cruise dangerous roads around the world](#).

## General Interest News

**Fireball in the Sky (video):** NASA reports that on December 18, 2018, a [giant space rock exploded](#) 16 miles above Earth's surface, giving off 10 times the energy of the atomic bomb detonated over Hiroshima.

**Efficient Fertilizer Use:** According to this site, farmers can [improve their fertilizer-use efficiency](#) by using these six recommendations.

**Keeping Some Cash:** A proposed House bill would give an [economic boost to young people in agriculture](#) by allowing 4-H and FFA students aged 21 and younger to keep more of the modest income they earn.

**Gene Therapy and Vision:** Researchers used [gene insertion to help mice regain sight](#), and they hope that the therapy can be tried on humans within three years.



**Vaping and Kids:** As the FDA looks for more information on e-cigarettes and e-juice sales, a new study shows that [adolescents and young adults cite appealing flavors as a main reason](#) for using e-cigarettes.



This Wisconsin family operates a [community-supported agriculture program](#)--with a spirit of "growing for intentional giving."

## 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.

CAST provides Friday Notes as a benefit to its members. Please do not forward, edit, copy, or distribute the Notes in any form to nonmembers without the express permission of the CAST Executive Vice President Kent Schescke ([kschescke@cast-science.org](mailto:kschescke@cast-science.org)). Instead, please encourage your colleagues to join CAST and thereby become eligible for all membership benefits. Contact Melissa Sly at 515-292-2125, ext. 232 or [msly@cast-science.org](mailto:msly@cast-science.org), or [CLICK HERE](#) for CAST membership information.



# Societies, Companies, and Nonprofit Organizations Serving on the CAST Board of Representatives

- \* Agricultural & Applied Economics Association
- \* 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 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

*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.*

## Members of CAST's Education Program

- \* Cal Poly-San Luis Obispo
- \* Cornell University
- \* Iowa State University
- \* Kansas State University
- \* Mississippi State University
- \* North Carolina State University
- \* Purdue University
- \* Texas A&M University College of Ag & Life Sciences
- \* The Ohio State University
- \* Tuskegee University
- \* University of Arkansas System Division of Agriculture
- \* University of California-Davis
- \* University of Florida Institute of Food and Agricultural Sciences
- \* University of Kentucky
- \* University of Missouri-Columbia
- \* University of Nebraska Agricultural Research Division
- \* University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources



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