



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



"If we winter this one out, we can summer anywhere." Ireland's Nobel-winning poet, Seamus Heaney, often wrote about agriculture. In this line, he seems to anticipate polar weather, global pandemics, and the challenges confronting food producers.

The USDA expects [U.S. farm exports to hit a record](#) \$157 billion for fiscal 2021.

[National FFA Week](#) will include recognition of George Washington's birthday and his legacy as an agriculturalist.

The University of Nebraska-Lincoln program, "[Forward Together: A Global Strategy for UNL](#)," serves as a roadmap to expand global education, engagement, and impact.

## CAST College Corner

### During Black History Month...

[North Carolina A&T State University](#) is honoring influential

## February 19, 2021

# The Arctic Circle Moves South

Millions of homes in Texas [experienced power blackouts](#), and the death toll continues to rise as a result of [unprecedented winter storms](#) that moved to southern regions of the United States. Extreme cold has [affected](#)



[agriculture in many ways](#) including idled meat plants, threatened crops, and endangered animals. Livestock producers in [Arkansas](#) and [Texas](#) have been hit hard. The USDA has programs that provide [assistance for rural communities, farmers, and ranchers affected by the recent winter storms](#).

As the [American Meteorological Society](#) explains, the [term polar vortex refers to](#) a "planetary-scale mid- to high-latitude circumpolar circulation." For the less scientifically inclined, the phenomena means frostbite, frozen pipes, and frigid forecasts. Check out other sections of this newsletter for insights about how the polar vortex has affected the world of agriculture.

## News and Views

**Food Safety Affirmed:** The [USDA, FDA, and CDC underscore](#) that there is no credible evidence of food or food packaging associated with the viral transmission of coronavirus.

**Successes and Challenges for Black Farmers:** The USDA honors [Black farmers and ranchers of today](#) who are providing food, fiber, and fuel for the nation. The new administration plans to [address the legacy of discrimination](#) that has affected Black farmers and land ownership.

**USDA Personnel:** The Senate [will vote February 23 on Tom Vilsack's nomination](#), and the department announced [Monica Rainsie](#) as its Deputy Assistant Secretary for Civil Rights.

**New Policy:** This article provides updates about the Biden Administration's [energy, environmental, and climate policies](#).

**Mask Use:** An Ohio State University faculty member explains why face [masks work to prevent coronavirus spread](#).

African American alumni.

[Tuskegee University](#) is giving a special focus to the famous Tuskegee Airmen.

[Cornell University](#) continues its extended celebration of the life of the literary icon Toni Morrison.

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

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

## Far Side of the Barn

**Winter Bright Spot (video):** A Minnesota woman uses food coloring and cake tins to [create rainbow igloos](#) and lift spirits in the arctic cold.



**Hop to It (video):** A [wallaby was caught on camera](#) as it entered and explored the emergency ward at a hospital in Australia.

**Some Like It Hot (video):** This obsessed plant breeder cultivated the Carolina Reaper--[the hottest pepper in the world](#).

## CAST Updates

### Opinion: Sustainable Agriculture in the U.S. vs. the EU



This opinion piece was written by Scott H. Hutchins, Ph.D., former USDA Deputy Under Secretary for Research, Education, and Economics. It was originally published in *CSA News*. The Crop Science Society of America, American Society of Agronomy, and Soil Science Society of America are CAST Society Members.

This opinion piece discusses the common ground between the United States and the European Union on [aspects of sustainable agriculture](#).

## Animal Agriculture and Environmental News

**Cloned Ferret a First (video):** The birth of Elizabeth Ann, a black-footed ferret, represents the [first cloning of an endangered species native to North America](#).

**Coping with Extreme Cold:** (1) An Iowa State University specialist provides simple [steps to help livestock](#) during sub-zero temperatures, (2) this photo essay shows how small family [farmers care for animals in the extreme cold](#) (3) Kansas State veterinarians share tips for [cattle producers dealing with hypothermia](#) in newborn calves, and (4) Oklahoma State specialists explain why cattle producers need to consider [feed, water, ice, and wind](#).

**Animal Ag Resilience:** Texas A&M personnel are tabulating the [impacts of COVID-19 on the U.S. animal agriculture product market](#).

**Poultry Production:** University of Georgia [researchers are looking at production issues](#)—with a focus on the effects of 20(s)-hydroxycholesterol on broilers and laying hens.



**Not quite Minecraft, but Swinecraft maybe--Purdue experts say [pigs are capable](#) of learning a video game task, and Canadian research also shows they can [manipulate a](#)**

**Gene-editing Research:** This study illustrates the potential to [produce targeted gene knock-in animals](#) by direct cytoplasmic injection of bovine embryos with gRNA/Cas9.

**Poultry Health:** The Texas A&M Veterinary Medical Diagnostic Laboratory is leading the effort to develop rapid, next-generation sequencing [procedures to assist in the detection of influenza A viruses](#) in avian species.

[joystick](#) to get a reward.

Rabo Research indicates [strong domestic and export demand for U.S. pork](#) is driving markets, but situations in China could have ramifications.

## Food Science and Safety News

**Food App:** Using a special app, volunteers [pick up food discarded by restaurants](#) and take it to people in need.

**Bully Beef:** Even though many table-service restaurants have closed or offer limited service, [beef demand stays strong](#) as consumers cook more at home.

**Science, Technology, and Fresh Produce:** This article looks at [science and technology trends that might affect the fresh produce industry](#)—including topics such as soil health, nanomaterials, and smart energy use.

**Eat Your Veggies:** USDA statistics show the pandemic has fueled [demand for U.S. imports of fresh vegetables](#)

**Muscling in on Fat:** These medical researchers report that skeletal muscle significantly affects [how the body stores and metabolizes fat](#).

**Savoring Chocolate Like an Expert:** The [world's most popular confection](#) starts as colorful, football-shaped pods that sprout haphazardly from tree trunks and branches.



Two new varieties from the Public Strawberry Breeding Program at UC-Davis will provide consumers with [big, flavorful strawberries](#) throughout fall and winter.

## Plant Agriculture and Environmental News

**Water Policy Review:** A federal court delayed an ongoing lawsuit challenging the Trump administration's [Navigable Waters Protection Rule](#) to allow the Biden administration until May to conduct a review.

**Erosion Alert:** This study says more than one-third of the Corn Belt in the Midwest has [lost its carbon-rich topsoil](#).

**Alternate Weed Control:** North Carolina State received a large grant to develop a [three-dimensional imaging system](#) to visually map, treat, and predict herbicide-resistant weeds in cover crops.

**Corn, Feed, and the Environment:** A major seed company and the universities of Nebraska, Kansas State, and Arkansas identified ways to [use corn as livestock feed that can reduce emissions](#) and the use of natural resources.

**Orange Crop Blossoms:** The Florida 2020-21 [orange crop grew by 3.7%](#) according to the USDA crop production report.

**Dragon Fruit:** University of Florida [scientists give insights](#) on insects that affect the growth of a type of dragon fruit.



Growing [interest in carbon markets](#) comes from various sectors, and many companies are making climate neutrality commitments.

## International News

**Gene-edited Crops:** According to this opinion article, gene-edited crops [may be coming to Europe](#)—if scientists can avoid the PR mistakes of the GMO debate.

**Pig Welfare:** Some German swine producers are working to give lactating [sows more room to move while also protecting the piglets](#).

**China Ag Trade:** The USDA indicates that [China will import a record amount of corn](#)--and a large amount of wheat and rice--for livestock feed. In 2020, Spain was Europe's [top pig meat exporter to China](#).

**Danish Pandemic Passport:** Denmark is [considering a so-called coronavirus passport](#) as a way to open its borders to boost tourism and business.

**Numbat News:** This small, little-known Australian marsupial is [an endangered species](#), but conservationists are building vast, predator-free sanctuaries for them.

**COVID-free Zone:** Bhutan—a country known for its "happiness index"—has apparently [managed to keep nearly all coronavirus out](#).



[Norway answered a Super Bowl ad with its own humor](#) about its electric vehicle boom. They say the clean transport success is due to a pop star, forward-thinking policy, and a dash of civil disobedience.

## General Interest News

**Coronasomnia (video):** Penn State experts examine "coronasomnia"—a word describing people whose [sleep has been disrupted by the stresses of the pandemic](#).

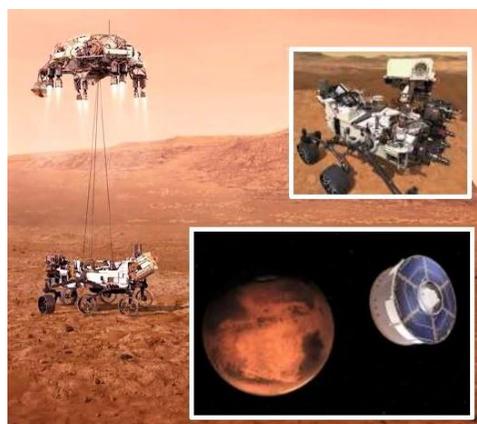
**That Sinking Feeling (video):** Mysteries of [massive holes forming in Siberian permafrost](#) are unlocked by scientists.

**Fighting Misinformation:** This ACSH article looks at the anti-vaxxer movement, COVID-19 vaccines, and [misinformation campaigns](#).

**Clear Communication (related to above):** The [CAST Commentary publication](#), *The Importance of Communicating Empirically Based Science for Society*, includes a webinar and student study guide.

**Birthday Girl Is a Real Survivor:** A French nun who survived both world wars, the 1918 flu pandemic, and a coronavirus infection is [marking her 117th birthday with red wine](#) and her favorite dessert—baked Alaska.

**Dog Behavior and Human Personality:** University [veterinarians studying canine training success](#) say the pet owner's personality is a key factor.



NASA's [one-ton, nuclear-powered rover named Perseverance](#) made a [swift, acrobatic descent through the thin Martian atmosphere and landed safely on the surface](#). It will commence a look for signs of ancient life.

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The Science Source for Food,  
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