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....
Animal Agriculture News
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Events and Announcements

This picture of a bird fishing in a no-fishing zone is an example of the fun photos from the 2020 Comedy Wildlife Photography winners.

The SAFE (Securing Agriculture Food and its Economy) conference October 6-7 will explore an integrated cyberbiosecurity system for the agriculture and food bioeconomy.

The National Pork Board is conducting a survey about topics influencing the industry.

The 2020 Agri-Pulse Ag & Food Policy Summit—a virtual event on September 21—features several noteworthy speakers.

High school FFA members in the Midwest can enter the 2021 GROWMARK Essay Contest with a theme about agriculture and new technology.

CAST College Corner

September 18, 2020

Responding to the Infodemic

"The only way the world can keep up with food production is by the improvement of science and technology." When Dr. Norman Borlaug said these words, he no doubt also focused on the need for clear science communication, but that was before digital misinformation and disinformation evolved into major societal concerns. Faced with a modern "infodemic," society is saturated with messages about such topics as GMOs, the climate, and COVID-19.

In a new CAST Commentary (The Importance of Communicating Empirically Based Science for Society), the authors look at how scientists can build trust with those seeking information from credible sources. Check page two below for information about the publication and webinar presentation. As the Mark Walport quote in the graphic above says, communication is key, and this new paper looks at current issues and possible solutions.

News and Views

USDA News: The USDA (1) announced additional COVID-19 assistance for agricultural interests--and aid for residents and ag producers affected by wildfires and by Hurricane Sally, (2) joined other Western Hemisphere countries recognizing the importance of maintaining agricultural trade flows during the pandemic, and (3) adjusted crop projections following damaging weather conditions.

Dealing with Disasters: This RFD-TV report examines the immense agricultural damage coming from Hurricane Sally, while Hurricane Laura caused about $1.6 billion in agriculture and forestry losses in Louisiana. A UC-Davis article provides tips for students dealing with fire, smoke, a pandemic, and more—and last month, much of Cal Poly’s Swanton Pacific Ranch was destroyed by fire.

Ag, Science, and Economics: As Jayson Lusk (Purdue and 2017 BCCA winner) considers the possible effects of a ban on junk food advertising for kids, he notes that policies can have unintended consequences (related link in Inter. Sec. below).
Kansas State’s Purebred Beef Unit helps students study methane and carbon dioxide emissions from beef cattle.

Penn State received a USDA grant to help researchers study the potential for SARS-CoV-2 to infect livestock.

A University of Nebraska-Lincoln geologist has had a mineral named after her called priscillagrewite.

Check throughout Friday Notes to see more featured articles from member universities.

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CAST welcomes ideas for future publications and projects.

CAST Updates

Science, Agriculture, and Communication

Please join us for the 11th annual Borlaug CAST Communication Award (BCCA) presentation cohosted by CAST and CropLife Foundation, featuring keynote speaker and 2020 award winner—Dr. Alexa Lamm. Check here for registration information. This online presentation event held during World Food Prize week will occur on Tuesday, October 13, from 12:00 PM to 1:00 PM.

New CAST Blogs

This week we caught up with two past BCCA recipients. Catherine Bertini received the award in 2011; read this blog to learn more about her numerous contributions to global food security.

Carl Winter was the BCCA recipient in 2012. This blog discusses his favorite research and how he uses his musical skills to teach others about food safety.

The Importance of Communicating Empirically Based Science for Society

This Commentary will be available for download on September 21. There will be a free webinar on September 22—you can register here.

This paper discusses the crucial factors of what we define as empirically based science (rigorous, proven methodologies, and peer reviewed results), emphasizing that whether science is conducted by a private
company, a university, or a government department or agency, it is all the same, requiring that sound methodologies be followed. Scientific research protocols and methodologies have been developed, reviewed, and refined through the application of each scientific method and the peer review of experimental protocols and results, creating global standards on research methods. Empirical science is empirical science—it is not an ice cream flavor; one cannot pick and choose which aspect of the scientific method to support and which to reject. The application of empirical science is consistent, whether applied to climate change, vaccines, or GM crops and foods.

Upcoming Publications

- The Importance of Communicating Empirically Based Science for Society—See above for info.
- Food Biofortification—Reaping the Benefits of Science to Overcome Hidden Hunger (October release)
- Ground and Aerial Robots for Agricultural Production: Opportunities and Challenges (November release)

Animal Agriculture and Environmental News

Scrambling for Eggs (video): This video gives an overview of the "best chicken breeds for eggs," and this article provides information from the University of Missouri about how to keep hens laying eggs during winter.

Pork Power: During this tumultuous year, pork producers have shown agility throughout the unexpected. The National Pork Board explains how pig farmers continue to make strides in overall sustainability by being more efficient.

Surrogate Sires: Using CRISPR-Cas9, scientists created pigs, goats, and cattle that can serve as viable donor animals. This could speed the spread of desirable livestock traits and eventually improve food production.

Cows and Climate: This British interview features Frank Mitloehner (UC-Davis and 2019 BCCA winner) about cows and climate change (spoiler alert: the impact has been exaggerated).

Honey Bees and Nutrition: A Texas A&M project seeks to slow population losses among more than 2.6 million managed honey bee colonies in the United States.

Bee Health: Check out the CAST Commentary Why Does Bee Health Matter? The Science Surrounding Honey Bee Health Concerns and What We Can Do About It.

Food Science and Safety News

Waste Not, Want Not (video): "Upcycling" is a new technique of making food using discarded ingredients, and it is gaining momentum with entrepreneurs looking to create new food categories. Check out the CAST publication Food Loss and Waste.

Food Industry Ranks High with the Public: The food and grocery industries are now among the most highly regarded industries according to a consumer survey.

Know Your Beef: USDA beef quality grades may seem complicated, but this site explains "choice, certified, organic," and more.

Crowing about Their Chicken: Find out why Cornell Chicken is the "taste of summer."

During this pandemic year, nearly one in six restaurants closed either
**Government Food Programs:** Whether in the classroom or at home, kids can get free school meals—at least for the remainder of this year. In the workplace, millions of employees have been affected. Also, online grocery spending is much higher than it was at the same time last year.

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**Plant Agriculture and Environmental News**

**Soy and Swine Feed:** Soy checkoff-funded research at Kansas State University found that soybean meal increases the net energy value in swine feed.

**Corn, Ethanol, DDGs, and Quotas:** This National Corn Growers Association site includes articles about the EPA’s denial of many small refinery exemptions (waivers), a look at dried distillers grains with solubles (DDGs), and the issue about a Brazil tariff rate quota for ethanol.

**Sorghum and Beer-brewing Potential:** University of Nevada-Reno researchers are testing grains for drought-resistance, high yield, and good flavor.

**Smart Water Use:** The Iowa Soybean Association is studying a drainage water recycling system that captures excess water drained from fields that can be used for irrigation later.

**Fighting Citrus Greening Disease:** University of Florida researchers and other scientists are contacting organic citrus growers for help in developing a holistic approach in battling citrus greening disease.

**Soil Compaction:** University research shows that compaction can reduce yields anywhere from 10-50%.

**Stopping the Invasion:** This North Carolina State expert explores the use of unmanned aerial systems for mapping and treating invasive plant species.

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**International News**

**ASF Update:** African swine fever has shown up in several Eastern European countries and possibly Germany.

**Floating Gardens of Bangladesh:** In the lowlands of Bangladesh, people are turning to a centuries-old, ecofriendly form of hydroponics to keep afloat.

**Innovations Needed for Drought Concerns:** A third consecutive year of drought in Europe has agriculturalists searching for innovative solutions.

**Junk-food Legislation:** Lawmakers in several Mexican states passed laws to keep junk food away from children partly in response to the coronavirus pandemic.

**Fiber or Fibre—Either Way, It’s Important:** A recent survey shows that 90% of adults in the UK don’t eat enough fiber, an aspect of nutrition that has many benefits. This article explains how to get enough.

**French farmers produced a work of art with tractors** as they honored agriculture and the Tour de France.

**German biodiesel exports** have risen sharply, with the Netherlands as the primary country of destination.

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**General Interest News**
Water Quality (video): University of Kentucky scientists are partnering with Beam Suntory to study water sustainability. They want quality water for the products and the surrounding community.

Phone-a-Friend (Farmer Style): A new federally funded project led by Iowa State University researchers will help farmers share data relevant to their operations with one another and improve production.

Orchards, the Pandemic, and the Public: As the pandemic continues into the fall harvest season, some U-pick farms are in crisis. However, others are using web pages and social media to get the public involved.

Farm Tourism (related to above): This North Carolina State podcast episode of “Farms, Food, and You” looks at how farmers and industry leaders are still planning tourism and other events.

Cancer and Young People: The death of acclaimed actor and humanitarian Chadwick Boseman at age 43 from colon cancer has put a spotlight on a disease that’s on the rise among young people.

Surf’s Way Up: As this video shows, Brazilian Maya Gabeira set a big-wave world record riding a 73-foot monster off the coast of Portugal.

Life on Venus? Astronomers found phosphine in the atmosphere of Venus, which means there might be life on the planet.

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* National Corn Growers Association/Iowa Corn Promotion Board
* National Milk Producers Federation
* National Pork Board
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