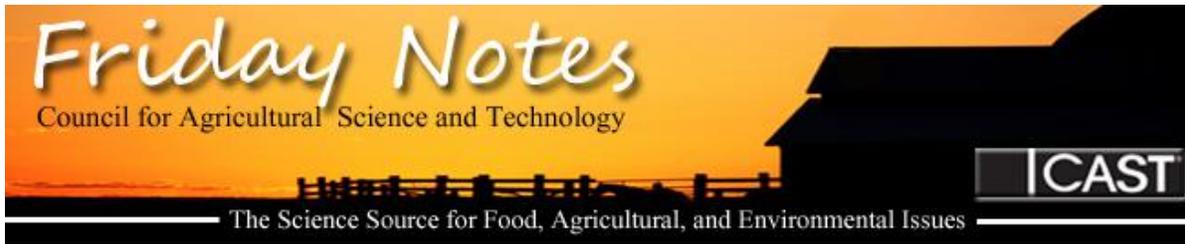


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Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible, unbiased, science-based information. Material contained in linked articles is from the original authors and does not necessarily reflect the views of CAST.

In This Issue..... [Click to Read](#)

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Grand Inversion



On rare occasions, the Grand Canyon fills with thick, [spectacular clouds](#).

Boosting Ag Research

As reported last week, a new effort to [boost federal investment in agricultural research](#), FedbyScience, includes involvement with universities such as Cornell, North Carolina State, Florida, Nebraska-Lincoln, Texas A&M, Iowa State, and Kansas State.

New Research Facility



University of Arkansas researchers [investigating antibiotic alternatives in poultry production](#) will have a new state-of-the-art facility for their work, thanks to a corporate donation.

[Submit an Idea](#)

April 27, 2018

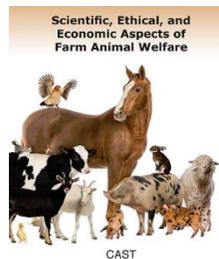
Matlock Wins Communication Award

Influential CAST publication also released during a busy week in the nation's capital

The [2018 Borlaug CAST Communication Award](#) will go to [Marty Matlock](#), an internationally recognized expert in agricultural sustainability metrics and assessment. Matlock has become a world leader in the science of agricultural sustainability during the past 10 years through his global communications efforts. Currently working as an executive director at the University of Arkansas, Matlock has been praised for his abilities to synthesize complex issues into simple concepts that resonate with his target audience.



His interdisciplinary work has been recognized by numerous leading organizations through 30 national and international awards. Check page two below for more on Matlock and the presentation from Jayson Lusk at the announcement event.



On April 23, a day before the BCCA announcement, CAST held three events to roll out its [latest publication, *Scientific, Ethical, and Economic Aspects of Farm Animal Welfare*](#).

Candace Crony of Purdue University explained how the paper demonstrates the need for strategic engagement related to ethical concerns when communicating with a wide range of interested stakeholders--while also remembering the importance of keeping differing perceptions and

levels of knowledge in consideration. Page two, below, includes more about the rollouts and the publication.

News and Views

EPA Administrator and Ag: The EPA influences agriculture, and its chief, Scott Pruitt, has been in the news recently: (1) a testimony [about RFS waivers](#) granted to oil refineries, (2) a proposed [new rule about scientific research](#) that can be used by the agency for its regulatory decisions, and (3) an [appearance in front of a House committee](#).

Agriculture and Trade: American farmers and ranchers have been variously worried, pleased, and bewildered about the administration's intentions and [the direction of U.S. trade policy](#).

We welcome suggestions and recommendations for future CAST publications and projects. [Click here to submit ideas.](#)

NebraskaSTEM

Up to 15 rural Nebraska elementary teachers are wanted for a leadership development program that begins this summer. [Click here for more information](#)--deadline is May 1.

Communities and Climate

The Ohio State University will cohost a dialog on "[Building Resilient Communities in a Changing Climate](#)" on May 18 in Columbus, Ohio.

New Test Lab

Deere and Company announces plans for a test lab at Iowa State University [focused on agricultural spraying and applications](#) technology.



Catch CAST Online!

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

Unblock Blockchain: Blockchain is a secure, shared, distributed ledger technology that decentralizes any transactions process that transfers something valuable. OK, that might sound a bit obscure, so check out this article to [learn about this important new concept.](#)

Dr. Adesina Message (video): World Food Prize laureate Akinwumi Adesina spoke about "[Africa at Work: Educated. Employed. Empowered.](#)" Adesina was the [2010 Borlaug CAST Communication Award winner.](#)

News from the Far Side of the Barn

Balancing Beauty

(video): No glue, string, wire, or adhesive needed to complete [this artist's masterpieces.](#)



A high-school golfer discovered that [hazards on the course can include an irate goose.](#)

Behind the Scenes

(video): It's a common procedure to spay a cat, but [when the cat happens to be a lioness](#)--it's a little more complicated.

Don't Stop Believing

(video): [Three dancing dairy girls have gone viral.](#) and they hope their message does too.

Big Events in Washington, D.C.

CAST kept busy in our nation's capital this week

On April 23, [Dr. Candace Croney](#) presented highlights of CAST's newest task force report--[Scientific, Ethical, and Economic Aspects of Farm Animal Welfare](#). As the authors point out, "It is imperative to understand which systems and practices may optimize economic efficiencies in conjunction with ensuring positive animal welfare outcomes and public support of animal agriculture." Due to the complexity of the issue, the scientific community continues to strive for a consensus that provides a framework for scientific and ethical analysis. Find more information regarding the report and Monday's event from the [press release](#), [CAST's website](#), and a [recent CAST blog](#).



Dr. Candace Croney (upper left) led the presentations during three rollout events in the nation's capital. [Click here for a video](#) of the presentation cohosted by the Animal Ag Alliance and the American Farm Bureau Federation.



From left to right: Jayson Lusk, Kent Schescke, Genevieve O'Sullivan, and Nancy Reichert

On April 24 at the [USDA Whitten Patio in Washington, D.C.](#), Distinguished Professor and Head of the Department of Agricultural Economics at Purdue University and 2017 BCCA winner, [Jayson Lusk](#), gave a presentation on *The Politicization of Food Consumption and Communication*. Throughout his presentation, Lusk informed the audience that he expects to see future policy that is focused more on food rather than agriculture. "There are competing visions for the future of food and agriculture with a huge opportunity for more effective communication about productivity-enhancing technologies."

Following Lusk's presentation, Dr. Nancy Reichert, Professor of Biological Sciences at Mississippi State and current CAST President, announced Dr. Marty Matlock as the recipient of the 2018 Borlaug CAST Communication Award. Kent Schescke, CAST EVP, stated, "Each of our BCCA recipients has been an outstanding example of excellence in the communication of agricultural issues. This year's winner is another great example."

[CropLife America's](#) Director of Communications and Marketing, Genevieve O'Sullivan, wrapped up Tuesday's event by announcing their sponsorship of the Borlaug CAST Communication Award for the next three years. You can find more information on Dr. Marty Matlock by visiting [CAST's website](#) or our [recent blog post](#).

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 Grand Canyon pic from [bbc.com](#) and golfing pic from [yahoo.com](#). P. 2 photos thanks to Tom Van Arsdall. Animal Sec. bull pic from [houstonpress.jpg](#). Food Sec. popcorn cartoon from [facebook.jpg](#). Plant Sec. weed cartoon from [pathslesstravelled.jpg](#). Inter. Sec. dog pic from [drovers.com](#). Gen. Sec. innovator photo from [notey.com](#). Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Pig Spleen Forecasting (video): Forget the *Farmers' Almanac* and "reading the clouds." By using the fat found on a pig's spleen, [this prognosticator can predict the forecast](#).

The Almanac, Weather, and Snoring Cats (related to above): On second thought, the *Farmers' Almanac* [might be worth considering again](#), as this blog points out.

Antibiotics in Dairy: This Cornell University study has pinpointed [the financial toll that eliminating antibiotic use](#) would have on dairy farms.

A Passion for Pig Production: This young man found his passion for livestock [after getting involved in youth organizations](#).

Egg Production Efficiency: U.S. egg production has significantly



There are limits, but one farmer/humorist points out "[ten advantages of a bad bull](#)."

[decreased its environmental footprint](#) in the past 50 years, according to this report.

Livestock and Clean Air (opinion): In this opinion statement, UC-Davis professor Frank Mitloehner says that greenhouse gas emission is a problem, but [livestock production has been overly blamed](#) for it.

CAST Publication Related to Above: Dr. Mitloehner was an [author on the CAST Issue Paper Air Issues Associated with Animal Agriculture: A North American Perspective](#).

Searching for Food: Ongoing [drought and wildfires have cattle ranchers](#) in at least five southwestern U.S. states scrambling for hay or pastureland, while others are selling off some of their herds.



Food Science and Safety News

Dairy Decoded (video): Dairy producers use a variety of cap colors [to distinguish between the fat content of each beverage](#). These tips will make your next trip to the dairy section faster.

Healthy Food = More Waste: A new study reveals that [healthy diets lead to more food waste](#), but that shouldn't stop you from consuming fruits and vegetables.

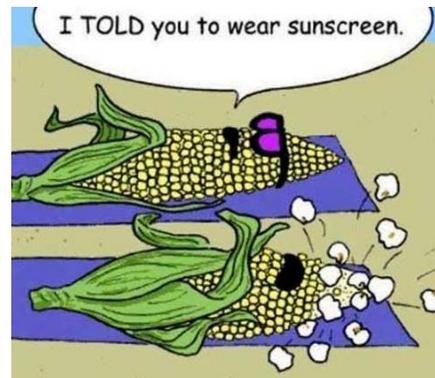
Lettuce Be Careful: The number of victims in an [E. coli outbreak linked to romaine lettuce](#) jumped as public health officials struggled to determine the source of the implicated produce.

Biotech Food--So Far, So Good (opinion): This *NYTimes* piece says that in the decades since the first genetically modified foods reached the market, [no adverse health effects](#) among consumers have been found.

Fingerprint Foodborne Pathogens: This food scientist created a system that can [identify foodborne pathogens in a fraction of the time](#) taken by traditional methods.

Gut on a Chip: This groundbreaking Cornell technology [creates a 3D model of the human intestinal tract](#) to better understand how food moves through the body.

Pesticides and Produce: Former BCCA recipient Carl Winter discusses [the science behind what we put on our plate and the truth](#) behind Environmental Working Group's Dirty Dozen list.



The first type of [popcorn was domesticated more than 6,000 years ago](#)--all without microwaves to use or movies to watch.



Plant Agriculture and Environmental News

Robotic Florist? (video): This [amazing video gives you an inside look](#) at the use of a modern warehouse, assembly lines, and robots to create a beautiful bouquet.

Practicing What He Preaches (video): This University of Arkansas [pasture and forage specialist](#) is a third-generation cattle producer, and he puts his ideas and suggestions into practice.

If a Tree Falls in a Forest: A new aerial survey tool is [helping California land managers predict tree mortality](#)--for example, it helps locate bark beetles.

Boosting Soybeans: As reported by the University of Nebraska-Lincoln, [planting soybeans early is critical to maximizing yields](#).

Irrigation Research: How do you [boost soil health and water content without irrigation](#)? Scientists are searching for the answer in a study that compares the use of straw mulch, plastic mulch, and no mulch.

Revvng the American Forest (video): With the help of modern science, researchers have been studying [the disease that wiped out four billion](#) American chestnut trees in the 1990s in hopes of reestablishing the population.

Environmental Trifecta: This article looks at how cover crops, no-till, and "planting green" [help the environment](#).



North Carolina State scientists and graduate students are [battling the destructive scourge known as pigweed](#) or Palmer amaranth.



International News

Robots Replace Human Hands (video): Picking asparagus and potting plant seedlings are delicate jobs, but [robots in the Netherlands](#) seem to be adjusting to the work.

Taking the Bite Out of Pigs: A high-tech system involving 3D cameras could help pig farmers [spot early warning signs of tail biting](#), according to research in the United Kingdom.

EU-Mexico Trade Deal: The European Union and Mexico have [agreed in principle to a new trade deal](#)--apparently eliminating or reducing most tariffs on poultry, cheese, pork, and more.

Pig Production on the Rise: Uganda's [pig business has been increasing](#) since the late 1980s, and some believe there is more growth to come.

Fighting a Killer Disease: Scientists modified a plant's genetic sequence to [make it produce high levels of a key malaria drug](#). The World Health Organization says malaria caused an estimated 445,000 deaths worldwide in 2016.



Lifesaver: Authorities are crediting a 17-year-old [deaf and partly blind blue heeler](#) with saving a toddler's life after the little girl went missing in the mountains of Queensland, Australia.

Ag Upgrade in Serbia: This [institute in Serbia is working to upgrade farms](#) in the country and throughout Europe with a host of devices.



General Interest News

New View on Cells (videos): New microscope technology allows scientists to see [cells and tissues like never before](#).

AI Helping Doctors: Self-taught computer algorithms [could save thousands of lives](#) with tools that aid in predicting heart attacks.

How to Spot Bad Science (video): This "cheesy" video provides a [checklist of tips to help debunk](#) health-scare stories.

Antioxidant Boost? University research published by the American Heart Association says that older adults taking a novel antioxidant that targets cellular powerhouses, or mitochondria, see [improved blood vessel conditions](#).

Many Service Dogs Are Essential (opinion): A few people have taken advantage of the system used for support animals--but many [well-trained service dogs perform important tasks](#) for their owners.



MIT recruits people with "crazy ideas" to work in their Media Lab, where life-changing inventions are created--from food growth in deserts to [connecting the brain to the internet](#).

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 Dairy Science Association
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- * 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
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- * Croplife America
- * 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
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