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 800 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.

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.
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.

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.

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.
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 pbs.twimg.com and hummingbird pic from pinterest.com. Food Sec. chocolate collage from wapo.com and cdn.com and bacon sign from sneakeepq.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 ncsate.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.

**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.

**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.*

**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.

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.

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.

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 untied 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.

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

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 Melissa Sly at 515-292-2125, ext. 232 or msly@cast-science.org, or CLICK HERE for CAST membership information.

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