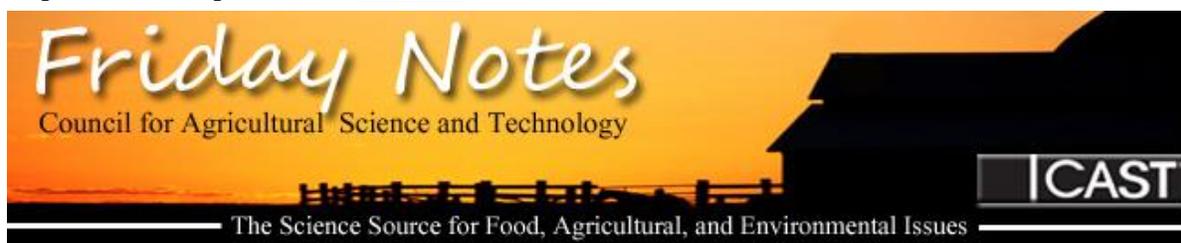


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Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible,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

In This Issue..... [Click to Read](#)

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[Food Science and Safety News](#)

[Plant and Environment News](#)

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Omega-3 Fatty Acids Publication Rollout



On Tuesday, May 8, at the American Oil Chemists Society's annual meeting in Minneapolis, CAST will release its latest report, *Omega-3 Fatty Acids: Health Benefits and Dietary Recommendations*. [Click here to watch the livestream](#) of this event starting at 11 a.m. CST.

Virtual Food Safety Lab

This [virtual resource can help students](#) learn basic laboratory techniques and practice methods used by lab techs and researchers in a variety of careers.

Submit an Idea

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



May 4, 2018

The CRISPR Quake Shaking Us All

Discoveries affect medicine, ag, and just about everything

A university student visiting our office summed up the gene editing buzz quite well: "At first I thought CRISPR referred to a drawer in the refrigerator used to keep lettuce fresh. Now I realize it is a widespread scientific phenomenon."



The general public is quickly learning about CRISPR--*Friday Notes* has been reporting about this "genetic earthquake" for years. Several items this week provide a solid overview and some new insights into this scientific game changer: (1) This *Sixty Minutes* video [focuses on the medical angles](#), and this "overtime segment" looks at [some of the controversies](#); (2) this article [provides an overview](#) with a look at why "every industry is throwing mad money at CRISPR"; (3) and this student-produced video includes interviews with experts--including Alison Van Eenennaam and Mark Lynas--as it looks at [techniques, regulations, and acceptance](#).

Note: A [new CAST Issue Paper](#), *Genome Editing in Agriculture--Methods, Applications, and Governance*, will roll out this summer.

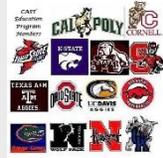
News and Views

USDA Proposed "Label Law": USDA's Agricultural Marketing Service has issued a proposed rule to implement the landmark legislation requiring [some form of disclosure of biotech ingredients on food packaging](#). The USDA [invites public comment on the proposed rule](#) to establish the National Bioengineered Food Disclosure Standard mandated by Congress in 2016. Click [here for access to the current form](#) of the USDA document. Check the Food Section below for more articles about food labeling.

Ag Economy Nervous: The April Purdue/CME Group [Ag Economy Barometer fell](#) due to trade worries, and some reports say [U.S. soybean sales to China](#) have ground to a halt.

University Research

Exciting developments occur at all of our member schools, including these recent items: (1) University of Nebraska-Lincoln research is focused on [creating beneficial uses for grape pomace](#); (2) the Foundation for Food and Agriculture Research is supporting both the University of Florida's efforts to [fight disease resistance in lettuce](#) and Kansas State's work to [develop efficient irrigation technologies](#); and (3) Ohio State scientists have developed a new technology called [tissue nanotransfection](#).



Catch CAST Online!

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



Infrastructure Program and Rural America: The U.S. government's much anticipated \$1.5 trillion Infrastructure Plan has many [farmers and farm groups excited--yet some are uncertain](#) how this will truly affect rural America.

Impact of the Animal Welfare Report: With the release of its latest task force report--[Scientific, Ethical, and Economic Aspects of Animal Agriculture](#)--CAST has received positive online reviews and surprising international interest ranging from Germany to New Zealand.

News from the Far Side of the Barn

Back Off, Mate!

(video): Australian [authorities warn tourists to take care around kangaroos](#)--the encounters don't always go well.

Hey, No Cuts (video): A large Texas [alligator decided to cut in line](#) as it headed for the Whataburger drive-thru. We're not sure what it ordered.

Flying Food Pyramid: A lucky photographer in Florida snapped a shot of an osprey flying above him--it had a small [shark in its beak, and the shark had a small fish in its jaw](#).

LAB RULES



ASAP SCIENCE

"Lab Rules" is a [science-tinted parody](#) of Dua Lipa's music video "New Rules."

Endless Opportunities for Students

Biding farewell to graduates and promoting student membership

In June 2017, Dr. Jack Avens retired after 50 years as a teacher and researcher of agriculture and food science and safety at Colorado State University. He states, "For most of those years I used CAST publications and *Friday Notes* in my teaching to keep course [materials] up to date. Although I have many resources, CAST has been my best single source for teaching science-based food production, processing, and consumption." Avens is still active professionally as a professor emeritus--working on projects with undergraduate and graduate students while maintaining contact with the food and beverage industries.

CAST's Membership and Administration Specialist Colleen Hamilton states, "We're currently seeing an exciting increase in [free student memberships](#). Our hope is that they will use our excellent resources throughout their academic career and then continue to take advantage of those resources and other membership benefits through our [Young Professional membership category](#) in their future endeavors."



This video (above) highlights CAST accomplishments in 2017--all due to our membership support.



For many years, CAST has benefited from student involvement, and much of that has come through a student intern relationship with Iowa State University. Most of the students have agricultural backgrounds, and they contribute new ideas and youthful energy to our organization--in areas ranging from social media to finance to event planning.

As this school year ends, two CAST interns will be moving on. Ellen Jasper (left in photo) has a trip to Ireland in the works before she takes on a finance internship with a major bank. Mikayla Dolch (right) will continue her active participation in agricultural organizations, and this fall she will do her student teaching in agriculture education. Note: This [earlier blog provides background information](#) about these two high-achieving students.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 got an idea pic from TeeEver.com, CRISPR graphic from nature.com, and lab photo from apple.com. Animal Sec. pig poster from animalsmart.org. Inter. Sec. fruit pic from ntd.tv. Gen. Sec. mosquito sign pic from mosquito.gif. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Kicking Up Their Hooves (video): It happens every spring in many countries--the [dancing of happy cows](#) as they are released to the pasture in spring.

Should Your Pet Chill with a Pill? This article examines the controversy regarding [whether or not pets need mood-altering drugs](#).

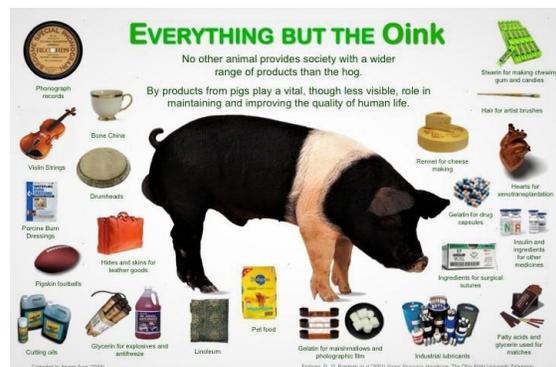
Consumer Perspectives and Poultry: Jayson Lusk looks at [consumer knowledge about sustainability-related poultry production practices](#) with a focus on cage-free eggs and slow-growth broilers.

Classroom to Feedyard: This high school student took full advantage of her advanced biology class to [tackle the challenges of coccidiosis](#).

Improved Dairy Safety Net (opinion): This dairy official looks at the improved dairy safety net that includes [more risk management tools and enhancements](#) to the dairy Margin Protection Program.

Small Dairy Farm Woes (video): The number of dairy farms has fallen, but milk production has soared from better cow genetics and improved livestock feed. [Some small farmers are not keeping up](#).

Court Decision in Pig Confinement Case: A [recent verdict in a nuisance lawsuit in North Carolina](#) against



This Ted Talk from several years ago looks at the [astonishing afterlife of the ordinary pig](#), as parts make their way into at least 185 nonpork products, from bullets to artificial hearts.

the pork production division of Smithfield Foods has [alarmed hog farmers in the Midwest](#). And in this audio link, the [president of the National Pork Board](#) gives his input about the issue.



Food Science and Safety News

Romaine Lettuce Safety Update: This report explains a death, current illness numbers, and the [continuing look for the source](#) of the problem.

Food Safety Overview (related to above): If you are wondering when you can [start eating romaine lettuce again without fear](#), the FDA and the Center for Disease Control and Prevention says, "Hang tight."

Labels and Dairy: The USDA is taking a look at how to address the "mislabeling" of [imitation dairy products](#)--terms such as "milk," "yogurt," "cheese," and "ice cream."

Labels and Fear Mongering (opinion): This writer is troubled to see the growing [trend of food companies using meaningless terms and confusing assertions](#) in their labeling efforts--many that monger against biotechnology.

Labels and Terminology: A proposal in Missouri would require makers of plant-based and lab-grown meat to [label those products as not originating from livestock](#).

A "Steroid" for Apples: Most know of classic pairings such as bacon and eggs or spaghetti and meatballs. This article looks at the deliciousness of [an unlikely food pairing--apples and peanut butter](#).

Skepticism about Vitamin Supplements: Although individual cases vary, many say calcium and Vitamin D [supplements are generally not effective](#).

Great News for Butter Fans: A new study [found that saturated fatty acids from butter](#) can increase how well HDL, the good cholesterol carrier, works in our bodies.



CAST laid the groundwork for insights about food labeling with two publications:

- (1) [Process Labeling of Food](#), and
- (2) [The Potential Impacts of Labeling for Genetically Engineered Food](#). See links at left for related articles about labeling.



Plant Agriculture and Environmental News

Protect Your Crops (video): See the difference between ignoring the problem of glyphosate-resistant weeds [versus proactively managing it](#)--and how that can have an impact over several seasons.

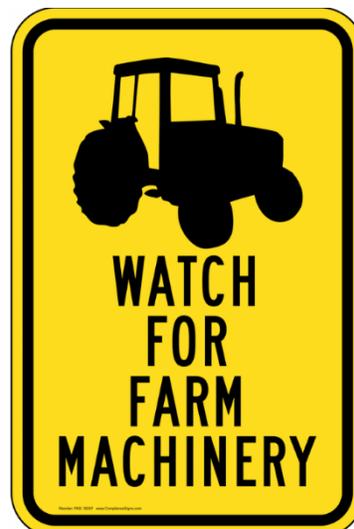
A Good Weed (video): Some are turning to the sea for agriculture, and the ill-named seaweed has [much promise as a source of food](#), jobs, and environmental benefits.

Spacing on Soybean Yield: Researchers from K-State have found that narrower rows in soybean production result in [equal or greater yields and reap several additional benefits](#) compared to much wider rows.

Glyphosate Use: The Nebraska Farm Bureau says farmers, ranchers, and the environment would suffer [if the EPA limits glyphosate use](#).

Hole-punch Technology: Florida vegetable growers often use "hole-punch technology" to [reduce herbicide use, cut water loss](#), and improve crop quality.

Buy Me Some Peanuts and Allergies? As baseball season gets into full swing, many fans enjoy ballpark favorites like peanuts, but not everyone can safely savor [peanuts due to allergic reactions--researchers are working](#) on that problem.



Be alert, slow down, and share the road! [Here are 7 tips](#) to keep motorists and farmers safe this planting season.



International News

Destructive Storms Hit India (video): At least 100 people have been killed and scores more injured in [fierce dust storms that hit northern India](#)--disrupting electricity, uprooting trees, destroying houses, and killing livestock.

France Label Ban: No longer can [vegan and vegetarian food be labeled](#) with meat- or dairy-specific terms like "burger" or "milk" in France. Related links in Food Section above.

China and Global Ag Investment: China's investment in foreign agriculture totaled \$26 billion in 2016, with [investments in 100 countries](#)--but this may be only the tip of the iceberg.

War, Peace, and Ag (opinion): International efforts to rebuild Syria once the civil war is over should [center on agriculture to kick-start the economy](#) and improve the livelihoods of the people, a high-level United Nations official said.

Water Wise Women (photo essay): A program in Jordan is training female plumbers to help in a [country filled with refugees and water challenges](#).

Poultry Research in Ethiopia: A new [poultry research and breeding facility](#) in Ethiopia explores genetic diversity of poultry to boost nutrition and incomes in the African nation.



More than [500 students and teachers were evacuated](#) from a university in Melbourne, Australia, as a result of a smell initially suspected to be gas--it was actually rotting durian fruit.



General Interest News

At Home Zika Test? (video): Researchers are working [to construct a simplified testing method](#) that could be used to detect infections or viruses such as Zika and Dengue. Where will CRISPR take us next?

Skeeters, Ticks, and Fleas Are Out to Get You (video): The number of illnesses caused by [mosquito, tick, and flea bites has tripled in the United States](#) during the last 13 years, according to government data.

Food Waste and Tech Solutions: This report looks at how food waste during the production process is [costly to the environment and the economy](#)--but technology might provide some solutions.

Farmers Helping Farmers: When a tragic silo accident took the lives of a Wisconsin father and son last month, the [ag community near and far stepped up to help](#). Note: Click here for the blog "[Helping Out--It's What Farmers Do.](#)"

Probiotics for Premies? At the UC-Davis Children's Hospital, preemies born under a certain weight are given probiotics--and something similar occurs in Australia, Sweden, and other countries. But [many call for more research about the issue](#).

Funds for Specialty Crops: The USDA announced \$7 million in funding to support 11 projects in six states to develop [solutions to challenges affecting the specialty crop industries](#) that cross state boundaries.



University of Florida scientists say [another mosquito may carry the zika virus](#). Check links at upper left for related information.

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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- * 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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