



## In This Issue:

Your Two Cents

Around ARS

Notable Awards

Did You Know?

[Click here for HTML version.](#)



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

## Say "Cheese"!

We're looking for interesting photos of ARS employees at work and in action to publish in the *ARS & You* "Photo Corner" and to possibly post on the ARS Twitter feed. Turn on your digital device and snap away! Please submit your high-quality photos and captions to [carol.nathan@ars.usda.gov](mailto:carol.nathan@ars.usda.gov)! ❀



[www.ars.usda.gov/yourtwocents](http://www.ars.usda.gov/yourtwocents)

## Your Two Cents (Y2C)

We here at [Your Two Cents](#) (Y2C) are excited about the overwhelming response to both our "[Name the ARS Intranet](#)" and "[Check in With ARS](#)" activities. We asked our readers to come up with possible names for the ARS Intranet—set to launch October 1—and we got 22 suggestions. You can see the suggested names that received the most votes listed in a [poll](#) on Y2C. We also asked you to check in and let our leadership and colleagues know what you were excited or concerned about. We got 27 responses, and they will be shared at the next Administrator's Council meeting. As always, the [Cultural Transformation Team](#) wants to hear from you, so please continue to [email](#) us and let us know your plans and activities! ❀

## Around ARS

This June, 12 high school students enrolled in the Native American Summer Institute, a partnership between the University of Arizona and ARS's Carl Hayden Bee Research Center (CHBRC) in Tucson, AZ. The students learned about honey bees and the mathematics behind colony population dynamics by running simulations using the BEEPOP model developed at CHBRC. ARS Research Leader **Gloria DeGrandi-Hoffman**, CHBRC, who designed the BEEPOP model, helped develop the curriculum for this year's program, which ran June 10-14. The students also gained hands-on experience by seeing live honey bees at CHBRC. Begun in 1996, the Native American Summer Institute resumed this summer after a hiatus.



Gloria DeGrandi-Hoffman and students from the Native American Summer Institute.



Students from the Native American Summer Institute learn all about bees. ❀

During July 8-11, 2013, a group of Haitian agricultural specialists from the Ministry of Agriculture, Natural Resources, and Rural Development and fruit producers visited the **ARS Tropical Agriculture Research Station (TARS)** in Mayagüez, Puerto Rico, to learn about the tropical fruit research program at TARS and visit local fruit producers and processors. The trip was sponsored by the Inter-American Institute for Cooperation on Agriculture to assist Haiti's fruit sector in research and development of tropical fruit crop production systems and development of new markets for tropical fruit crops. ❀



Symposium attendees visit a pecan orchard in College Station, TX.

The 1st International Symposium on Pecans was held July 17-20, 2013, in College Station, TX, home to the symposium organizers—the ARS **Pecan Breeding and Genetics Unit**, Texas A&M University, and the Texas Pecan Growers Association. The symposium brought together pecan researchers from several nations—including China, Mexico, and Argentina—for the first time. There was great international interest in the symposium because of its emphasis on adopting new molecular tools. Research Horticulturist **Larry "LJ" Grauke**, ARS Crop Germplasm Research Unit, College Station, TX, led a well-attended pre-conference tour of the ARS Pecan Breeding and Genetics Unit and the Texas A&M Pecan Orchard. ❀

On July 10-11, 2013, a group of 40 Contra Costa County biotechnology summer camp students visited the ARS **Western Regional Research Center (WRRC)** in Albany, CA. The students attended talks about ongoing ARS research and visited different WRRC labs and units, including the ARS Crop Improvement and Utilization Research Unit to experience promoter genes in action and the rooftop greenhouse to learn about guayule, castor, wheat, and switch grass research. They also toured the newly renovated Food Processing Lab and enjoyed a hands-on demonstration of the iconic, circa-1940s mechanical apple slicing machine. ❀

The SNAP-Ed Connection Team and the Web & Reference Team, part of the National Agricultural Library's **Food and Nutrition Information Center** (FNIC), exhibited during August 9-12 at the [Society for Nutrition Education and Behavior](#) Annual Meeting in Portland, OR. The conference typically reaches 600+ nutrition educators, many of whom work in extension offices and support Supplemental Nutrition Assistance Program (SNAP) and other Federal food assistance program nutrition education. The SNAP-Ed Connection Team highlighted the redesigned Photo Gallery, Recipe Finder Database, and Build a Cookbook feature. The Web & Reference Team demonstrated FNIC products and services. ❀

During June 19-22, 2013, a group of high school students from Oregon and Idaho attended the 3rd annual High Desert Youth Range Camp at ARS's **Northern Great Basin Experimental Range** near Burns, OR. ARS's **Eastern Oregon Agricultural Research Center**, Burns, OR, partnered with Oregon State University and Treasure Valley Community College to develop a meaningful science-based curriculum for the camp. The camp focuses on natural resources and rangeland management through hands-on learning activities and has become an annual event offered to high school students from across the West. This year, students successfully completing camp obtained two Natural Resource credits from Treasure Valley Community College. A number of students also received awards for their knowledge, leadership, and presentation skills. ❀

Safety and Occupational Health Specialist **Shanna Henk**, ARS National Center for Genetic Resources Preservation, Fort Collins, CO, recently received a letter of appreciation from Sen. Mark Udall of Colorado in recognition of ARS's contributions as a 2013 Climate Wise Platinum partner in reducing greenhouse emissions. The senator lauded ARS's "impressive efforts to voluntarily reduce greenhouse gas emissions through waste reduction, energy savings, alternative transportation, and water conservation." ❀

[ProGene Plant Research](#), a seed company in Othello, WA, named its latest dry pea release "Ginny," after ARS Biological Science Technician **Virginia (Ginny) Coffman** at the ARS Vegetable and Forage Crop Research Unit in Prosser, WA. The company did this to honor the excellent, long-standing collaborations between ARS and the company. The cultivar 'Ginny' is from a cross that Coffman made in 1990 under the direction of **John Kraft**, retired Research Leader at Prosser. This cross is one of the parents of the newly released cultivar. ❀



'Ginny' makes her debut.

On June 6 and 13, 2013, employees at the ARS **Columbia Plateau Conservation Research Center** in Pendleton, OR, spent the day in the mountains presenting a field study called "Soil as a Natural Resource" to 60 sixth graders from Sunridge Middle School in Pendleton, as part of their "Outdoor School" curriculum. There were hands-on demonstrations that showed how water infiltrates different soil types and why reducing soil erosion is important. ❀

On August 1, the ARS location in **Salinas, CA**, held its annual Feds Feed Families Potluck and Dessert Raffle. All food donations go to the Food Bank for Monterey County, which feeds 88,700 people annually. This year's potluck raised 234 lbs of food. ❀

## Notable Awards

Research Leader **Mark Farnham**, ARS U.S. Vegetable Laboratory, Charleston, SC, and Research Leader **Jim McCreight**, ARS Crop Improvement and Protection Research Unit, Salinas, CA, were inducted as Fellows of the [American Society for Horticultural Science](#) (ASHS) during the Society's annual conference, July 22-25, 2013, in Palm Desert, CA.



Mark Farnham.

At the same conference, Supervisory Plant Research



Jack Staub.

Physiologist **Jack Staub**, ARS Forage and Range Research Laboratory, Logan, UT, received the ASHS Career Award for Outstanding Researcher. Also, the ASHS Ornamental Publication Award was presented to Research Plant Molecular Geneticist

**Tim Rinehart**, ARS Thad Cochran Southern Horticultural Research Laboratory, Poplarville, MS, and Supervisory Research Plant Geneticist **Margaret Pooler**, ARS Floral and Nursery Plants Research Unit, Beltsville, MD, for a *Journal of ASHS* article co-authored with three scientists. ❀

Research Agricultural Engineer **Tami M. Brown-Brandl**, ARS U.S. Meat Animal Research Center, Clay Center, NE, was awarded the Presidential Citation by the [American Society of Agricultural and Biological Engineers](#) (ASABE) for her exceptional service to the profession and society by finalizing the new organization structure aimed at better describing ASABE and its constituents and proposing an implementation strategy. She was formally recognized during the ASABE Annual International Meeting, July 21-24, 2013, in Kansas City, MO. ❀

Left to right: Rick Krolak, Jeremy Will, and Roland Mihulka.



Administrative Officer **Jeremy Will** and Laborer **Roland Mihulka**, both with the ARS Northern Great Plains Research Laboratory, Mandan, ND, received the Honored Institution Award from the National Oceanic and Atmospheric Administration (NOAA) for 100 years of weather observations in cooperation with NOAA's [National Weather Service](#). The award was presented by Rick Krolak of the National Weather Service on July 16, 2013, in Mandan. ❀

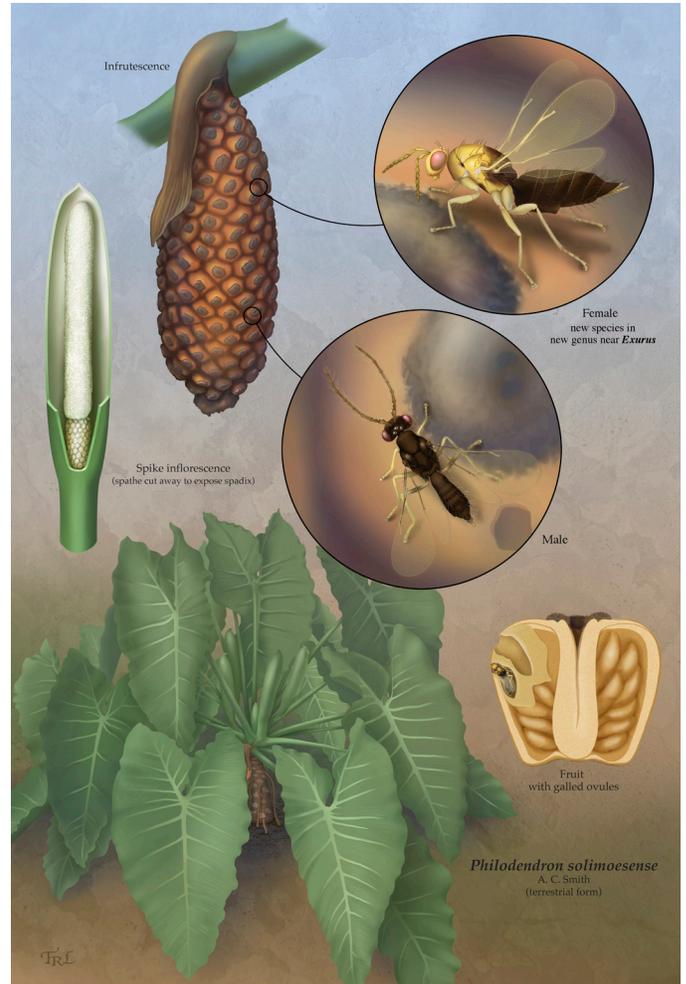


Bob Martin.

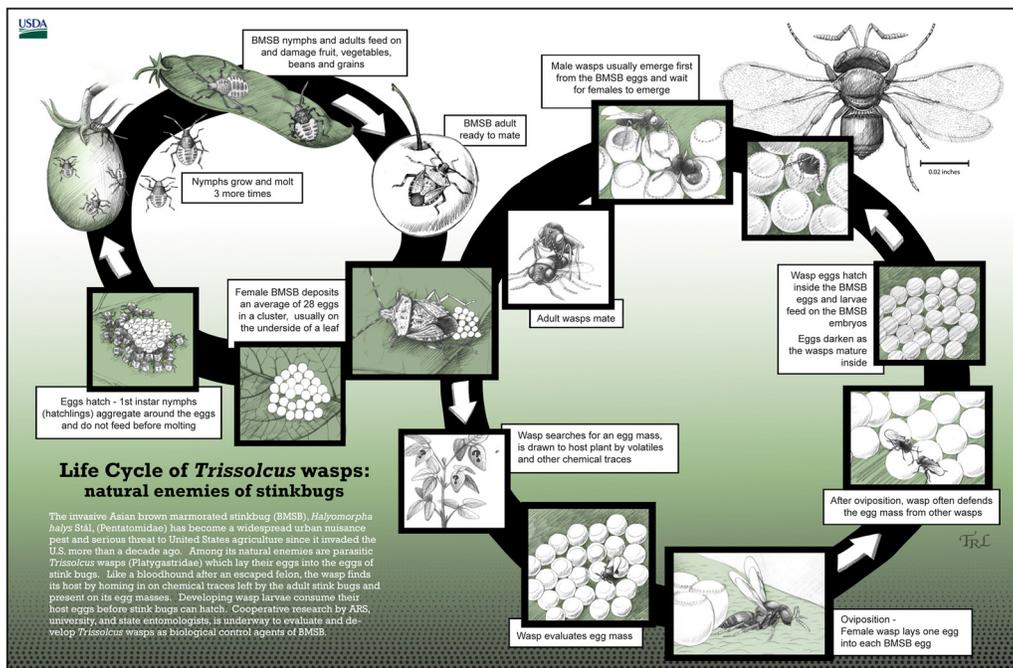
Research Leader **Bob Martin**, ARS Horticulture Crops Research Unit, Corvallis, OR, was elected a Fellow of the [American Phytopathological Society](#). Martin was inducted during the Society's annual meeting held August 10-14 in Austin, TX. ❀

Research Food Technologist **Yaguang “Sunny” Luo**, ARS Food Quality Laboratory, Beltsville, MD, and Research Microbiologist **Xiangwu Nou**, ARS Environmental Microbial and Food Safety Laboratory, Beltsville, MD, received the Most Cited Paper award from the [Institute of Food Technologists](#) (IFT) for their article “Whole-Leaf Wash Improves Chlorine Efficacy for Microbial Reduction and Prevents Pathogen Cross-Contamination During Fresh-Cut Lettuce Processing,” published in the Food Microbiology and Safety section of the *Journal of Food Science*. The award was presented during IFT’s Annual Meeting & Food Expo held July 13-16, 2013, in Chicago, IL. IFT also presented a Most Cited Paper award to Research Food Technologist **Roberto Avena-Bustillos**, Research Leader **Tara McHugh**, and Botanist **Delilah “De” Wood**—all with the ARS Western Regional Research Center, Albany, CA—for their *Journal of Food Science* article “Nanocellulose Reinforced Chitosan Composite Films as Affected by Nanofiller Loading and Plastizer Content.” ❀

Scientific Illustrator **Taina Litwak**, ARS Systematic Entomology Laboratory, Beltsville, MD, won three awards in the [Biocommunications Association’s](#) (BCA) “BiImages 2013” show for scientific illustrations she did for ARS. The poster “Life Cycle of Trissolcus Wasps” and the illustration “New Species of Philodendron Gall Wasp” both won Citation of Merit awards, with the Philodendron Gall Wasp illustration also winning the Canadian Founders Natural Science Award—Best Entry in the Natural Science category. The awards were presented during BCA’s annual meeting, June 17-21, 2013, in Monterey Peninsula, CA.



“New Species of Philodendron Gall Wasp,” illustrated by Taina Litwak.



“Life Cycle of Trissolcus Wasps,” illustrated by Taina Litwak.

## Did You Know?



Carrots are a well-known source of vitamin A, and one carrot can provide an adult with the recommended daily allowance for this vitamin. The human body converts beta-carotene—the orange color pigment found in carrots—into vitamin A, which aids in clear vision, bone growth, tooth development, and reproduction. It also supports a healthy immune system and plays a role in maintaining vital organ functions—including the heart and kidneys.

Today, carrots are probably one of the leading fresh vegetable sources for vitamin A, partly due to ARS research at the ARS Vegetable Crops Research Unit in Madison, WI. Researchers started breeding high-carotenoid carrots more than 30 years ago. Thanks to this ARS research, today's carrots provide consumers with 75 percent more beta-carotene than those from 5 decades ago.

Although many consumers are more familiar with traditional orange-colored carrots, that's not the only color this crunchy veggie comes in. Carrots can also be red, purple, yellow, and white. These interesting colored carrots have been around for more than 1,000 years, and they originated in Afghanistan. ARS scientists turned to these rainbow-colored carrots in hopes of increasing the pigment content of these beauties. Imagine a salad decked with these colored gems: It would not only be visually appealing, but it would also come with an added healthful boost!

Red carrots derive their color mainly from lycopene, another type of carotene believed to guard against heart disease and some cancers. Purple carrots contain anthocyanin pigments, which are powerful antioxidants. Yellow to white to gold carrots accumulate xanthophylls—

pigments similar to beta-carotene—which support eye health. These “rainbow” carrots taste...well, just like carrots!

ARS researchers are not only focusing on breeding nutritionally enhanced carrots, but they are also looking at ways to improve their quality and consumer appeal—including texture and taste. Although today's consumers seem to be more daring on the culinary front, demand for this unusual vegetable may be limited to a niche market.

Other ARS research on carrots has improved the processing of this item. Thanks to ARS researchers, consumers can find peeled carrots that are free from the white film that hides their brilliant color. The researchers developed a simple method to dip peeled carrots in a heated citric acid bath for 30 seconds—just enough to keep that nasty film from forming—to help peeled carrots remain visually pleasing to consumers.

Consumers want a flavorful, sweet, crispy, healthful carrot. ARS researchers are ready to help farmers meet growing consumer demands for this food.

Colorful carrots are available at specialty grocery stores and perhaps at some local farmers' markets. Check online to see if your store sells them.

So the next time you grab a carrot, thank an ARS researcher for his/her role in improving this healthy vegetable—making it not just a cool veggie, but also a healthful, colorful, snack-worthy staple.

By **Tara T. Weaver-Missick**, ARS Information Staff.

### **Executive Editor**

Sandy Miller Hays

### **Managing Editor**

Tara T. Weaver-Missick

### **Writer-Editor**

Mina Chung

### **Designer-Editor**

Carol Nathan

### **Contributors**

Sean Adams

Tracy Havermann

Carol Durlinger

Tania Litwak

Jennifer Gilbert

Linda Neuenhahn

LJ Grauke

Tara T. Weaver-Missick