



New Year's greetings to you all!

I want to extend my sincere gratitude and appreciation to each of you for your ongoing hard work and dedication to this Agency and to the American public, as we continue to develop new science information and technologies to help U.S. agriculture meet the nation's and world's food and biobased product demands in sustainable ways. This past year we faced some challenging times, but we made it through them together. As a result, we have come out more strategically focused.

With Congress' passing of the *American Taxpayer Relief Act of 2012*, on January 1, 2013, our nation avoided some critical aspects of the "fiscal cliff." Though we still face fiscal uncertainties ahead—including awaiting the outcome of Congressional actions on potential sequestration delayed until March 2013, the FY 2013 continuing resolution budget still in place through March, and a new Presidential budget proposal for FY 2014 (scheduled to be presented to Congress in February)—the future of agricultural science remains strong. The Agency leadership has worked diligently to develop strategies

to address resources at various funding levels that will ensure continued programmatic and operational efficiency for our Agency in the near term while maintaining a strong core capacity to build upon for long-term global food security and society needs.

Bolstering the optimism about agricultural science was an important report issued just last month by the President's Council of Advisors on Science and Technology. This report, entitled "Agricultural Preparedness & the United States Agricultural Research Enterprise," called for significant new public investments in agricultural research to address seven grand challenges that our nation and world face in the years ahead regarding agricultural production and environmental sustainability as a result of an increasing population and demand for food—managing new pests, pathogens, and invasive plants; increasing water use efficiency; reducing agriculture's environmental footprint; growing food in a changing climate; managing bioenergy production; producing safe and nutritious food; and assisting with global food security and maintaining abundant yields. ARS research programs already are perfectly aligned with these challenges, and we are maintaining a strong position to continue to contribute to finding solutions to them.

Our collective scientific/professional expertise and resulting successes exemplify what ARS does best. Take a look at last month's [newsletter issue](#), which highlighted three distinguished Science Hall of Fame inductees—Donald Knowles, Kenneth Vogel, and Larry Cundiff. Their career-long research contributions have changed modern agriculture production in various ways. Additionally, the "Notable Awards" section of each issue of *ARS & You* provides other examples of the extremely significant and important contributions that other ARS staff have made to American farmers, the American public and the world.

With respect to internal ARS operations, an initiative I am supporting is to enhance communication so that all employees are aware of and informed in a timely and consistent manner about new ARS operations, practices, policies, news, etc. that affect the workforce and workplace. To that end, please look for new products coming in 2013, including an Intranet "bulletin board" designed to serve as a centralized resource/communication tool accessible to all ARS employees. This Intranet is designed to provide an open platform that will help improve employee knowledge gaps, increase access to information, improve and streamline business efficiencies, encourage cross-organizational information sharing and collaboration, and foster a sense of community—ultimately helping employees achieve the Agency's mission.

Also, coming this year, the ARS Web site will get an overhaul and a new look. The new Web site redevelopment will complement the Department's Web and communication efforts. Many of the site's new features and content organization will make it easier for ARS customers and stakeholders to find information in a logical, easy-to-navigate way.

As always, I am excited and optimistic about ARS' future and look forward to our outstanding scientific contributions, as we work together to meet future agricultural research needs.

Sincerely,

Ed Knipling

In This Issue:

Your Two Cents

Around ARS

Notable Awards

Did You Know?

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



ARS Web Gets an Overhaul This Year

The ARS Web site will get more than just a facelift this year. In the coming months, the Agency will launch its new Web site—its first major overhaul since 2005. Through visuals, wording and content organization, the new ARS Web site will serve as the gateway to the Agency's scientific research and identity. It will provide ARS customers and stakeholders clean, easy-to-use navigational features to help them find what they need—items listed in multiple locations, popular topics, quick links and more. Many features will capitalize on the vast assortment of value-added tools and resources that ARS already has to offer. The new Web design complements the Department's objectives of strengthening customer service and supports the "One USDA" communication brand messaging. Look for more information in the coming months! ❀

Your Two Cents (Y2C)



www.ars.usda.gov/yourtwocents

Happy New Year to everyone! The new year is going to be a year of change in our agency, and we are going to make it "change for the better" for sure! The ARS [Cultural Transformation \(CT\)](#) team is finishing the new CT Action Plan, outlining the continued transformation of ARS improvements to business processes, enhancements to [Your Two Cents \(Y2C\)](#) and the ARS Intranet. We are continuing to implement improvements suggested at the Y2C Summit. If you haven't had a chance to do so yet, click [here](#) to watch an interview with ARS Associate Administrators Chavonda Jacobs-Young and Caird Rexroad, and see what they and other ARS leaders said about Y2C. ❀

Around ARS



Engineering Equipment Operator **Danny Henson** (left) and Agricultural Science Research Technician **Brent Woolley** purchase an entire meal for a local family on Christmas Eve.

Four years ago Engineering Equipment Operator **Danny Henson**, ARS Dale Bumpers Small Farms Research Center (DBSFRC), Booneville, AR, saw a television program about a charitable group

giving to those in need over the holidays, and he felt inspired to start a similar program with the help of his coworkers. Employees at the DBSFRC and the co-located NRCS Booneville Plant Materials Center soon started to contribute toward this effort. Each year, their collection goes toward buying a meal for an entire family in need, with any extra cash given to the family as a gift. Since 2008, ARS and NRCS employees in Booneville have joined forces to make this an annual tradition, culminating in Henson and his coworkers surprising the family in person on Christmas Eve. Last year's family was living in an

apartment and had no Christmas meal when the big surprise arrived. The family members were quickly moved to tears when they learned that the strangers bearing gifts were from the USDA centers in the area. Henson and his coworkers all can feel good that each year, their generosity and effort enable at least one needy family in the local community to feel the spirit of the season. ❀

On January 24, ARS Mid South Area (MSA) locations participated in the Employer Support of the Guard and Reserve Job Fair at the Sablich Center, Keesler Air Force Base, Biloxi, MS. Companies were invited to participate in the job fair free of charge, which was open to service members and their spouses seeking employment. As a way to help support our military and their families and thank them for the sacrifices they make each day to protect us, the job fair was designed to expose National Guard/Reserve personnel to diverse career opportunities and real-world experiences of seasoned professionals from MSA locations in New Orleans, LA, and Poplarville, MS. ❀

For three weeks in fall of 2012, eight students from Forest Park High School in Baltimore, MD, were mentored by seven ARS employees and one FSIS employee as part of a partnership between the ARS Office of Outreach, Diversity, and Equal Opportunity (ODEO) and the University of Maryland's Institute of Minority Achievement & Urban Education program. A small percentage of the students in this program may participate in paid internships funded by the University of Maryland at corporations and Federal agencies. ❀



Student mentees, their ARS mentors and ODEO staff.

In commemoration of the 150th anniversary of the USDA, the National Agricultural Library selected several historic treasures from its Special Collections to receive special



conservation treatment. Two such candidates are the [Frank N. Meyer certificate](#) and [Charles Valentine Riley's sketchbook](#), *Natural History of Insects*. The [Frank N. Meyer certificate](#) of 1905 was carried by USDA Plant Explorer Frank Meyer (1875-1918) on an expedition to Asia for the USDA's Office of Foreign Seed and Plant Introduction. Dated 1858, *Natural History of Insects* was handwritten and hand-illustrated by [Charles Valentine Riley](#) (1843-1895), USDA's second chief entomologist. The volume contains a collection of essays on several insect species, illustrated with paintings and pen-and-ink drawings made by Riley while in his teens. ❀

Notable Awards

Twelve scientists with the ARS Meat Safety and Quality Research Unit, Clay Center, NE, were selected for the Scientific Achievement Award from the American Meat Institute Foundation for their distinguished commitment to research benefiting the meat industry. The scientists are Research Leader **Tommy Wheeler**; Research Microbiologists **Terry Arthur**, **Elaine Berry**, **Jim Bono**, **Mick Bosilevac**, **Dayna Harhay**, **Nor Kalchayanand**, **John Schmidt**, **Rong Wang**, and **Jim Wells**; and Research Food Technologists **Andy King** and **Steven Shackelford**. The group will be recognized on January 30. ❀

On January 15 in an award ceremony in the Jefferson Auditorium, USDA South Building, Washington, DC, the following ARS employees were presented the 2013 USDA National Service Day Award, honoring the life and service of Dr. Martin Luther King, Jr.: Information Technology Specialist **Sandra Ball**, National Agricultural Library, Beltsville, MD; Animal Scientist **Kim McMunn**, ARS Livestock Behavior Research Unit, West Lafayette, IN; and Research Entomologist **Matthew L. Richardson**, ARS U.S. Horticultural Research Laboratory, Fort Pierce, FL. ❀

Did You Know?



Snow can cause trouble for slip-sliding motorists, headaches for parents scrambling for child care on school snow days, and backaches for couch potatoes forced to shovel snow from their sidewalks.

But did you know that snow plays a crucial role in agriculture by providing a valuable source of irrigation water in the arid West? ARS scientists are carefully studying how future climate change could reduce mountain snow levels, and they are developing crop management strategies to capture more melting snow on crop fields.

At an ARS mountain observatory in Idaho, researchers found that over the past 50 years, climate warming is causing it to rain more—and snow less—at the Reynolds Creek Experimental Watershed near Boise. The most profound changes are at lower elevations, which saw a shift from 44 percent snow to 20 percent. That means more stream flow in winter and less in spring, when crops need water.

ARS scientists at Boise say it's more important than ever to monitor changing weather and its impact on water resources. If warming trends continue and mountain snowpack declines as predicted, agriculture in the arid West will become more challenging.

Accordingly, ARS researchers in Pullman, WA, are looking at how conservation practices can trap snow. They found that a smooth blanket of snow in the winter can help boost dryland crop productivity in the

summer—and that no-till crop management is one way to ensure that snow stays on fields, rather than being blown away by winter winds.

Pullman scientists found that standing wheat residue on a no-till farm significantly increased the amount and uniformity of snow cover across the entire field. Snow depths on the no-till field averaged 11 inches, compared with 8.5 inches on conventionally tilled fields nearby.

The researchers calculated that the greater storage of soil water in no-till systems could increase winter wheat yield potential by 13 bushels per acre on ridge tops, 6 bushels per acre on south-facing slopes, and 3 bushels per acre in valleys.

So the next time you dread that winter snowstorm, remember that ARS scientists continue to play a key role in making sure that this valuable resource is available for farmers who produce our food. So let it snow, let it snow, let it snow!

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