



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.

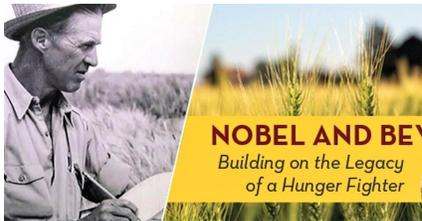
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March 26, 2021

National Ag Week Emphasizes Year-round Efforts

Announcements



50 years ago, the late Norman [Borlaug received the 1970 Nobel Peace Prize](#) for averting famine by increasing wheat yields and varieties. He is known as "the man who saved one billion lives."

Note: The winner of the 2021 Borlaug CAST Communication Award will be announced May 11. Details coming soon.

The National Institute for Animal Agriculture's Annual Conference, [Exploring Sustainability in Animal Agriculture--A Comprehensive Approach](#), will convene April 21-23. Marty Matlock (University of Arkansas and [2018 BCCA](#)) is one of the featured speakers.

A [new science-education website called AgLab](#) operated by USDA/ARS is now "open for business" to students and educators alike.

CAST College Corner

[North Carolina A&T State University](#) awarded its "Small

National Ag Day arrives, and the entire week features successes from the dynamic agricultural community. But food production never stops, and the "real Ag Day" is a 24/7/365

phenomenon. To honor the occasion, [President Biden's proclamation](#) recognized "the unique

and irreplaceable value that farmers, ranchers, foresters, farmworkers, and other agricultural stewards have contributed to our nation's past and present," and the [USDA announced an \\$11.5 million research investment](#) to help America's small and medium-sized farms and improve the quality of life in rural communities. Also, NIFA awarded grants to many universities including Tuskegee, Florida, Missouri, Cornell, Ohio State, Penn State, and Texas A&M.



The Ag Council of America organized National Ag Day and provided this [video of noteworthy speakers](#). National Ag Week included [FFA activities](#) (above photo lower left), the U.S. Apple Association planting apple trees on the USDA grounds (above photo lower right), and proclamations by organizations such as the [U.S. Farmers & Ranchers in Action](#) and the [Noble Research Institute](#). Many local communities such as this one in California also [honor agriculture during this time](#).

For more about National AgDay/AgWeek, see page two below.

News and Views

USDA News: The USDA is establishing new programs to bring [financial assistance to farmers, ranchers, and producers](#) who felt the impact of COVID-19 market disruptions, and Secretary Vilsack vowed to [deal with systemic racism and barriers at the USDA](#) affecting socially disadvantaged farmers.

Misleading "Facts" Lead to Vaccine Misinformation: As the CDC says, a person is three times more likely to get struck by lightning than die from a vaccine injection, but [social media feeds often give wildly different impressions](#).

Farmer of the Year” to a farmer who turned an abandoned tobacco farm into a successful operation.

The [University of Nevada-Reno](#) will launch a doctoral program in natural resources and environmental science designed to train experts in “translational science.”

[Cal Poly](#) students won first place in the National Grocers Association 2021 Student Case Study Competition for their presentation on how grocers can combat the major economic issues caused by COVID-19.

An [Iowa State University](#) research team challenged previous understanding of the genetic control of traits associated with a “smart canopy” in sorghum.

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

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

How Is Your State Doing? This site looks at how the [COVID-19 vaccination campaign](#) is going state-by-state.

National Farmworker Awareness Week: Food and farm workers are the backbone of the food system, and these are some of the [many organizations supporting them](#).

Rurality and Communication: This study—led by University of Georgia experts including [2020 BCCA](#) winner Alexa Lamm—explores [differences in public perspectives regarding agriculture’s impact](#) on the natural environment.

Far Side of the Barn

Hanging by a Thread (video): Responders rappel to successfully [save a couple and their dogs dangling in a truck](#) following a traffic mishap.

Robotic Dog with a Bedside Manner (video): Spot—the robotic dog doctor—will see you now. A light-hearted look at [a robot helping with the COVID crisis](#)

Showing Nemo How to Do It (video): This fish in an Asian market [flops to an amazing escape](#).



CAST Updates

National Agriculture Week



March 21-27 this year is National Agriculture Week, but here in the CAST office we believe every week should be spent celebrating agriculture (as well as science and technology). [Check out our blog](#) for some facts about agriculture.

Animal Agriculture and Environmental News

A "Dramatic" Market (video): A pork expert discusses the shifting [hog market and the renewed demand](#) from China.

Gene Editing to Fight African Swine Fever: Scientists are using CRISPR Cas9 techniques to [modify the ASFV genome](#) to make a live vaccine to help reduce pig deaths.

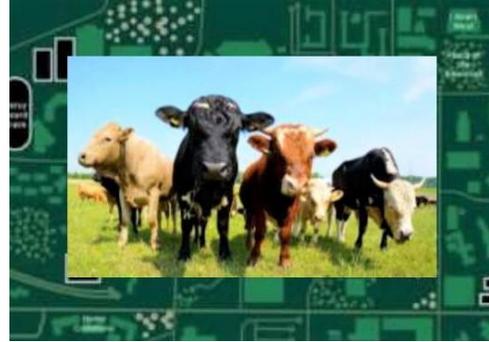
Cattle Feed and Carbon Emissions: Frank Mitloehner

(2019 BCCA) provides an update about UC-Davis researchers using [seaweed in cattle feed to gain environmental benefits](#) without compromise to meat quality.

Farm Horse Breathes Easier (video): A University of Missouri equine veterinarian worked with engineering students to [custom print a device to assist an Amish-owned horse](#) with breathing issues.

RFID: Ranchers can continue to use [Radio Frequency Identification \(RFID\) tags during the interstate movement of cattle](#) while the USDA examines the controversial issue.

Chickens on the Move: Some chickens are [rotated through pastures and hayfields](#), with the nitrogen from their manure adding natural fertilizer.



A University of Florida project involves data from satellites that ranchers can use to [improve their pasture and grazing management](#).

In this video, [four chicken farmers](#) show how they are minimizing the environmental impact of their farms by using innovative technology and sustainable farming practices.

Food Science and Safety News

Food Distribution Changes? Agriculture Secretary Vilsack stressed the need for [structural changes to U.S. food distribution systems](#) in order to tackle hunger, strengthen equity, and increase access to school meals.

Cold Storage Report: The USDA's cold storage report tells different tales of [demand for beef, pork, and poultry](#).

Campus Dining: This food specialist gives his [views about campus food programs](#) and what fall 2021 and beyond might hold for university dining.

Bacteria Behavior: Scientists calculated the efficiency of the sensory network that bacteria use to move towards food—findings that may lead to a [better understanding of how to handle bacteria](#).

Sorry, French Fries Don't Make the List: Guidelines recommend [5-a-day portions of fruits and vegetables](#), but which ones fulfill that count?

Restaurant Rebound? This business summary considers [positive trends for the restaurant industry](#) such as financial relief programs and the promise of patrons returning.



Early to Rise: This report says that [people who eat early breakfasts](#) have lower blood sugar levels and less insulin resistance.

Plant Agriculture and Environmental News

Organic Ruling (see related story below): A ruling by a U.S. District Court upheld the legality of the [USDA's certification of organic hydroponic operations](#).

CRISPR/Cas9 Upgrade: Researchers in Germany used an [improved gene-editing tool to knock out up to twelve genes](#) in plants in a single blow.

Hydroponic Tour (video): An owner of a commercial scale, hydroponic facility in New England gives a [tour of the leafy greens growing system](#).

Seed Week: The Crop Science Society of America

[celebrates the first annual Seed Week](#) March 22-28 with this site that includes guest blogs, news stories, videos, and more scientific information.

Apple Mystery: Scientists are working to get to the root of a mysterious [problem affecting apple production](#).

Sorghum Production: Kansas State University's 2020 [Kansas Performance Tests with Grain Sorghum Hybrids](#) publication includes a look at growing conditions, diseases, yields, and more.

A Muted Scream of Pain: Penn State researchers used CRISPR gene-editing techniques to find that tomato fruitworm [caterpillars silence their food plants' cries for help](#) as they devour their leaves.



With one greenhouse the size of 58 football fields, a pioneering young farmer in an Appalachian community [hopes that indoor farming will provide food](#) and spur an economic boost.

Using CRISPR/Cas9 techniques, a start-up launched the [first direct consumption genome-edited tomato](#) that has enhanced nutritional benefits.

International News

Trade Woes (video): A [gigantic cargo ship stuck in the Suez Canal](#) is blocking traffic and affecting world trade.

Cow Rescuers (video): People have been [rescuing cows from swollen rivers and beaches](#) in Australia as torrential rains produce massive floods.

A Horror Show (video related to above): Along with the floods in Australia, hordes of spiders, snakes, and other [waterlogged pests are invading](#) farmland and homes.

Recovering from ASF: This report says [China's sow herd](#) is 34.1% larger in February 2021 compared to the same period in 2020.

Traffic Stoppers (video): These "[Indian runner ducks](#)" are used for pest control in rice fields where they eat the bugs and poop out good fertilizer—and they lay lots of eggs.

Tomatoes, Grapes, and Strawberries in the Sand (video): A Middle East agricultural [start-up that grows food in the desert](#) has raised \$60 million in funding.



The Real Hot Lava (videos): A volcano in Iceland erupted for the first time in 800 years. [See aerial views here](#), and a [closer look here](#).

General Interest News

Win the Lottery and Buy What? A *Farm Journal* poll asked farmers [what technology purchase](#) they would make first if they won the lottery. How about variable-rate application technology?

Cashing in Their Chips (video): The [computer chip shortage](#) is starting to hit automakers where it really hurts, as companies cannot fill orders.

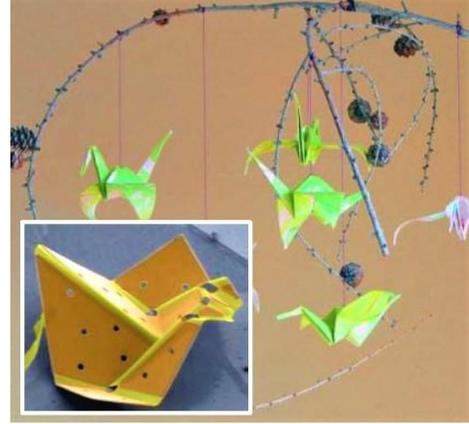
Electric Car Boom, Bubble, or Bust? Some investors are confident about a huge growth in [electric-vehicle sales](#), but

others are skeptical about such a boom.

Solar Panels and Greenhouses: North Carolina State researchers showed that lettuce can be grown in greenhouses that filter out wavelengths of light [used to generate solar power](#).

Ghost Kitchens Booming (video): Ghost and virtual kitchens have [flourished during the pandemic](#), and many think they might continue to be big business in the future.

Goodbye to Your Pet Python: Florida officials are pushing back against the [possession of 15 nonnative species](#).



Origami and Science: In an [advance for nano robotics](#), Cornell researchers created micron-sized shape memory actuators that enable atomically thin two-dimensional materials to fold themselves into 3D configurations.

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- * American Farm Bureau Federation
- * American Meat Science Association
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- * 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
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- * 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
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The Science Source for Food,
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