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October 1, 2021

Supply Chain Issues
Food and Ag Products Affected

As one expert said, the pandemic is clogging supply chains much like a car accident jams a highway. Traffic problems have many causes, and so do the issues that are affecting the world's "supply chain highway."

Agricultural sectors are working hard to keep goods moving, and society does not need more panic buying and viral rumors. But food items and many other goods are essential, so in this edition, we provide several articles that cover a sampling of the "links in the supply chain."

1) The USDA announced further assistance to help school food service directors respond to supply chain disruptions. For example, Michigan schools report a need for truck drivers, and some North Carolina schools have a shortage of cafeteria workers. 2) Transport problems are also at sea as this California port logjam demonstrates; some worry that the intense Christmas shopping time will be affected. 3) For various reasons, restaurant food shortages have been happening throughout the pandemic. 4) Supply chain issues are global, and England consumers are dealing with shortages of items such as petrol, beef, milk, and timber.

News and Views

USDA Actions: The department announced a comprehensive set of investments to address challenges facing America’s agricultural producers—drought, animal health, market disruptions, climate initiatives, and more. The department also applauded efforts to prevent the spread of African swine fever, directed aid for those affected by Hurricane Ida, and called for nominations for an Equity Commission.

Technology on the Farm: Ag technology keeps moving from futuristic to reality, as aerial robots hover and autonomous tractors plant crops.
**CAST College Corner**

North Carolina A&T State University opened a $6 million pavilion for ag research and education on its research farm in Greensboro.

An Iowa State University professor points out that food science job opportunities have boomed during the pandemic.

A UC Davis professor—Frank Mitloehner, 2019 BCCA—is the featured speaker for the Henry C. Gardiner Global Food Systems lecture October 11 at the Kansas State University campus.

**CAST Social Media**

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CAST welcomes ideas for future publications and projects.

**CAST Updates**

**Member Societies Help Promote CAST's Mission**

Society members are 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. CAST's society members enjoy several benefits such as access to publications and a weekly newsletter. But just as notable, these groups share information with others through CAST's publications and social media, and their members keep aware of science-based research and information from the many sources available through CAST.

Member societies have a voice on the CAST Board of Representatives, a body made up of member societies, universities, companies, nonprofit organizations, and the Board of Directors. Each member of the board serves on one of three work groups—Animal Agriculture and Environmental Issues, Food Science and Safety, or Plant Agriculture and Environmental Issues. The work groups meet at an annual board meeting, hold monthly conference calls, and help CAST identify, clarify, and prioritize national issues it should address in its publications to support science, technology, and innovation.

**Final Impact Report for "Gene Pool" Publication**

Animal Agriculture and Environmental News

ASF Hope: The Agricultural Research Service says an African swine fever (ASF) vaccine candidate is effective in fighting the virus.

The Carbon Neutral Pig: This short film from the U.S. Farmers and Ranchers in Action group covers the story of a climate-focused pig farmer.

Eggshell Integrity: The poultry industry is looking for research that identifies methods and practices to improve eggshell quality.

Helping Veterinary Labs: Texas A&M has been working with the World Organization for Animal Health to improve the economic sustainability of veterinary labs.

A Final Goodbye: The U.S. Fish and Wildlife Service declared 23 animal species are now officially extinct.

Bugged about History: These University of Arkansas entomologists focus on insects that have altered the course of human history.

Food Science and Safety News

Safe Dining: Researchers from the Arkansas Agricultural Experiment Station are investigating whether food service industry disinfecting practices are adequate.

Toxins in Baby Food: A government report indicates high levels of toxic heavy metals in some baby food products.

A Pandemic Positive? Possibly due to the pandemic, the number of cases of food poisoning dropped significantly in 2020, according to a CDC report.

Dairy and Heart Health: This study suggests that people who eat more dairy fat have a lower risk of heart disease.

High Tech in Hawaii: Producers are looking at high-tech techniques that might help Hawaii with its dependency on food imports.

Food Waste (see related links in photo caption): The UN FAO noted the International Day of Awareness of Food Loss and Waste with an informational website.

Plant Agriculture and Environmental News

Microbes Can Help: This article says a large percentage of our crop budgets revolve around fertility, so producers should utilize the nutrients already contained in the soil—and the previous year’s crop residues.

Nocturnal Pollinators: New research from Arkansas Agricultural Experiment Station researchers shows nocturnal pollinators are equally as important to nature’s system as
flowering plants are.

**Terrible Beauty:** The attractive but damaging spotted lanternfly affects plants like trees, shrubs, and grapes.

**Corn and Nitrous Oxide:** This Kansas State University soil microbiologist explains how producers can save money by reducing nitrous oxide emissions from corn.

**Indoor Farming:** Controlled Environment Agriculture is small but growing. This article considers challenges such as sourcing clean energy and lowering production costs.

Research is under way to make golf balls out of soybeans, as oil-based plastics could be replaced by soybean products.

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**International News**

**World Hunger:** As a UN summit convened, many say hunger is getting worse, not better, around the globe.

**You Say Tomato, I Say Blood Pressure:** Japanese consumers can purchase genetically engineered tomatoes that—according to some—can help protect against high blood pressure.

**Ag Drone Regulations:** Brazil is regulating the use of drones in agriculture, especially regarding the application of pesticides, fertilizers, and seeds. Check out the CAST publication titled *Ground and Aerial Robots for Agricultural Production: Opportunities and Challenges*.

**Demand for Gene-edited Seeds (video):** The demand from Nigerian farmers for genetically modified, pod borer-resistant cowpea seeds far outstripped the supply.

**Colorful but Alarming:** A lagoon in Argentina’s famed Patagonia region turned bright fuschia—reports say it could be from a preservative used for shrimp fishing.

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**General Interest News**

**A Troubling Melt:** This photo-essay looks at environmental changes in Antarctica’s warming climate.

**Going Underground:** More power lines could move underground as part of the infrastructure bill and the nation’s energy system, but rural energy providers still worry about the cost of installation and maintenance.

**Youngster Safety on the Farm:** This article looks at how farmers can safely involve the younger members of the family in the harvest and other ag activities.

**Hurricane Ag Damage:** Hurricane Ida did at least $584 million in damage to agriculture in Louisiana alone, with much of that coming in the timber industry.

**Into the Eye of the Storm:** These boat drones are designed to sail directly into the eye of a hurricane so scientists can study storm intensity.

The James Webb Space Telescope will be 100 times as powerful as the
Innovation: Mississippi State University is supporting student and faculty innovators in many ways.

Hubble, and it could change how we see the universe—a December launch is scheduled.

Photo Credits

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* 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
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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
* Tuskegee University
* United Soybean Board
* University of Nevada-Reno
* University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources
* U.S. Poultry and Egg Association
* Weed Science Society of America
* Western Society of Weed Science

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