With another publication rollout scheduled for next week, CAST continues its multi-faceted approach to providing science-based information for policymakers and the public.

CAST’s first publication in 1973 came from Dr. Norman Borlaug, and its latest paper—Goals, Strengths, and Limitations Governing the Use of Life Cycle Assessment (LCA) in Food and Agriculture—will be available Monday, January 24, with a webinar session Tuesday, January 25.

Although CAST is known for publishing informative papers (click here for free access to the publications and click here to see a list of the top ten most viewed ones), the organization also communicates ag/science information through its website, social media, videos, webinars, presentations, and more. This year, CAST is celebrating its golden anniversary—click here to view the special publication honoring CAST’s 50 years.

**News and Views**

**More USDA Updates:** The USDA recently 1) issued a statement regarding its commitment to combat climate change, 2) released a list of its efforts to develop markets and ease supply chain problems, 3) outlined a strategy to deal with forestry issues and wildfire dangers, and 4) announced key steps taken to advance equity through bold, historic action toward rooting out generations of systemic racism.

**EPA News:** The Environmental Protection Agency says it is now taking more steps to comply with the Endangered Species Act when evaluating and registering new pesticide active ingredients.

**Locks and Dams:** The US Army Corps of Engineers allocated funding from the bipartisan infrastructure law for long-awaited upgrades to locks and dams on the Upper Mississippi River system.
A Cornell University Space Systems Design Studio project will take flight aboard a VOX Space rocket.

Mississippi State University has been awarded a USDA grant that will help tribal students from the Mississippi Band of Choctaw Indians with educational needs.

The Ohio State University will promote climate-smart agriculture with a grant from the USDA.

CAST Social Media

Visit our website

CAST welcomes ideas for future publications and projects.

CAST Updates

Welcome Minor Use Foundation!

The Minor Use Foundation is a new board-level nonprofit member. This level of support for CAST allows the organization the opportunity to appoint a representative to serve on a work group and network with other professionals to help CAST address agricultural issues through its publications. The Foundation's vision is to provide growers worldwide with the latest plant protection technology and break down agricultural trade barriers resulting from global misalignment of residue tolerances on minor crops.

Dan Kunkel (pictured left) is the treasurer for the Minor Use Foundation and will be serving on the CAST Board of Representatives. He is joining the Plant Agriculture and Environmental Issues work group.

BCCA Nominations Due Feb. 7

Nominations close February 7, 2022, for the 2022 Borlaug CAST Communication Award, an honor that recognizes professionals actively working in the agricultural, environmental, or food sectors for contributing to the advancement of science in the public policy arena.

CAST Student Scholarship Blog

The recipients of the 2021 CAST Science Communication Scholarship were invited to write a blog on their current research topic or on the importance of effectively communicating science. The first featured blog is Understanding the toxin accumulation on wheat and using genomic selection to predict Fusarium head blight...
Animal Agriculture and Environmental News

**Pig Organ Research:** A research breakthrough at the University of Missouri helped facilitate the organ transplants that are developing between pigs and humans.

**Bison at the Stock Show:** Around 100 head of bison will be arriving at the National Western Stock Show this week to showcase traits that keep the species undomesticated.

**Dairy News:** A professor emeritus from The Ohio State University will be discussing nutrient requirements of dairy cattle in an upcoming webinar on February 14. A new study has also examined social behaviors of dairy calves.

**ASF Updates:** A Kansas State University researcher explains how the African Swine Fever (ASF) virus might get into the United States, and this link looks at lessons learned in China after four years of ASF.

**Students and Poultry:** The U.S. Poultry and Egg Association continues to support National FFA Food Science and Technology Career Development Event students.

Food Science and Safety News

**Goji Berries:** UC Davis research shows that dried goji berries may provide protection against age-related vision loss, specifically age-related macular degeneration.

**Looking for Good Fats:** An Iowa State University meat scientist is leading the search for new fats that offer more choices to health-conscious consumers.

**REGGulatory Standards:** The FDA has released ten new egg regulatory program standards.

**Food and COVID-19:** This report contends that despite the persistent pandemic, the impact on food and agriculture sectors is generally expected to become less severe.

**Omega-3 and Inflammation:** This analysis revealed a relationship between Omega-3 levels and a common marker for systemic inflammation. **Note:** Check out the CAST Special Publication titled Omega-3 Fatty Acids: Health Benefits and Dietary Recommendations.

Some think these expensive omakase strawberries could revolutionize American produce, as demonstrated at this New Jersey vertical farm.

Plant Agriculture and Environmental News

**Weed Fight:** This research looks at how to fight weeds during a time of changing growing conditions for crops.

**Green Comparison:** This analysis compares greenhouse gas emissions between an electric pickup truck to one using E85 ethanol.

**Field Border Research:** Prairie mixes are the top option for crop field borders, but these researchers looked at five perennial grains as alternatives, and the material was...
**Plant Posture:** This article explains how plants can grow straight and what phototropism is.

**Bean Research:** Results of the 2021 variety trials for dry edible beans conducted by the University of Nebraska have been posted on the CropWatch website.

**International News**

**Corn and Soybeans in China:** China now allows pest- and herbicide-resistant genetically modified corn and soybeans after 10 years of safety studies.

**Agroforestry in Brazil (video):** A Swiss biologist is pioneering a new way of agriculture in Brazil's semi-arid regions that increases biodiversity and wildlife.

**Saving Coral:** These scientists are trying to speed up coral's evolutionary clock to breed "super corals" that can better withstand the impacts of global warming.

**Garbage Patch Animals:** Scientists have discovered marine animals living on plastic debris in an area of the open ocean dubbed "the Great Pacific Garbage Patch."

**Rhino Peacemaker:** In a pocket of north Indian wilderness, rhinos are helping to bring peace and pride back to a community healing from ethnic conflict.

**General Interest News**

**Wrapping It (audio):** North Carolina State University's latest episode of Farms, Food, and You looks at cigar wrapper tobacco as an emerging crop in North Carolina.

**Ag Robots:** The global agricultural robots market size is expected to grow by billions of dollars due to factors such as labor shortages, lower costs, and the pandemic.

**Farm Equipment Boom (related to above):** This research says the global market for autonomous farm equipment could boom in the next five years.

**Adjusting to Drought:** Climate change in the American Southwest means Native American tribes are facing new challenges. The USDA-funded "Native Waters on Arid Lands Project" includes tribal members, researchers, and a University of Nevada, Reno expert.

**Acreage for cannabinoid products has been cut, but the hemp industry is expecting overall product trends to keep growing in 2022—including paper, clothes, plastics, and many more items.**

**A massive underwater volcano near Tonga was likely the biggest recorded anywhere on the planet in more than 30 years—with plumes of ash, destructive tsunami waves, and some human fatalities.**

**A Minnesota couple converted old grain bins into an innovative Airbnb location.**

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* 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 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  
* BASF Corporation  
* 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  
* 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.

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**With assistance from Colleen Hamilton (Membership Specialist)
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