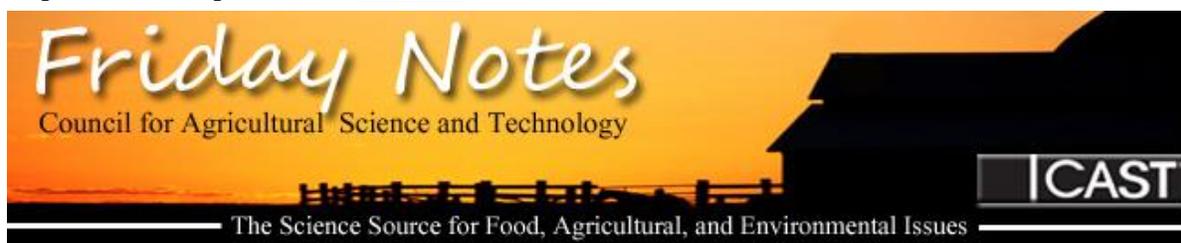


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Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible, unbiased, science-based information. Material contained in linked articles is from the original authors and does not necessarily reflect the views of CAST.

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Humpback Photobomb



This diver reports that a humpback whale spent a full half an hour with him, "[swimming and dancing](#)."

Dr. Stanley Wilson

Click here for the full [obituary of Stanley Wilson](#)--a scientist, educator, and researcher with many accomplishments at Purdue, Auburn, and elsewhere. Dr. Wilson was the leader of CAST in the early 1990s, and the organization appreciates all he did for science and agriculture.



World Food Prize Sessions

The World Food Prize "Borlaug Dialogue" will gather an impressive [array of international leaders, farmers, and agribusiness executives](#) Oct. 17-19 to address critical issues facing global food security.

CAST at the

August 17, 2018

Ag Innovation

Genome editing leads to cutting-edge breakthroughs

With the title "The Future of Food," a new article explains how genome-editing technology allows scientists to turn plant genes "on" and "off," with [techniques that are precise, inexpensive, and fast](#). Scientists are designing plants that are [more nutritious, convenient, and sustainable](#). Genome editing's low cost has empowered smaller players to compete. Along with large companies, they hope to avoid the negative reputation and regulatory hurdles that hobbled the first generation of genetically modified foods, but some consumer and environmental groups say the tech has not been adequately vetted.



Professor Nina Fedoroff writes about the [wealth of knowledge we now have about modifying plants](#)--and the "clearing of the regulatory thicket" that will encourage advanced molecular techniques. Some think the thicket was further tangled by the European Court of Justice's [recent ruling on genome editing technology](#). For deeper insights into the issues, check out CAST's influential publication [Genome Editing in Agriculture: Methods, Applications, and Governance](#).

News and Views

Saving the Orange: Our morning orange juice could be in jeopardy, but this University of Florida researcher says [CRISPR and genome editing might be the answer](#) (related link in Plant Section below).

Court Ruling on Glyphosate: A jury awarded millions of dollars in damages to a cancer-stricken man after saying Monsanto failed to warn him of the dangers posed by his [use of the glyphosate-based herbicide Roundup](#). An appeal is expected, and the [company has responded to the ruling](#).

World Food Prize

During a special morning session on Oct. 17, CAST will present the [2018 Borlaug CAST Communication Award](#) to Dr. Marty Matlock. Watch for details.

2018 Farm Progress Show

The annual [Farm Progress Show](#) is the nation's largest outdoor farm event, and the 2018 version will be August 28-30 in Boone, Iowa.



Classroom Food Safety

As the school year begins, the [USDA provides food safety tips](#) to keep foodborne illness out of the classroom.

Beef Stocker Day

Kansas State University's [Beef Stocker Field Day](#) on Sept. 20 in Manhattan, Kansas, will include information about production techniques, animal welfare, and many other topics.

Submit an Idea

We welcome suggestions for future CAST publications and projects. [Click here to submit ideas.](#)



Catch CAST Online!

Follow us on [social media](#) to stay up to date on the latest ag trends and recent CAST news!

Chemical Ban: The CEO of CropLife America says he hopes the EPA will consider all avenues of appeal for a court ruling that orders the [ban of the pesticide chlorpyrifos in 60 days](#).

WOTUS Update: A federal judge ruled that the EPA and Army Corps of Engineers improperly suspended the Obama-era "waters of the U.S. rule," [allowing it to take effect in 26 states](#) where it has not been blocked by court order. The National Milk Producers Federation says the 2015 version of the Waters of the U.S. rule [should be permanently rescinded](#).



Labeling Issue: Biotech expert Gregory Jaffe thinks it will take time for the USDA to review the comments, address the issues, and finalize the regulations about a "[bioengineered disclosure rule](#)." He looks at the importance of definition and uniformity of regulations. Check out these related CAST publications: (1) [Process Labeling of Food: Consumer Behavior, the Agricultural Sector, and Policy Recommendations](#), and (2) [The Potential Impacts of Mandatory Labeling for Genetically Engineered Food in the United States](#).

USDA Move: Some economists were stunned by the USDA's decision to move the [economic research section of the department](#).

News from the Far Side of the Barn

Take a Deep Breath: "Swimming with the fishes" might have a new connotation if this accessory that works as a gill really ends up [providing humans with an alternative way to breathe underwater](#).

Battling Bulls and a Lucky Man (video): A man survives getting caught in the middle of a [street fight between two angry bulls](#).



An Elephant's Trunk: Scientists have found [this Swiss army knife of appendages can do much more](#) than communicate and lift heavy objects.

This sheep releases its "inner lamb-like self" [on a trampoline](#).

CAST Benefits from Your Input Upcoming Friday Notes Makeover



As CAST begins a website redesign, the organization will consider its overall look and communication methods. It is the perfect opportunity to gather input from our members regarding the layout, design, and content of CAST *Friday Notes*.

Our weekly e-newsletter will continue to provide credible information about agriculture and science--and by using your feedback, we will consider how to make the material clear, accessible, and pertinent.

We greatly appreciate your loyal membership and look forward to receiving your input.

Click here to participate in [CAST's 2018 Friday Notes Survey](#).

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 whale pic from ladbible.com, genome pic from theatlantic.com, water pic from allpsdfile.jpg, and sheep pic from dailymail.co.uk. P. 2 megaphone image from forklifttrainingonline.co.uk. Animal Sec. fish pic from point-au-baril.jpg. Food Sec. watermelon pic from healthline.com. Plant Sec. corn pic from theatlantic.com. Inter. Sec. cattle pic from dailymail.com. Gen. Sec. harvest pic from allaboutfeed.net. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Biotech Salmon (video): The [first genetically modified animal for human consumption](#) could be arriving in grocery stores across the United States soon. Check out the CAST Commentary [The Science and Regulation of Food from Genetically Engineered Animals](#).

Cagey Comments (opinions and videos): In a recent blog, Alison Van Eenennaam explains the [interesting situation happening in California with Proposition 12](#)--the "cage-free" chicken initiative.

Poultry Study (related to above): Check out the CAST Issue Paper [Impact of Free-Range Poultry Production Systems on Animal Health, Human Health, Productivity, Environment, Food Safety, and Animal Welfare Issues](#).

Graze On: Consumer perceptions could be changing as a shift in reporting about beef now shows [cattle grazing as an important part of land management](#).

Lab-grown Lungs: Researchers [successfully transplanted bio-engineered lungs into pigs](#). Some believe such lung transplants will be possible for humans within 10 years.



Flooding in northwest Iowa propelled an invasive species of fish called Asian carp toward the Iowa Great Lakes, but [biologists say a barrier seems to be keeping them out](#).

Mercury Discoveries: The University of Nevada-Reno is studying the levels of mercury found in pet foods in hopes of [helping consumers make more informed decisions](#).

Giving Feathers New Life: Chicken feathers typically end up as landfill waste or low-grade animal feed, but [this scientist hopes to use them as a form of plastic](#).

Resistant Bacteria: A study involving 19 academic parties throughout 10 countries revealed the level of [antibiotic resistance in the intestinal tracts of pigs and broilers is linked to antibiotic usage](#).

Old Methods and New Blockchain: These Wyoming ranchers--and others--are looking at the importance of merging the old heritage of the agriculture industry with the [emerging technology known as blockchain](#).



Food Science and Safety News

Book Bond (video): Join others around the globe with a [common goal of reading and sharing](#) Jayson Lusk's book, *Unnaturally Delicious: How Science and Technology Are Serving Up Super Foods to Save the World*.

Overview of Alternative Meat (opinions): This Texas A&M expert [believes alternative meat demand will ascend in tandem with real meat demand](#), but some worry that others might use public fear as a selling point.

Recall Spotlight: Food [recalls are in the spotlight this year](#), but a Kansas State specialist says things may not be as bad as they sound--better surveillance and reporting may explain much of the frequency.

Putting a Squash to Mediocre Veggies: [How would food taste if breeders started taking their cues from chefs](#) instead of big food companies when they are tweaking the varieties of fruits and vegetables we eat?

Not Much Has Changed: According to a recent poll, [the number of Americans who self-identify as vegetarian or vegan has remained steady](#) during the past 20 years, and it's still a rather small group.



Watermelon has been a staple summer snack for years, but recent university research shows its [nutritional benefits are far greater than previously predicted](#).

Fad Diets and "Obesity Nation" (opinion): This commentator looks at [diet crazes that are being pitched](#).



Plant Agriculture and Environmental News

A Two of a Kind Project (video): This Wisconsin dairy is [making renewable natural gas from cow manure](#) as a source of fuel to power vehicles across the country.

Gene Enhancement: A gene that enhances a plant's [ability to absorb nitrogen](#) could be used to breed high-yield varieties of rice, wheat, and other staple crops that would need less fertilizer, according to this research.

Orange Aid: Florida's orange growers are finally catching a break, with better weather and more [growers developing methods to fight the greening disease](#).

A Case for Pesticides (opinion): This writer says the word "chemical" has been demonized, and he explains why [pesticides probably do not cause pediatric cancer](#).

Precision Ag Methods: Researchers developed a precision spray assembly capable of [delivering herbicides at the centimeter level of accuracy](#) with minimal off-target spray.

Chemicals in Court: Due to accusations of wind-drift damage, [pesticides are showing up more often in courtrooms](#).

Home Remedies: Gardeners can [make a difference in how plants and soil interact](#) by using these suggested practices to trap carbon and reduce greenhouse gases.



UC-Davis scientists [discovered a nitrogen-fixing corn variety](#) that grows aerial roots producing a sweet mucus aiding in fertilization.



International News

Take a Walk in an Elephant's Skin (video): The cruel poaching of African elephants is well documented, but in Myanmar, their Asian cousins are ten times [more endangered and facing a new, serious threat](#).

African Situation (related to above): This article looks inside the effort to [save Africa's elephant population](#).

Banana Breakthrough: A Korean grocery store is [packaging bananas at various levels of ripeness](#) so that consumers can have a fresh one every day of the week.

Release the Mosquitoes! Dengue fever has been wiped out of Townsville, Australia, after [anti-virus mosquitoes were released](#).

Bt Comes to Bangladesh: Farmers continue adopting Bt eggplants in Bangladesh, allowing small-scale family farmers to grow crops with [decreased pesticide use and increased income](#).

On the Road: With so many pigs and other livestock traveling to market and other places, Canadian researchers are developing [tools to improve conditions and welfare for the animals](#).



Many parts of Australia are suffering from the worst drought in decades--and this drone footage shows a [herd of thirsty cattle swarming a water truck](#).



General Interest News

Science Writing Tips (video): Kevin Folta provides [guidelines to help write scientifically for a general audience](#).

High Tide, Bad Tide (video): Both the [coastal red tide and the inland blue-green algae](#) have beset south Florida, affecting animals and humans.

Rising Tide (related to above): The University of Florida [provides a red tide Q & A](#), and Canadian scientists want to study whether red algae can one day be [used as a sustainable livestock feed](#).

Spider Silk Production: Scientists say [spider silk is so strong it can be used to make bullet-proof vests](#) and help with nerve damage repair.

Ingredients for Success: These Colorado family members [use responsibility, accountability, and dedication](#) to develop a Grand Champion steer that goes for a record \$40,000.



An agricultural [Guinness world record was achieved](#) with 303 combines working at once in this Canadian wheat field.

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.



CAST provides Friday Notes as a benefit to its members. Please do not forward, edit, copy, or distribute the Notes in any form to nonmembers without the express permission of the CAST Executive Vice President Kent Schescke (kschescke@cast-science.org). Instead, please encourage your colleagues to join CAST and thereby become eligible for all membership benefits. 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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- * Agricultural & Applied Economics Association
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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
- * 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
- * BASF Corporation
- * Corteva Agriscience, Agriculture Division of DowDuPont
- * Croplife America
- * Crop Science Society of America
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * Land O'Lakes
- * Monsanto
- * 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
- * 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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