**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
- Food Science & Safety News
- Plant & Environmental News
- International News
- General Interest News

---

**Announcements**

Join CAST on May 11 for the announcement of the 2021 Borlaug CAST Communication Award winner and a presentation by Dr. Alexa Lamm (2020 BCCA) on "Bouncing Forward: Capitalizing on the Current Societal Evolution to Strategically Communicate about Science."

The California State University and University of California systems announced that all 33 campuses will require students and staff returning for in-person instruction this fall to be fully vaccinated against COVID-19.

This year’s US Poultry seminar about financial management will be a face-to-face event June 28-30 in Florida.

Check here for details about this year’s World Pork Expo June 9-11 in Des Moines.

This university professor says there is continuing strong demand for college graduates with degrees in agricultural programs.

---

**April 23, 2021**

**Earth Day and Agriculture**

No longer just a one-day observance, *Earth Day* has become an all-year reality. Since 1970, April 22 has been a day of action to improve the environment.

Farmers, ranchers, and conservationists are especially aware of the symbiotic relationships of soil, water, and air. For some, carrying on a family conservation tradition is just part of smart stewardship. Many universities are also focused on the environment--for example, the University of Kentucky is establishing the world's largest repository of American white oak trees.

The environmental challenges for agriculture are large, but food producers, universities, societies, companies, organizations, governments, and individuals are rising to the challenge. See page two below for a specific focus on Earth Day, and check throughout this week’s edition for stories about the efforts to make the world a better place for us all.

**News and Views**

**U.S. Government:** (1) U.S. lawmakers are working on an ag climate bill that might garner bipartisan support. (2) President Biden pledged to reduce U.S. greenhouse gas emissions 50% by 2030. (3) The U.S. Senate Ag Committee discussed the Growing Climate Solutions Act to coincide with Earth Day.

**USDA:** (1) The USDA seeks comments on its effort to improve the supply chains for the production, processing, and distribution of agricultural commodities and food products. (2) The USDA announced $330 million to help fund 85 rural conservation partnership projects in 45 states. (3) The U.S. government is raising the number of acres eligible to be enrolled in the Conservation Reserve Program. (4) Robert Bonnie will be nominated to oversee farm and conservation programs at the USDA as well as federal crop insurance.

**Food Production Research:** In this Agri-Pulse open mic...
CAST College Corner

The Ohio State University program Take Flight! is an Earth Day celebration of local and global efforts to protect and restore the monarch butterfly.

The University of Kentucky used an Earth Day symposium to honor a pathologist who was a pioneer for environmental clinical research.

Tuskegee University alumni make up a majority of the Black veterinarians in the country. This article looks at the challenges they and others face.

North Carolina A&T State University hosted a special virtual panel discussion in recognition of Earth Day—with a focus on “Environmental Justice, Equity, and Sustainability.”

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

CAST Social Media

Visit our website

CAST welcomes ideas for future publications and projects.

CAST Updates

CAST Blog: Earth Day, Agriculture, & Sustainability

In honor of Earth Day, CAST’s latest blog discusses farmers using cover crops to maintain soil health and research being done using CRISPR technology in cattle. There are also a few facts on livestock sustainability highlighted as well as a look at companies that are doing their part to improve stewardship by creating genetically engineered salmon, saving monarch butterflies, engineering microbes, using precision breeding, and more.

If your member society, company, nonprofit, or university is doing something for Earth Day or finding ways to become more sustainable, please email Dylana or Dan (contact info at bottom of newsletter) a link so that we may include it on the blog or in an edition of Friday Notes.

BCCA Winner Announcement Event May 11

The Borlaug CAST Communication Award (BCCA) is presented annually for outstanding...
Animal Agriculture and Environmental News

**Beefed Up Help:** The Beef Cattle Institute at Kansas State University provides innovative solutions and resources for veterinarians and beef producers.

**Pig Proposition Effects:** California's Proposition 12 mandates space requirements for all gestating hogs and creates uncertainty for hog producers.

**Dairy Trends:** A large dairy industry concern released its reflection on 2020 with an analysis of global, national, and local trends for 2021.

**Disease Control for Pigs:** This hog expert looks at lessons learned from the COVID-19 pandemic that have reinforced the need for improved disease control practices used in the swine industry.

**Pet Rehab Therapy:** Cornell University veterinarians show an example of what rehabilitation therapy can do for an injured pet—in this case, an exuberant collie.

**Veterinarian First (related to above):** The first 3D laparoscopic adrenalectomy in veterinary medicine was performed on a Boston terrier at UC-Davis.

USPOULTRY and the USPOULTRY Foundation have approved approximately $320,000 for five new research grants at five institutions through the comprehensive research program.

Food Science and Safety News

**Hand Over Your Money:** Buying something with just a wave of your hand is closer to everyday reality now that retail giant Amazon is trialing its palm-scanning payment technology in certain Whole Foods locations.

**Food and Climate Change:** This book by a Cornell expert, Our Changing Menu, looks at the increasingly complex relationships between food and climate change.

**Kids' Meals:** The USDA issued a broad range of flexibilities to allow school meal programs and childcare institutions to serve healthy meals in fall 2021 as part of the commitment to reopen schools safely.

**Specialty Crop Changes:** The USDA also announced the termination of 10 U.S. consumer standards that are obsolete and impede the effective marketing of specialty crops.

**Sugar Levels and Food Consumption:** Research suggests that people who experience big dips in blood sugar levels after eating end up feeling hungrier and consuming hundreds more calories during the day than others.

Chocolate Mousse? Penn State researchers showed that the supplementation of cocoa powder in the diet of high-fat-fed mice with liver disease markedly reduced the severity of their condition. They are looking at implications for humans.

Plant Agriculture and Environmental News

**WOTUS Comment:** EPA Head Michael Regan told...
Congress he does not intend to go back to the Obama administration’s definition of Waters of the U.S.

**Water Quality:** A national agricultural conservation nonprofit is working with four cities and the Iowa DNR to develop a model agreement that incentivizes cities and farmers within the same watersheds to address water quality together.

**Forestry Act Proposed:** Two senators introduced the bipartisan Rural Forest Markets Act to remove barriers for small-scale, family foresters and help them benefit from new economic opportunities through climate solutions.

**Fighting Palmer Amaranth:** A Nebraska research team tries to develop the best weed control program to help farmers battle Palmer amaranth in their soybean fields.

**Into the Woods:** A University of Florida-led study established a Forest Global Earth Observatory research plot within a longleaf pine forest.

**Super Cactus:** A University of Nevada-Reno study says the cactus pear is a drought-tolerant crop that can provide biofuel and livestock feed—and remove carbon from the atmosphere.

**Losing Soil:** Researchers used satellite imaging and surface soil color to find out how much of the nutrient-rich earth has eroded away in the corn belt.

---

**International News**

**Carbon Capture in the Land of Ice and Fire (video):** Innovators in Iceland are using a cutting-edge experiment called direct air capture to help save the environment.

**Tackling Waste and Unemployment (video):** Featuring unsold items from local shops, a popular Tokyo bakery opens at night with a staff that includes the homeless and unemployed.

**Milky River:** A tanker truck crashed into a river in Wales, spilling thousands of gallons of milk and turning the water white.

**Cuba Opens to Beef and Dairy:** Cuba is loosening a decades-old ban on the sale of beef and dairy products.

**Pork to Asia:** This National Pork Producers Council official says Asia offers opportunities for the U.S. Pork industry.

**Norway is constructing the world’s first ship tunnel—an engineering marvel large enough for super cruise ships.**

---

**General Interest News**

**Historic Flight on Mars (video):** In a “Wright Brothers Moment,” the NASA Mars helicopter Ingenuity made its first flight on the Red Planet.

**High Tech Here on Earth (related to above):** Check out the CAST publication Ground and Aerial Robots for Agricultural Production: Opportunities and Challenges.

**Better Rural Broadband:** House Agriculture Committee members heard from those on the ground about the need to update maps on areas that remain underserved—as well as how to fund better broadband coverage.
Salty: Texas A&M research found that the increasing salinity of the Rio Grande is a problem for agricultural producers.

Theory and Experimental Measurements: Penn State researchers joined other scientists to examine a new calculation of the strength of the magnetic field around the muon—a sub-atomic particle similar to an electron.

T-Rex Hunting in Packs: A team of researchers—including University of Arkansas scientists—found new evidence that tyrannosaur dinosaurs may not have been solitary predators, but social carnivores similar to wolves.

Orbiting 250 miles above the Earth, astronauts on the International Space Station perform scientific studies, enjoy the heavenly view, and learn how to handle daily activities in weightlessness—like exercise, eating, and toiletry. Four astronauts from three countries were launched early Friday morning as part of NASA’s SpaceX Crew-2 mission.

Photo Credits
P. 1 Earth Day pic from texasfarmbureau.org and Egypt pic from times.co.uk. Food Sec. mouse pic from psu.edu. Plant Sec. weed robot pic from seattletimes.com and drivetech.com. Inter. Sec. ship pic from dailyexpress.com. Gen. Sec. space pic from popularmechanics.com and cbsnews.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST. CAST Updates Earth Day picture from Bayer Crop Science.

Societies, Companies, and Nonprofit Organizations Serving on the CAST Board of Representatives

- 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 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
- CropLife America
- Crop Science 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 Board
- 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
- United Soybean Board
- University of Nevada-Reno
- U.S. Poultry and Egg Association
- 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
- Penn State University
- Tuskegee University
- University of Arkansas System Division of Agriculture
- University of California-Davis
- University of Florida Institute of Food and Agricultural Sciences
- University of Kentucky
- University of Missouri-Columbia
- University of Nebraska Agricultural Research Division
Dan Gogerty (Communications and *Friday Notes* Editor)  
dgogerty@cast-science.org  
Dylana Luett (Communications and Social Media Specialist)  
dluett@cast-science.org  
The Council for Agricultural Science and Technology  
4420 West Lincoln Way  
Ames, Iowa 50014-3447  
Phone: 515-292-2125

**With assistance from Megan Wickham (Scientific Editor) and Colleen Hamilton (Membership Specialist)**

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 Scheske (kschescke@cast-science.org). Instead, please encourage your colleagues to join CAST and thereby become eligible for all membership benefits. Contact Colleen Hamilton at 515-292-2125 or chamilton@cast-science.org, or [CLICK HERE](http://www.cast-science.org) for CAST membership information.