

Friday Notes

Council for Agricultural Science and Technology

CAST

The Science Source for Food, Agricultural, and Environmental Issues

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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Fresh-cut Hay

[The Intoxicating Smell of Nostalgia](#) looks at hay baling--old school and new tech.

What's Been Happening?

Click here for the most current [CAST Summary of Activities](#).

Top 50 Food Questions

CAST's [series of 50 informative 90-second videos](#) focuses on important food information. This week's featured topic: [Does Meat Contain Antibiotic Residue?](#)

Cow Care

The [Drovers Cowboy College](#) on June 20-21 in Iowa is designed for those involved with day-to-day care of cows and calves.

Professor Helping to "Clear the Air"

May 27, 2016

Much Ado about Labels

Labels can inform, mislead, or obfuscate--and everyone seems to have an opinion about their use or misuse. If you want to read about the controversy, type "debate about food labels" into a search engine, and you will have more than three and a half million links to choose from. The list below contains several labeling-related items from recent news:



This scientist believes biotech food is safe, but he thinks that bioengineered ingredients [should be identified on food packaging](#).

According to this editorial, it is time to end the [long, costly fight about labeling genetically modified foods](#).

CAST Issue Paper #54, [The Potential Impacts of Mandatory Labeling for Genetically Engineered Food in the United States](#), concludes that mandatory labeling has several negative aspects.

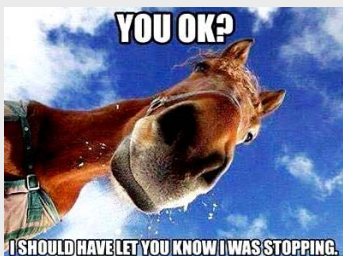
The FDA finalized the new [nutrition facts label for packaged foods](#) to reflect certain scientific information, including the link between diet and chronic diseases such as obesity and heart disease.

A [USDA-mandated label will start appearing on cuts of beef](#), noting whether or not the meat was run through a machine that uses blades or needles to pierce and break down the muscle fibers and make it easier to chew. A key issue involves *E. coli*.

By working on the [Food Date Labeling Act](#), Congress hopes to end food label confusion and stop needless food waste.

The Spanish translation of CAST's respected Issue Paper #56- [Process Labeling of Food: Consumer Behavior, the Agricultural Sector, and Policy Recommendations](#)--will be available within three weeks.

University of Nevada-Reno Professor Mae Gustin's research into the [release, measurement, and impact of mercury](#) in the atmosphere has been the subject of international attention.



Saddle Up

The D.E. King Equine Program in the University of Arkansas' Department of Animal Science has earned national accreditation [from the Certified Horsemanship Association](#) following an extensive on-site review.

Cheers

The Kentucky Department of Agriculture and the University of Kentucky are [researching the viability of hops](#) that crop farmers can grow to tap into the booming craft beer market.

CAST Social Media

[Click here for links](#) to CAST sites for Twitter, Facebook, Pinterest, LinkedIn, videos, and the blog.

News and Views

****Words from the USDA Head:** Agriculture Secretary Vilsack [spoke with ag stakeholders](#) about various topics--including rural poverty, opioid abuse, catfish inspection, and the labeling of foods containing biotech ingredients.

****GMO Report Updates:** The National Academies of Science's exhaustive report about biotech foods resulted in opinions from those who think GMOs can [feed the world](#), those who [took issue with the general conclusions](#), and those who think the [overall public attitude](#) is becoming less skeptical about biotech crops.

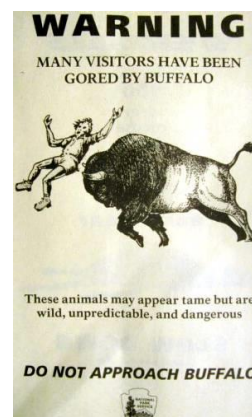
****A Ruling with Wide-spread Effects:** The House overwhelmingly passed an overhaul to the nation's [chemical safety standards](#) for the first time in four decades.

News from the Far Side of the Barn

Keep Small Children Away from This Bird (video): A [heron takes care of a large catfish](#) in one gulp.

But Would It Fetch My Slippers? (video): A woman in Texas sold a [housebroken 1,000-pound bison](#) on Craigslist for nearly \$6,000.

Sad Encounter (video): A bison calf that [tourists loaded into their vehicle](#) at Yellowstone National Park because they were concerned for its welfare could not be reunited with its herd and had to be euthanized.



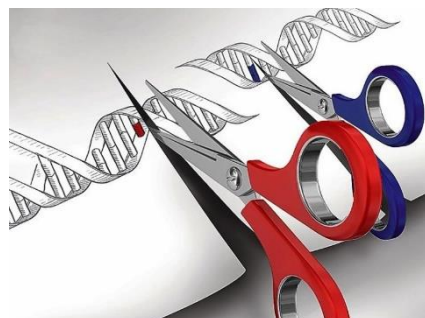
Furthering the Conversation

Forthcoming CAST Paper Will Add Clarity to the Genome Editing Dialogue

The release of the comprehensive GMO study by the National Academies of Science raised the conversation about biotech to a higher level. The report also recommended further research about this important topic.

A CAST task force, led by Adam J. Bogdanove of Cornell University, is developing an issue paper that will add to the dialogue about genome editing and food production: [Genome Editing in Agriculture--Methods, Applications, and Governance](#).

Dr. Bogdanove (Plant Pathology and Plant-Microbe Biology Section School of Integrative Plant Science at Cornell) leads the team of specialists. As he said, "The CAST task force paper will present a succinct overview of how genome editing works and its uses and potential uses in agriculture, including applications in plants and in animals. It compares and contrasts this new technology with



conventional breeding. The report also touches on what we know about the current governance landscape and factors that might influence how the technology is used."

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 hay pic from hay.jpg, horse pic from clovislivestockhorsesale.jpg, and bison poster from i.dailymail.co.uk. P.2 scissors pic from news.mit.edu. Animal Sec. butterfly pic from bugmugs.org. Food Sec. coffee pic from precisionnutrition.jpg. Plant Sec. mushroom pic from tagthebird.com. Inter. Sec. ramen pic from clatl.jpg. Gen. Sec. cartoon from cafepress.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Being Precise about Manure (video): This farmer accumulates tons of manure, and he is [using precision agriculture](#) to figure out how to put it to best use.

Pig Poo Power: Power giant Duke Energy announced more plans to buy [gas generated by the waste from pigs](#) on farms in North Carolina. The methane gas will generate electricity at two power stations.

Livestock Marketing Dispute: Efforts by the [USDA to implement the so-called GIPSA rule](#) drew criticism from some livestock industry leaders, and that prompted a strong response from the USDA.

Poultry Health: The [threat of bacterial enteritis](#) in poultry flocks is serious, and this survey reveals important trends related to the disease--including prevalence, producer attitudes, and best management practices.

A Team Effort for Animal Health: The Ohio State University Extension Beef Team provides a look at the [veterinarian-client-patient relationship](#) (VCPR) as defined by the American Veterinary Medical Association.

Cow Care Comments: Temple Grandin visited a Wisconsin dairy farm and was impressed with the conditions and the newest lameness research. She [praises the many farmers](#) who manage cows properly.

Reaching Milking Potential: In this interview, a veterinarian says equal parts environment, management, and innovation are developing [some of the highest-producing milk cows](#) in the nation.

Analyzing Bee Loss (video): These researchers are [collecting, mapping, and analyzing](#) samples of bees, pollen, and wax gathered from beekeepers in an effort to understand bee hive loss.

Sticky Fingers (related to above): Bees have become a billion-dollar business, as [bee thieves become more audacious](#).

Cattle--Where in the World? The FAO estimates the world cattle inventory at 1.47 billion head--[Brazil has the most](#) followed by India and China. According to the report, Greenland has the smallest inventory at fifteen head.



[Milkin' It--Many advocate the planting of milkweed](#) to help save butterflies.



Food Science and Safety News

Cold Coffee Might Be Hot Business (opinion): Coffee companies introduce ready-made [chilled bottled and canned coffee](#), betting U.S. grocery shoppers will embrace yet one more way to get their caffeine jolt.

Manipulating Fruits and Veggies (video): Humans have been genetically manipulating fruits and vegetables [for thousands of years](#) through selective cultivation--plants, fruits, and vegetables became a lot more colorful.

Top Chefs and Legislators: Well-known chefs will meet with lawmakers to talk about the Food Recovery Act and comprehensive legislation aimed at [addressing waste from farms, corporations, and homes](#).

Breakfast--This Mikey Doesn't Like It (opinion): According to this writer, the [evidence for the importance of breakfast](#) is something of a mess. If you're hungry, eat it. But don't feel bad if you'd rather skip it.

School Nutrition and Infrastructure: Most school districts are complying with [stricter nutrition standards](#) since the USDA imposed them four years ago, but many still lack the needed facilities to make the changes.

Groceries on Wheels: A St. Louis organization is restoring access to healthy, [affordable food to local food deserts](#).

Daily Bread Donations: The Daily Bread trucks rumbling through Fargo-Moorhead last year collected enough food to [provide 2.45 million meals](#) that fed the equivalent of one of every ten metro residents.

Software Predicts Food Fraud: In partnership with the Grocery Manufacturers Association, Kubatko has developed software to help companies [catch fraud by figuring out which foods to test](#), and when.



Cold or hot, just give me the industrial-size cup.



Plant Agriculture and Environmental News

Training Plant Specialists in Africa (video): This Iowa State University project focuses on [training the next generation](#) of plant breeders in Africa.

Formidable Fungus (video): A Turkish farmer [finds a giant mushroom](#), and he is making plans to cook and devour it.

Corn Data: The regional [Corn Nitrogen Rate Calculator website](#) has been helping farmers determine profitable nitrogen rates since 2005. It now has a new URL and a revised nitrogen response trial database.

Smart with Soil: These [researchers suggest four ways](#) policymakers could encourage farmers to manage soil in a "climate-smart" way.

Taste in Tomatoes: Two ARS scientists in Florida provide different approaches to [enhancing the flavor of tomatoes](#).

Plant Growth Shape Shift: Plants using C4 photosynthesis grow 20% to 100% more quickly than common C3 plants by [altering the shape, size, and structure](#) of their leaves and roots, according to this study.

Celtu--a Morphed Leafy Vegetable: A [cross between celery and lettuce](#) will have you doing a double take.

Do Trees Dream of Flowing Sap and Intense Photosynthesis? Most animals are known to grab at least 40 winks at some point in the day, but it seems [trees also drop off to sleep](#) during the hours of darkness.



A mushroom for the masses.

Synthesizing Raw Materials: Microalgae consist of single cells but are [capable of producing everything from food to fuel](#) with the help of tailor-made LED lighting.



International News

Ramen History (video): See how a Japanese [food crisis propelled instant ramen](#) into an overnight success.

Ramen Obsession (video--related to above): This [clip from the Japanese classic film, Tampopo](#), uses mild satire to explain why you should "show affection for your ramen."

Follow-up to Last Week's Look at Farmbots (video): Robots are being [used as shepherds](#) in the Australian outback, where farmers struggle to monitor livestock due to the remote locations of herds.



The zen of eating ramen.

Lobster Boom Links Countries (video and photos): A small village in Maine and a nation of 1.4 billion people increasingly find themselves [connected by the shifting currents of the world economy](#).

Pigs on the Emerald Isle: Ireland has been [thriving as a pig nation in recent years](#), with exports to Great Britain going well. What else has made the country stand out?

Russian Grain Exports: Russia [exported 31.861 million tons of grain](#) from July 1, 2015, to May 18, 2016--a 12.8% rise as compared with the same period the season before.

Agriculture in Jamaica: The Caribbean Development Bank president believes agriculture can potentially transform Jamaica's economy into one that [engenders growth and prosperity](#).

Bear Invasion: After wildfires prompted a frenzied evacuation in Fort McMurray, Canada, the scent of garbage and rotting food is [drawing in many of Alberta's 40,000 bears](#).

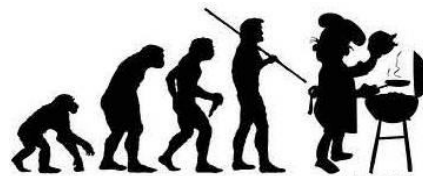


General Interest News

Farming Data as Well as Dirt: Farmers and ranchers [want to control the information](#) their equipment collects as it passes through their fields, according to a survey released by the American Farm Bureau Federation.

Feel the Burn--On the Grill: A rising generation of chefs has pledged its allegiance to the [primal appeal of roaring flames](#), and they grill meat and everything else--from avocados to tangerines.

Bristling: This article warns of a [hidden danger associated with grilling](#)--the wire-bristle brushes used to clean them. When bristles get loose, they can fall out, stick to the grill, and be transferred to food and ingested.



A barbecued theory of evolution.

Water Quality--Searching for Solutions: This article reviews [what five Midwest states are doing](#) to reduce the loss of nutrients that are crucial for crop growth but threatening for drinking water quality.

NC State Data Highlights Ag Economy: Agriculture and agribusiness--[food, fiber, and forestry](#)--make up an \$84-billion-a-year industry in North Carolina, contributing one-sixth of the state's income and employees.

More with Less: On these Colorado farms, growers face [pressure to produce more food](#) for a growing population amid water shortages and other environmental constraints.

A Helpful Stinger: A wispy wasp may pack a potent punch in the [fight against the emerald ash borer](#), an insect pest that causes catastrophic ash tree losses in the United States.

Not So Wily Anymore? Viewed by some as cute wild animals and others as malicious killers, [coyotes have become a political problem](#) in southern California.

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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