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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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Rescues in the Storm



Hurricane Florence has necessitated many [heroic rescues--including pets](#).

Publication Rollout

CAST invites you to attend a presentation of its newest issue paper, *Food Loss and Waste*--two sessions September 28 in Washington, D.C. [Check here for details](#).

USDA Wants Your Input

USDA officials [ask for your suggestions through this survey](#).

Super Foods, Common Read

Join the Purdue Ag Alumni Common Read as Distinguished Professor [Jayson Lusk shares inspiring stories](#) about super foods. Dr. Lusk is the [2017 BCCA laureate](#).

September 21, 2018

A Thousand Ways to Feed the World

From massive relief organizations to one person sharing bread, there are many working toward the day when no one needs to go to bed hungry. During the next few weeks, CAST will be involved with presentations, research rollouts, and communication efforts all focused on that theme--how does agriculture best feed the world?



Tackling the food waste problem is one avenue. This tech entrepreneur in Nigeria lived through childhood hunger, but he now thinks his [new app called Chowberry will connect people to supermarket food](#) that would ordinarily end up in the bin. And this [list highlights 27 organizations](#) in New York City focused on food loss and food waste. On Friday, September 28, CAST will host two sessions on Capitol Hill to roll out its newest issue paper, *Food Loss and Waste*. [Check here](#) or see the announcement in the left column.

Production techniques are also important in the fight against hunger. Opinions about best practices vary, but many focus on a wide range of methods--from [conservation techniques that sustain](#) output and economic values to the ideas of a University of Florida professor who explains why he enjoys organic produce and supports the [use of genetically engineered foods](#).

The [World Food Prize](#) will involve many events looking at food production in October, and [CAST will host a morning session](#) during gatherings on Wednesday, October 17. Marty Matlock will receive the 2018 Borlaug CAST Communication Award and lead a presentation about techniques, technologies, and ecosystems.

News and Views

Click, Contribute, Communicate



Help CAST in its effort to [provide credible, science-based information](#).

Your Ideas Welcome

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

STEM Career Fair

University of Arkansas students majoring in science, technology, engineering, and math [are encouraged to attend the STEM Career Fair](#) on Wednesday, September 26.

Agronomists Honored

Three Kansas State University Department of Agronomy faculty members are being honored for their [exemplary work in agronomy](#), crop science, and soil science.

Crop Field Day

University of Kentucky soil scientists will host a field day October 3 to present research regarding ryegrass, fragipan, and [crop production breakthroughs](#).



Catch CAST Online!

Follow us on [social media](#) to stay up to date on the latest ag trends and recent CAST news!

Wind, Floods, and Ag: Hurricane Florence brought tragic human loss and property damage. [Agriculture suffered too](#), especially from flooding--so far, [5,500 hogs](#) and 3.4 million head of poultry have been killed. Crop and environmental reports are still coming in.



Tariffs Increase: President Trump announced an [additional 200-billion dollars in tariffs on Chinese products](#) imported to the U.S. beginning September 24--the list includes agricultural and manufacturing items. [China responded](#) with its own set of tariffs.

Farm Bill in Limbo: A Senator on the Farm Bill Committee says [negotiations for a new five-year agreement have stalled](#), and "we could be looking at a one-year extension."

WOTUS Update: A U.S. District Court decision means that [28 states are now exempted](#) from the jurisdiction of the 2015 Waters of the United States ruling.

News from the Far Side of the Barn

Stinging Ants Form Small Islands to Survive (video): Ants are surviving the floods by [forming their own ant-made life rafts](#).



Recycle Devotee or Neighborhood Bandit? These videos show how resourceful raccoons can be.

Wild Things (related to link in caption at right): [Coyotes and other wild animals](#) have been "movin' to the burbs."

Gluttony 101

(video): When an ironman triathlete was banned from a sushi joint after reportedly eating dozens of plates of raw fish, this writer started looking into [the all-you-can-eat phenomenon](#).

The World According to Temple *Grandin speaks about animals, humans, and ways of thinking*

Temple Grandin--autism advocate and animal behavior expert--spoke about the need for understanding how animals and people think in a [recent lecture at Iowa State University](#). With confident, science-based pronouncements and a backdrop of enlightening slides, she spoke about agriculture, education, learning styles, and the workings of the mind (human and animal).

Many in the world of agriculture know her because of her respected [work with livestock](#). Others learned about her from the HBO film [Living with Autism](#) starring Claire Danes. [Check this site for an overview](#) of Grandin's life and work.

Quotes from Temple Grandin:

- * Animals make us human.
- * Nature is cruel, but we don't have to be.
- * I am different, not less.
- * The world needs all types of minds.
- * If I could snap my fingers and be nonautistic, I would not. Autism is part of what I am.



Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 rescue photo from theatlantic.com, farmers graphic from foodandfarming.ca, flood pic from wsj.net, and raccoon pic from soswildlifecontrol.com. P. 2 Grandin photo from iowastatedaily.com. Food Sec. helmet pic from cnn.com. Plant Sec. app pic from farmjournalagtech.com. Inter. Sec. sheep pic from farminguk.com. Gen. Sec. Borlaug photo from worldfoodprize.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Hands-on Learning (video): Students in an agricultural class at an Iowa high school are [experiencing hands-on lessons about piglet care](#).

Cloning the Extinct (video): [Scientists are attempting to extract cells from a 40,000-year-old horse](#) in hopes of using the sample to clone the extinct species back into existence.

Egging on an International Market: U.S. egg industry experts are looking for international buyers and [opportunities in key Caribbean markets and Mexico](#).

Genome Editing and Animals: Scientists are working on genetically engineered animals, but some wonder [whether or not consumers are willing to accept them](#) (related links in caption at right).

Gochipo, Mitsuboshi, and Pork: A Pork Checkoff official explains how American producers try to [build relationships with key buyers and influencers](#) in Japan and South Korea.

CAST Issue Paper

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July 2018

Genome Editing in Agriculture: Methods, Applications, and Governance

*A paper in the series on
The Need for Agricultural Innovation to
Sustainably Feed the World by 2050*



Check out these two influential CAST publications: [Genome Editing in Agriculture](#) and [The Science and Regulation of Food from Genetically Engineered Animals](#).

Fever App: This phone application is designed to help swine producers [detect pigs with a fever](#).

Summer Shade (video): Researchers at the University of Minnesota have installed solar panels that [generate power and also provide cooling shade for cows](#).

Granny Got Her Gun--and Revenge (video): A Texas grandmother (and town mayor) [bagged a 12-foot alligator](#) that apparently ate her miniature horse.



Food Science and Safety News

Goat Gelato (video): This couple in upstate New York is realizing the [sweet taste of success by developing a niche dairy dessert](#).

Parents, Children, and Food (survey): A new survey by the International Food Information Council reveals parents' underlying concerns around [issues like what foods to introduce](#) into their kids' diets and when.

Omega-3 and Anxiety: Results from this study showed that treatment with omega-3 polyunsaturated fatty acids [may help reduce symptoms](#) in patients with clinical anxiety.

Omega-3 Research: Click here to [access the CAST publication](#) *Omega -3 Fatty Acids: Health Benefits and Dietary Recommendations*.

Fighting *E. coli*: After a deadly *E. coli* outbreak in Arizona, most growers are now operating under [new food safety requirements](#).

Edible Packaging: These organizations [try to reduce plastic waste](#), support a healthy environment, and influence consumer behavior.

Future Food or Misplaced Speculation? This opinion article looks at the [next two decades of food developments](#)--from robot farmers to 3D-printed meals to government monitoring of your daily calorie intake.



Ten [food items hitting NFL concession stands](#) this season range from dessert nachos to burgers with the works.



Plant Agriculture and Environmental News

Biotech Seeds and Climate Change (opinion): In combination with a new report, Bill Gates explains that genetically modified seeds can [help farmers adapt to droughts and other changes](#) brought on by human-driven climate change.

New Fruits: Cornell's berry breeding program is releasing a new strawberry and raspberry variety that will [produce larger fruits with vibrant colors, and it will maintain peak flavor for longer](#) than most heritage varieties.

Wetlands and Habitat: Wetlands provide flood control, improve water quality, and [serve as a vital habitat for wildlife](#).

Forage Alternatives: Drought during the 2018 growing season in most of Missouri resulted in [hay and forage shortages](#). This University of Missouri agronomist offers some alternative forage options to feed beef cattle in such conditions.

Beetles Be Gone: Entomologists have found that an invasive beetle is feeding on milkweed and could [hinder the international efforts to rebuild the struggling pollinator population](#).

Gardening for a Youthful Brain: An award-winning paper by a Texas A&M design professor details how [gardening tasks can help older adults stave off age-related cognitive decline](#).

Fighting Mother Nature: Stalk lodging is a serious problem in most grain crops, resulting in annual yield losses. A University of Kentucky research team is looking for ways to [overcome this problem](#).



A new app with [artificial intelligence and machine learning algorithms](#) can help identify weeds and disease in the field with the snap of a picture.



International News

Rhino Generation Gap (video): When baby wants to play and [mom wants to nap](#)--rhino style.

Using DNA to Track Poachers: Conservationists have developed a new high-tech strategy to trace the cartels that smuggle much of the [illegal ivory around the world](#).

Russian Robo-bees: As some types of bees in the wild struggle with a steep decline in numbers, Russian scientists offer [robotic pollinators as a viable substitute](#).

Trying to Stop Malaria: The government of Burkina Faso granted scientists permission to [release genetically engineered mosquitoes](#).

Can You Say Arachnophobia? Warmer weather, abundant mosquitoes, and mating season led to the [eerie spectacle of a 300m-long spider web](#) in Greece.



The [Great Sheep Drive](#) spectacle will see more than 600 "freemen" drive their sheep over what was once London's only river crossing and sole trading route.

Light, Plastics, and Fuel: British scientists have come up with a method that uses sunlight to [break down plastics and generate hydrogen](#). The experiment is only at the proof-of-concept stage, but it has the potential to be more.



General Interest News

A Focus on Safety

**** Florence, Food, and Safety:** Kylie's blog provides specific suggestions and helpful links [regarding food safety and storms](#).

**** Grain Bins and Danger:** It's a good time of year to consider [grain bin safety](#).

**** Safety for Kids:** This site provides a guide to [safety on the farm](#) for children.

**** ATV Risks:** Thousands of kids a year are killed or injured due to [all-terrain vehicle accidents](#). This documentary video looks at specific cases.

**** Tracking Severe Weather:** More than 50 scientists and students from four universities, including Nebraska-Lincoln, [will participate in the most ambitious drone-based investigation of severe storm tornadoes](#) ever conducted.



This article uses video, photos, and information to [honor Nobel laureate Norman Borlaug](#)

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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- * American Meat Science Association
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- * American Seed Trade Association
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- * American Society of Agricultural and Biological Engineers
- * American Society of Agronomy



- * American Society of Animal Science
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- * Crop Science Society of America
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * Land O'Lakes
- * Monsanto
- * 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
- * Society for In Vitro Biology
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * Tyson Foods
- * United Soybean Board
- * Weed Science Society of America
- * Western Society of Weed Science

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