



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

[New CAST Publication Examines Pesticide Levels in Food--P. 2](#)

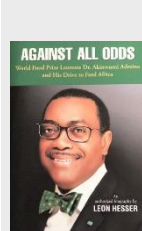
[Animal Agriculture News](#)

[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)



Adesina in Focus

A [new biography](#) of the 2017 World Food Prize laureate Dr. Akinwumi Adesina looks at his efforts to uplift Africa's agriculture, reduce poverty, and improve the daily livelihoods of the continent's citizens. Adesina was the [2010 BCCA winner](#).

Digital Environment

The American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America will host approximately 4,000 scientists, professionals, educators, and students at the 2019 International Annual Meeting, "[Embracing the Digital Environment](#)," from November 10-13 in San Antonio.

CAST



Scholarship Winners

Graduate students from the University of Arkansas who

October 25, 2019

From Field to Family

Crop Protection and Food Safety

It's harvest season in many parts of the world, and farmers become even more focused on yields and production techniques. This week's newsletter includes links to many articles about crops and the crucial need to produce enough safe food to feed the world.



When it comes to production methods, it's helpful to hear from those with hands-on experience--farmer, blogger, and registered dietitian Jennie Schmidt explains [why crops need protection](#). Many universities offer websites filled with blogs, links, and presentations about crop protection--for example, this University of Arkansas site features numerous [segments about weed control](#). Also, check the [Plant Section below](#) for related stories, including a link to a CAST publication specifically about crop protection.

Production techniques affect quantity and quality. Consumers want safe food, and farmers work hard to deliver the best goods. A [recent report](#)--with input from Cornell University--looked at some of the [barriers to implementing](#) food safety practices. Many universities, companies, nonprofits, and societies provide research and training workshops focused on food safety. For example, Kansas State University has these upcoming [sessions for fresh-produce growers](#).



Dr. Carl Winter

Communication about food products is also important, and the latest CAST publication (led by Carl Winter, left) looks at the scientific facts regarding fruits, vegetables, and pesticide residues. As you can see in the [full report](#) (covered on [page two below](#)), the key point is that fruits and vegetables are important for us all, and our farmers are producing quality items that are safe to eat.

News and Views

won 2019 CAST scholarships created [impressive videos, podcasts, and infographics](#) with high production quality.

Publications Update

Watch for rollout information about CAST papers coming early in 2020:

(1) *The Microbiome's Positive Impacts on Crops* and (2) *Impact of Recruitment and Retention of Food Animal Veterinarians on the U.S. Food Supply*.



Borlaug Dialogue

Read about twelve undergraduates from the Purdue College of Agriculture who attended the 2019 [Borlaug Dialogue International Symposium](#) during World Food Prize week.

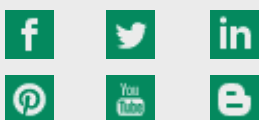
Student Recognition

The Poultry Science Association Foundation recognized the recipient of the 2019 Diamond V Endowed Scholarship--Austin Silva, a [poultry science student at Texas A&M](#).

Send in Ideas

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

CAST Social Media



Grain Trade: Exporters reported the sale of 264,000 tons of [U.S. soybeans to China](#) for delivery in the 2019/2020 marketing year, amid hopes for a partial trade deal between the world's largest economies.

Pesticide Regulations: The EPA [proposed rules to update](#) pesticide application exclusion zone requirements.

World Hunger: According to this report, [world hunger is now on the rise](#) after a steady decrease during several decades. With World Food Day recently occurring, many are working on solutions.



Crop Research: USDA Deputy Under Secretary Scott Hutchins announced that the National Institute of Food and Agriculture has invested \$11 million in [research to support specialty crop farmers](#).

Court Case: A coalition of renewable fuel and farm groups is [challenging the EPA in federal court](#) for issuing more than 30 RFS waivers in 2018.

News from the Far Side of the Barn

A Healing Pig: A devastating fire and other setbacks affected this family farm, but a [runaway pig has given them some hope](#) and neighborhood connections.

Gasoline, Matches, and Stupidity: (video): We will state the obvious. This is [not how to get rid of cockroaches](#).

Haunted Corn Maze (video): This crop yields [crazy clowns, chainsaws, and haunted hotels](#).



"A very intelligent animal." [Story link at upper left.](#)

It's Important--Eat Your Fruits and Vegetables

CAST Report Looks at the Science Regarding Pesticides in Food Products

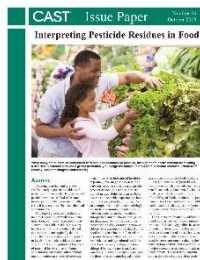


Consumers are concerned about their exposure to pesticides through fruits and vegetables bought at the grocery store, but that fear is not supported by scientific evidence.

Carl Winter led three rollout sessions in Washington, D.C.

A [new report from the Council for Agricultural Science and Technology](#) aims to reduce consumers' worries by describing how information from complex risk assessments can be misinterpreted in news stories and by consumer advocacy groups. The innately complex findings from scientific publications can easily be shaped into unfavorable narratives that end up confusing grocery buyers more than aiding them.

"Consumers should feel confident, rather than uncomfortable, when purchasing fruits and vegetables," says Dr. Carl K. Winter, Cooperative Extension Food Toxicology Specialist Emeritus at the University of California-Davis and chair author of the CAST publication.



The new CAST paper provides an overview of how pesticides are used in crop production and their benefits in the food system. The authors also offer accurate evaluations of scientific sources commonly used by media outlets and advocacy groups to shape consumer advice.

This AgWeb [report features a video commentary](#) about the CAST publication.

The full report, *Interpreting Pesticide Residues in Food*, is available to [download here](#). The Ag quickCAST version is [accessible here](#).

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 crop collage from win.ag.com, canr.msu.com, and harvesttotable.com, World Food Prize logo from wfp.com, Earth cartoon from world.jpg, and pig pic from Rick Kintzel. P. 2 collage pics from Kent Schescke. Animal Sec. cow pic from twitter.jpg. Food Sec. food pic from booktrib.com and bacon pic from nationalhogfarmer.com. Plant Sec. farm pic from forbes.com. Inter. Sec. animal collage from msn.com and weeklytimesnow.com, and aye-aye pic from duke.edu. Gen. Sec. pumpkins pic from nbcnews.com and drone pic from techxplore.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.



Animal Agriculture and Environmental News

Air Quality in Poultry Housing: This study from Iowa State University and the U.S. Poultry and Egg Association looks at the [mitigation of ammonia and odor emissions](#) in poultry housing with the use of black UV light.

ASF Breakthrough? Chinese researchers say they found the structure of the African swine fever virus, and it could lay the foundation for the development of [vaccines for pigs](#).

Livestock and the Environment: As this report shows, Frank Mitloehner uses [science and logic to explain livestock agriculture](#) and its relationship to the environment.

Mitloehner Speech (video): Dr. Mitloehner (UC-Davis) received 2019 BCCA recognition at a World Food Prize side event, and this video shows his [acceptance speech and his observations](#) about livestock emissions and science communication.



We can speculate, but we have no data to prove these cows "flowed better with music." On key issues, the National Milk Producers Federation says it follows the science, and this article looks at the positives for [dairy production in the areas of nutrition, hydration, and climate change](#).

Veterinarian Shortage: Farm veterinarians are increasingly rare, and this article explains [why we should care](#). This list of "[best veterinary schools](#)" shows that plenty of good work is going on in universities--most of these top schools are members of the [CAST Education Program](#).

A Horse in Zebra Clothing: A UC-Davis professor backs up what was reported last week--[horses dressed as zebras enjoy definite benefits](#).



Genetic Variation: This Pennsylvania State University professor [looks at the loss of genetic variation](#), including his claim that one bull possibly has a quarter-million daughters.

Animal Gene Pools (related to above): Check out this recent CAST publication--[Protecting Food Animal Gene Pools for Future Generations](#).

Food Science and Safety News

Food Waste "Gets Ugly" (video): What started as a small way to [combat the massive problem of food waste](#) in this country has turned into big business--including a student food recovery network. View the related full CAST publication [Food Loss and Waste](#) and the summary of the paper, the [Ag quickCAST](#), on our website.

Modern Food Production: This article looks at [changes in food production](#), including 3D printing, vertical farming, nanotechnology, biotechnology, and more.

Cook Wild Kentucky: The University of Kentucky Nutrition Education Program provides [recipe cards and information](#) to help citizens learn how to prepare wild game--rabbit jambalaya, anyone? This [video explains the program](#).



Viral Bacon (video): The [bacon vending machine](#) has been a buzz on the The Ohio State University campus, but the bacon scarcity panic a few years ago was overblown, and the [current bacon glut is explainable](#) when various factors are taken into consideration.

Expensive as a Gold Nugget? In another look at the cultured meat movement, these [\\$50 chicken nuggets](#) were grown in a lab.



Sometimes funny, sometimes suggestive, "ugly" fruits and veggies are on the market in an effort to combat food waste. See related link upper left and in the [International Section](#) below.

Plant Agriculture and Environmental News

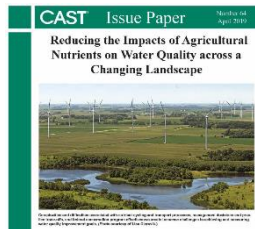
Fine Wines and Changing Weather (video): Experts from UC-Davis are joining in with tech developers in an effort to help the Napa Valley wine industry [cope with the problems of a changing climate](#).

Grapes and Drought: University of Nevada-Reno researchers partnered with Oregon State to investigate ways to make grape varieties [more drought-tolerant](#).

Benefits from Chicken Manure: This study--using Iowa State University research--looks at the [long-term impact of poultry manure on crop yield](#), soil and water quality, and crop revenue.

Environment Program: At the recent World Food Prize gathering, officials for Corteva said the company is committing \$500,000 toward a program to reward farmers who [adopt carbon-sequestering practices](#).

Crop Diversification: Some opportunities are opening up to help farmers financially as they try to [improve soil health by diversifying crops](#).



Productivity and Water Quality: This CAST publication looks at increasingly [productive crop techniques and the challenges of water quality](#).

Crop Protection: This CAST paper addresses crop production topics. [Crop Protection Contributions](#) toward Agricultural Productivity is a paper in the series on *The Need for Agricultural Innovation to Sustainably Feed the World by 2050*.



This writer says regenerative agricultural practices (including tech innovations) [could help stop climate change](#). Another writer takes a different view, claiming organic methods [could increase greenhouse gas releases](#).

International News

Setting the Record Straight: Sheep officials in Great Britain are trying to [counteract accusations](#) about the environmental impacts of their industry.

The Passing of a Famous Sheep: [Chris the sheep](#) became famous because he was found in the Australian countryside carrying a coat of nearly 90 pounds of wool.

Bovine Pair Leading Fundraising Efforts: [Knickers the giant Australian steer](#) is in an unlikely friendship with Lucky, a small calf making headlines for allegedly being stolen by a vegan activist.



Updates in links at left about Chris the woolly sheep and Knickers the giant steer.

From Landfill to Lunch: An [international project](#) in Kenya is changing the destination of so-called ugly vegetables by diverting them into the country's school meals program.



The Unusual Aye-aye: Madagascan lemurs called aye-ayes display a collection of [delightfully ghoulish traits](#)--including their teeth, ears, and hands that feature a tiny sixth finger, a "pseudo thumb."

Irish Drones: Although drone owners deal with several restrictions on farms in Ireland, many think the technology will soon be [as important as the motorbike and sheep dog](#).

General Interest News

Animating a Pumpkin (video): This artist spices things up by [carving fifteen pumpkins](#) as separate frames of a clever animation.

Pumping Up Pumpkin Sales: Pumpkin sales in Virginia are [generating millions of dollars](#).

From Blood Sampling to Chemical Reactions (video): During a university science tech week, North Carolina A&T [students demonstrated scientific, hands-on activities](#) at local schools.

Drone Down on the Farm: Mark Parker lists his [top ten reasons a farmer needs a drone](#)--from herding goats to shoeing blackbirds to mowing the lawn.



A West Virginia man is known for his insane yet beloved tradition of [displaying thousands of pumpkins](#). See upper left for related links.

Eyes in the Sky (related to above): This blog features several drone stories and an essay about why it was [good not to have drones as a kid on the farm](#).

Latest Drone Testing: A Virginia town was chosen as the [test location for drone deliveries](#) from FedEx, Walgreens, and a local business.

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 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
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- * Crop Science Society of America
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * 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
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * Tuskegee University
- * Tyson Foods
- * United Soybean Board
- * University of Nevada-Reno
- * Weed Science Society of America
- * Western Society of Weed Science

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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