



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



[Ag Day celebrations March 21-22](#) in Washington, D.C., will include a welcome from Secretary Vilsack, essay winners, and more.

A [\\$50 million gift to the National 4-H Council](#) will support "positive youth development" for nearly six million kids and their families.

The [Commodity Classic](#)—America's largest farmer-led, farmer-focused agricultural and educational experience—will be held March 10-12.

CAST College Corner

A [University of Missouri](#) scientist has linked epigenetic biomarkers to gastrointestinal issues for kids with autism.

The [Tuskegee University College of Veterinary Medicine](#) announced the first students selected as "Medicine Scholars." The program educates 70% of African American veterinarians.

The [University of Florida](#) Agricultural Policy Outlook

March 4, 2022

Gene Editing and GMO Food

As defined by the Alliance for Science, gene editing is the general term for methods that enable scientists to



make accurate modifications to the genetic code of many organisms. The Alliance for Science [offers this FAQ sheet](#) about gene editing and the differences between gene editing and GMOs.

Dr. Alison Van Eenennaam ([2014 BCCA](#) and Director of the Animal Genomics and Biotechnology Laboratory at UC Davis) helped put together an all-GMO meal to showcase how GMOs can be a part of a regular diet. The meal consisted of salmon, russet potatoes, [Bt sweetcorn](#), [virus-resistant rainbow papaya](#) and other GMO ingredients.

Western consumers tend to have a generally positive view about gene-edited foods, though their awareness of the technology remains low, [two new studies have found](#). Another new study suggests that Europe, which has long rejected genetically modified (GM) crops, could [significantly boost yields](#) and slash climate-warming greenhouse gas emissions by planting GM crops.

News and Views

Global Conflict and Agriculture: Along with immense human suffering, Russia's invasion of Ukraine is 1) [affecting wheat and food prices](#), 2) influencing [global food supplies](#), 3) having an [impact on grain futures](#), and 4) [threatening U.S. poultry exports](#) to several countries. Also, The Ohio State University and the University of Illinois contributed to the study titled [Revisiting Ukraine, Russia, and Agricultural Commodity Markets](#).

HPAI Update: The USDA's APHIS has confirmed the presence of highly pathogenic avian influenza (HPAI) in two non-commercial backyard flocks (non-poultry) in [Connecticut and Iowa](#). The Iowa Poultry Association [has an HPAI toolkit](#) and other resources on their website.

USDA Updates: The USDA announced 1) supplemental American Rescue Plan Act funding for the [Local Agriculture Market Program](#) and 2) additional funding to support long-term

Conference is back in-person this spring—March 21.

A [Mississippi State University](#) expert is helping to organize a March 9-11 conference about the use of computing power and big data to transform agriculture.

CAST Social Media

Visit our website



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

[resilience in the dairy industry.](#)

UN Report on Climate and Environment: This Cornell University expert—a member of the [Intergovernmental Panel on Climate Change](#)—says climate problems are affecting food systems, especially in vulnerable regions.

Far Side of the Barn

Canine Traffic Cop (video): This clever dog shows how to [unclog a ramp jammed with clueless sheep](#).

Secret Life of Crabs (video): An Australian fisherman and photographer shows [what's happening under water](#) with his Crab.e.cam and other viral videos.



CAST Updates

CAST Societies and North American Invasive Species Awareness Week

Since 1972, [society members have been an important component](#) in the effort to fulfill CAST's mission—communicating credible, science-based information to a wide audience. [Society members include](#) those representing medicine, plants, food, animals, and other types of science and agriculture.

Since this week is the [North American Invasive Species Awareness Week](#) (NISAW), CAST would like to highlight our weed science society members:

- North Central Weed Science Society
- Northeastern Weed Science Society
- Weed Science Society of America
- Western Society of Weed Science



NISAW
NATIONAL INVASIVE
SPECIES AWARENESS WEEK

NISAW is an international event to raise awareness about invasive species, the threat that they pose, and what can be done to prevent their spread.

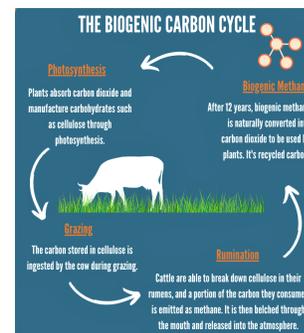
Animal Agriculture and Environmental News

HPAI Vaccines: A scientist is working to improve vaccine options for HPAI and has [developed eight vaccine candidates](#) against highly pathogenic H5 and H7 avian influenza (HPAI) viruses.

Coping with Disaster: Kansas State University beef cattle experts [explained the phases of disaster response](#) in an effort to help livestock producers.

Hog Lagoons and the Environment: North Carolina State University researchers developed an automated technique that uses satellite imagery to [determine when swine waste lagoons were constructed](#).

Alternative Feed: Larvae such as those of the black soldier fly [can form an important new link](#) in circular agriculture—by replacing soy in livestock diets.



The Animal Ag Alliance provides visuals and accompanying information about [“Cattle's Role in Reducing Greenhouse Gas Emissions.”](#)

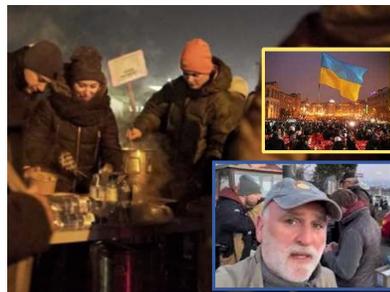
Food Science and Safety News

Where's the Beef? University of Kentucky agricultural economists are studying growing consumer demand for plant-based meat alternatives; reports indicate the growth is [not replacing current demands for beef](#).

The Survey Says: The United Soybean Board released results of a new survey that [show consumers want food](#) made with U.S. crops.

Eye on Research: UC Davis research indicates that eating a serving of dried goji berries may help prevent or [delay the development of age-related macular degeneration](#).

Nutrition Month: March is National Nutrition Month and the USDA has some [resources to help celebrate](#).



Continuing their amazing relief work during global disasters, famed Chef José Andrés and his nonprofit World Central Kitchen are [feeding refugees along the Ukraine border](#).

Plant Agriculture and Environmental News

Growing Food on Mars: Astrobiologists, geologists, soil scientists, and others are working together to come up with [ways to grow life-sustaining food](#) on Mars.

Rootworm Control: A Kansas State University entomologist says [nematodes can help reduce insects](#) that harm corn.

GHGs: A [recent study conducted](#) by Iowa State University scientists shows how crop production has led to an increase in the emissions of nitrous oxide.

Planting: The USDA projected that U.S. farmers [will pare corn plantings by 1.5%](#) and modestly increase soybean acreage this spring in the face of high input costs.



[According to the ASA, SSSA, and CSSA, cover crops can help attract pollinators, repel pests, turn into "green manure," and even be used as feed for livestock.](#)

International News

Cutting Emissions: Brazil's beef industry is [trying to tackle methane emissions](#) with new farming practices that could help the country achieve one of its COP26 promises.

Heart Health: A study from the United Kingdom says that [high consumption of vegetables](#) alone won't help prevent heart disease in adults who are deficient in physical activity and other lifestyle factors.

Tiger, Tiger, Burning Bright? University of Melbourne researchers plan to bring the [Tasmanian tiger back from the dead](#), even though it has been extinct since 1936.

Vertical Mega-Farm: Singapore's first vertical mega-farm has reached phase one of its construction. The multi-layer vertical farm will allow [crops to grow throughout the year](#) in any climate.



[The world's longest annual mammal migration](#) involves 20,000 zebras crossing remote regions of Botswana.

General Interest News

Countering Misinformation: This American Council on Science and Health article explains why [vaccines did not contribute to COVID variants](#).

Fire-resistant: This article looks at ways to build wildfire-resistant communities in a warming world, including how to properly [plan land use to reduce the risk](#).

Farm Shows (audio available): Small town [farm shows are reacting differently to COVID-19 restrictions](#). Some canceled, some went virtual, and some are carrying on as usual.

Clean Energy: Chevron will buy biodiesel maker Renewable Energy Group in an all-cash deal valued at \$3.15 billion as the oil major looks to [boost its clean-energy business](#).



A photographer in Canada nicknamed "[Aurora Hunter](#)" has an [uncanny ability](#) to find and follow one of nature's most spectacular phenomena—the Northern Lights.

Photo Credits

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- * 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
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- * Bayer
- * Corteva Agriscience
- * CropLife America
- * Crop Science Society of America
- * Innovation Center for U.S. Dairy
- * Iowa State University
- * Mississippi State University
- * 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
- * Penn State University
- * Poultry Science Association
- * Rural Sociological Society
- * Society for In Vitro Biology
- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
- * The Minor Use Foundation
- * 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
- * Zoetis

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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- * Tuskegee University

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The Science Source for Food,
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