



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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Beauty and Adrenalin



These brave souls [base jump off the beautiful cliffs](#) of the Norway fjords--so we don't have to.

Recipes for Food and Family

Writing coaches asked students to think of a family recipe with a backstory and then write an essay around that dish. These 81 recipes and their accompanying stories make up a [cookbook of global cuisine with a heartfelt touch](#).

Paper Recognition

Click [here](#) to read a *Review of the Impacts of Genome Editing Techniques in Plants*, a paper recently produced by, among others, David Songstad (a Past President of CAST) and Nancy Reichert (CAST President-Elect).

Aiming for Science Careers

April 21, 2017

Food Production Is Up

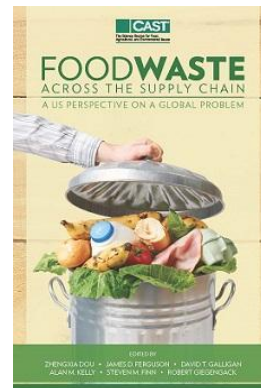
But so is waste, and the problem is critical



The USDA reports that today's farmers produce 262% more food with 2% fewer inputs (labor, seeds, feed, fertilizer, etc.) compared to 1950. This encouraging news is countered by the fact that as much as half of all food produced on the planet is lost before reaching a human stomach. [Food waste is an environmental, social, and financial problem](#).

Many organizations--private and public--are working on this issue, and many individuals--from college students to celebrities, from local farmers to concerned citizens--are coming up with ways to lessen the problem.

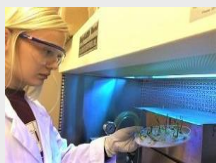
Several months ago, CAST and the University of Pennsylvania published the book *Food Waste Across the Supply Chain: A U.S. Perspective on a Global Problem*--a compilation and enrichment of papers presented at The Last Food Mile Conference. Topics include food waste in the industry sector and how it is handled, characteristics of food waste in restaurants and in homes, how food waste can be measured, what interventions are most effective, food recovery from the supply chain and how it is diverted and used, and how food marketing affects consumption and waste. [Click here to access the book](#).



News and Views

****Earth Day Update:** 'Reflecting on the (Major) [Role of Science](#) in Agriculture.'

****Standing Up for Science:** A report by the British House of Commons Science and Technology Committee calls for a rethink of the [relationship among scientists, media, and the public](#).



A University of Kentucky workshop for middle school girls, Expanding Your

Horizons, is designed to [encourage young women to consider careers in STEM-related fields.](#)

Farm Scholarships

Two farm-based associations are [offering scholarships to individuals who are considering a career in farm business](#) management education--the related national conference will occur during mid June.



CAST Social Media

Click here for [links to CAST sites](#): Twitter, Facebook,

Pinterest, LinkedIn, videos, and blogs.

****Weather Change?** According to this article, climate change does not merely increase the overall likelihood of heat waves or extreme rainfall--it also [changes the flow of weather itself](#) by altering massive planet-scale air patterns like the jet stream.

****Biotech and Food:** Funded by the Council for Biotechnology Information, this site [attempts to answer all questions about GMOs](#) and how our food is grown.

News from the Far Side of the Barn

A Violent Beauty (video): This insect uses pastel colors not as camouflage, but as [deception to attract bugs for prey.](#)

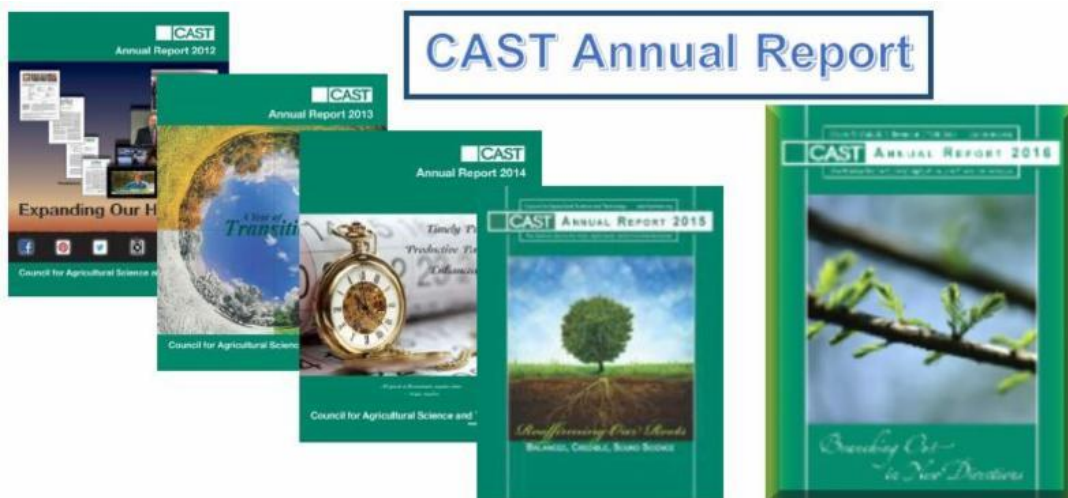


The orchid mantis is beautiful, unless you're an insect.

Protecting Blueberries and Big Airliners: Birds can be a problem at farms and airports, so this Dutch company provides Robird, [a robotic falcon to scare them away.](#)

Bear in a Bucket: This clip is a bit long--[and a bit tense](#) when the saw comes out--but skip ahead for a happy ending.

Reflecting on the Past Year



CAST's annual reports look at highlights from the past year, and they provide links between the roots of the past and the emerging branches of the future. [Click here for access to the 2016 CAST Annual Report.](#)

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 skydive pic from adventure.howstuffworks.com, young scientist pic from cbconline.com, globe image from nutritionforthehealthofit.com, and mantis pic from npr.org. Animal Sec. cartoon from garfield.com. Food Sec. cartoon from cafePress.jpg. Inter. Sec. duck pic from newyorknewsbrio.jpg. Gen. Sec. snail pic from eurekaalert.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

A Good Reason to Get Bugged (video): This couple donates a bug collection worth \$10M, [a goldmine for researchers](#), as scientists piece together a large branch of the insect family tree.

Improved Pastures Mean Better Cattle: In order to be a [successful beef producer](#), one must manage two key factors very well--the land and the cattle.

Fat Cats and Big Dogs (opinion): America's [weight problem extends to its pets](#), with many cats and dogs dangerously overweight, a federal government veterinarian warns.

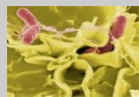
Chickens and Needles: These broiler studies demonstrate that a [dual-needle in ovo delivery system](#) yields more accurate vaccine placement, better hatchability, and better disease protection compared to a single-needle system.

Baked Goods and Manure Pots: These dedicated farmers take care of 300 cows--managing a bakery and marketing biodegradable [pots manufactured from cow manure](#). They need to evolve and adopt new tech to stay competitive.



Hog Growth Rates: These Iowa State researchers say [higher levels of phytase increased feed efficiency](#) by 1% on a live and carcass weight basis, as well as improving growth rate.

Hacking Can Be Deadly for Animals: [Poachers and hunters are hacking signals](#) from conservationists' tags to locate and hunt down endangered animals.

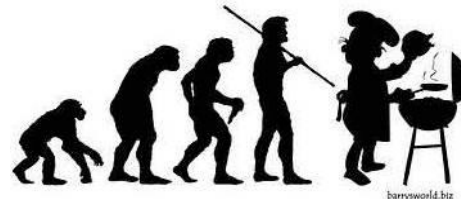


Food Science and Safety News

But Can It Handle the Pepper Mill? (video): Sally the [robot makes perfect salads in 60 seconds](#), but the jury is out about who is dippier in this piece--the robot, the person ordering, or the TV commentators.

Cook My Meat: This "Cook My Meat" [digital tool comes from some MIT students](#)--although Dan Murphy thinks he will stick to his tried-and-true methods to grill out.

Eat Your Greens--Here's Why: USDA scientists have determined your mom was right--[you should eat](#) your brussels sprouts, kale, cabbage, and 27 additional varieties of *Brassica* microgreens.



What's the next step in grilling evolution?

Egg on Your Face--In a Good Way: This book is a funny, insightful guide to [understanding the egg as an](#)

The full paper, Ag quickCAST, and video [available here](#).

Tonga Islands Go Big on Poultry: At least [10,000 baby ducks and chickens have been sent to villages](#) across the archipelago, and a discount on animal feed is also being offered, the agriculture ministry says.

Southern Hemisphere Cattle: This story looks [behind the scenes at a feedlot in South Africa](#)--30,000 cattle and 20,000 calves.

Look Out Tulips--Strawberries in

Holland: During the first 15 years of this century, the yield of [strawberries grown under glass and tunnels](#) has increased by at least 90%.



These Chinese drivers can't duck out of this traffic jam.

Deforestation, Africa, and Agriculture (opinion): A Stanford study [highlights the real and potential impacts](#) on Africa's valuable tropical forests.

Home, Home on the Tundra: Russian scientists plan to [import six American bison](#) to an area in Siberia to help the ecosystem there.



General Interest News

Smart Enough to Sort Recyclables (video): An [artificial intelligence robotics system](#) has been developed to divert cartons away from landfills, with possibilities to sort other recyclable materials in the future.

Robot Vehicle and Mobile Sensing Tower: The University of Missouri has developed a robotic system that [helps researchers study crops and plant composition](#) in new and interesting ways.

Reporter Moves to the "Worst Town in the Country" (video): A [big city reporter ridiculed a small town](#) in Minnesota, but after he accepted an invitation to see the place in real life, he changed his tune.

Spiderman Snail off Florida Coast: Scientists announce the discovery of a [new species of snail](#) that lives on shipwrecks, filter feeds like a whale, and shoots webs like Spiderman.

"Kidney Punching" Mosquitoes: A team led by scientists from The Ohio State University and Vanderbilt University has taken the next step toward developing [an improved, sustainable mosquito insecticide](#).

Game Bird Research: This Kansas State associate professor turned a poultry farm into a new [research facility focused on game birds](#) such as pheasants.

Vertical Farming Claims (opinion): This article claims that [vertical farming yields more crops](#) per square meter than traditional farming or greenhouses do--and uses less water.



Spiderman snail can shoot out a web.

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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Contact Colleen Hamilton at 515-292-2125, ext. 224 or [chamilton@cast-science.org](#), or [CLICK HERE](#) for CAST membership information.

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- * 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
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- * DuPont
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- * Land O'Lakes
- * Monsanto
- * National Corn Growers

- * 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.

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Note: WinField Solutions (Land O'Lakes) provides sponsorship for the distribution of
Friday Notes to the National Association of Agricultural Educators.

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