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Announcements

Honeybees are ailing, but NC-State researchers are helping solve reproductive problems for queen bees. California scientists are developing "electronic honeybee veterinarians," and a CAST paper provides information about honeybee health.

The Poultry Science Association provides information about its 2021 annual meeting.

The USDA is seeking nominations for a new advisory.

January 15, 2021

Shaping the Future

Some credit Abraham Lincoln with the commonly used quote, "The best way to predict the future is to create it." Regardless of the source, those involved with agriculture constantly shape the future of food supplies. A new administration always brings adjustments, but the pandemic, global trade issues, climate effects, and technological innovations could fill 2021 with major milestones. The following articles touch upon some of the programs, speculations, and opinions that portend what might come in the next months:

(1) The USDA Agriculture Innovation Agenda hopes to promote the continued success of American farmers, ranchers, producers, and foresters by focusing on current practices mixed with an "open-arms approach to innovation." (2) The Biden/Harris administration will install a new cabinet, and there will be impacts on agriculture and rural America. (3) This opinion piece says the new Director of the Office of Science and Technology Policy should have deep knowledge of the life sciences, especially related to agriculture. (4) A recently formed alliance of farm, environmental, and food retailer groups lays out suggestions about government climate policy. (5) An industry official says agriculture equipment manufacturers need to invest...
committee focused on urban agriculture.


News and Views

WASDE and Grain Prices: The USDA World Agricultural Supply and Demand Estimates showed lower stocks for corn, soybeans, and wheat. This site looks at the data, this site provides a related yield map, and this site has market reactions.

Interaction Between Consumers and Ag: Alexa Lamm (2020 BCCA winner) and colleagues wrote the paper Communicating with Diverse Audiences about Sustainable Farming: Does Rurality Matter?

Identifying Disinformation: In this podcast, Cami Ryan discusses how to identify disinformation and misinformation. Dr. Ryan was an author on the CAST publication The Importance of Communicating Empirically Based Science for Society.

Pandemic Statistics: The Johns Hopkins interactive coronavirus map provides updates about the pandemic, and this site looks at how local hospitals are faring during the crisis.

News from the Far Side of the Barn

Naked Mole Rat Update (videos): Some claim these rodents have anti-aging and anti-cancer qualities. New research says they also battle for turf and abduct pups from rival clans.

McChickens Run Afoul (video): Police were called when a flock of chickens caused havoc at a McDonald's in New Jersey.

The Jetsons Rise Again (videos): General Motors revealed a flying car that could be used for personal transportation.
There are four new people on the Board of Representatives:

- John Hinz, representing North Central Weed Science Society - Plant Work Group
- John Jones, representing The Fertilizer Institute - Plant Work Group
- Kathryn (Katy) Proudfoot, American Dairy Science Association - Animal Work Group
- Curtis Youngs, representing Iowa State University - Animal Work Group

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Please support CAST’s efforts to communicate credible science through membership or a donation today. CAST’s success in countering misinformation and continuing as a voice for sound science in the future—as we have in the past—depends on your membership and donations. If you are already a CAST member—and haven’t renewed yet for 2021—please renew today!

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**2021 Borlaug CAST Communication Award Nominations Open—Applications Due February 1**

The Borlaug CAST Communication Award (BCCA) is an honor that recognizes professionals actively working in the agricultural, environmental, or food sectors who are promoting agricultural science in the public policy arena. This award has become an influential component in the efforts to keep agricultural issues and programs in the public eye and in front of national and world policymakers.

You can learn how to nominate and download the nomination packet on the CAST website. The BCCA has been awarded to 11 outstanding professionals.

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*Animal Agriculture and Environmental News*
Pig Production and the Environment: A new NPPC program showcases U.S. pork producers’ long-standing commitment to environmental stewardship and further reducing greenhouse gas emissions.

Pheasant Program: An annual 4-H program in New York teaches youth responsibility through pheasant chick rearing and other wildlife management strategies.

Antimicrobial Use in U.S. Livestock: University researchers and USDA veterinarians developed pilot systems for collecting and analyzing antimicrobial use data from U.S. livestock operations.

Popular Dairy Articles: These “most-read stories of 2020” from dairyreporter.com include items ranging from COVID effects to garlic used in cow feed to decrease gas.

Fighting ASF: Agricultural Research Service scientists made two important advancements against African swine fever, a lethal disease in pigs.

Poultry Legalities: Two corporations settled price-fixing litigation by poultry buyers that accused them of violating U.S. antitrust law by conspiring to inflate chicken prices.

Food Science and Safety News

Fruit and Vegetable Imports: The USDA added a weekly report to keep tabs on seasonal fruit and vegetable imports from Mexico and Canada.

Spud Surge: Retail fresh potato sales saw record growth of 12% in dollar sales and 8.2% in volume during the October-December quarter, according to this report.

Apples to Apples: Fresh apple inventories are down 13% compared with the same time a year ago, and prices are up.

Probiotic News: A company’s new probiotic is supposed to help relieve stress, and researchers say probiotic coffee and tea drinks have gut-friendly live probiotics.

Milk Mustaches: General Mills added milk mustaches to all of its mascot characters on their cereal boxes in a new partnership to promote the ‘Got Milk?’ campaign.

Gut Microbes: An international study using metagenomics and blood chemical profiling uncovered a panel of 15 gut microbes associated with lower risks of common conditions such as obesity and type 2 diabetes.

Plant Agriculture and Environmental News

Jayson Lusk and Glynn Tonsor produce a monthly “Meat Demand Monitor” containing simulated grocery shopping choices and consumer preferences.

The pandemic exposed problems faced by small butchers and farmers in business endeavors.
Biofuels Request: Federal lawmakers from both the House and from the Senate are asking the administration to reject pending requests for small-refinery exemptions to the RFS, but reports indicate the EPA will propose extending the deadlines for oil refiners.

Research Funding: A paper published by Crop Science reports that U.S. public investment in plant breeding programs has fallen while the needs are critical.

Nitrate Sensing: Iowa State professor Thomas Chiow was awarded a patent dealing with a soil nitrate sensing system for precision management of nitrogen fertilizer applications.

Forest Management: The USDA hopes the establishment of the Interagency Wildland Fire Subcabinet will open up more communication channels to ensure better forest management effectiveness.

What a Mighty Tree Can Show: The sequoia tree slab is an invitation to consider a vast timescale that includes everything from fossils of amoebas to the great T-Rex.

Nitrogen Loss and Food Production: This study looks at nitrogen loss during food production, and the researchers created a framework that accurately measures nitrogen loss across a wide variety of crops and food products.

International News

Super Speed in Super Cold (video): China unveiled a new high-speed bullet train designed for extremely cold climates.

Sirens’ Song (video): An ancient Swedish tradition involves singers who corral cows, goats, sheep, and ducks with hypnotic melodies.

Corn Imports: China approved two genetically modified corn varieties for imports as demand for animal feed surges.

Countering Misinformation: The Cornell Alliance for Science explains why Africa must counter COVID vaccine misinformation.

Health Check Up for the Planet: This BBC report assesses climate health at the start of 2021— with a look at CO2 levels, record heat, melting ice, and more.

Dwarf Giraffes: Two giraffes that stand 2.6 and 2.8 meters tall were discovered in Uganda and Namibia.

Stop the Rot: Penn State researchers are looking at a disease-resistant strain of cacao that might have tolerance against block pod rot.

The Sámi people—indigenous inhabitants of Arctic Sweden, Norway, Finland, and Russia—are working to uphold their heritage as global warming and modernization affect their homelands.
**General Interest News**

**Oyster Power (video):** A University of Florida marine biologist studies how oysters help clean the ocean—and how aquaculture might help the shellfish survive.

**Astronomical "Old Faithful" (video):** With telescopes operated by The Ohio State University, a group of scientists have discovered an eruption of deep-space light that flashes on a predictable schedule.

**ET, Phone Home:** Astronomers—including a Penn State grad student—are searching for signs of life beyond Earth, and they report unusual radio signals from Proxima Centauri.

**Toxic Pet Food (video):** A pet food recall is expanding after more than 70 dogs have died from eating toxic mold.

**Dogs and COVID:** An expert looks at dogs and COVID-19.

**Pest Mitigation:** The USDA allocated more than $5.5 million to Florida as part of its effort to strengthen the nation's infrastructure for pest detection and mitigation.

This video explains how a North Carolina woman is bringing together two of her passions—horses and reading—to help bridge the literacy gap among children.

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* 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  
* Crop Science Society of America  
* Entomological Society of America  
* Innovation Center for U.S. Dairy  
* 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 Boar  
* North Central Weed Science Society  
* Northeastern Weed Science Society  
* Poultry Science Association  
* Rural Sociological Society  
* Society for In Vitro Biology
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