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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Announcements

During the past 50 years, CAST Society Members have been an important component in the effort to communicate credible, science-based information. CAST includes many types of membership categories, and by joining, you can support agriculture and science communication.

The USDA’s annual Agricultural Outlook Forum February 24-25—“New Paths to Sustainability and Productivity Growth”—will feature many noted speakers.

The 2022 American Meteorological Society Summer Policy Colloquium in June gives scientists a chance to engage with colleagues from academia, government, and the private sector.

CAST College Corner

Iowa State University has been awarded the Norman E. Borlaug Medallion, making the university the ninth recipient of the award.

A North Carolina State University expert explains the differences

February 4, 2022

Alternative Protein

Could alternative protein become a new food sector? Over the past decade, food companies have been creating meals with plant proteins in the hope of mimicking the texture and flavor of meat. Now the alternative protein industry is producing chicken, beef, and seafood. Dr. Alison Van Eenennaam (2014 BCCA) and other professors from UC Davis are researching if alternative protein can be a viable prospect or if it could supplement traditional production. Dr. Van Eenennaam also discusses if animal ag will need to rebrand because of alternative protein and misinformation. Dr. Jayson Lusk (2017 BCCA) offers multiple articles on his blog covering meat alternatives, including this one on consumer preferences. Dr. Frank Mitloehner (2019 BCCA) has researched the carbon footprint of livestock vs. alternative protein via life cycle assessments.

Check out the following CAST publications that cover aforementioned topics:
- Producing Food Products from Cultured Animal Tissues
- The Importance of Communicating Empirically Based Science for Society
- Goals, Strengths, and Limitations Governing the Use of Life Cycle Assessment (LCA) in Food and Agriculture

News and Views

USDA News: The department has announced 1) investments to help rural America keep resources and wealth, 2) members to serve on the department’s inaugural Secretary’s Advisory Committee for Urban Agriculture, and 3) a USDA Market News Mobile Application that provides instant access to current and historical market information.

Lip-Reading Scientist: Supporting deaf and hard-of-hearing researchers requires thought and planning from colleagues, but science benefits greatly.

Anti-GMO Stances: Science advocates in Africa and Asia reject claims that genetically modified crops have been hijacked by big companies from the West to promote “a neo-colonialist agenda.”
Invading Species: A study found the economic costs of biological invasions in the U.S. have exceeded $1.2 trillion since 1960.

**Far Side of the Barn**

Night of the Falling Iguana (video): When temps drop in Florida, so do iguanas—but the lizards come back to life when their bodies warm up.

More Winter (video): Punxsutawney Phil saw his shadow, which means there should be six more weeks of winter—according to folklore and an apathetic rodent.

Dances with Whales: This drone shot shows a southern whale “dancing” with a paddle-board surfer off the coast of Argentina.

**CAST Social Media**

Visit our website  

CAST welcomes ideas for future publications and projects.

**CAST Updates**

**Welcome Zoetis!**

CAST is pleased to welcome a new board-level corporate member. Zoetis delivers quality medicines, vaccines, and diagnostic products, complemented by biodevices, genetic tests, and precision livestock farming. This level of support for CAST allows the organization the opportunity to appoint a representative to serve on a work group and network with other professionals to help CAST address agricultural issues through its publications.

Wendy Feik Pinkerton (left)—head of Industry Relations and Strategic Partnerships, Public Affairs for Zoetis—will be serving on the CAST Board of Representatives and is involved with the Animal Agriculture and Environmental Issues work group. Pinkerton said, "We believe in CAST’s work and see strong alignment between it and Zoetis business objectives."

**Black History Month—Ag Science Edition**

Two of CAST’s Education Program Member schools—Tuskegee University and North Carolina A&T State University—are recognized as Historically Black Colleges and Universities (HBCUs), and this CAST blog features agriculturalists and scientists who have had an impact on those universities—and on the entire realm of science and agriculture.

Tuskegee University is recognizing Black History Month by offering a four week long virtual series to spotlight African American heritage and issues of relevance to the Black community. You can learn more and register on Tuskegee’s website. Also, the university announced it is teaming up with USAID to promote diversity, equity, and inclusion in the international development workforce. Dr. Channapatna Prakash—Tuskegee and 2016 BCCA—applauded the efforts of Professor Rhonda Collier and the Tuskegee University Global Office in making this possible.

North Carolina Agricultural and Technical State University received a four-year corporate investment to provide opportunities for underrepresented minorities and build a pipeline of diverse future talent.

The USDA has a long history of investing in and supporting our nation’s Historically Black Colleges and Universities. The 19 HBCUs established under the Second Morrill Act of 1890, along with the two HBCU land-grant universities established in the original 1862 legislation, are a critical link in ensuring public access to agricultural education, research, and outreach programs are equitably distributed to all Americans. The USDA’s National Institute of Food and Agriculture supports research at these institutions with both capacity and competitive funding.
**Animal Agriculture and Environmental News**

**Chicken Care:** For farmers to ensure their flock is comfortable at all times sometimes they need to use tunnel ventilation to cool the houses as the chicks grow more feathers.

**Dealing with Risk:** This Kansas State University expert explains how cow-calf producers are "risk experts," as they deal with weather, markets, and more variables.

**Pig Health:** The Pork Checkoff explains how protecting the U.S. swine herd from foreign animal diseases is a joint effort with producers, state and federal agencies, and border protection.

**Veterinary Orthopedics:** This university uses 3-D printing to develop patient-specific orthopedics.

**Fish Talk:** A Cornell study finds that fish communicate with sound more regularly than once thought.

Approximately every nine years, polar bears take up residence at this abandoned Arctic polar station.

**Food Science and Safety News**

**Food as Medicine:** Focusing on nutrient-dense foods may effectively lower cholesterol among patients with hyperlipidemia without the use of drugs.

**Food Safety:** This ARS online database has more than 65,000 records to help companies implement better food safety programs, document regulatory compliance, and test new model interfaces.

**Milk Fat:** This article covers the differences in fat percentages in milk.

**Fruits, Veggies, and Cereal:** Fruits and vegetables are essential, but there are three reasons why it takes cereals to feed the world—they are important sources of bioactive food components.

**Bean Time:** This article claims beans are a "superfood" because of their nutrition, versatility, and economics.

What's in a Name? Ohio State University research says chocolate chip cookies—and other food items—can be ruined by the wrong name.

**Plant Agriculture and Environmental News**

**Vertical Farming:** More alternatives to outdoor farming—such as hydroponic or indoor farms—are emerging around the world, but there are many factors to consider.

**Crop Varieties:** UC Davis researchers are using plant genetics, artificial intelligence, and three-dimensional modeling to develop new varieties of crops that will be able to withstand future climates.

**Crop Productivity:** University of Nebraska-Lincoln researchers looked at the relationship of climate, field management, and genetics in regards to crop productivity.

**Wheat Breeding:** A new study found that climate change slows wheat breeding progress for yield and wide adaptation.

As part of Prescribed Fire Awareness Week, University of
launching a study that aims to investigate regenerative agriculture across the United States.

Florida experts explain how to help the ecosystem and prevent destructive wildfires.

International News

**Flying Milk:** A Norwegian dairy company has tested drone transport of lab milk samples.

**Failed Organic Farming:** A million farmers from Sri Lanka whose crops failed under a botched scheme to establish the world’s first 100% organic farming nation will be compensated.

**GMO Cowpeas:** Nigerian consumers are enjoying the taste of the genetically modified cowpea.

**Green Revolution:** High-yielding staple crops improve health and prosperity in developing countries.

**Crop Shifts as Climate Changes:** The parts of the world suitable for growing coffee, cashews, and avocados will change as the world heats up, according to a new study.

The World Wildlife Fund published a list of 224 newly discovered species from the greater Mekong region—including a “ghost-faced monkey” and a “fat-faced frog.”

General Interest News

**Natural Resource Science and Management Program**
This University of Missouri student is taking advantage of successful programs that integrate academic and social support with mentoring and paid research opportunities.

**Songs by Birds:** Biologists have found an animal for the first time that communicates with the complexity of human language: song sparrows.

**Population:** The pandemic has only accelerated a decline in U.S. birth rates, even as immigration has plummeted.

**Pot of Gold:** A rancher turned archaeologist and found a 12,000-year-old corn “pot of gold” in a classic clay pot.

**Frog Legs:** Scientists have triggered long-term growth of legs in adult frogs, which are naturally unable to regenerate limbs. The new legs were functional enough to enable sensation and locomotion.

A Texas teen raised thousands of dollars with her show pigs—and donated the money to the hospital that treated her cancer.

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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.

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* Penn State University
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* University of Arkansas System Division of Agriculture
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