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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 the CAST organization.

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[Crop Protection Paper and Presentations--P. 2](#)

[Animal Agriculture News](#)

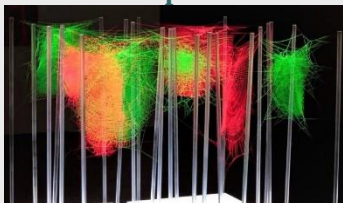
[Food Science and Safety News](#)

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[International News](#)

[General Interest News](#)

Art in a Spider Web



Michael Simon Anthony prefers to [work with the golden silk orb-weaver](#), a spider known for its great circular webs.

Acclaimed Ag Schools

Two of Kansas State University's agricultural departments have been included among the [best places in the world to study, research](#), and begin a career--and several University of Florida departments [also ranked high in a report](#) from the Center for World University Rankings.

Agriculture Awareness Week

This North Carolina State event gives ag students a chance to educate the community about [where their food and clothing comes from](#).

[Submit an Idea](#)

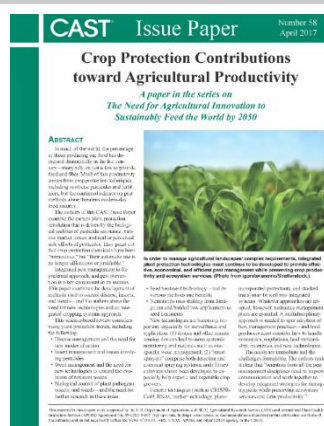
April 7, 2017

Crops and Innovation

New issue paper examines the plant protection revolution

CAST [released its latest publication](#) during three events in Washington, D.C., with task force chair Susan T. Ratcliffe presenting the timely material. The paper emphasizes the need for research, communication, and collaboration as scientists develop integrated strategies for managing pests while preserving ecosystem services and farm productivity.

[Scroll down to page two](#) for more about Issue Paper #58, *Crop Protection Contributions toward Agricultural Productivity*.



News and Views

****Perdue Confirmation Still Pending:** Despite a push from farm groups and the House Agriculture Committee, Sonny Perdue's [vote to be confirmed as agriculture secretary](#) will be after the Senate's Easter break. This editorial contends it is [time for the Senate to get it done](#).

****Pesticide-related Lawsuit:** Two groups sued the EPA regarding its [decision not to ban](#) the pesticide chlorpyrifos.

****NASDA and Government Spending:** NASDA, a bipartisan organization of elected state agricultural officials, released a letter to congressional budget leadership that [lays down some markers on spending needs](#)--with a special mention of the Food Safety Modernization Act implementation.

****Administrative Actions and Global Food Security:** The Chicago Council on Global Affairs [issued a report looking at global food security](#), as the new administration and Congress debate the appropriate balance of U.S. diplomacy, foreign assistance, and military strength.

****FDA Head Considered:** This editorial says Scott Gottlieb is an

Do you have an idea for a CAST publication, video, or project? CAST [welcomes suggestions, ideas, and recommendations.](#)

Celebrating Ag Ed

As the University of Nebraska celebrates its 150th anniversary, this teacher points out why the whole state is grateful for the [opportunities in agriculture the school provides.](#)

Fish and Research on the Mekong River

These University of Nevada-Reno students teamed with international agencies to [study fish migration in Cambodia's Mekong River](#)--from 600-pound catfish to tiny trey riel.



CAST Social Media

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

excellent choice to [head the Food and Drug Administration](#), and this article looks at some of the [issues involved with the appointment.](#)

News from the Far Side of the Barn

Mark Twain supposedly said, "A lie can travel halfway round the world while the truth is still putting on its shoes." But even the veracity of that quote attribution is in dispute. The term "fake news" has been the buzz this year, but traditional April Fools Day headlines recently provided us with a list of "lies, whoppers, and truth stretchers." So, for example, we found out that...

***Two great white [sharks swam up the Mississippi River](#) to St. Louis.

***You can now buy [pitless avocados.](#)

****National Geographic* will [no longer show nude animals.](#)

If you buy into all that, you might go for this site listing many stories [ready to play with your gullibility.](#)



Looks like grasshopper for supper.

In Search of Food Security

CAST publication provides insights into crop protection innovation and technology

Many rely on just a few to provide food and fiber--and crop protection techniques are a major factor in this essential productivity. But the continued reliance on past methods alone threatens modern-day food security. Innovation and a push for the development of integrated plant protection technologies must continue to provide effective, economical, and efficient pest management.

CAST released its latest issue paper, titled *Crop Protection Contributions toward Agricultural Productivity*--A paper in the series on *The Need for Agricultural Innovation to Sustainably Feed the World by 2050*. The presenter at the three rollout events was Dr. Susan Ratcliffe, task force chair of the project and director of the North Central IPM Center at the University of Illinois. Wednesday's gathering was cohosted by CropLife America, and the sessions on Thursday were for the Senate and House staffers on Capitol Hill.



Presenter Susan T. Ratcliffe (top left), CropLifeAmerica President and CEO Jay Vroom (next to Dr. Ratcliffe), and CAST EVP Kent Schescke (top center)

The paper examines the current plant protection revolution that is driven by the biological realities of pesticide resistance, various market forces, and real or perceived side effects of pesticides. The authors point out that "crop protection chemicals have been miraculous, but their automatic use is no longer efficacious or justifiable."

This science-based review considers many plant protection trends, including the following:

- Disease management and the need for new modes of action
- Insect management and issues involving pesticides
- Weed management and the need for new technologies to control the evolution of resistant weeds
- Biological control of plant pathogens, insects, and weeds--and the need for further research in these areas
- Seed treatment technology--and its various methods and benefits
- Nematicide uses shifting from fumigation and banded row applications to seed treatments

***Free download of the [full paper here](#), the one-page [Ag quickCAST version here](#), and CropLifeAmerica's [video of the presentation here](#).

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 spider art from newyorker.com and grasshopper pic from floridazone.blogspot.com. Animal Sec. flood pic from usarmycorpsofengineers.com. Food Sec. poster from foodrenegade.jpg. Plant Sec. soybean field pic from John Bonner. Inter. Sec. tiger pic from npr.org. Gen. Sec. woman photo from i.ytimg.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Clean Water Award Winner (video): This large [poultry complex processes and treats](#) an average wastewater flow of 2.28 million gallons per day, and it was recognized for its recycling efforts.

Mitigating Flood Damage: A specialist from North Carolina State says another buyout program would likely further [reduce the economic and environmental risks](#) during flooding that affect hog operations.

Hands-on Farming Lessons (video): Student ambassadors from across the Midwest visited a family-owned dairy farm to [learn about milking, feeding, and recycling waste](#).

Moderation Is the Best Approach? (opinion): Genetic improvement, better feed, and other innovations have [improved cattle production](#), but making carcasses bigger may not always be the best approach.

Fighting Hog Disease: Iowa State and Univ. of Minnesota research shows that a [disease-monitoring system can detect and report](#) economically significant outbreaks of porcine reproductive and respiratory syndrome.

Is Sustainability Sustainable? (opinion): This cattle expert says [sustainability is a balance](#) between economic, societal, and environmental concerns. "If your operation is not profitable, it's not sustainable."

A Long Commute for Millions of Bees (audio available): Each year, millions of honey bees go on a cross-



Planning for the next flood in hog confinement territory.

country road trip to [make the California almond harvest possible](#).

Ag-gag Update (opinion): The term "ag-gag" refers to state laws that made it a crime to engage in undercover filming of animal agriculture without the owner's permission. This [site gives an update of such cases](#).



Food Science and Safety News

Diets, Fat, and Sugar (opinion): The [science behind most claims is complex](#), and the findings are often hard to translate into usable advice. Fat used to be the villain; sugar is now in some circles; others emphasize exercise and moderate, common sense eating.

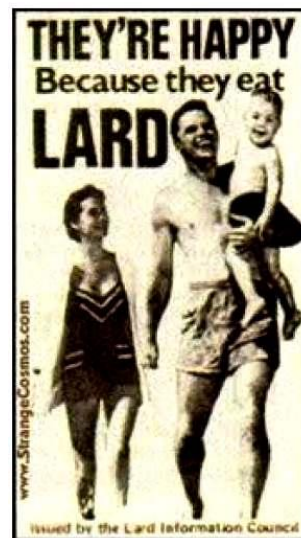
Good News for Consumers: According to the USDA, U.S. [retail food prices decreased](#) by 1.3% in 2016--the first time since 1967 that grocery store prices were lower than those in the year before.

****Rice Is Nice--If It's Safe:** This North Carolina State expert says cooking rice [does not necessarily kill all the pathogens](#) that may be lurking about.

****Bacteria Freeze Out:** The USDA provides information about using a thermometer to monitor refrigerators for safety. One of the critical factors in [controlling bacteria in food is controlling temperature](#).

****Food Safety Parody Videos:** Carl Winter, UC-Davis food scientist, uses [cartoons and comedy to emphasize food safety](#). Dr. Winter was the [2012 Borlaug CAST Communication Award recipient](#).

Whole Grain Benefits: These studies focused on a variety of health [benefits associated with whole grain consumption](#), specific to body weight and microbiome.



Perceptions change, but common sense is the key.



Plant Agriculture and Environmental News

Break Ice in Case of an Apocalypse (video): The [impressive Global Seed Vault](#) is located in Arctic Norway--it is designed to safeguard the sources of the world's food supply.

Grape Freeze Out (short video): A researcher in the Cornell College of Agriculture and Life Sciences is using powerful technologies to explore the [cellular mechanics that allow grape buds to survive](#) brutal cold.



Soybean Bin Buster? The USDA estimates 2017 soybean acreage at 89.5 million acres, above expectations and above last year's acreage. It is [headed for a new record](#).

Some predict we will be drowning in soybeans this year.

Where the Rubber Hits the Road: USDA researchers have developed an improved variety of the guayule plant as [a natural source of tire rubber](#).

Less Is More? University of Nebraska research lasting ten years shows that [reducing the soybean seeding rate](#) can actually save money without affecting yields.

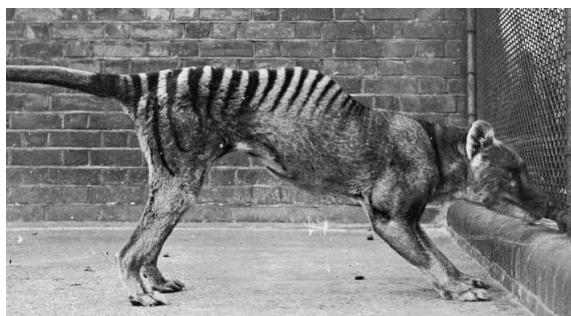
Hemp Making a Comeback: This spring, Kentucky will continue efforts to resurrect the state's [industrial hemp economy](#).

Big Data Is a Gas: As these diagrams show, [ethanol plants gather and analyze large amounts of data](#) every day to process their products.



International News

Return of the Tasmanian Tiger? Recent "plausible sightings" [challenge the accepted wisdom](#) that the Tasmanian Tiger--last seen eight decades ago--is extinct. Some say the marsupial looked like a "dog with a pouch."



The last Tasmanian Tiger died in 1936?

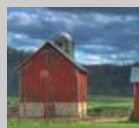
Salt Water Ag: A Norwegian company is setting up a [solar-powered facility near the Red Sea](#) to grow vegetables without wasting a drop of fresh water.

Big Dreams of a First-time Farmer: This woman is [focused on food production](#). Her parents were farmers--and teachers as well--in a small agricultural community on the coast of Kenya.

Conventional or Organic--Good Soil Is Key (opinion): This agriculturalist says innovative farmers are using [regenerative practices to restore the world's soils](#)--rebuilding the fertility while trying to use fewer chemicals.

A Thaw in Caribbean Waters? The president of the U.S.-Cuba Trade and Economic Council reports that a shipment of rice will travel from Texas to Cuba--[the first shipment of its kind in a decade](#).

No Shark Hoax Here: An Australian journalist covering the flooding from Cyclone Debbie was shocked to come across a dead bull shark that was apparently [swept up in the deluge--Sharknado style](#).



General Interest News

Sci Babe Takes on "Pseudoscientific Fluff" (video): This scientist says she wants to "[debunk every dumb food myth](#) on the internet."

Shark Bites--Science Style (related to above): According to those who [value fact-based evidence](#), last week's episode of *Shark Tank* featured "sharks" who championed science and questioned "snake oil reasoning."

Plugging Leaks: A ranch in rural eastern Oregon is looking to save millions of gallons of water annually through [a number of conservation projects](#).

The Wheels on the Bus: The hydrogen fuel cell bus on The Ohio State Univ. campus is more than a way for students to get around campus--it's a [research platform that could lead to a cleaner environment](#).

On the Front Lines of Food Safety (opinion): The Equitable Food Initiative emphasizes the [value of farm workers in the battle](#) against foodborne illnesses.

Powering Up (opinion): Some say civilization can be entirely [powered with energy from renewable sources](#)--wind, sun, hydroelectric, geothermal, and plants. Others think it will take a "broader portfolio."



The Sci Babe uses facts and "edgy language" to fight misinformation.

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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- * National Pork Board
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- * North Central Weed Science Society
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- * 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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