



*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.

#### In This Issue..... Click to Read

[Rollout of the New CAST Commentary--P.2](#)

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Check out these [award-winning underwater photos](#).

#### Food System Biosecurity for Animal Agriculture

The National Institute for Animal Agriculture presents its 2016 [Annual Conference in Kansas City](#) beginning April 4--*From Farm to Table: Food System Biosecurity for Animal Agriculture--Identifying Risks, Challenges, and Solutions*.

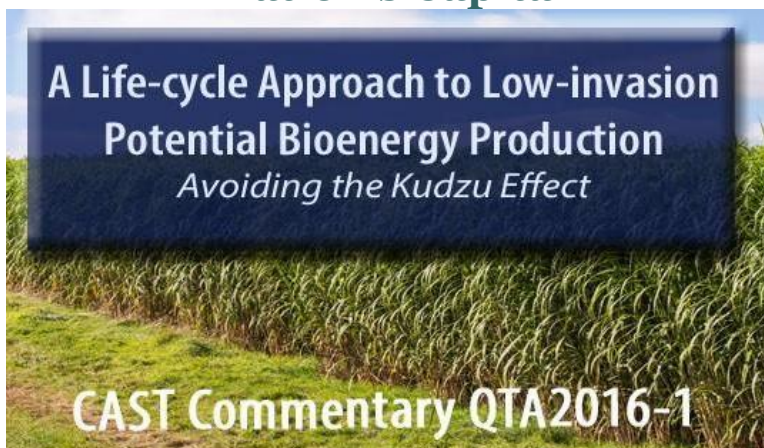


#### Safety First

It is Grain Bin Safety Week, a good time to [review procedures](#). This video shows a grain bin [rescue](#)

*February 26, 2016*

## Rollout Sessions in the Nation's Capital



CAST unveiled its newest commentary, *A Life-cycle Approach to Low-invasion Potential Bioenergy Production*, on February 22 in Washington, D.C. The activities included three presentations and a live webinar.

With the assistance of the National Coalition for Food and Ag Research (NC-FAR), CAST presented the timely paper to a morning session of Senate staffers and then a lunch gathering of House staffers. In the afternoon, CAST and the Environmental Law Institute cohosted a presentation regarding bioenergy and invasive species.

Scroll down to page two for more information and access to the research paper, along with a video of the presentation.

## News and Views

**\*\*Label It Uncertain:** Legislation blocking states from enacting their own labeling [laws for products with genetically modified ingredients](#) faces an uncertain future in the Senate. [Check here for background](#) information, and [click here to see](#) the bill's latest status.

**\*\*Several Ag Groups Support TPP:** According to this economic analysis, U.S. agriculture will [experience substantial benefits](#) from a

[training session](#), and this video chronicles an [actual grain bin rescue](#).

### Beef Cattle Institute

Kansas State University's Beef Cattle Institute is helping with the upcoming [Beef Sustainability Knowledge Summit](#), May 10.

### Award Winners

Eight horticulture students from the University of Arkansas earned 10 competition [awards at the American Society for Horticulture Science](#) meeting in San Antonio, Texas.

### Small Farms Week

The 28th annual observance of Small Farms Week is March 23-29, and North Carolina Agricultural and Technical State University will [feature workshops, tours, demonstrations, and more](#).

### Gold Star Energy Savers

North Carolina State University [earned a gold rating](#) from the Association for the Advancement of Sustainability in Higher Education.



### CAST Social Media

Check the popular CAST [Catch of the Day](#) here and the visually appealing [CAST Pinterest site](#) [here](#).

sweeping Asia-Pacific trade agreement, and many in agriculture are urging Congress to quickly pass the agreement.

**\*\*Great Lakes Water Quality:** Officials announce that Canada and the United States have adopted targets to [reduce phosphorus entering affected areas](#) of Lake Erie by 40%.



**\*\*Water Quality (above):** [Check out the CAST Commentary](#)-- *Benefits of Controlling Nuisance Aquatic Plants and Algae in the United States*.

**\*\*USDA Regs:** New guidance from the Animal and Plant Health Inspection Service intends to [streamline the process of extending nonregulated status](#) to genetically engineered organisms and products derived from known plant pests or regulated articles.

**Borlaug and Beyond:** [Dr. Swaminathan, the first recipient of the World Food Prize](#), speaks about research priorities and the ongoing efforts to feed the world.

## News from the Far Side of the Barn

### Farms of the Future--Green Acres

**Meets Star Trek (video):** [Researchers are looking ahead](#) to plan tomorrow's food production--from drones and robots to the usual app-laden digital thingies. Get ready for the Internet of Sheep.



**Creatures of the Night:** Researchers uncovered a unique ability in bats that allows them to carry--but remain [unaffected by--lethal diseases](#). This could help with the study of human afflictions.

**Baby Pics in the Wild:** These 19 baby animals are [rare, endangered, and just plain cute](#) in their own wildlife way.

## Preventing the Next Kudzu

### *A Life-cycle Approach to Low-invasion Potential Bioenergy Production*

**Rollout Sessions in D.C. Inform Stakeholders and the Public about Biofuel Feedstocks and Invasive Species**

February 22, 2016, was "rollout day" in Washington, D.C., for the CAST Commentary [\*A Life-cycle Approach to Low-invasion Potential Bioenergy Production\*](#). With the assistance of the National Coalition for Food and Ag Research (NC-FAR), CAST presented the timely paper to a morning session of Senate staffers and then a lunch gathering of House staffers--Lee Van Wychen of the Weed Science Society of America introduced the program on behalf of NC-FAR.

In the afternoon, CAST and the Environmental Law Institute cohosted a presentation regarding bioenergy and invasive species. CAST EVP Kent Schescke introduced the topic and panelists to an audience that included those attending the session and online webinar participants.



From left: Kent Schescke, Jacob Barney, Lee Van Wychen, and Read Porter.

Jacob Barney (Virginia Tech) and Read Porter (Environmental Law Institute) presented key information from the new paper. Commenters included Aviva Glaser (National Wildlife Federation), Anthony Koop (USDA/APHIS), and Jonathan Jones (USDA/APHIS). Schescke facilitated a Q&A period at the end of the presentation.

## Prevention Is the Best Policy

Participants agreed that a life-cycle process is important when it comes to dealing with potential invasive species. Calling it a "nested sieve approach," the authors say, "Invasions can most effectively be prevented through a life-cycle approach that adopts appropriate scientific and policy tools at each step in the production process."

Bioenergy is being pursued globally to decrease greenhouse gas emissions and provide a reliable energy source. To lessen conflicts with existing food/feed production, bioenergy crops are bred to grow on marginal lands with minimal inputs. Many are concerned that new invasive species may be introduced as bioenergy crops. The authors of this commentary show that the risk of invasion can most effectively be prevented through a life-cycle approach that adopts appropriate scientific and policy tools at each step in the production process, from crop selection to field production, feedstock transport and storage, and decommissioning--thus avoiding the "kudzu effect."

This paper provides a clear, comprehensive framework to guide regulatory agencies in the selection and permitting of biofuel feedstocks.

**Note:** A YouTube [video of the presentation is available here.](#)

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P.1 jellyfish pic from behrazafshi.jpg, grain bin pic from npr.org, and drone pic from gsmcneal.jpg. Animal Sec. eagle pic from inh.org. Food Sec. cartoon from dessertating.wordpress.com. Plant Sec. cartoon from pathslesstravelled.jpg. Inter. Sec. sign pic from yourcdftravel.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.





## *Animal Agriculture and Environmental News*

**Poultry Production (video):** This [poultry expert speaks](#) about antibiotic-free production and animal welfare considerations.

**Keeping Pigs Healthy (video opinion):** This pig farmer [discusses the use of antibiotics](#) in regard to hog production.

**Meat Power:** The Power of Meat survey shows that shoppers recognize the variety of [nutrition benefits meat and poultry](#) offer, and they place a high value on convenience, variety, and transparency.

**American Symbol Grounded:** Thirteen bald eagles were found dead near a Maryland farm, and authorities are [investigating the causes](#).

**Pork on the Rise:** According to USDA projections, lower feed costs and a rebound from the porcine epidemic diarrhea virus led to a [rise in pork production in 2015](#), with demand projected to continue growing.

**Solid Info about Raising Beef:** The University of Nebraska's 2016 Beef Cattle Report provides scores of [factual, researched articles](#) about various stages of cattle production.



As this link shows, viewers still [love eagle cams](#).

**Fueled by Goat Fungi:** The legendary abilities of goats and sheep to digest inedible materials could help scientists [produce cheaper biofuels](#). Researchers say fungi from their stomachs produce "flexible enzymes."

**World's Number One Killer:** Few mosquitoes have been more deadly to humans than *Aedes aegypti*. The species has fueled [epidemics such as dengue fever, yellow fever, chikungunya, and now Zika](#).

**Natural Methods for These Little Piggies:** According to a recent study, the [use of natural ingredients in grower pig feed](#) showed that *E. coli* was controlled, beneficial gut bacteria continued to thrive, and pig growth was promoted.



## *Food Science and Safety News*

**Individual Food Waste Surprises These Grad Students (video):** Consumers on average [throw away 10% of their annual food purchases](#), according to this study. "For the average individual, that's \$400 a year."



**Selfie My Food?** The next time you sit down for a fancy meal, [snap a photo of it first](#). You'll likely enjoy eating it more, according to this university research.

**It's a Wonder We Have Any Food At All:** Alison Van Eenennaam (UC-Davis) [considers pests from all kingdoms](#)--microbial, plant, and animal--that are competing for the resources used by the plants and animals that we eat.

**A Type of Almond Joy:** A University of Florida study suggests that improving one's diet can be as simple as [adding a handful of almonds](#).

**When It Rains, Does It Still Pour?** A judge rules that New York City can [require sodium warnings on restaurant menus](#).

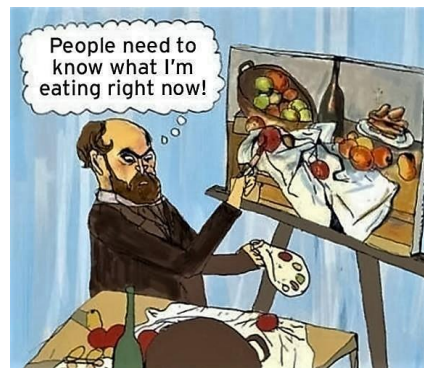
**Extends Shelf Life:** Singapore researchers say they [developed a food packaging material](#) that is free from chemical additives--fortifying natural chitosan-based composite film with grapefruit seed extract.

**Black Is the New Black:** Charred, crispy textures and ingredients--no longer limited to the world of barbecue--are [blackening everything from bread to vegetables](#).

**Probing Probiotics:** This European perspective on probiotics looks at [market trends and influential products](#).

**Food Research:** This group claims there is a surge of [private money going into food](#) and farm technologies.

**Bread to Beer:** Each bottle of a London brewery's beer, Toast Ale, [contains one heel of bread](#)--the last slice of the loaf no one ever eats.



An early food selfie?



## ***Plant Agriculture and Environmental News***

**Cotton, the Government, and Payments:** Agriculture Secretary Vilsack says the Farm Bill [removed eligibility of cotton](#) for ARC/PLC payments, but he claims cotton producers are still receiving ongoing assistance.

**Organics and Hydroponics--Certify or Not?** This group is urging the USDA to stop allowing the certification of [non-soil-based farming methods](#), such as hydroponic and aquaponic, as organic.

**Biotech Corn and Rootworms:** The EPA announces new requirements to [address corn rootworm resistance to biotech corn](#).

**Bean Bonanza:** This expert predicts that U.S. producers could plant as many as three million [more soybean acres this year](#)--with wheat acres down and sorghum acres on the rise.

**Micronutrients:** Science has identified 17 essential nutrients for healthy plant growth. Some experts say [micronutrients hold the key](#) to how well the other nutrients are used and how well the plant grows.

**Fighting Pigweed:** According to this report, cotton growers in Arkansas and elsewhere will have a [new weapon at their disposal](#) this season in the battle against herbicide-resistant pigweed.

**Bananarama:** Iowa State University researchers plan to move ahead with a long-delayed, controversial project in which a dozen students will be [paid to eat genetically modified bananas](#).

**Hopping into the Beer Business?** With some new grant money, University of Florida researchers hope to help farmers [jump into the beer business](#) by cultivating hops.

**All Weeds Are Not Created Equal:** The Weed Science Society of America has updated the [definitions for the four different types of weeds](#).

**Soil in for a Health Exam (audio broadcast):** At a recent soybean conference, this expert discussed results of a two-year evaluation of new soil tests for [assessing soil health and soil microbial activity](#).



You know the pigweed problem  
has gone too far when...



## International News

**A Golf--and Farming--Success (video):** South African golf legend Gary Player has [twin passions that are on par](#)--horses and farming share the focus with his golf pursuits.

**Cuba's Castro Ag Brother:** Unlike his brothers Raúl and Fidel, Ramón Castro [focused on the land](#) and Cuban agriculture.

**Pig Boom in China?** Nearly [25 million pigs will be added](#) to China's herd between 2015 and 2018 by a handful of leading companies--with investments worth millions of dollars.



Golf hazards might be more interesting  
in South Africa.

**The Magic of 3-D Printing:** This 3-D printer strikes a thin layer of metal dust onto a metal plate at precisely the right spots, using [stainless steel dust to slowly build a part](#)--one tiny layer at a time.

**Food Crisis and GMO Crops:** South Africa will [relax some rules on genetically modified crops](#) so it can ramp up maize imports from the United States and Mexico to avert a potential food crisis.

**Vitamin D--To Supplement or Not?** The re-emergence of the Victorian-era condition rickets in the United Kingdom has put the [spotlight back on vitamin D intakes](#).

**Cutting Grocery Bills and Food Waste:** This Danish supermarket [wants everyone to buy food waste](#)--they says it is healthy and economical.

**Making Bad Soil Good:** This story looks at what can be done about [badly depleted nitrogen levels](#) in Africa's soil.



## General Interest News

**Biotech and Pests (video):** Researchers at North Carolina State are working on ways to get [rid of viruses and diseases in pests](#)--by genetically modifying them.

**Urban Farmer Provides Country Food (video):** This city dweller learned about food during the course of 20 years with his hands in the dirt. His small farm in Milwaukee [helps supply 10,000 people with fresh food](#).

**On the Rise (video):** [Sea levels are rising faster](#) now than they have in the previous 27 centuries, according to a new study in the National Academy of Sciences.

**Livestock and Desertification (video opinion):** This Ted Talk from a few years ago provides a surprising view of desertification--[livestock could actually help](#) the problem. [On the other hand, this writer disagrees](#) with that premise.

**Drone Update:** The FAA says it will develop drone regulations allowing some [unmanned aerial vehicles to fly over people](#), an authorization eagerly sought by a range of industries, including real estate and agriculture.



Desertification Crisis: At least it's a dry heat!

**Farm Numbers and Sizes:** The USDA released its *Farms and Land in Farms 2015 Summary*--it points to the continuation of several trends, including [fewer \(but larger\) farms](#) across fewer overall acres.

**The Scoop in Poop Program:** University of Kentucky extension specialists will conduct regional meetings to present information on how and when [farmers can make manure work](#) in their operations.

**Water, Lead, and Food Aid:** A mobile food pantry in Flint, Michigan, is providing free food to help fight [lead effects in the city's water supply](#).

## 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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- \* 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 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
- \* California Dairy Research Foundation
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- \* Croplife America
- \* Crop Science Society of America
- \* DuPont Pioneer
- \* Elanco Animal Health
- \* Innovation Center for U.S. Dairy
- \* Monsanto
- \* National Pork Board

- \* National Turkey Federation
- \* North Central Weed Science Society
- \* North Carolina Biotechnology Center
- \* Northeastern Weed Science Society
- \* Poultry Science Association
- \* Society for In Vitro Biology
- \* Soil Science Society of America
- \* Syngenta Crop Protection
- \* United Soybean Board
- \* Weed Science Society of America
- \* Western Society of Weed Science
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- \* University of Kentucky
- \* University of Nebraska Agricultural Research Division
- \* University of Nevada



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