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Did You Know?

[Click here for HTML version.](#)

Please submit story ideas and national award items to Mina Chung, mina.chung@ars.usda.gov, or call 301-504-1653.

Blocked by Drop Box? Use ARS FTP System!

Are you blocked from using Drop Box? A new File Transfer Protocol (FTP) site is now available as an ARS collaboration tool. The secure FTP site allows ARS employees to upload large files to be used anywhere without VPN just by going to <https://ftp.arsnet.usda.gov>. No additional software is needed. Files can be shared with your ARS colleagues and those outside the agency.

To learn how to use the ARS FTP system, go to <https://ars.arsnet.usda.gov/help> and click on the link below FTP Resource, "How to Use the ARS FTP System." For additional assistance and support, contact your servicing IT Specialist. ❀



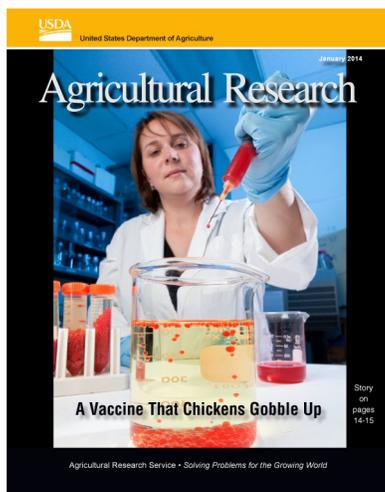
www.ars.usda.gov/yourtwocents

Your Two Cents (Y2C)

Happy New Year from your colleagues at [Your Two Cents \(Y2C\)](#)! We are happy to report that we have replenished our response team members and have attacked the backlog of unanswered ideas on the site with great enthusiasm and success. We are now all caught up, and our New Year's resolution is to stay that way. We thank all our readers who have patiently stuck with us. Please keep writing in and using [Y2C](#) to share best practices and get your questions answered.

More good news: we are making progress on Axon—the new ARS Intranet. Axon development is going according to plan. As you may recall, the site was close to launching, but technical issues beyond ARS's control caused a delay. The Intranet Team is working hard to resolve these issues, and Axon is on schedule to launch this spring.

The [Cultural Transformation \(CT\)](#) Team is working on the [CT Action Plan](#) for 2014. ARS's enhanced communication efforts are evident in the new initiatives introduced in last month's webcast, as well as in the continued use of [Y2C](#). Forming strong communication throughout the agency will help ensure the success of [CT](#) efforts in ARS in the coming year. ❀



We're celebrating this month! The January issue of *Agricultural Research* magazine marks the 700th edition of the publication. The first issue was published in January 1953. Many thanks to our hardworking magazine staff—Information Staff writers, editors, graphic designers, and photographers—

scientists, and others who have over the years tirelessly helped spread the word to the American public about ARS's scientific achievements! Although the last printed edition of the magazine was the May/June 2013 issue, you can read about the latest ARS research accomplishments, milestones, and discoveries from our esteemed scientists [online](#). Don't miss an issue! Sign up to receive a monthly [e-mail alert](#) when a new issue becomes available. ❀

Around ARS

The Poplarville High School STEM (Science, Technology, Engineering, and Math) classes visited ARS's Thad Cochran Southern Horticulture Laboratory in Poplarville, MS, on November 22, 2013. Some 120 students toured the research facility and learned about important and exciting research happening right there in their hometown. The 9th graders attended talks by ARS scientists about a variety of subjects including plant breeding, plant genetics, insect pollination, automated greenhouses, and engineering principles applied in agriculture. ❀



Participants at the Deployed Warfighter Protection (DWFP) Program annual review meeting.

On December 12, 2013, the Deployed Warfighter Protection (DWFP) Program celebrated its 10th anniversary during its annual review meeting at the ARS Beltsville Agricultural Research Center in Beltsville, MD. The event featured hands-on displays of products resulting from ARS research to prevent insect-borne diseases in U.S. military personnel. DWFP is managed by the Armed Forces Pest Management Board and supplements the funds of five ARS labs for specific projects to help support this program. ❀

At the [2014 Agricultural Outlook Forum](http://www.usda.gov/oce/forum/) on February 20-21 in Arlington, VA—an annual event sponsored by USDA—work by ARS scientists on nanotechnology and citrus greening will be highlighted in two sessions. The Forum addresses current agricultural issues and brings together the agricultural, political, and diplomatic communities from around the world. ARS will be hosting an exhibit at the event. For more information, visit <http://www.usda.gov/oce/forum/>. ❀

Notable Awards

Several ARS employees, past and present, were recognized at the 65th Annual USDA Secretary's Honor Awards Ceremony on December 11, 2013, in the Jefferson Auditorium of the USDA South Building, Washington, DC. The theme this year was "Serving a Modern, Innovative, and Inspiring Rural America." The most prestigious awards presented by USDA, the Secretary's Honor Awards Program recognizes outstanding contributions to agriculture, the environment, consumers, and rural America.



From left, Agriculture Secretary Tom Vilsack, Martina Lydon (accepting an American flag in honor of her late husband John Lydon, ARS National Program Leader for Weed Science), and Agriculture Deputy Secretary Krysta Harden. Photo by Lance Cheung.

John Lydon, ARS National Program Leader for Weed Science, Beltsville, MD, was posthumously honored for his service and sacrifice in the performance of his duty while supporting USDA's mission. Martina Lydon received an American flag at the award ceremony in memory of her late husband. Lydon passed away on October 19, 2012, from injuries sustained in a car crash while traveling to Parlier, CA, to meet with his ARS colleagues.

Hydrologist **Thomas J. Jackson**, ARS Hydrology and Remote Sensing Laboratory, Beltsville, MD, received the Presidential Rank Award for Meritorious Senior Professional for sustained superior accomplishment in conducting U.S. Government programs and for noteworthy achievement of quality and efficiency in the public service.



Thomas Jackson.



From left, USDA Secretary Tom Vilsack, ARS Research Plant Pathologist Carolee Bull, and USDA Deputy Secretary Krysta Harden. Photo by Lance Cheung.

Research Plant Pathologist **Carolee T. Bull**, ARS Crop Improvement and Protection Research Unit, Salinas, CA, received a Secretary’s Honor Award for innovative program development and outstanding mentoring—priming the workforce pipeline with minority and women undergraduate researchers in the Salinas Valley of California. Bull also was honored by Hartnell College President Willard Lewallen and the Hartnell College Board of Trustees at their January 14 board meeting for

her Secretary’s Honor Award and for developing the next generation of leaders and scientists through exemplary mentorship of Hartnell College students.

Retired ARS Deputy Administrator **Mary “Molly” M. Kretsch**, Nutrition, Food Safety/Quality, Beltsville, MD, received the Presidential Rank Award for Distinguished Executive in the Senior Executive Service for sustained extraordinary accomplishment in managing U.S. Government programs and for leadership exemplifying the highest standards of public service.

Retired Supervisory Research Geneticist and Research Leader **Kenneth P. Vogel**, ARS Grain, Forage and Bioenergy Research Unit, Lincoln, NE, received the Secretary’s Award for Personal and Professional Excellence for scientific excellence in grasslands and bioenergy production systems. A member of the ARS Science Hall of Fame, Vogel is widely considered the foremost switchgrass expert in the world.

The [Ogallala Aquifer Program](#), a research-education consortium led by ARS laboratories in Bushland and Lubbock, TX, received the Secretary’s Award for Enhancing the Economic Vitality and Quality of Life in Rural America. The program’s leadership team is made up of five ARS scientists at the Bushland and Lubbock locations as well as eight scientists at Kansas State University, Texas A&M University, Texas Tech University, and West Texas A&M University.

The **H7N9 Avian Influenza Research Team** received the Secretary’s Award for Heroism and Emergency Response for coordinating ARS–APHIS response to the Chinese H7N9 avian influenza outbreak by providing critical scientific data necessary for control and diagnosis of the virus nationally and internationally. The team is made up of 14 ARS scientists and 6 APHIS scientists. ❀

On December 23, 2013, President Barack Obama named Research Plant Geneticist **Steven Cannon** at ARS’s Corn Insects and Crop Genetics Research Unit in Ames, IA, one of the 102 recipients of the Presidential Early Career Awards for Scientists and Engineers (PECASE). The award is the highest honor the U.S. Government bestows on scientists and engineers in the early stages of their careers. President Obama called the winners’ achievements “impressive” and “promising indicators of even greater success ahead.” Cannon was the 2013 winner of ARS’s Herbert L. Rothbart Outstanding Early Career Research Scientist and thus automatically became the ARS nominee for PECASE. President Bill Clinton established the awards in 1996 to honor innovative research and commitment to community service through scientific leadership, public education or community outreach. ❀



Steven Cannon.



Photo Corner



Steve Shafer, Director of the ARS Beltsville Agricultural Research Center (BARC), served homemade soup, hot dogs, and other crowd-pleasing selections at a Combined Federal Campaign fundraiser at BARC on January 14. Photos by Tina Paul.

Did You Know?



Sometimes we may take for granted the many food-related conveniences we enjoy every day. Frozen foods are one of those modern-

day conveniences that we tend not to think about. The freezer section in many grocery stores can span two or more aisles with everything from quick-frozen fruits and vegetables to meat, poultry, and seafood, to completely prepared meals and desserts—including classic comfort foods. Today, you can also find fully prepared dishes like ready-to-bake chicken potpies, beef stew, chicken and dumplings, and classic apple pies. You can even find “homemade” bread ready to thaw and bake—even Grandma would be envious of these gems!

More than 80 years ago, American inventor Clarence Birdseye—I’m sure you’ve heard the name—started the frozen food industry in 1925, when he quick-froze fish on a refrigerated moving belt. This innovation started an entirely new industry. Large-scale commercial production of frozen foods began a few years later, when a major processor bought Birdseye’s patents and began marketing frozen fruits and vegetables. The quality of frozen foods then wasn’t what it is now, yet the frozen foods industry grew slowly but steadily. A resurgence of refrigerators and home freezers just after World War II increased demand for frozen food and spurred its production to more than one billion pounds.

With increased product demand came increased consumer demands for higher quality foods. Consumers complained about the loss in flavor and changes in color and texture. The industry also had its own concerns about the safety and nutritional value of frozen foods and came to **ARS’s Western Regional Research Center (WRRC)** in Albany, CA, for help in the late 1940s.

WRRC scientists began the Time-Temperature-Tolerance (TTT) Project, whose goal was to improve frozen food. WRRC scientists built a freezer plant to conduct experiments to test the food freezing process. The Center houses a full-scale pilot plant that allows researchers to simulate real-world food processing/manufacturing processes. They began testing every step in the process, including selecting the right crop variety, crop handling

between field and plant, blanching and freezing, packaging and storing, and transporting products to the market. This project allowed ARS scientists to help the industry solve production problems. The scientists tested frozen fruit, orange juice, vegetables, poultry, prepared food, and bakery items. ARS scientists’ creativity led to the invention of processing equipment to improve frozen products and frozen food standards and practices that helped ensure the survival and growth of America’s frozen food industry.

On December 11, 2002, the American Chemical Society (ACS) designated WRRC [National Historic Chemical Landmark](#) standing for its groundbreaking frozen foods research related to Time-Temperature Tolerance. Incidentally, WRRC received its second ACS Landmark recognition in August 2013 for its pioneering research in flavor chemistry—the only research center to have received two of this highly regarded award.

Today, we get to enjoy the unbelievable variety of high-quality frozen foods that are safe and nutritious—all thanks to ARS scientists!

Want to know which frozen fruits and veggies provide the most nutritional value? Read the January 2, 2014, article in *Men’s Health*, “The 5 Best Frozen Fruits and Vegetables Today,” which is based on information from ARS National Program Leader Gene Lester. Also, coming in 2014 is the newly updated and expanded ARS publication, *The Commercial Storage of Fruits, Vegetables, and Florist and Nursery Stocks* (Agriculture Handbook 66)—a general reference guide for safe handling and storage (including of frozen foods) of fresh fruits, vegetables, cut flowers, and other horticultural crops.

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