Education at all levels has shifted into a cyber gear with teachers, students, and parents facing challenges and opportunities now that social distancing has become the norm.

Many organizations, businesses, and schools are posting lists of resources; students ranging from preschool to doctoral programs are learning “at a distance.” CAST is focused on useful information about the science of agriculture and food production, and the following links might help educators and the public in a time of change.

This CAST blog from March 19 provides links to educational resources ranging from agricultural sites to general lists to specific university material. CAST will update the blog on a regular basis. CAST has free materials available on the publications page of its main website. Current news and ag-related links are constantly available on CAST social media.

**News and Views**

**Why We Stand with Science:** This editorial from Cornell's Alliance for Science says coronavirus can be stopped. "Together, and with science, we can beat this global challenge."

**Ag Is Crucial:** The Department of Homeland Security designated food and agriculture one of 16 critical sectors in the midst of the coronavirus crisis. Workers in those industries "should stay on the job."

**USDA Resources:** The USDA is providing information about their services during the COVID-19 outbreak—including FAQs, press releases, and food safety.

**USMCA Update:** The Canadian Parliament recently ratified the new U.S.-Mexico-Canada trade pact.

**Planning in a Time of Stress:** Uncertain commodity markets and other issues are causing anxiety for farmers. This Kansas State analyst gives advice for producers as spring approaches.

**Supply Chains:** Coronavirus impacts the supply chain, it affects blood and food bank donations, and it influences food markets.
Iowa State University earned top ranking in a list of the best programs for biological/agricultural engineering. Other CAST member schools gaining recognition include UC-Davis, North Carolina State, Texas A&M, Cornell, Florida, Ohio State, Nebraska, Penn State, Kansas State, Mississippi State, Arkansas, Kentucky, and Missouri.

Drovers' Facebook site wants a photo of your herd's bull by March 31 to be included on a voting page.

**Send in Ideas**
CAST welcomes suggestions for future publications and projects.

**CAST Social Media**

![Facebook](https://example.com)
![LinkedIn](https://example.com)
![Twitter](https://example.com)
![Pinterest](https://example.com)
![YouTube](https://example.com)

**CAST Updates and Resources**
*April 7 webinar scheduled; online information available*

CAST has been adjusting its methods of communication during the pandemic. The CAST blog will provide regular updates about news headlines, announcements, and pertinent educational resource material related to agriculture, science, our members, and CAST activities. Instead of rollout gatherings in Washington, D.C., the organization will use webinars to disseminate new publications.

On April 7 at 12 p.m., CDT, CAST will host a webinar highlighting our new paper, Impact of Recruitment and Retention of Food Animal Veterinarians on the U.S. Food Supply (paper released for free access online on April 6).

Check the CAST blog for regular updates and a list of resources from CAST and its members. CAST also is communicating through its social media outlets, you can sign up here for CAST announcements, and Executive Vice President Kent Schescke uses this blog to preview coming papers from CAST.

**Note:** As this news clip shows, scammers are using this crisis to profit through medical hoaxes, fraudulent charities, and malware-infested internet/smartphone links.

**More Suggested Links--Science, Agriculture, and Education**

These links are some of the many sources of information in this time of change, challenges, and opportunities:

CAST members are excellent sources of information, and we welcome links from organizations, companies, schools, and individuals that might enlighten our readers. For example, a member sent this "At Home learning Resources" site that is Bay Area focused but contains good ideas for many K-12 teachers and learners. And this
And They're (NOT) Off: The Kentucky Derby will be postponed for the second time in its 146-year history. Organizers are already planning to make it "as good as ever" in September.

The ten recipients of the Borlaug CAST Communication Award are excellent resources. For example, check these Twitter sites: Alison Van Eenennaam at BioBeef, Frank Mitloehner at GHGGuru, Jayson Lusk at JaysonLusk, and Channapatna Prakash at AgBioWorld.

Click here to access the CAST YouTube site--information clips about science, food production, and agriculture.

Friday Notes News Categories


Animal Agriculture and Environmental News

Updates for Pig Production: This article looks at how the pig industry is feeling the effects of the global pandemic caused by the coronavirus.

Popular Chickens: Major U.S. chicken companies are diverting supplies to grocery stores from restaurants to meet high demand as shoppers stock their freezers in light of the coronavirus situation.

Protein Machines: This study explains how the beef value chain as a whole is a net contributor to the human-edible protein available for human consumption.

Something in the Air: This company claims that microbial feed additives can help producers control odors related to hog production.

Cage-free Updates: The Egg Industry Center reported that total cage-free flock numbers were down slightly, but several state legislatures advanced cage-free bans.

Dairy Markets: Rabobank assesses how the "corona hangover" will impact global dairy markets.

Challenges for Cattle Producers: This ag economist says cattle producers are in the thick of market gyrations and coronavirus outbreak effects.

Food Science and Safety News

Market Effects: Local and regional agriculture and food markets stand to lose millions of dollars in sales through May because of the shutdowns caused by the COVID-19 pandemic.

Sorry--We're Closed: Coronavirus-related measures and shutdowns are expected to put millions of restaurant, bar, and hospitality employees out of work.

Urban Food Production: This research claims that growing fruit and vegetables in just 10% of a city's gardens
This article explains that an external browning process known as the "Maillard reaction" means frozen steak can go straight on the grill.

Plant Agriculture and Environmental News

Modern Johnny Appleseed (video): Many groups are planting trees in an effort to tackle climate change. This young woman shows how she can plant thousands per day.

It's in the Genes: A computer application from ARS scientists could speed the search for genes that underpin important crop traits—like high yield, seed quality, and resistance to pests.

Dried Distillers Grains: China is paving the way for an eventual reopening of its market to U.S. dried distillers grains by announcing a list of U.S. companies that are eligible to export the product.

Need for Better Communication: These researchers demonstrate that many of the benefits of genetically engineered crops have been lost due to poor oversight.

Food Safety Down on the Farm: The Rodale Institute explains how farms of all sizes can work to achieve updated federal food safety regulations.

International News

Lower Your Head and Charge (video): Cassowaries are large, colorful, flightless birds that live in the forests of Papua New Guinea and Australia. They have a reputation for being "the world's most dangerous bird."

Herding Salmon: Norwegian experts joined other researchers to look at the habits of salmon living in fish farms—they prefer to be monitored by small robots, not humans.

Avian Flu in Asia: Bird flu has been detected in both India and the Philippines—prompting a cull of more than 12,000 quails, chickens, and ducks.

Cheers to this Cocktail: Because of COVID-19, there are shortages of hand sanitizer. This Bristol gin distillery is using some of its alcohol supplies to make a sanitary gel for local residents.


General Interest News

Closing Down (video): As with most events, the cancellation of the Houston Livestock Show and Rodeo left participants disappointed.

How Long Can the Virus Live? Coronavirus can live in the air for hours and on surfaces for days, according to this study.

Countering Zoonotic Diseases: In late 2019, a group of veterinarians in Congress introduced the One Health Act—measures designed to better prevent, prepare for, and respond to zoonotic disease outbreaks.

Shopping Local: In some areas, family-farm operations are providing shoppers with food at times when grocery store shelves might become empty of certain items.

Farm Safety: An online tool is helping researchers see trends in agriculture-related injuries and offering safety solutions for farm families.

Societies, Companies, and Nonprofit Organizations

Serving on the CAST Board of Representatives

* Agricultural & Applied Economics Association
* American Association of Avian Pathologists
* American Association of Bovine Practitioners
* American Bar Association, Section of Environment, Energy, & Resources-Agricultural Management
* American Dairy Science Association
* American Farm Bureau Federation
* American Meat Science Association
* American Meteorological Society, Committee on Agricultural and Forest Meteorology
* American Seed Trade Association
* American Society for Nutrition Nutritional Sciences Council
* 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
* Aquatic Plant Management Society
* BASF Corporation
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* Corteva Agriscience
* CropLife America
* Crop Science Society of America
* Entomological 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 Carolina Biotechnology Center
* 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
* Western Society of Weed Science

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.

Members of CAST’s Education Program
Note: Land O'Lakes supports the delivery of Friday Notes to NAAE

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