



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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Honor for Dr. Middleton



Gabe Middleton was awarded the Excellence in Preventive Medicine Dairy Award by the American Association of Bovine Practitioners. Dr. Middleton (pictured at left) is a graduate of The Ohio State University, an award-winning veterinarian, and current CAST President. Pictured with him is Mark Armfelt (Past President of CAST).

Food Waste Webinar

The USDA webinar "[How to Reduce Food Waste in Your Household](#)" will cover several timely topics on September 24.

Protecting Food Animal Gene Pools for Future Generations



On September 30, Dr. Julie Long will present highlights of the newest CAST publication at three

September 20, 2019

Harvesting Campus Stories

Research, Education, and Human Interest

The [CAST Education Program](#) currently includes 18 universities that have highly respected ag/science programs. Throughout the year, *Friday Notes* editions include links from these member schools.



The topics vary. Research news is important, such as this week's story about University of Arkansas experts [designing tiny sensors](#) that can be placed in corn stalks to monitor water, nitrogen, and potassium--or the UC-Davis study showing that [care-giving programs are more effective](#) than nutrition programs in supporting children.

We cover curriculum innovation like the recently established [partnership between Tuskegee University and North Carolina State University](#) regarding a dynamic forestry program. Our land-grant members might look at their connections with the people on the land, as the University of Nebraska-Lincoln does with this [reflection about its 150-year legacy](#). Human interest stories include ones such as this University of Kentucky couple and [their love of horses](#), or the students from the Cornell Raptor Program who appeared on *Football Night in America* to engage in a [mock debate about eagles and falcons](#). In the actual football game, the Atlanta Falcons beat the Philadelphia Eagles 24-20.

This week's newsletter sections feature university links with announcements, research projects, and even a robot food delivery system on campus (see the Food Section below).

News and Views

Support for USMCA: Three former U.S. [agriculture secretaries joined](#) Secretary Perdue in Washington to voice their support for Congress to ratify the USMCA (United States-Mexico-Canada Agreement).

Soybean Purchases: China pledges to buy \$67 million worth of [U.S. soybeans](#), and many hope the trade war is easing.

Washington, D.C., venues. [Click here for details.](#)

FFA Membership Grows

The National FFA Organization's growing membership reflects a [commitment to agricultural education and careers.](#)

Virtual Reality Learning

The National Science Foundation awarded Tuskegee University a \$250,000 grant for a pilot program to develop and implement a [virtual reality learning environment.](#)

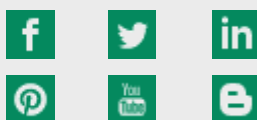
Hackathon Winners

The Aggies from the College of Engineering at North Carolina Agricultural and Technical State University [placed first in a computer skills competition](#)--the BE SMART Hackathon.

Send in Ideas

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

CAST Social Media



Gene Research and Agriculture: This open letter to the USDA indicates that the organic community wants all forms of [genetic engineering to remain excluded](#) under the National Organic Program. In a recent survey, the majority who seek non-GMO food oppose gene-editing methods, but overall, many consumers [support certain aspects of genetic technology](#) in agriculture.



Renewable Fuels: The head of the Renewable Fuels Association says the gasoline price spikes after attacks on Saudi Arabia oil fields show the [need for renewable fuels](#) like ethanol.

Biofuels: President Trump tentatively approved a plan to [increase the amount of biofuels](#) that oil refiners are required to blend each year to compensate for exemptions handed out to small refiners.

News from the Far Side of the Barn

Dolphin Aid (video): Volunteers formed a [human chain to rescue dolphins](#) in a Florida canal.

Do Chickens Have Lips? (video): Do we really need another caution to "[not kiss your chickens](#)"? The CDC warns about salmonella cases related to snuggling with our fine-feathered friends.



Doggy Makeover (video): Veterinarians and groomers worked to [save a neglected dog](#) who "looked like a container of mops."

No-kissing zone--related link at left.

Blog On

From Science to Personalities to Frivolity

Since 2010, CAST blogs have received more than 238,000 views, and the monthly readership has been climbing steadily. Topics have ranged from agricultural research to membership profiles. CAST also welcomes guest blogs, and readers have benefited from entries written by Borlaug CAST Communication Award winners and others.

With more than 500 entries on the site, the subject matter has been diverse, but the most recent five entries reflect the type of content you can expect.

[Farm Safety--Precautions, Dangers, and Healing:](#) Farm Safety Week is an appropriate time to highlight this crucial topic. In this blog, you can find links to gripping stories, safety tips, and anecdotes about communities that come together after tragedies.

[Can Video Games Help Mitigate Agricultural Risks?](#) The thought of computer games might conjure up images of basements, blinking lights, and blurred eyes, but the types of offerings are immense and the types of players are too. Agriculture has pulled in plenty of gamers, and in this blog, Kim looks at the influences that might bring. As she wrote, "It will be interesting to see how this intersection of agricultural and psychological research progresses in the coming years, as scientists work out new ways to prevent risk and mitigate issues such as climate change and African swine flu outbreaks."



[Member Spotlight Q&A](#) (with Dr. Sally Flis, Director of Agronomy at the Fertilizer Institute): Our members are the lifeblood of our organization. They are students, farmers, researchers, department heads, industry experts, food scientists, agronomists--the list goes on. No matter their background, we all have the same wish: to assemble, create and share credible, balanced, science-based information.



[Building Relationships and Memories in Rome](#): CAST intern specialist Caryn Dawson writes about one of her latest study abroad trips.

[Cow Cuddling and Caring for Pet Pigs](#): Recent trends have some folks looking for bovine zen in a cow embrace, while others buy "teacup pigs" thinking the cute, little porkers will never grow larger.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 genetics cartoon from nprnews.org and chicken cartoon from dailyoftheday.com. Page 2 cow cuddle photo from iheartradio.ca. Animal Sec. milk collage from edgecastedu.net and knowyourmeme.com, and chicken pic from nationalgeographic.com. Food Sec. robot photo from gannett-cdn.com. Plant Sec. forest photo from NathanRott.npr.org and hemp graphic from beelinehempwick.com. Inter. Sec. fire pic from assets.nst.com and cow pic from the bullvine.com. Gen. Sec. drone photo from msstate.edu, lovebug cartoon from orlandosentinel.com, and bug pic from beaumontenterprise.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.



Animal Agriculture and Environmental News



Some [want to ban chocolate milk from public schools](#) because of the sugar content, while others [say studies show that chocolate-flavored milk helps](#) more children get essential nutrients.

Speaking from the Heart (video): This Montana rancher [responds to celebrity Ellen DeGeneres](#) about how she raises her animals and how the industry impacts the environment.

Not Crying over Spilled Milk: The National Milk Producers Federation looks at challenges confronting the dairy industry --and explains [why the future is actually positive](#).

Appropriate Antibiotic Use: This agriculture expert says antibiotic use can be sustained if [farmers work with veterinarians](#). Click here to [read a national action plan](#) dealing with this issue.

Speaking of Pork: This [podcast includes interviews](#) with Dr. Liz Wagstrom, Chief Veterinarian for the National Pork Producers Council, and Maddie Hokanson, a seventh generation farmer from Minnesota.

Swine Fever Research: A new study by Kansas State University confirms that the African swine fever [virus can survive a simulated 30-day transoceanic voyage](#) in contaminated plant-based feed and ingredients.



BRD Research: Led by Texas A&M experts, a team of scientists will [study what effect certain management practices used](#) at different phases of beef production can have on bovine respiratory disease.

Plenty of Dark Meat on This Chicken: Four breeds of chicken [have black bones, organs, and meat](#), and all of them possess the same genetic mutation.

Meat Safety: The USDA's Food Safety and Inspection Service is [amending federal meat inspection regulations for swine](#). Click here to read the [USDA press release](#). Some groups [disagree with the changes](#), but USDA Under Secretary for Food Safety Mindy Brashears explains the [many benefits of the program](#).

Food Science and Safety News

IFIC Consumer Surveys: New surveys by the International Food Information Council Foundation look at [environmental sustainability, food waste, and consumer beliefs](#).

Peanut Allergy Relief? (video): The FDA [recommends the approval of a peanut allergy treatment](#) that involves exposing children with peanut allergies to increasing doses of peanut protein in order to build up tolerance over time.

Government Guidelines for New Products: The FDA released 53 [product-specific guidance documents](#) to aid generic drug development.

Oasis in the Food Deserts? This study recommends that policymakers and public health officials [interested in improving wellness in food deserts](#) should take community ownership and involvement into account.

Food Security Data: The USDA reports that the [prevalence of food insecurity declined](#) in 2018.



Purdue students are able to use a smartphone app to order [food and drinks by robot delivery](#). Do they tip with Bitcoin or Republic Credits?



Beef Consumption and GHG Emissions: Some propose that removing beef from the human diet will lower greenhouse gas (GHG) emissions. However, scientific evidence shows that completely removing beef from the diet would likely not result in huge declines in GHG emissions--and it would [likely have negative implications for the sustainability of the U.S. food system](#).

Plant Agriculture and Environmental News

Algae Blooms Come in Colors (video): This University of Florida expert describes some of the [algal blooms Florida is facing](#)--from blue-green to red to brown.

Water Quality: Kansas State University is leading a multi-agency team focused on [improving water and nitrogen use efficiencies](#) in the semi-arid southern Great Plains.

Phosphorus and Soil Health: As we consider the many wide-ranging aspects of [phosphorus](#), these societies look at the [importance of phosphorus in agriculture](#), and the fact that both farms and cities are [sources for phosphorus runoff](#).

So, Don't Call the Exterminator? A recent study showed that [termite activity in the soils of wetlands](#) can help improve soil structure and nutrient content.



Boom or Bust? Although most say the potential market is huge, [some hemp farmers face big losses this year](#). A need for more processing equipment is one key reason.

Flush with Fertilizer: Sewage sludge from thousands of wastewater treatment plants has been used as cropland fertilizer--this procedure has [benefits and possible risks](#).



With tech innovations, the [number of fire lookouts is dwindling](#). U.S. Forest Service fire lookouts watch for smoke, and they also observe land management and environmental changes.

International News



Slimy, Large, and Not Very Cuddly

(video): New research of museum specimens shows that Chinese giant salamanders ([the largest amphibians in the world](#)) are not one, but at least three different species.

Indonesia has arrested nearly 200 people because of [forest fires ripping across the archipelago](#). The toxic haze affects schools, flights, and air quality.

Swine Fever in Korea: South Korea has raised its animal disease alert to the highest level after discovering [its first outbreak of deadly African swine fever](#) at a pig farm in a town near its border with North Korea.

Environment and Agriculture: A Scottish farmer who has made a [substantial contribution to the natural environment](#) around her has been recognized with a major award.

More Money, More Worries? In Madagascar, about 80% of the world's vanilla is grown by small-holding farmers. A [rise in the prices](#) they get is making them "rich"--and nervous.



Remote-controlled Cows: Start-up pioneers in New Zealand are collecting data about cows' [behavior, emotions, and health](#).

Tech, Intuition, or Both? As explained in the blog "[Technology, Intuition, and Working with Cows](#)," some cattle producers use technology to monitor cattle, while others say it's best to observe, know them, and "look into their eyes."

General Interest News

Farming from the Air (video): A University of Florida engineer is using technology like [drones, satellites and planes to help farmers](#).

Biosensor Research (video): This Iowa State associate professor discusses her research involving [biosensors used in agriculture and food production](#).

Bovine Sense: Check out the top 10 [miscalculations a cow man might make](#)--assumptions about bovine characteristics, from value to health to "friendliness."

Does My Aging Make Me Look Fat? Swedish researchers say that lipid turnover in the fat tissue decreases during [aging and makes it easier to gain weight](#)--even for those who exercise and eat wisely.

Water Management: The [Watershed Impact Trial](#) is designed to explore and educate the public on

connections between farming practices and clean water.



Love Bug Splats (video): This [entomologist talks about those pesky insects](#) that fly about Florida twice a year. Although they are mainly known as windshield roadkill, they actually are "interesting insects that herald seasonal changes."



Two new Mississippi State courses in small unmanned aerial systems technology are preparing a [new generation of drone pilots](#)--including a focus on agriculture training (related link at upper left).



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 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
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- * Crop Science Society of America
- * Entomological Society of America
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- * 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
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- * Syngenta Crop Protection
- * The Fertilizer Institute
- * Tuskegee University
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- * University of Nevada-Reno
- * Weed Science Society of America
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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.

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