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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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[Plant and Environment News](#)

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#### An Original Steam Punk

Check out these [100 farm photos](#) going back to 1930.

#### Students and Scientists

The Univ. of Nebraska is working with the state museum to do a [Sunday-with-a-Scientist program](#).

#### Highly Ranked Schools

Some acclaimed universities with agriculture programs--such as Cornell and UC-Davis--rank high on the *Wall Street Journal's* list of [best institutions of higher education](#).

#### Gene Editing Conference

The [Genetic Editing in](#)

[Agricultural Biotechnology Roundtable](#) will occur on October 24 at the North Carolina Biotechnology



September 29, 2017

## A Cure for Misinformation?

*Science-based facts and common sense for starters*

Mark Twain supposedly said, "Get your facts first; then you can distort them as you please." We can only imagine what Twain would have to say about social media and journalism in the digital age, but he would no doubt agree that science-based facts are essential if we want to pursue truth over truthiness.

The world of agriculture deals with truth bending from many sides, and it is crucial that policymakers and the public have access to credible information. As Ohio veterinarian Gabe Middleton (see article on p. 2) says, "Misinformation can do a lot of damage in a hurry. Farmers don't always have the time or resources to speak to the masses."

Many individuals, societies, organizations, and companies try to communicate solid information, including these two: (1) U.S. Farmers & Ranchers Alliance creates a [dialogue between the public and farmers](#)--and in turn, it teaches consumers about how food is grown and raised. (2) The Animal Ag Engage group points out that scientists, dietitians, and agriculture advocates are [speaking out about a film](#) that "cherry-picks scientific studies and makes questionable claims about agriculture and food production."



**Ag quickCASTS:** A popular way to access credible information about agriculture, these one-page summaries capture the essence of CAST's peer-reviewed publications.

## News and Views

**Crisis in Puerto Rico:** Puerto Rico's [agriculture secretary estimates Hurricane Maria wiped out 80% of the value](#) of the island's crops, and many are worried about food security.

**Genetics, Surgery, and Diseases:** Scientists in China used a [technique on human embryos called base editing](#) to perform "chemical

Center in the Research Triangle Park.

### Global Resources

More than 4,000 scientists, professionals, educators, and students will gather at the "[Managing Global Resources for a Secure Future](#)" conference Oct. 22-25, 2017, in Tampa, Florida.

### Biotech Q&A

The revamped GMO Answers website continues to add [new articles, videos, and studies](#).

### Summer Study

Students benefited from the 2017 Kansas State Research and Extension Multicultural [Summer Research Fellows program](#).

### CAST Social Media



Click here for [links to CAST sites](#): Twitter, Facebook, LinkedIn, Pinterest, videos, and blogs.

surgery"--an approach they hope to use for the treatment of inherited diseases.

**Dicamba and Research:** The American Soybean Association says the need to find answers about the dicamba issue is becoming more urgent--and they [support independent research at land-grant universities](#).

**WOTUS Two Step:** The National Milk Producers Federation told EPA officials that the dairy industry [supports a two-step process](#) to roll back the existing WOTUS regulation and generate a new policy.

## News from the Far Side of the Barn

**They're Vicious!** Praying mantises are the only insects able to swivel their heads and stare at you. They can [also eat insects and--yes--even small hummingbirds](#).

**Zombeetles--Insect Walking Dead:** This University of Arkansas entomologist studies [beetles that seem to come back from the dead](#).

**Dorks on Video--Animals and Humans:** If you enjoy the funny home video clips, these "[farm animal fails](#)" will be your thing.



## Speaking Up for Farmers and Scientists

*Gabe Middleton Poised for Leadership Role at CAST*

Gabe Middleton believes that communicating accurate information about agriculture is one of the biggest challenges farmers face. As he points out, misinformation can do a lot of damage in a hurry, and farmers don't always have the time nor the resources to speak to the masses.

Middleton, a veterinarian with the Orrville Veterinary Clinic in Ohio, will become president-elect of CAST in October, and he will continue to be an enthusiastic promoter of agriculture, as he speaks up for farmers and scientists.

As a small-town boy, Middleton started working on a dairy farm at the age of 12--and he developed an interest in veterinary medicine and agriculture. He graduated from the College of Wooster and then Ohio State University's College of Veterinary Medicine in 2005. At the Orrville Clinic, he focuses on large animal medicine, specifically dairy cattle.

Middleton has been an active member of CAST--representing scientific societies, joining in as a member of the animal work group, and serving as a liaison for a publication task force.

He says he has been inspired by Dr. Norman Borlaug's vision, and he is committed to CAST's mission. "I plan to continue that enthusiasm through maintaining and utilizing the work done by the Strategic Planning Committees."



**Ohio veterinarian Gabe Middleton discusses the importance of CAST and science-based information about agriculture.**

As one colleague said, "We are so fortunate to have talented people with passion for agriculture who make it their mission to lead."

A *Farm and Dairy* journalist recently sat down with Middleton to learn about his leadership role and how it might benefit farmers. [Click here for the full article.](#)

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 old tractor pic from gannett-cdn.com, fishing background pic from flyfishingtraditions.jpg, and praying mantis pic from pinterest.jpg. P. 2 pic from lyleprintingandp.net. Animal Sec. Capper pic from squarespace.com. Food Sec. veggie pic from fiveminutemarketing.com. Inter. Sec. snake pic from cloudfront.net. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



### *Animal Agriculture and Environmental News*

**Misguided Theft (video):** Members of an [animal rights group stole chickens](#) from a small farm "to set them free."

**Bovine Health:** This Ohio State University information [examines bovine respiratory disease](#), the most common cause of feedlot death.

**Pork Promotion:** U.S. pork officials returned from an Asian trade mission where they [tried to elevate U.S. pork](#) as "the global protein of choice."

**Poultry Efficiency:** Mississippi State University researchers are studying ways to [optimize energy efficiency in poultry houses](#) to reduce producer inputs and increase their bottom lines.

**Livestock Sustainability:** Jude Capper (\*related story at right) led the publication task force for the [CAST Issue Paper](#) *Animal Feed vs. Human Food: Challenges and Opportunities in Sustaining Animal Agriculture Toward 2050*.

**Biotech Solution for Pest Problem? (podcast):** Kevin Folta interviews Tony Shelton of Cornell University about his [studies regarding the diamondback moth](#) and how a genetically engineered technique could help ease a pest problem.

**Making the Most of the Habitat:** These specialists are [fitting cows to their harsh environment](#)--weaning heifers much later and dramatically reducing supplemental feed costs.



Dr. Jude Capper won the [Dairy Industry Woman of the Year Award](#) in England. Capper uses science-based research to support livestock agriculture (\*see CAST link at left).



### *Food Science and Safety News*



**Innovative Ways to Tackle Hunger (video):** This International Food Policy Research Institute session looks at [innovative approaches to tackling urban hunger and malnutrition](#).

**Food Safety (opinion):** The FDA inspects facilities that produce and handle food to ensure safety and compliance with regulations, but a new report indicates [red flags about the inspections program](#).

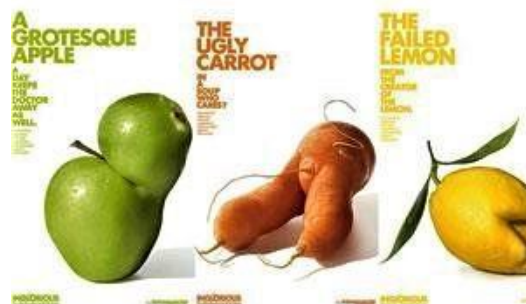
**Farm & Table (opinion):** While there is no single solution [to ensuring food security--these three key areas may help](#) make the most difference.

**Eat Dirt--In a Good Way:** There seems to be promise in [feeding the world with soil microbiome products](#), and the investment world is betting on the technology.

**Farming the Concrete Jungle:** [Indoor farming](#)--much of it hydroponic--caters to home cooks and restaurant chefs even in the urban maze of New York City.

**Food to Fuel:** The idea of [recycling food waste into biodiesel fuel is nothing new](#), but this professor may have discovered a way to cut costs, making the discovery a reality.

**From Pizza to Pasta to Pulled Pork:** This site includes a map of [what football fans are eating in every state](#) on football weekends.



This grocer is now selling "[cosmetically challenged](#)" fruits and vegetables at reduced prices so they don't get trashed.



## *Plant Agriculture and Environmental News*

**Look Out Weeds (video):** This [robot is capable of identifying unwanted plants and shooting them](#) with deadly, high-precision squirts of herbicide.

**Growing Virtual Plants (video):** What if [farmers could grow plants in a matter of seconds](#), not days or weeks? Scientists are doing just that, and they aren't sprouting from soil. Instead they flourish on a computer screen.

**Settlement Regarding Biotech Corn:** Syngenta and U.S. corn growers who sued the company over its commercialization of genetically modified corn have [agreed to a pending settlement](#).

**Grain Glut?** According to this report, a [global grains glut](#) is now in its fourth year--with supplies bloated by favorable weather, increasingly high-tech farm practices, and tougher plant breeds.

**Time to Take Cover:** This fifth annual [cover crop survey](#) draws on the insights of more than 2,000 farmers.

**Fighting Fungi:** Recent test results suggest that there could be some potential benefits to [an early season application of fungicide](#) on Kansas wheat fields.

**Breeding Super Plants:** [We eat them, we wear them, we put them in vases and gawk at them](#)--but are you really using them to their full potential?



This [science-based CAST Commentary](#) relates to the "biotech corn" article on the left: *The Impact of Asynchronous Approvals for Biotech Crops on Agricultural Sustainability, Trade, and Innovation.*



## International News

**From Sand to Soil (video):** Little rain and scorching temperatures lead to less than ideal conditions to support vegetation, but [new technology brings hope to China](#).

**Fifty Shades of Soil:** An erosion specialist in central Australia looks at shades and colors as he [tries to put soil in the spotlight](#)--saying it is just as important as weed, fire, and feral animal management.

**Invasive or Not--It's Deadly:** Scientists are trying to determine [whether or not the cobra-preta is an invasive species](#) on an island off the west coast of Africa (\*related to photo at right).

**Alternative to Antibiotics:** This UK researcher discovered an [organism that may drive changes in how infections are treated](#) among livestock.

**Golden Rice (opinion):** Research organizations in the Philippines--a country plagued by vitamin-A deficiency--are [seeking the approval of their government](#) to move forward with golden rice commercialization.

**Investing in Africa:** These five inventions from an African entrepreneur may be simple, but [they just might change the world](#).

**Take Time to Smell the Flowers:** Who knew that it was possible to [predict the fragrance of a flower by looking at its color](#)? Cornell scientists study plants on a Greek island to find the connections.



The locals have a saying about the cobra-preta: *homem mordido, homem perdido* or "man bitten, man lost" (\*article link at left).



## General Interest News

**From One Big Sky to Another (video):** NASA astronaut Frank Borman--commander of the Apollo 8 mission--[traded in his astronaut suit for cowboy boots](#) and is now a Montana rancher.

**Wonders of Wildlife (video):** After nearly a decade, this [340,000-square-foot national attraction](#) is open for exhibit.

**Halo Top Ice Cream (video):** With a \$20 ice cream maker and a hunger for a more healthful indulgence, an L.A. lawyer concocted a [dessert that quickly developed a cult-like following](#).

**Get Random:** Can random bits of DNA lead to new antibiotics and herbicides? This University of Florida scientist explains how inserting a random DNA mishmash into a plant or bacterium [directs it to make a novel protein](#).

**Groups Fighting Hunger:** The Food Tank organization identified [17 groups fighting hunger](#) around the world through regenerative agriculture and agroecology.



Land O'Lakes launched a crowd-sourced [competition to find user-friendly drone solutions](#) to help farmers--157 innovators from 47 countries entered.

## 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.



If you have a good idea for a CAST publication, contact us by [clicking HERE for the "Proposal Format](#) and Background Information Form."

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

- \* 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
- \* Cargill
- \* Crop Science Society of America
- \* DuPont
- \* Elanco Animal Health
- \* 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

*CAST assembles, interprets, and communicates credible, science-based information regionally, nationally, and internationally to legislators, regulators, policymakers, the media, the private sector, and the public.*

## Members of CAST's Education Program

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