



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



Robots continue to expand roles in [health care, medicine](#), agriculture, and several [other areas](#). Along with the [many benefits](#), some are concerned about negative social issues. Check out the [CAST Issue Paper Ground and Aerial Robots for Agricultural Production: Opportunities and Challenges](#).

NIFA offers a [webinar series March 1-4](#) to provide an overview of opportunities for AFRI New Investigators and program areas covered under the Agriculture and Food Research Initiative.

[National FFA Week](#) is underway, and pandemic restrictions have not put a damper on activities.

CAST College Corner

[Mississippi State University](#) is presenting "A Walk-Through Mississippi Showcase." See page two below for more about Black History Month.

February 26, 2021

Pandemic Response—Science in the Present and Future Tense

The current battle against COVID-19 continues as the FDA considers approval for a [third vaccine](#). Johnson & Johnson's single-dose [vaccine looks promising](#), and ongoing studies tout the safety of the [Pfizer and Moderna vaccines](#). The USDA provided an [update to its pandemic response](#) program, and they plan to deploy qualified [personnel to help administer vaccines](#).



Many are worried that this [will not be the last pandemic](#), and they advocate for increased research and development. The FDA has issued guidance for companies addressing the [emergence of coronavirus variants](#).

Scientific advancements have been impressive, but the war against COVID-19 still produces [grim statistics, and the death toll](#) in the United States recently passed 500,000. For some, the effects of this war are best symbolized by these health-care workers who provide medical and emotional [care during the day- and then spend evenings in an online information war](#), fighting against baseless claims and toxic conspiracy theories.

News and Views

USDA Leader: The [Senate confirmed Tom Vilsack](#) as the new U.S. Ag Secretary in a strong bipartisan vote of ninety-two to seven. This article includes a look at [his possible to-do list](#).

Rural Health and Education: The USDA announced it is investing millions of dollars to help rural residents gain [access to health care and educational opportunities](#).

Cold Disaster: Farmers and ranchers in the U.S. South continue to assess the [damage following the deadly Arctic blast](#).

Farm Economy Outlook: Some financial experts expect agriculture to [benefit from an economy-wide recovery](#) coming as the pandemic ends.

[Ohio State University](#) researchers will work with the Navajo Nation to mitigate water and food security issues at a time when communities are facing pandemic challenges.

[North Carolina A&T's](#) annual tribute to small-scale agriculture will begin March 21, featuring educational programs and panel discussions.

The [University of Florida](#) received a grant from the USDA to help some Florida K-12 educators start or strengthen aquaculture education programs.

Check throughout [Friday Notes](#) to see more featured articles from member universities.

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

Laureates Give Voice: The World Food Prize Foundation released a statement penned by 24 of its laureates advocating a focus on [alleviating global hunger, poverty, and malnutrition](#).

Far Side of the Barn

How Low Can You Go?

(video): In this migration video, mule deer [scoot under an 18" bottom wire](#) or clear a top wire at 42" from a standstill.



Skippy the Miracle Puppy

(video): A newborn [puppy in Oklahoma has six legs](#) and lots of energy. Challenges will arise, but so far, [Skippy is doing well](#).

Freeze Frame (video): A [waterfall in Indiana froze in action](#) because of the extreme cold.

CAST Updates

New Blog: Black History Month—Ag Science Edition



During Black History Month, CAST has highlighted some of the great agricultural work done by African Americans. This blog features agriculturalists and scientists who have had an [impact on our member universities](#). Two of our member schools—Tuskegee University and North Carolina A&T State University—are recognized as Historically Black Colleges and Universities (HBCUs).

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 (NIFA) [supports research at these institutions](#) with both capacity and competitive funding.

Animal Agriculture and Environmental News

Pandemic Aid: The NCBA expects [additional aid for cattle producers](#) from a Coronavirus Food Assistance Program in the next few months.

Chicken or Egg—or the Mailbox? The U.S. Postal Service has been [shipping baby chickens through the mail](#) since

1918, but some want to halt the deliveries—reactions vary.

Hog Production Can Be Humbling: This Illinois pig farmer dealt with the pandemic and with a hog disease that struck his livestock in [a year of challenges](#).

Dairy Industry Coping with Disruptions: The [U.S. dairy sector entered 2021 still in flux](#) following the disruptions brought about by COVID-19, according to the USDA in its Ag Outlook Forum.

Pork Industry News: The [National Pork Industry Forum](#) will be virtual this March, and pork producers are invited to attend the Pork Act Delegate Session in Louisville, Kentucky.

Comforting Children and Animals (video): A Texas animal sanctuary [pairs children with disabilities and various rescue animals](#). The kids experience a type of “magic,” while the animals live in their own “hog heaven.”



An ARS entomologist discovered that the *Nosema ceranae* parasite [causes death in honey bees](#) by hijacking its host's iron for itself.

Also, check out the CAST Commentary about "[Why Bee Health Matters.](#)"

Food Science and Safety News

Invasive Species as Food Source? (video): A University of Missouri researcher has a plan to use the invasive [Asian carp to help with food insecurity](#).

Organic Growth and Challenges: The USDA says organic sales are up—and scientists, economists, and [organic experts shared their ideas and information](#) at the USDA's 97th annual Agricultural Outlook Forum.

Beef and Alternatives: Kansas State University researchers joined Jayson Lusk ([2017 BCCA](#) winner) to [look at U.S. beef demand](#) and plant-based protein alternatives.

Medium, Rare, or Printed? (video): An Israeli company released its [lab-grown “rib-eye steak”](#) with a novel 3D bioprinting technique.

Cultured Animal Tissues (related to above links): Check out the [CAST Commentary](#), *Producing Food Products from Cultured Animal Tissues*.

Food Economics: This article considers the pandemic's impact on the [sales from foodservices as compared to grocery outlets](#)—and speculates about what's to come.

Sweet Assistance: North Carolina State University specialists helped grow the state's [sweet potato industry into a global powerhouse](#), and now they are working with African nations to provide opportunities and nutrition.



You don't need to be a sports cheesehead to enjoy a bite of cheddar, brie, or other selections. According to this article, some research shows that cheese is neutral at worst—and [possibly even good for you](#).

This article claims that [fruit and vegetable consumption](#) in the United States has declined.

Plant Agriculture and Environmental News

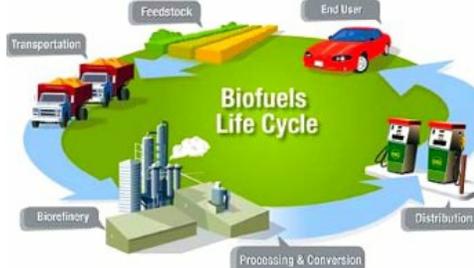
Conservation Reserve Program: The USDA is extending the deadline for the [largest private land conservation program](#) in the country.

Safe Pesticide Use: Midwest states including Missouri, Iowa, and Illinois are updating the way they [teach farmers to use pesticides safely](#).

A Natural Way to Reduce Carbon Levels? University of Nevada-Reno researchers demonstrated that meadows throughout the region are both [gaining and losing carbon at high rates](#)—a situation that is related to climate change.

Seed Shortage a Possibility: A looming [seed shortage for farmers and gardeners](#) is adding stress to growers dealing with the pandemic.

Tiny Ants Enrich Soil in Many Ways: This Texas A&M expert explains how ants cause the loosening of soil that increases water infiltration and soil aeration—and [the insects enrich the nitrogen content](#).



The EPA changed its position and announced support for the court's [interpretation of the renewable fuel standard small-refinery provisions](#). Several agriculture groups [stated their agreement with the ruling](#).

University of Florida researchers sequenced the [genome of a type of "supersweet corn."](#)

International News

Cotton Candy Cake (video): This Canadian sweets shop makes cotton candy cake with flavors ranging from [strawberry champagne to blueberry cheesecake](#)—and even pina colada.

Zoonotic Bird Flu: Russian authorities say seven workers at a poultry plant were [infected with H5N8 bird flu](#)—the humans are reportedly all feeling fine.

Fructose and Immune Systems: British scientists produced research about the [consumption of a diet high in sugar \(fructose\)](#) and its relationship to immune systems.

Rural Policy in China: A major China policy statement explains the drive for rural vitalization and the acceleration of the [modernization of agriculture and rural areas](#).

Aussie Ag Investment: This article suggests that Australian agriculture will need an injection of \$87 billion in [new investment during the next decade](#) to meet the sector's ambitious 2030 farm gate production target.



Jakarta, Indonesia—population 10.77 million—is affected by regular [flooding and rising ocean levels](#).

China's pig industry is dealing with an international hog market as it [recovers from African swine fever](#).

General Interest News

Taking You to Mars (video): NASA videos chronicle major milestones during the final minutes of the Perseverance [rover entry, descent, and landing on the Red Planet](#).

Space, STEM, and Young Women (video): Dr. Mae Jemison—the first Black woman to travel into space—talks about the history of Black women in STEM and the importance of [inspiring the next generation](#).

Wobbly Polar Vortex: This site uses maps and diagrams to explain the Arctic low-pressure center that [spread cold over Texas and other states](#).

Learn by Doing: Cal Poly's "[Learn by Doing](#)" philosophy uses many techniques to engage students during the pandemic era of remote learning.

Thinking Artificially: These [10 uses of artificial intelligence](#)



A Harvard study points to a new source for the [asteroid that probably devastated most life on earth](#) and wiped out the dinosaurs.

have the potential to increase agricultural efficiencies, improve crop yields, and reduce food production costs.

Sportin' a Yellow Tux: A [rare yellow penguin](#) spotted on an island off south Georgia has biologists puzzled.

All-electric Tractors: Customers can place deposits to [reserve places](#) in the production line for an all-electric tractor.

A Texas "[highway angel](#)" [rescued scores of drivers](#) during the winter storm—he also drove health-care workers to and from work and relocated people who didn't have electricity or running water.

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- * Bayer
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- * 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
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The Science Source for Food,
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