



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



Growing [interest in electric pickup trucks](#) could affect many farmers, ranchers, and others. See the General Section below for related links about electric tractors and possibly even aircraft.

See page 2 for a guest blog about Sarah Evanega—the [2021 Borlaug CAST Communication Award](#) winner—and her attempts to counter misinformation about agricultural biotechnology.

The Institute of Food Technologists is launching the “[Seeding The Future Global Food System Challenge](#).”

The Specialty Crop Regulatory Assistance group is holding a workshop on the [nuts and bolts of biotech regulations](#) June 8-9.

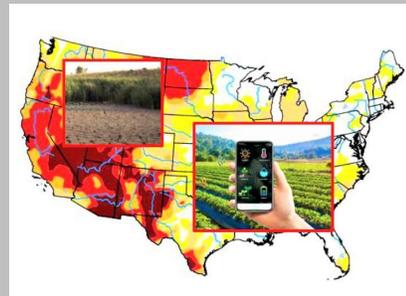
## CAST College Corner

The [University of Nebraska-Lincoln's](#) Institute of Agriculture and Natural Resources will be part of a five-year effort to help safeguard the security of the U.S. food supply.

## May 21, 2021

# Coping with Yet Another Big Dry

The [water crisis along the California-Oregon border](#) is a parched representative of the [widespread droughts](#) that are straining conditions throughout the West. Water experts—including Jay Lund of UC-Davis—weighed in on [California's chances of dealing with another drought](#)



as they consider conservation measures taken or neglected in both rural and urban areas. Organizations like the American Farm Bureau Federation point out the [need for water infrastructure improvements](#) to endure future dry spells. [Smart irrigation](#) is one drought-busting strategy gaining more acceptance, and these growers in Oklahoma use soil moisture sensors and other measures to conserve moisture. CAST released an Issue Paper in 2019 about “the processes, conservation practices, and programs that [influence the impact of agriculture on surface and groundwater quality](#).” CAST has also initiated the process for the development of a paper about precision irrigation and water management.

## News and Views

**USDA News:** Recent USDA press releases focus on (1) the 90-Day Progress Report on [Climate-Smart Agriculture and Forestry](#), (2) department [activities to contain the pandemic](#), and (3) key leadership positions in [Natural Resources and Conservation](#).

**Ag Trade:** The USDA published a list of statistics showing that [U.S. agricultural exports support output, employment, income, and purchasing power](#) in both the farm and nonfarm sectors

**USMCA Update:** During the first-ever meeting of top trade officials in the [U.S. Mexico Canada Agreement](#), officials recommitted to fully implementing, enforcing, and fulfilling the trade pact throughout the life of the USMCA.

**COVID Updates:** New CDC data says the two-dose vaccines from Pfizer-BioNTech and Moderna [reduced the risk for symptomatic COVID-19 by 94%](#). The CDC also reports that COVID-19 [vaccination rates are lower in rural counties](#) than in urban counties. This site tracks [coronavirus rates state-by-state](#).

An [Iowa State University](#) researcher is developing vaccines that could adapt to mutations of the coronavirus.

[Tuskegee University's](#) Department of Graduate Public Health's COVID Aware Program was accepted in the 2021 "STEM For All" video showcase.

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

## CAST Social Media

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

## CAST Reports and Publications

The CAST "[Summary of Activities](#)" for January through May includes information about the organization's Strategic Plan, upcoming events, and more—including a reference to the [CAST 2020 Annual Report](#). Note: CAST will roll out its new Commentary—*The Role of Agricultural Science and Technology in Climate 21 Project Implementation*—June 28 with a webinar presentation June 29. Watch for details in coming newsletters.

## Far Side of the Barn

**Even Woody Is Buzzed (video):** A *60 Minutes* report featuring government officials has opened renewed conversations about "[unidentified aerial phenomena](#)."



**Creature from the Deep:** An [unusual fish with teeth as sharp as glass](#) and a body shaped like a football washed ashore on a California beach.

**A "Moonshot" for Squirrels (video):** A former NASA engineer obsesses about the [elaborate squirrel obstacle course](#) he built in his back yard. It's cool, but a bit "nuts."

## CAST Updates

### Guest blog: *How Sarah Evanega uses science communication to combat myths and misperceptions*



"As founder and director of the Cornell Alliance for Science, a global communications initiative in the College of Agriculture and Life Sciences (CALs), Dr. Sarah Evanega faces down misperceptions, myths, and misinformation about GMOs, or to use the scientific term, agricultural biotechnology. Now she's also taking on the conspiracy theories and disinformation campaigns that swirl around the pandemic, vaccines, climate change, and synthetic biology."

This excerpt is from [this week's guest blog](#), written by Joan Conrow, managing editor of the Cornell Alliance for Science. Note: Sarah Evanega was recently awarded the [2021 BCCA](#).

## Animal Agriculture and Environmental News

**Groups Call for Action (video):** [Several agriculture groups issued a statement](#) expressing frustrations about the imbalance in the cattle and beef markets.

**Poultry Research:** A funded research project at Mississippi State University examined the role of protease, crude protein, and amino acid levels on [laying hen performance and egg quality](#).

**Pork Production Survey:** A Kansas State University livestock specialist is encouraging swine producers to fill out a survey [dealing with management, marketing, and more hog farm topics](#).

**Horse Health:** Texas A&M research shows that a common practice within the horse industry meant to strengthen the bones of mature horses could actually lead to [bone breakdown in juvenile horses](#).

**Stressed Veterinarians:** Many veterinarians are facing extended hours and increased pressures. Small animal veterinarians are affected by the fact that [millions of U.S. households got a new pet](#) during the pandemic.

**Pig Health:** Piglets [born to heat-stressed sows](#) may carry the burden of their mom's discomfort later in life in the form of health complications and diminished performance.



After 30 years of regulatory roadblocks, lawsuits, and activist opposition, [AquAdvantage salmon may finally be heading to restaurants](#) and grocery stores.

Turkeys have eyes on the side of their head, meaning they almost have a [360 degree field of view](#).

This link shows how an absence of dairy cows could affect [nutrition and the environment](#).

## Food Science and Safety News

**Food, Consumers, and the Pandemic:** Jayson Lusk ([2017 BCCA](#)) and Brandon R. McFadden look at disruptions to the [food supply chain and consumer behavior](#).

### GM Food and Label Laws

(1) Gregory Jaffe and Jennifer Kuzma give opinions about the usefulness and/or confusion in the [National Bioengineered Food Disclosure Law](#).

(2) Kuzma was an author on the CAST publication [Genome Editing in Agriculture: Methods, Applications, and Governance](#). Jaffe wrote several guest blogs including [Shopping for Honesty: Sorting Out Non-GMO Claims](#).

(3) CAST originally looked at this issue with a publication led by Alison Van Eenennaam ([2013 BCCA](#)) titled [The Potential Impacts of Mandatory Labeling for Genetically Engineered Food in the United States](#).

(4) And Kent Messer led a CAST publication titled [Process Labeling of Food: Consumer Behavior, the Agricultural Sector, and Policy Recommendations](#).

**Food Insecurity Effects:** University of Arkansas researchers investigated the link between [food insecurity and mental health risks](#) during the COVID-19 pandemic.

### Americans Flock to Chicken



The Nation's #1 Quarantine Protein

NATIONAL CHICKEN COUNCIL

From the chicken sandwich wars to ghost kitchens, [chicken offerings have been popular](#) with consumers during the pandemic.

Food items in the "not yet popular" category include what Cambridge researchers say might end up on menus of the future: [seaweed with a side of maggots](#).

Processed foods are popular, and they have a [long history and mixed track record](#). This writer looks at their pros and cons.

## Plant Agriculture and Environmental News

**Biofuels Court Action:** Biofuel groups are pleased the U.S. Court of Appeals [vacated three small refinery exemptions](#) granted by the previous administration.

**Corn Research:** Penn State researchers say a [mutant corn](#)

[gene boosts sugar](#) in the plant's seeds and leaves.

**Dollars from Pennycress?** A variety of pennycress—used for chicken feed and biofuels—could become an additional [source of revenue for farmers](#).

**Plant Production Resource:** In this online magazine, the American Society of Agricultural and Biological Engineers [looks at plant growth issues](#) such as how to make open-field fresh market tomatoes into circular systems.

**Not All Nematodes Are Bad:** Active land management practices can help [boost beneficial nematode groups](#) in soil by improving soil habitat.

**Not Only Tears and Odor:** Even [onions have personalities](#), and this article divides them into three unofficial categories.



North Carolina State researchers are finding ways to keep high-quality [sweet potato exports traveling from North Carolina to Europe](#).

## International News

**Global Emissions:** China's [greenhouse gas emissions](#) in 2019 surpassed those of the United States and the developed world combined, according to this report.

**Sleeper Shark (video):** Researchers successfully captured videos of [a Pacific sleeper shark](#), a species whose life in deep ocean waters has yet to be fully understood.

**Endangered Species on a Tighrope (video):** On the island of Java, conservationists built a [network of mid-air walkways](#) to help the endangered—and slow—loris move between trees. Local farmers appreciate the move too.

**No Blarney about Herd Size:** According to Frank Mitloehner (UC-Davis and [2019 BCCA](#)), [reducing the herd size in Ireland](#) “wouldn’t do anything” for the climate.

**Bio-improved Eggplant:** Bangladesh is developing a new generation of [genetically engineered disease-resistant Bt eggplant](#) that could cut insecticide use.



Ankole cattle produce rich milk and quality meat—and the president of South Africa sold a herd that included a [prize-winning bull named “Mufasa.”](#)

## General Interest News

**Connecting with Consumers:** A [panel of social media influencers](#) spoke at the Animal Agriculture Alliance Stakeholder Summit about connecting with consumers.

**Animals Adopting Animals (videos):** Researchers ponder why animals [adopt other species' orphans](#).

**Electric in the Fields:** A California startup says its compact, [fully-electric, self-driving tractor](#) performs tasks such as plowing, harvesting, and mowing.

**Electric in the Air? (video):** Aviation fuel is too powerful to be replaced with batteries—but many are [working on electric planes](#), and they range from classic to futuristic.

**Sea Slugs in Focus:** Kevin Folta's [podcast interview](#) with Dr. Sonia Cruz looks at a species of sea slugs that consume algae, then integrate the chloroplasts into their own digestive cells. Folta was the [2016 BCCA](#) winner.

**Student Scientists:** This data from the University of Florida



According to University of Nevada-Reno research, [mercury levels in some pet foods are a cause for concern](#)—fish-based foods are the main culprit.

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- \* American Farm Bureau Federation
- \* American Meat Science Association
- \* American Meteorological Society, Committee on Agricultural and Forest Meteorology
- \* American Seed Trade Association
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- \* American Society of Animal Science
- \* American Society of Plant Biologists
- \* American Veterinary Medical Association
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- \* 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
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- \* University of Nevada-Reno
- \* U.S. Poultry and Egg Association
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The Science Source for Food,  
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