

Friday Notes



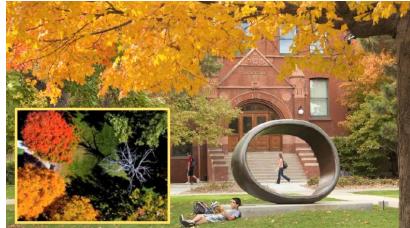
The Science Source for Food, Agricultural, and Environmental Issues

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....

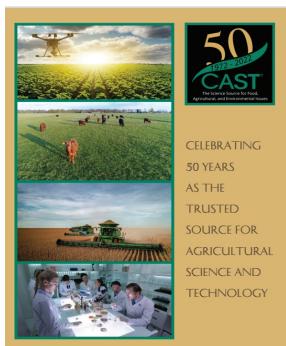
- [Animal Agriculture News](#)
- [Food Science & Safety News](#)
- [Plant & Environmental News](#)
- [International News](#)
- [General Interest News](#)

Announcements



Scientists at the University of Nebraska-Lincoln explain the chlorophyll breakdown and the chemical [reactions that bring on the fall colors in trees](#).

The CAST Commentary, *Gains Foregone by Going GMO Free: Potential Impacts on Consumers, the Environment, and Agricultural Producers*, will be available November 15, with a [webinar presentation/Q&A panel occurring on November 16—registration details here](#).



The [Council for Agricultural Science and Technology](#) will be

November 12, 2021

Harvest Time

Essential, Efficient, and Evolving

For most food producers, harvest time is filled with anticipation, worry, and a certain amount of frenzy. Prices fluctuate, yields vary, and harvest methods evolve. Farmers accept that some things--such as the weather, government policy, and mechanical breakdowns--are out of their control. The following stories provide examples of the harvest smorgasbord:



1) The recent [WASDE crop report](#) provided a few surprises and some market fluctuations. 2) The USDA says [corn and soybean crops](#) are well over 80% harvested. 3) According to NASA, [climate change](#) may affect the production of corn, wheat, and other crops within a decade.

In some ways, harvest time has become the techno future once envisioned. [Electrification, autonomy, and artificial intelligence](#) are common. [Huge machines](#) cast shadows in fields once worked with steel-wheel tractors or teams of horses. Harvesting is advancing in all areas, [including automated fruit pickers](#) and [robotic tractors in vineyards](#). UC Davis researchers show that tech advances in wine country can help in various ways including with [worker shortage problems](#).

Norman Borlaug once said, "There are no miracles in agricultural production." Of course, he meant hard work and ingenuity make it happen. But in some ways, all harvests are miracles—they sustain life.

News and Views

USDA and Veterans: This department website includes [information for veterans](#) about employment, education, and entrepreneurship on or beyond the farm.

USDA Scholars: The department announced the Fiscal Year 2022 scholarship application cycle for the [1890 National Scholars Program](#) and the [1994 Tribal Scholars Program](#).

COP26 and Ag: As the [COP26 Conference closes](#), statements

celebrating 50 years as the trusted source for credible, balanced, science-based information in 2022. [Click here to access an impressive commemorative publication.](#)

CAST College Corner

[Tuskegee University](#) won the Education Advisory Board's Student Success Collaborative-Return to Education Award.

[North Carolina A&T State University's](#) nursing school was named the best at a public historically Black college or university for 2022.

The [University of Kentucky](#) will hold the 2021 Kentucky Invasive Plant Conference November 16.

The [University of Arkansas](#) will celebrate International Education Week November 15-19 with in-person and virtual events.

CAST Social Media

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CAST [welcomes ideas](#) for future publications and projects.

regarding agriculture and food production are still in flux. The [United States and China](#) gave a joint statement about limiting emissions. The USDA made an early [commitment to climate action](#), and various nations—including the EU—pointed out “the need for a transition toward [climate-resilient food systems](#).” Daily news items are available on this [COP26 “press page.”](#)

Infrastructure: Commodity and ag group leaders support the \$20 billion in the recently passed infrastructure bill that will go toward [lock, dam, port, and inland waterway improvements](#).

Misinformation: A new poll says almost 8 in 10 U.S. adults believe or are unsure of at least one [false statement about COVID-19](#). A Mississippi State University expert suggested ways to [avoid becoming a misinformation superspreader](#), and a [CAST Commentary](#) looked at *The Importance of Communicating Empirically Based Science for Society*.

Far Side of the Barn

Marathon Waddle (video): A [duck named Wrinkles wore red shoes](#) and joined the New York City Marathon.



UP--for a Cause (video): A French hot-air balloonist [broke the world record and raised money for medical research](#) when he stood atop the balloon at 11,932 feet.

Ketchup on the Red Planet: A team of 14 astrobiologists worked for nine months to make [ketchup from tomatoes produced on Earth in Mars-like conditions](#).

CAST Updates

New Board of Directors Positions

Two positions have been filled on the [CAST Board of Directors](#).

- **Sara Crawford** is the new work group liaison for Animal Agriculture and Environmental Issues. Crawford is the Assistant Vice President-Sustainability for the National Pork Board.
- **Juan Tricarico** is the new nonprofit liaison. Tricarico is the Vice President-Sustainability Research at Dairy Management, Inc. He has been with CAST since 2014, and was the 47th president of CAST.



ICYMI: Student Scholars

This year, eight graduate and veterinary medicine students from The Ohio State University received the CAST Science Communication Scholarship on October 27 during the CAST Annual Meeting in Columbus, Ohio. The recipients could choose to



submit a short video, infographic, or a micro-podcast, as well as a short essay on how their digital media example communicates a component of their research.

A blog with all the students' infographics and short videos is [available here for viewing](#).

The CAST Science Communications Award is supported by individual donors of CAST.

Animal Agriculture and Environmental News

Cattle Research: The University of Missouri's Thompson Research Center emphasizes [premium cattle genetics](#).

Talking Turkey: Texas A&M experts look at the [challenges of selecting and cooking](#) a holiday bird.

Living in a Pigsty (video): A former pig farmer and Emmy-award winning actor looks at [modern hog operations](#) and consumer misconceptions.

Poultry Convention: The Midwest Poultry Federation is hosting its annual [trade show and convention](#), "Back to the Future," in Minneapolis, March 2022.

Healthy Baby Pigs: Kansas State University swine researchers and graduate students are reporting findings that could help the [survival rates of newly weaned pigs](#).

Where the Bison Roam: Ranchers [raise thousands of bison](#) on tribal lands, public parks, and private preserves—as many as 50 million roamed the West in the 1800s.



Mammal mothers display wide [diversity in how they undergo pregnancy](#)—from elephants that carry their babies for two years to opossums that carry young for only 12 days.

Food Science and Safety News

Global Prices: A United Nations index shows that global food costs and agricultural commodity [prices are rising](#).

Food Supply and Prices: On his blog site, Jayson Lusk (Purdue and [2017 BCCA](#)) looks at 1) problems for the [food supply chain](#) and 2) rising food prices.

Inflating the Turkey: The American Farm Bureau Federation is giving early indications that the [Thanksgiving feast will be the most expensive](#) ever.

Organic Food: The pandemic was good for [organic produce demand](#). Research from Rabobank looks at the reasons behind that surge and what may come next.

RNA Innovation: Some think sprays made from RNA might offer a more [effective way to protect food](#) in the fight against pests and fungus.

Looking for Good Fat: This study says [eating fat can lower stroke risks](#), as long as it's the right kind.



To [cut waste and enliven food choices](#), the "shelf love" trend encourages experimenting with recipes and making dishes with ingredients already at home.

Plant Agriculture and Environmental News

Saving Your Orange Juice: University of Florida researchers are [helping groves infected with citrus greening](#) by managing the timing of their fertilization.

Row Crops and Prairie Strips: Iowa State University researchers looked at the effects of converting 10% of a crop field to [diverse, native perennial vegetation](#), and they found that it greatly reduced sediment movement.

Natural Plant Protection: Many producers are developing sustainable crop practices, including [biological products known as biopesticides](#).

Big Dry Forces Gambling Moves: The drought in Colorado and many parts of the West is forcing [farmers and ranchers to make tough decisions](#).

Biostimulants: These university researchers are [looking for ways to help crops](#) alongside traditional fertilizer.

Green Chili Crop: Growers of New Mexico's iconic crop are wrestling with [drought, water rights, and labor shortages](#).



With nearly 40 million acres of lawns in the United States some are [switching to sustainable landscaping with native grasses, flowers, and shrubs](#). [Goats might be a more entertaining option](#).

International News

Opportunities Missed: Canadian researchers looked at the potential economic [losses caused by the delay in GM crop commercialization](#), and some say Mexico's struggling [corn production needs GMOs](#) to improve.

CAST Commentary (related to above): A publication, *Gains Foregone by Going GMO Free: Potential Impacts on Consumers, the Environment, and Agricultural Producers*, will be available November 15, with a [webinar presentation/Q&A panel occurring on November 16—registration details here](#).

Flocking to an Ancient Ritual (video): The [streets of Madrid were filled with sheep](#) as shepherds guided their flocks through the Spanish capital.

Lower Pesticide Use: A United Kingdom report says many countries benefit from improved economies and healthier populations by [farming genetically modified crops](#).

Bird Flu in Europe: Poland has reported several [outbreaks of highly pathogenic H5N1](#) bird flu at poultry farms.



A New Zealand couple dug up "Doug," potentially [the world's heaviest potato](#).

General Interest News

Food Security Advocate: Catherine Bertini ([2011 BCCA](#)) is a global advocate for global food security, and she helped draft [recommendations for the U.S. government](#) regarding how to build a strong foundation for nutrition programs.

Carbon Sequestration: So far, few of America's largest farmers and ranchers are [pursuing carbon contracts](#).

Lithium-ion Battery "Graveyard": Electric vehicle use means lithium-ion batteries and disposal challenges. A Cornell-led study is working on the problem by considering

[battery chemistry, second-life applications, and recycling.](#)

Veterans and Ag: A [veterans' agricultural apprenticeship program](#) at North Carolina State University will increase the impact of farmer veteran programs across the state.

Probing the Massive Red Spot: NASA scientists are using microwave sensors to probe into the [10,000-mile wide storm on Jupiter's surface](#).



Some college football stadiums feature real grass, and they provide training grounds for [students seeking turf grass careers](#).

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- * 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
- * Association of Equipment Manufacturers
- * 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
- * National Turkey Federation
- * 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.

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