



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



As shown in the [publication celebrating 50 years of CAST](#), 1976 communication tactics involved "phones with tails." In contrast, this week's CAST [interactive webinar](#) informed hundreds of participants about its latest science-based commentary.

Agri-Pulse, the National Milk Producers Federation, and the U.S. Dairy Export Council will host a January 31 webinar about "Digging into [the ag export supply chain crisis](#) and how to fix it."

The [USDA's annual Agricultural Outlook Forum](#) February 24-25—"New Paths to Sustainability and Productivity Growth"—will feature Ag Secretary Tom Vilsack and other noted speakers.

CAST College Corner

[Tuskegee University](#) was awarded a National Science Foundation grant to support STEM graduates.

January 28, 2022

Life Cycle Assessments *Applications for Food and Agriculture*

"LCAs don't make decisions, people do. Those decisions can lead to unintended consequences." Dr. Marty Matlock—chair of a new CAST Commentary—explained how life cycle assessments (LCA) can help with the evaluation of complex agricultural systems. In a recent webinar, Matlock and fellow task force members Dr. Kurt Rosentrater and Dr. Yuan Yao explained that LCAs can help with economic, environmental, and social decision making. They pointed out that studies may differ in complexity and scope, but they adhere to a common framework. And they all agreed—good data is imperative for a successful assessment.



The CAST publication—*Goals, Strengths, and Limitations Governing the Use of Life Cycle Assessment in Food and Agriculture*—is [available online](#) for free. The webinar session—[video here](#)—included clear explanations of a complex concept. Dr. Matlock admitted that some LCAs are difficult and may lead to varied conclusions, but the key is to "differ not disagree." Dr. Yuan and Dr. Rosentrater added examples to show how "differences are challenging, but valuable."

For more information about the publication and the webinar event, see page two below.

News and Views

USDA News: The Agricultural Marketing Service's [latest annual data report](#) says less than 1% of fruits and vegetables tested in 2020 had pesticide residues above EPA-established tolerances, and 30% had no detectable residue.

Supreme Court Case: The Supreme Court said they would hear one of the cases against the [Waters of the U.S. rule](#).

Ag Economics and Climate: A fish-industry study claims that the [economic losses stemming](#) from COVID-19 pale in comparison to costs related to climate change—and this report predicts [problems for certain crops](#) as world temperatures rise.

UC Davis scientists will use a USDA grant to help farmers and ranchers expand climate-smart practices.

Mississippi State University will host a graduate research experience program this summer as part of the MSU/USDA Advancing Agricultural Research through High-Performance Computing project.

University of Kentucky employees joined in to help with recovery efforts after Kentucky farmers endured a large path of destruction due to tornadoes.

CAST Social Media

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CAST welcomes ideas for future publications and projects.

Far Side of the Barn

Seeing Double—and More: Horses and cows get [cloned, as do pets—especially dogs](#). The costs also seem to be “cloned and doubled.”

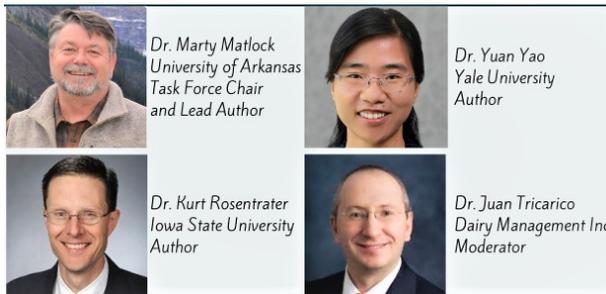


Manic Menus: Fast-food restaurants are offering [new items this month](#)—from a pizza-themed triple-treat box to a plant-based chorizo to many types of sandwiches.

“Spooky” Object in Space (video): Researchers in Australia located an [intriguing item about 4,000 light-years away](#) that mysteriously becomes one of the brightest objects in the sky for about one minute every 20 minutes.

CAST Updates

LCA Webinar Adds to Commentary's Impact



Dr. Marty Matlock
University of Arkansas
Task Force Chair
and Lead Author

Dr. Yuan Yao
Yale University
Author

Dr. Kurt Rosentrater
Iowa State University
Author

Dr. Juan Tricarico
Dairy Management Inc.
Moderator

CAST's new publication—*Goals, Strengths, and Limitations Governing the Use of Life Cycle Assessment (LCA) in Food and Agriculture*—was explained and discussed during a webinar viewed by hundreds of participants. CAST EVP/CEO Kent Schescke introduced the event, and a past president of CAST, Juan Tricarico (Dairy Management Inc.), was the moderator. Dr. Marty Matlock (University of Arkansas)—the commentary's task force chair—opened with an overview of the paper and the general tenets of life

cycle assessments. During a Q&A session, Dr. Matlock was joined by Dr. Yuan Yao (Yale University) and Dr. Kurt Rosentrater (Iowa State University) to provide plenty of insights and examples of LCAs. Check out the links below:

1. The [publication landing page](#): *Goals, Strengths, and Limitations Governing the Use of Life Cycle Assessment in Food and Agriculture*
2. A YouTube [video of the webinar](#)
3. A link to the [PowerPoint slides](#) for Dr. Matlock's presentation

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.

Nominations are open for the 2022 Borlaug CAST Communication Award



CAST
The Science Support for Food, Agricultural, and Environmental Issues
Nominate your candidate by February 7, 2022

Animal Agriculture and Environmental News

Potential COVID Breakthrough Involves Pigs: An Iowa State University study shows that [pig cells respond differently than human cells](#) when exposed to the COVID-19 virus. They apparently do not get coronavirus.

Bird Flu in the Wild: The USDA says laboratory tests confirmed two additional cases of [highly pathogenic avian influenza in wild birds](#) in the coastal Southeast.

Fighting Infections: A new study [developed tools](#) that will aid in understanding poultry infections.

Butterflies and Bees: Air pollution significantly [reduces pollination](#) by confusing butterflies and bees. Bees are also attracted to [sunflowers' indivisible colors](#).

CAST Bee Paper (related to above): Check out the CAST Commentary on [Why Does Bee Health Matter? The Science Surrounding Honey Bee Health Concerns and What We Can Do About It](#).



These dairy farmers explain how they [combat the cold and commit to weight gain](#) through proactive feeding strategies.

Food Science and Safety News

Prop 12 Ruling: A California judge ruled that Proposition 12 [enforcement on whole-pork sales](#) should be halted due to the state's two-year delay in finalizing regulations.

Real vs. Artificial: Your [gut can tell the difference](#) between real sugar and artificial sweetener—it isn't just a matter of taste.

A Raw Deal: A University of Nevada-Reno expert explains why [drinking raw milk](#) is not recommended.

Hunter Gatherers: A new study found that [risky food-finding strategies](#) could be the key to human success. Creative free time may have come from big meals that could be shared with the group.

Food Safety in Onions: Texas A&M researchers are [working to eliminate Salmonella contamination](#) of bulb onions, a problem that has caused several recalls.



Orange juice prices rise as demand grows, but the [supply is being squeezed by a "citrus greening" disease](#) affecting Florida's crops. The [University of Florida is doing research](#) as a part of the solution.

Plant Agriculture and Environmental News

Forest Ecosystems: Penn State University ecologists say tropical forest ecosystems have been modified by agroforests, but they can survive if they are [managed to support biodiversity](#).

Droughts and Deluges: USDA/ARS researchers are examining the [impacts of deluges during a drought](#) on forage production and carbon cycling in semi-arid grassland.

Hemp Research: Cornell University and USDA/ARS will [launch a webinar series](#) on hemp research.

Carnivorous Wildflower: A well-known wildflower is actually a secret carnivore. It uses its sticky hairs to [snare and digest insects](#).



Photosynthesis: A team of researchers discovered an imperfection in how Rubisco functions in cowpea, and how [they can improve it](#) across crops to increase productivity.

A scouting company is [deploying dogs to help](#) potato growers identify potato virus Y and bacterial ring rot in their fields and storages.

International News

Impressive Coral Reef Discovery (video): Divers [discovered a large, beautiful coral reef](#) at depths of 100 feet off the coast of Tahiti.

Protests: Farmers, cattle-breeders, and hunters descended on the Spanish capital of Madrid to [protest environmental and economic policies](#) that they say are hurting rural communities.

Poultry and Antibiotics: Some experts are hoping bacteriophages could aid in [alleviating antibiotic resistance in poultry](#) farming in Africa.

Agriculture in a Conflict Zone: The momentum of [wheat exports from Ukraine](#) slowed somewhat lately, but overall shipments remained higher on the year.

Diet and Health: Researchers in Spain say greater [adherence to the Mediterranean diet](#) is associated with a lower mortality in adults over 65.



Plans for the world's [first commercial octopus farm](#) are causing mixed responses. Last year, a film called "[My Octopus Teacher](#)" won the Academy Award for best documentary.

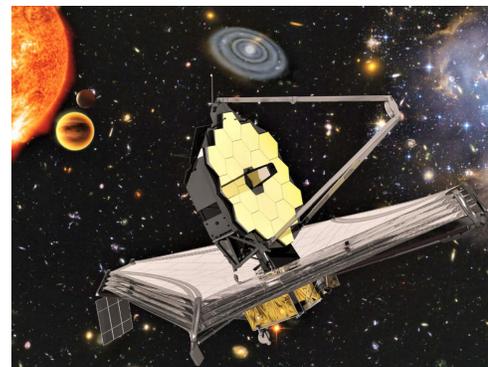
General Interest News

Aerial Vehicles: A North Carolina A&T State University expert will lead a project to [address gaps in flood extent mapping](#) capabilities by incorporating data gathered by unmanned aerial vehicles. Check out the CAST publication [Ground and Aerial Robots for Agricultural Production: Opportunities and Challenges](#).

Autism, the Cattle Industry, and Practicalities: This interview of [livestock expert Temple Grandin](#) features her style of approaching problems with practical applications.

Blue Eyes: A study found that people with blue eyes have a [single, common ancestor](#). A genetic mutation that occurred 6-10,000 years ago is the cause of all blue-eyed humans.

Moving Back Home or Away? Iowa State University researchers identified [three significant factors](#) that draw people back to their hometowns.



The [James Webb Space Telescope](#), the most powerful telescope ever built, reached its final destination in space. Now comes the fun part.

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- * American Meat Science Association
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- * 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
- * The Minor Use Foundation
- * 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
- * Zoetis

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The Science Source for Food,
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