

Friday Notes

Council for Agricultural Science and Technology

The Science Source for Food, Agricultural, and Environmental Issues

CAST

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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Ka-boom!



The world's [largest aerial fireworks](#) display was set off in Colorado.

Announcements

The **U.S. Census Bureau** explains how it will [reach rural and small-town areas](#) for the count--and why it is important for those residents.

The **National Pork Board** opened the application period for a new series of [swine research fellowships](#).



The **National Pork Producers Council** plans to hold the [World Pork Expo](#) in Iowa in June.

The **National Cattleman's Beef Association** announced the [winners of its 2020 Beef Quality Assurance Awards](#).

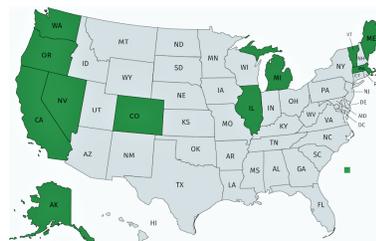
This doctoral student at the **University of Nevada-Reno** is following her [passion for soil science, soil ecology and natural resources](#).

February 14, 2020

Hemp Prospects

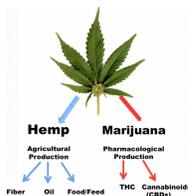
Rough Year But Many Still Optimistic

Interest in hemp--and its more intoxicating cousin, marijuana--has been on the rise for the past few years, but pipe dreams can turn to reality when operations get underway. For some farmers, [the past growing season was frustrating](#) due to regulations, costs, markets, machinery, and other factors. Apparently, the challenges are not slowing down the overall optimism. The amount of land licensed to U.S. farmers for growing hemp [more than quadrupled last year](#).



Marijuana [laws vary](#) state by state.

Hemp has a lower concentration of THC than marijuana does, and it can be used in a [wide range of products](#)--including fibers, textiles, paper, construction and insulation materials, cosmetic products, animal feed, food, and beverages.



U.S. states are adjusting regulations regarding hemp, and cannabis (marijuana) laws in the United States are [experiencing a tidal shift](#). Because of varying state restrictions, it can be crucial to establish the THC levels in the plants--whether the crop is hemp or marijuana. Texas A&M experts developed a handheld spectrometer to help [determine THC levels](#).

Government agencies, companies, organizations, and universities are involved in hemp/marijuana research. For example, Tuskegee University has been selected to [grow and study the industrial hemp plant](#). For more information about hemp or marijuana, check with universities and the many sources available online.

News and Views

Virus Updates: China reports a [jump in coronavirus \(COVID-19\) cases](#), the death toll rises to 1,370, the cruise ship saga continues, and a White House official discusses the [effects on trade and agriculture](#).

FY2021 Budget Proposal: President Trump released his [budget proposal](#), USDA Secretary Perdue issued a [companion statement](#), some commentators criticized [cuts to agriculture](#) programs, and others worry that [science agencies could suffer](#).

Ag Economics: The USDA [increased its estimate of 2019 net farm income](#) due to larger livestock revenue and direct government payouts, and the agency announced the release of \$3.6 billion in [trade-war payments to farmers and ranchers](#)--the total for 2019 now at \$14.5 billion. Some [dispute the fairness of such payments](#).

A May conference at **Iowa State University** will explore the challenges and opportunities that the future provides in [animal genetics and genomics](#).

Cal Poly will host the [2020 Aspire to Grow Conference](#) exploring innovation in the food and agriculture sectors on March 4.



Send in Ideas

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

CAST Social Media



The EPA and Refinery Exemptions: EPA Administrator Andrew Wheeler says his agency is [reviewing how it handles RFS small refinery exemptions](#) in the wake of a recent Tenth Circuit Court ruling.

News from the Far Side of the Barn

Winged Feet (video): If you don't mind crispy-fried chicken on your feet, you might go for these [KFC Crocs](#).

Eat the Heat (videos): This long clip (jump to the 16-minute mark) shows how Oscar-nominated [Margot Robbie deals with hot peppers](#), and this much shorter viral video shows how a [young girl reacts to chomping into a jalapeno](#).



A curious bear samples a dose of "odeur de skunk."

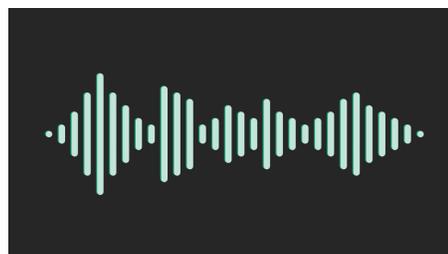
Fight Club for Mice? A [photo of sparring subway mice](#) won the People's Choice photo award.

CAST Happenings

The Return of the CAST Blog

Along with our new website, CAST launched [a new blog](#). You can still find an [archive](#) of all our previous blog posts, but expect to see fresh content regularly from our staff and guest writers.

Up first, we refreshed our list of [podcast episodes you should be listening to in early 2020](#). From the beef with dairy to misinformation and the coronavirus, we have five episodes covering big topics from the past few weeks.



It's Time to Renew Your CAST Support!



If you haven't renewed your CAST membership for 2020 yet, there are several convenient ways to do so!

- You may log in at <https://www.cast-science.org/> and renew online;
- Complete and email this [interactive membership form](#) with your credit card information to Colleen at chamilton@cast-science.org;
- Call our office at 515.292.2125 to pay by phone with your card; or
- Send a check to CAST, 4420 West Lincoln Way, Ames, IA 50014.

Don't hesitate to contact Colleen with any membership or login questions. Thank you for your continued support of CAST's work!

Forthcoming CAST Publications

Impact of Recruitment and Retention of Food Animal Veterinarians on the U.S. Food Supply is an issue paper looking at the challenges of recruiting and retaining food animal veterinarians in the United States—including factors such as consolidation, technology, funding, rural influences, student training, and financial strain.

Producing Food Products from Cultured Animal Tissues is a commentary that will focus on the issues surrounding cell-cultivated meat.

The Microbiome's Positive Impacts on Crops: A plant's microbiome holds many potential applications for pest control and yield enhancement. This paper will highlight the impact microbial products have on crop production and the importance of research.

The Need and Challenge for Effective Stewardship of New Pest Management Technologies in Agriculture is a CAST Commentary that considers the use of genetically modified crops, weeds, and pests to help with crop management.

Free Publications

CAST papers are [now available for free download](#) on the newly formatted [CAST website](#).

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 firework pic from unofficialnetworks.com, pig pic from msn.com, Aspire to Grow graphic from calpoly.edu, hemp graphic from purduehemp.org, and skunk collage from bearandblue.com and cobinlife.com. Animal Sec. fish pic from point-au-baril.jpg and field pic from nationalhogfarmer.com. Food Sec. airplane photo from vox-cdn.com and exercise pic from topsimage.com. Plant Sec. researchers photo from columbianmissourian.com and algae pic from abcnews.go.com. Inter. Sec. college photo from suiss.ed.ac.uk, and pangolin pic from pinktreefrog.jpg. Gen. Sec. dog collage from dailymail.co.uk and beer graphic from growthis.com. from Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.



Animal Agriculture and Environmental News

Happy Eggs: A food company's advertising campaign highlights the role its "Happy Eggs" play in [increasing vitamin D intake](#).

Beef on the Move: A university expert analyzes 2019 U.S. [beef exports and imports](#).

Pig Production (videos): This clip examines the important considerations for alternative swine production systems regarding [where to source ingredients and feed](#).

ASF Preparation: A veterinarian who has been in China to help with the African swine fever outbreak says U.S. producers and state officials need to [prepare more for a possible outbreak](#).

Dairy Techniques: A new online training course from North Carolina State University is designed to [help dairy processors improve environmental monitoring programs](#) for better food safety and pathogen control.



A roundup of Asian carp on Kentucky Lake is opening a new front in a 15-year [battle to halt their advance](#).



Flingin' Poo: Actually, most hog manure is injected, and this research uses anecdotal evidence to indicate that [swine manure as a fertilizer](#) reduces waste and cuts down on the cost of synthetic fertilizers.

Trying to Not Raise a Stink (video): Experts are [studying manure microbiology](#) and diet to cut odors.

Food Science and Safety News

Food Labels: As more people consider where their food comes from, some companies are including "[carbon footprint labels](#)." Note: Check out this CAST Issue Paper about the [process labeling of food](#).

Heart-healthy Diet: Researchers found that [consuming lean, unprocessed red meat](#) as part of a heart-healthy diet is just as

effective as diets that limit meat.

Food Safety: The FDA uses import alerts to enforce U.S. food safety [regulations for food from foreign countries](#). The agency updates and modifies the alerts as needed.

Appealing to Consumers: The largest grocer in the United States says it will renovate produce areas with signs highlighting prices and shorter merchandise bins to create an "[open-market feel](#)" for customers.

Meaty Confusion: A recent survey shows that many [consumers do not understand that the labeling](#) term "plant-based beef" was intended to describe an entirely vegetarian or vegan food product.



Inflight meals have changed (they're in color now!), and this story [looks behind the scenes](#).



Pumpin' It for Your Health: Yet again, researchers say studies show that exercise is "[protective against overeating](#)."

Dinner for 7.8 Billion: The University of Florida's Jack Payne and two other experts explain how [food production can help fight climate change](#).

Plant Agriculture and Environmental News

Where There's Smoke: UC-Davis researchers find that wildfires and smoke exposure are recognized by farmworkers and employers as a [growing safety concern](#), but they differ on how to address the problem.

Herbicide Research: Bayer Crop Science announced it is [developing a new herbicide molecule](#), the first post-emergence product for broad acre weed control in 30 years.

Biodiesel and Ag (video): This clip looks at the many [ways biodiesel and agriculture are linked](#).

Measuring Nitrogen: Researchers from Penn State University report about a [new method for measuring cover crop nitrogen](#), using a handheld optical sensor.

Halting Pesticide Production: Corteva AgriScience says it will [stop making chlorpyrifos insecticide](#).

EPA Herbicide Ruling: The EPA says its [regulatory review](#) found that glyphosate is not a carcinogen.



University of Missouri [researchers are using drought simulators](#) known as rainout shelters to address the potential decline in plant production and growth.



It Isn't Easy Being Green: The agriculture industry is dealing with concerns about [water quality and Lake Erie algae](#) blooms. Some farmers are trying to be a part of the solution.

Medicinal Algae? Researchers hope [algae can improve human gastrointestinal problems](#).

International News

Who's a Good Robot? (video): Spot the [robotic dog is employed by a Norwegian oil company](#) to run inspections, detect leaks, gather data, and generate reports.

Factose Intolerance: This New Zealand farmer uses the term "factose intolerance" to describe the "convenient

ignorance" of [people who make unfair criticisms](#) of modern agriculture.

Poultry Practices: Dutch authorities have changed the [method of controlling salmonella in certain poultry farms](#) after pressure from the European Commission.

Ag Sustainability with an Irish Accent: An *Irish Times* article lauds the science used by Frank Mitloehner and others to [report about milk production](#) (and other ag sectors) causing fewer emissions.



Pangolins and Coronavirus?

Some reports suggest that [pangolins may have been a source](#) of the continuing coronavirus (COVID-19) outbreak. Humans hunt, use, and illegally traffic the animal.



In Scotland, Edinburgh University students voted to [reject a ban of beef products](#) from campus bars and cafes.

General Interest News

Best in Show Vet Care: Cornell University specialists were the [official veterinary care providers](#) at the Westminster Kennel Club Dog Show in New York City.

Top Dogs (videos and photos): The Westminster Dog Show produced [impressive award winners](#), including a standard poodle that took top prize.

Advancing Agriculture: Farmers and ag researchers are diverse and creative. Check out these [seven contributions of Black Farmers](#) to agriculture.



Cheers: A Montana town is saving money by the way it uses brewery "beer waste" in its [water treatment facility](#).

Rural Research: This 655-acre Mississippi State research facility is [one of sixteen experiment stations chosen](#) to represent the primary soil types and climates across the state.



Nearly 3,000 pooches received grooming, polishing, and styling as they [battled to be top dog](#).
Related links at upper left.

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 or chamilton@cast-science.org, or [CLICK HERE](#) for CAST membership information.



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- * Agricultural & Applied Economics Association
- * American Association of Avian Pathologists
- * 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
- * Cal Poly State University
- * Corteva Agriscience
- * CropLife America
- * 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
- * United Soybean Board
- * University of Nevada-Reno
- * U.S. Poultry and Egg Association
- * 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.

Members of CAST's Education Program

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- * University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources



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