

*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

[Meet Two New Members of the CAST Staff--P. 2](#)

[Animal Agriculture News](#)

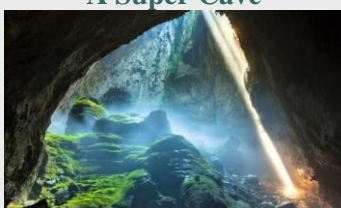
[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)

## A Super Cave



Vietnam's "world's largest cave" is apparently [even bigger than previously thought](#).

## Corn Queen

UC-Davis "Corn Queen" Katie Murphy wins a \$6,000 award for the best [3-minute research presentation](#)--and yes, it's about some wondrous qualities of corn.

## G. W. Carver Award

The George Washington Carver Award for Innovation in Industrial Biotechnology and Agriculture was presented at the BIO World Congress, and this year's [winner is former USDA Secretary Tom Vilsack](#).



## Bourbon and Beyond

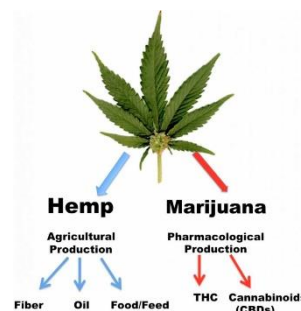
Led by the University of Kentucky, the new Kentucky Spirits Research Institute will help ensure that the [state](#)

May 24, 2019

## Growing Interest in Growing Hemp

*Unsure about federal regulations, some states move forward*

A new Robobank report says cannabidiol (CBD), a naturally occurring compound found in the resinous flower of cannabis, has been [entering food and beverage products](#)--beer, coffee, cocktails, jelly beans, and others--at an "astounding pace." Many consumers are interested for health as well as "indulgence" reasons.



However, the substance remains illegal on a national level. Some states with legal marijuana--like Colorado--are [developing their own rules](#). That can leave cannabis growers largely on their own--for example, pest management regulations are uncertain.

[Several states--like Texas--are on the verge of legalizing hemp](#) and hemp-derived extracts like CBD oil, as long as they contain only a small amount of "psychoactive elements." Citing a provision in the Farm Bill, [Michigan issued 600 industrial hemp licenses](#).

[Hemp, not cannabis, will likely be the main focus for many farmers](#).

Market fluctuations and production challenges affect both pursuits, but in the long run, the demand for fiber and grain might persuade many farmers to go with the industrial version of the crop. In any case, experts urge producers and investors to be cautious.

## News and Views

**Farm Support Related to Trade Disputes:** According to this press release, the USDA will take several actions to [assist farmers in response to trade damage](#) from "unjustified retaliation and trade disruption." The second ["Market Facilitation Program"](#) includes \$16 billion of aid.



[remains the innovation capital of the distilling industry.](#)

### Cattle Course

The 65th Texas A&M Beef Cattle Short Course is set for Aug. 5-7, and it will focus on [opportunities and challenges in the cattle business.](#)

### Small Farms Field Day

Best practices for growing industrial hemp and opportunities for bamboo production are among the research and demonstration projects that will be showcased at the North Carolina A&T annual [Small Farms Field Day](#) on June 6 in Greensboro.

### Poultry Clinic

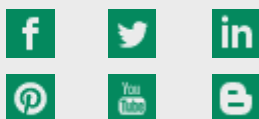
USPOULTRY's 2019 Hatchery-Breeder Clinic will offer a look at [industry updates, best practices, biosecurity challenges, and other topics](#) related to chick quality--July 9-10 in Nashville, Tennessee.



### Send in Ideas

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

### CAST Social Media



**Livestock Expert on the Hill:** The Senate Agriculture Committee held a hearing about [opportunities to help farmers find solutions](#) to climate and weather challenges. One of the expert speakers, Dr. Frank Mitloehner, spoke about the benefits of animal agriculture.

Frank Mitloehner is the [2019 BCCA honoree.](#)

**Some Tariffs Removed:** The administration plans to lift the 25% tariff on steel and the 10% duty on aluminum imports imposed last year on Canada and Mexico. This [could affect the "new NAFTA"](#) situation.

**On the Road:** Secretary of Agriculture Sonny Perdue reflects on his travels that have [taken him to all 50 states](#) and given him a look at "the bounty of the American harvest."

**IFIC Food and Health Survey:** This International Food Information Council survey shows that [respondents are interested](#) in sustainability, plant-based diets, and clean eating. [Access the survey results and summary here.](#)

## News from the Far Side of the Barn

**Down a Badger Hole (video):** A Canadian farmer finds a missing calf down a badger hole, and [the rescue is an amazing rush.](#)

### Muddy Bath Time

**(video):** These baby elephants have [fun playing in muddy waters](#) at a national park in Nepal.



### Compost Me When I Die:

Washington became the first state to legalize human composting. People can choose to have their [bodies turned into soil after their death.](#) Loved ones can use the soil to plant flowers, veggies, or trees.

Austrian officials warn Internet users about [the dangers of bovine smooching](#)--a trend promoted by an online cow-kissing challenge.

## CAST Adds Two New Members to the Staff

*April showers bring May staffers*

May has us budding as we add two new faces to our team. Learn about the roles each will fill below, and don't forget to check out their stories on the CAST Blog.

**Megan Wickham** started her duties as scientific editor on May 14. She focuses on the production of CAST publications from beginning to end. If you are part of a CAST work group, you've likely "met" on a recent conference call. Megan jumped right into her duties and has already marked up some of the forthcoming publication drafts. [Get to know Megan.](#)



"There are going to be a lot of changes happening that are going to be revolutionary in the next 10 to 15 years.... It's important to have that trustworthy ag/science source, like CAST."

MEGAN WICKHAM

"I think that all of our issues in agriculture stem from a lack of communication between producer and consumer (or society and community), and it's going to keep getting worse if we don't have organizations like CAST to bridge that gap."

DELANEY RIDGWAY

**Delaney Ridgway** is our student assistant. The Iowa State University animal science major and birding enthusiast will be working on accounting, membership, and administrative tasks. The next time you phone the CAST office, give her a warm "hello" as she directs your call. [Get to know Delaney.](#)

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 cave pic from cnn.com, hemp poster from purduehemp.org, and woman-cow photo from dailymail.co.uk. Animal Sec. eagle pic from pbstwing.com and hummingbird pic from pinterest.com. Food Sec. chocolate collage from wapo.com and cdn.com and bacon sign from sneakpeek.jpg. Plant Sec. robot from bwbx.io and genome pic from unl.edu. Inter. Sec. train pic from cdn.com and water-people photo from cnn.com. Gen. Sec. ice cream pic from ncstate.edu and geothermal pic from unr.edu. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



### *Animal Agriculture and Environmental News*

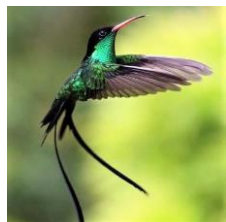
**Regenerative Grazing (video):** This fourth-generation cattle rancher delivers a TEDx Talk about the [relationship of grazing cattle and grassland ecosystems](#).

**Beef Exports:** Japan has agreed to [lift longstanding restrictions on American beef exports](#), clearing the way for U.S. products to enter the market regardless of age.

**Dairy Production and Conservation (video):** In this short clip, a fifth-generation farmer and second-generation [dairy farmer from West Virginia speaks about his cows](#)--and his award for outstanding conservation efforts.

**Air Flow:** This pig management expert explains the science behind correct [ventilation tactics inside pig houses](#).

**Beef Sustainability:** Continuous improvement is the focus of a newly released [U.S. Beef Industry Sustainability Framework](#). It calls on all sectors of the beef industry to work toward a set of established metrics.



**Eating in Flight (video):** Beautiful Jamaican [streamer-tailed hummingbirds fly](#) and get "hand fed."

**Blueprint for Animal Genomics:** The USDA announced a [new vision for animal genomics](#), with a blueprint that sets goals for the next 10 years.



Amateur photographer Steve Biro captured this stunning [symmetrical image of a bald eagle](#) flying over a pond in Canada.



**Egg Production:** An egg company's survey analyzes [trends, statistics, and predictions](#).

## Food Science and Safety News

**Farm-fresh Food in Space? (video):** This update to an article from last week features the new NASA experiment called Veg-PONDS 02--a chance for astronauts to [raise a variety of food in space](#).

**Diet and Cancer:** A new study examines the association between suboptimal [consumption of seven types of food and specific cancers](#). Poor diet is apparently on par with alcohol, excessive body weight, and physical activity for influencing cancer rates.

**Tech, Robots, and Food:** According to this report, the use of machines drives down the costs of [keeping food fresh, and it increases productivity](#).

**Meat Man:** A Mississippi State assistant professor goes by several names--the educated butcher, the meat chemist, and the meat man--but whatever the moniker, his [passion is educating others about meat products](#).

**The "Mad-science" World of Fermentation:** This [professional fermentation chef](#) turns food waste into kimchi and more.



**Chocolate News:** A Swiss company is [rolling out ruby chocolate](#), a natural shade made from special cocoa beans. Also, Hershey's has a [new design featuring emojis](#).

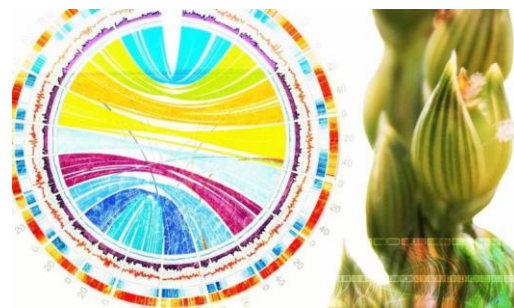
LIFE EXPECTANCY  
WOULD GROW BY LEAPS  
AND BOUNDS IF GREEN  
VEGETABLES SMELLED  
AS GOOD AS BACON

**Does This Processed Food Make Me Look Fat?** This study says that [ultra-processed foods are key contributors to weight gain](#).

**The Star of the Show:** Bacon was the star ingredient in about 40 different dishes served during each of three tasting sessions that were part of the [11th Annual Baconfest Chicago](#).

**It's the Texture (video):** North Carolina State experts say the [best way to wash your produce](#) depends on the texture of the food.

## Plant Agriculture and Environmental News



Scientists sequenced and [mapped the genome of proso millet](#)--essential to raising yields of the

**Under the Spreading Chestnut Tree (video):** Dedicated scientists and students developed a [nonpatented, blight-resistant American chestnut tree](#). They focused on genetic engineering as a way to bring back the beloved tree.

**drought-resistant crop in the Nebraska Panhandle and other semiarid regions.**

**Comparative Analysis for Crops:** This analysis commissioned by the American Sugarbeet Growers Association examines the similarities and differences among [crop protection tools for various types of farming practices](#).

**Practices for the Long Term:** This article looks at [science-based farming practices](#) that can buffer farmers from climate damage and help make their operations more resilient and sustainable.

**Tariffs Might Have Garlic Breath:** U.S. [garlic growers might actually profit](#) from a trade war that leaves other farmers struggling.



**I, Robot Farmer:** Robots are taking over farms faster than anyone saw coming. The first [fully autonomous farm machines are becoming commercially available](#) and will be able to take over a multitude of tasks.

**Robots Versus Weeds:** If robots can pick strawberries, [maybe they can get rid of weeds, too](#). A handful of companies are working on it.

## International News

**Creative Mud Mucking (video):** This farmer "MacGyvered" a way to [get a stuck tractor out of the mud](#).

**All Cows on Deck:** The world's first [floating dairy farm](#)--based in the port at Rotterdam in the Netherlands--will sell milk and be used as an educational tool.

**Aussie Beef:** Due to African swine fever, China's rapidly declining pork supply has some consumers turning to beef, and [Australian suppliers are seeing a booming demand](#).

**Carbon, Fizzy Water, and Rocks:** Iceland vowed to cut its greenhouse gas emissions 40% by 2030, but it faces challenges. [Scientists have come up with a method](#) that might take advantage of the country's geothermal sources.



**Many families in India face challenging [water problems](#).**

**Swine Fever in Vietnam:** Reports indicate that African swine fever has [shown up in most areas of Vietnam](#).



**Alfa-X Bullet Train:** Japan's [next-generation bullet train](#) has gone into testing. It is expected to have a maximum speed of 400 kmh (248 mph).

**Software and Sugarcane Genes:** Brazilian researchers developed a program for high-performance computers to [map specific portions of plant DNA](#) faster and less expensively.

## General Interest News

**Arctic Farmer (video):** In the most northerly town on Earth, this farmer [hopes to grow vegetables more sustainably](#).

**Farm Equipment Evolution (video):** The John Deere Company has gone through [175 years of development](#).

**Six-step Plan for Agriculture:** The mission of the [Good Growth Plan](#) is to improve the sustainability of agriculture and business through six commitments to be achieved by 2020.

**Organic Food Study:** A University of California study claims that eating organically grown food for just one week can significantly [reduce the levels of pesticides](#) within the body.



North Carolina State is the [home of Howling Cow ice cream](#), and proceeds from the licensing agreement help fund student scholarships and dairy initiatives.

**Heating It Up:** With help from University of Nevada-Reno experts, [geothermal power potential](#) in the state is heating up. Geologists are using a previously untried method to find resources.

**Crops for Change:** The Ohio State Student Farm Organization is an opportunity for students interested in [urban farming to combine food and service](#).

## 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.



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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, Agriculture Division of DowDuPont
- \* 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
- \* Tyson Foods
- \* United Soybean Board
- \* University of Nevada-Reno
- \* 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

- \* Cal Poly-San Luis Obispo
- \* Cornell University
- \* Iowa State University
- \* Kansas State University
- \* Mississippi State University
- \* North Carolina Agricultural and Technical State University
- \* North Carolina State University
- \* Purdue University
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**\*\* With assistance from Carol Gostele and Megan Wickham (both are Managing Scientific Editors)**

