Friday Notes









April 5, 2024

Kicking Off National Volunteer Month

April is National Volunteer Month, a time to celebrate the selfless efforts of individuals who dedicate their time and skills to bettering their communities, helping the people around them, and supporting causes that they care deeply about. This month, CAST will recognize and highlight volunteers in the agricultural sector on Friday Notes, social media, and on our website.

National Volunteer Month recognizes current volunteers and calls others to begin their volunteering journey (learn more about National Volunteer Month from Points of Light.) Not only does volunteerism benefit the general public, but it has also been shown to positively affect a <u>person's health</u>. Research has shown that volunteering reduces stress, increases feelings of belonging, and assists in the formation of new relationships.

The agricultural sector, in particular, benefits immensely from volunteerism. Volunteers contribute to various activities, from planting and harvesting crops for food banks to participating in programs that teach young people about agriculture and environmental stewardship. This April, look into volunteer opportunities through your local extension offices, 4-H and FFA programs, Farm Bureau, or other agricultural entities that need assistance from community members like yourself.

At the Council for Agricultural Science and Technology (CAST), volunteerism is a cornerstone of our mission. Nearly 200 active task force members are currently working on CAST reports yet to be released. Our volunteer scientific experts, including authors and reviewers, have contributed immensely to our work, with more than 1,800 volunteers since 2008.

We invite you to join our community of dedicated volunteers at CAST. Whether you're a scientist, researcher, or simply passionate about agriculture, your expertise and enthusiasm can make a significant impact. Together, we can advance the understanding and application of science in agriculture to benefit society. If you're interested in volunteering with CAST, please visit our website or contact us for more information.

Upcoming Events

April 8-10

Join the National Institute for Animal Agriculture (NIAA) for <u>The Next Generation of Animal Agriculture</u> conference in Kansas City. The event's agenda was updated due to recent news of Highly Pathogenic Avian Influenza. Brandon Treichler, DVM, Bud Dinges, DVM, and Chang-Won Lee from the USDA will present at the Animal Disease Issues & Emergency Management Council meeting.

April 23 - 12:30 to 1:30 PM EST

Join the National Coalition for Food and Agricultural Research (NCFAR) in Washington, DC, for <u>The Next Agricultural Revolution: Targeted Gene Editing Using CRISPR</u> educational session. Learn about the transformative potential of gene editing and CRISPR

in agriculture, including benefits, challenges, and the role of federal research and public-private partnerships. Lunch will be provided for attendees!

News and Views

USDA: The USDA (1) is making \$1.5 billion available to help farmers advance conservation and climate-smart agriculture, (2) <u>published a report</u> that provides farmers, ranchers, and forest landowners with the methods and tools needed to assess their operations' greenhouse gas (GHG) footprint, and (3) is accepting applications from eligible organizations for fiscal year 2025 funding for five <u>export market</u> development programs.

CAST News

PAPER RELEASE

FIFRA, ESA, and Pesticide Consultation: Understanding and Addressing the Complexities

- 🛗 Wednesday, April 17, 2024

Croplife & Rise Regulatory Conference - Washington, DC

REGISTER NOW



CAST to Release Comprehensive Paper on FIFRA and ESA at the CropLife & RISE Regulatory Conference

The Council for Agricultural Science and Technology (CAST) announces the release of a compilation paper, "FIFRA, ESA, and Pesticide Consultation: Understanding and Addressing the Complexities," during the CropLife & RISE Regulatory Conference in Washington, DC, on April 17.

Join us in **Studio D from 1-2:30 PM EST** for the paper release and panel discussion with Bernalyn McGaughey (Compliance Services International), Stanley Culpepper (University of Georgia), Ashlea Frank (Compliance Services International), Michael Aerts (Florida Fruit and Vegetable Association), Leah Duzy (Compliance Services International), and Austin Gellings (Association of Equipment Manufacturers - AEM).

This paper is the culmination of a series of six webinars that explored the pivotal roles of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Endangered Species Act (ESA) in striking a balance between agricultural efficiency, environmental sustainability, and regulatory stability. The webinars, which began on November 28, 2023, brought together experts from various fields to discuss the challenges, legal aspects, scientific advancements, economic strategies, and complexities surrounding pesticide consultation processes.

The titles and focuses of the webinars were as follows:

- 1. FIFRA and the Endangered Species Act: Finding a Balance History and challenges of FIFRA and the ESA.
- 2. A Legal Discussion of the FIFRA/ESA Consultation Process Over Time Legal aspects and the EPA's consultation process.
- 3. Improving the Science Behind the Process The impact of pesticides on endangered species and streamlining the FIFRA/ESA process.
- 4. Developing and Adopting Economically Effective Mitigation Strategies Pesticide registration, conservation programs, and land management best practices.
- 5. FIFRA, ESA and Pesticide Consultation: Understanding and Addressing the Complexities Issues in pesticide use labeling and potential solutions.
- 6. State Regulatory Agencies as Conduit for Informing Local Conditions in Federal Pesticide Processes Responsibilities of pesticide State Lead Agencies and suggestions for improving pesticide program activities related to the ESA.

This initiative is part of CAST's commitment to enhancing knowledge and fostering informed discussions on key agricultural issues. We invite all stakeholders, policymakers, scientists, and industry professionals to join us in Washington, DC, for the release of this significant paper, which promises to provide valuable insights and recommendations for the future of pesticide consultation processes.

Register Now



Thank You for a Successful Webinar on "Applications, Benefits, and Challenges of Genome Edited Crops"

We want to thank all the participants who joined us for the webinar release of "Applications, Benefits, and Challenges of Genome Edited Crops." Their active participation and insightful questions made the event a great success!

We're grateful to our presenters, Sarah Evanega (Okanagan Specialty Fruit and Cornell University) and David Ertl (Iowa Corn Growers Association), for sharing their expertise and valuable insights. We also want to thank our panelists for their contributions to the discussion.

The webinar recording, the paper, and the presentation slides are now available on our website.

Visit Our Website

Upcoming Paper Releases

April 17 [In-person rollout in Washington, DC] Full release of all six papers in the FIFRA-ESA series

May 15 [In-person rollout in Ames, IA] Soil Health and the Hydrologic Cycle

Animal Agriculture and Environmental News



Biosecurity Plan Review Urged for Dairy and Beef Cattle Operations

Michigan State University Extension urges dairy and beef cattle operations to enhance biosecurity measures following HPAI findings.



HPAI Detected in Cattle at Idaho, Michigan Dairy Farms

Dairies had imported cattle from states recently confirming cases, but no immediate human health concerns were identified.

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USDA Implements Rule to Strengthen Country-of-Origin Labeling for Meat and Poultry

New regulations will ensure "Product of U.S.A." labels only apply to goods from animals born, raised, and slaughtered within the U.S., benefiting American farmers and providing clearer information to consumers.

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PAPER RELEASE

PREVENTING THE NEXT PLANT INVASION: OPPORTUNITIES AND CHALLENGES

DOWNLOAD NOW



Food Science and Safety News



Rice Malt Emerges as a Potential Game-Changer in Beer Brewing

A University of Arkansas study reveals robust fermentations, unique flavors, and economic benefits of malted rice in brewing. It offers gluten-free options and a sustainable alternative to barley amid raw material shortages.

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Researchers Shed Light on How Listeria Persists in Food Preparation Environments

Scientists uncover stable bacterial populations on factory floors despite cleaning efforts, highlighting challenges in combating foodborne pathogens.





Scientists Unlock Secrets of Osmia lignaria, Key Pollinator in Almond Industry

A USDA-ARS study reveals the genetic secrets of the blue orchard bee, aiding the almond industry and pollination management.

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CAST Paper Alert!

CAST published the paper "Why Does Bee Health Matter? The Science Surrounding Honey Bee Health Concerns and What We Can Do About It" in 2017. The paper focused on the importance and severe decline in honey bee health and its implications for agriculture.



Plant Agriculture and Environmental News



Corn Roots Release Compounds to Reduce Arsenic Toxicity in Soil

A study reveals that benzoxazinoids are key to less arsenic uptake in corn, offering hope for safer agriculture in contaminated areas.

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CAST Paper Alert

CAST will release the paper "Soil Health and the Hydrologic Cycle" on May 15 during an in-person event in Ames, IA. More details will be announced soon.



AI and Deeper Roots Enhance Soil Carbon Storage

The synergy between deeper roots, AI, and remote sensing in enhancing soil carbon sequestration offers a path towards sustainable agriculture and climate change mitigation.

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Mechanical Forces Drive Plant Wound Healing

A new study by the Institute of Science and Technology Austria sheds light on how plants close wounds, showcasing the role of mechanical forces in guiding cell division orientation for effective healing.

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NEW CAST PAPER

RNA INTERFERENCE IN AGRICULTURE:
METHODS, APPLICATIONS, AND GOVERNANCE





International News



Textiles and Food Packaging Identified as Major Sources of PFAS Contamination in Yangtze River

A pioneering study reveals the extent of PFAS contamination across Asia's longest river, highlighting the urgent need for monitoring and control measures.

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Mexico's Farm Labor Shortage Worsens as Workers Flock to U.S.

Young Mexicans shun agricultural work, opting for opportunities across the border, leaving the country struggling to fill farm jobs.

Read More

U.S.-Ireland Research Partnership Tackles Key Agricultural Challenges

The USDA-funded collaboration aims to address Bovine Respiratory Disease and enhance pig health, impacting animal welfare and industry sustainability in the U.S., Republic of Ireland, and Northern Ireland.

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General Interest





Purdue Research Reveals 12% of U.S. Households Face Food Insecurity, Despite 40% Food Waste

The study highlights the urgent need for tech solutions to improve food distribution and reduce hunger.

Read More



U.S. Cotton Mills Rapidly Closing: Only 100 Remain Out of Nearly 900 in 1890s

Shifts in trade deals and de minimis policy are blamed as demand plummets, leaving farmers vulnerable to export market fluctuations.

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Baltimore's Key Bridge Collapse Threatens Agricultural Export Route

With significant volumes of agricultural exports passing through Baltimore's port, the collapse of the Key Bridge raises concerns about the impact on farmers' access to international markets.

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CAST <u>welcomes ideas</u> for future publications and projects.

Send your thoughts and stories for Friday Notes to <u>fridaynotes@cast-</u> <u>science.org</u>

Credits

Beer study photo by U of A System Division of Agriculture - John Lovett

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Purpose

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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