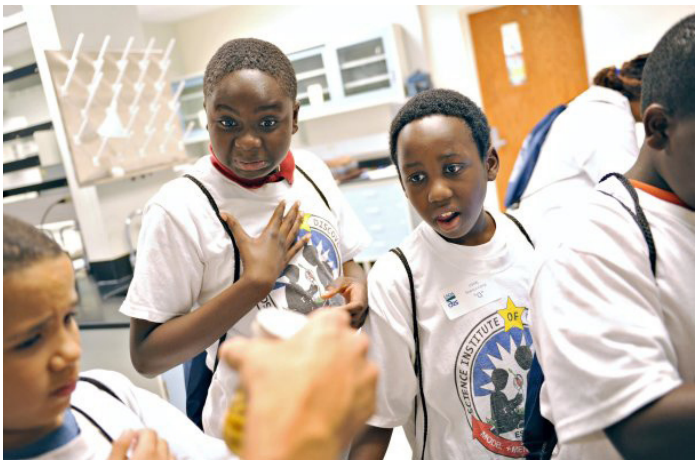
ARS & You

Research for the Growing World

August 2011 www.ars.usda.gov

ARS Researchers Host Science Camp



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For 10 consecutive years, scientists at the ARS U.S. Horticultural Laboratory in Fort Pierce, FL, have teamed with local public school teachers to host a 2-week science camp called "Science Institute of Discovery Inc.," for at-risk middle school kids. The camp targets minority children and immerses them in scientific activities with ARS scientists and staff. ARS Research Plant Pathologist **Dan Chellemi**, Post-Doctoral Scientist **Paul Robbins**, Research Entomologist **Steve Lapointe**, and others were on-hand to help the children learn more about the benefits of science in a fun and educational way, and to spark career interests in science. Former campers have gone on to take higher level math and science courses. Still others have sought college degrees in science-related areas, and are employed in the agricultural and health science fields.

New Outreach Tool for Your Toolbox

ARS Information Staff has added a new Web alert subscription feature to its current list of product offerings for consumers and stakeholders. The Web alert subscription highlights and encourages subscribers to access the new digital version of *Agricultural Research* magazine—now available online. Subscribers will be notified by e-mail when a new issue is uploaded to the site. The Information Staff plans to add other features to the digital version in the future. Save paper, and encourage your audiences to sign up for the digital version of *Agricultural Research* magazine at www.ars.usda.gov/is/AR/alert.htm.

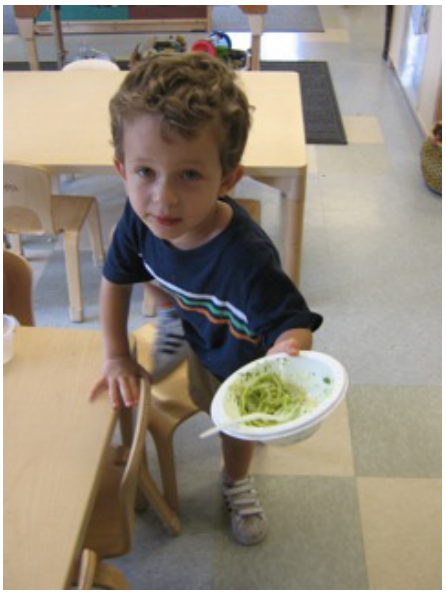
Need other outreach tools? Web alerts are also available for *Food and Nutrition Research Briefs, Healthy Animals,* and *Sci4Kids* at www.ars.usda.gov/is/pr/lists.htm.

Around ARS

www.ars.usda.gov/yourtwocents

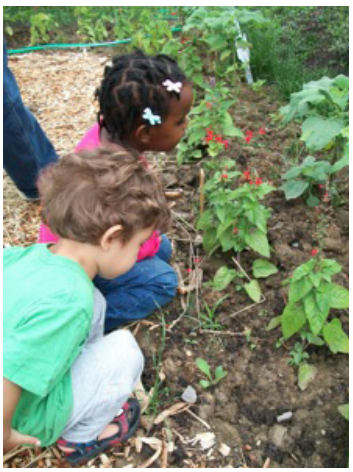
Your Two Cents (Y2C) continues to see a great deal of traffic daily, with well over 1,000 ideas and comments that have come to us since May 2010. Questions about the Administrative and Financial Management's restructuring (Admin Transformation) seem to be on everyone's mind. Y2C is the centerpiece of the ARS Cultural Transformation effort and, as such, is included in the new ARS Cultural Transformation Web site (http://www.ars.usda.gov/culturaltransformation). This new Web site is a 'one-stop-shop' for ARS employees to get all the information they need about what's going on with

cultural transformation in our agency from Y2C to Admin Transformation, to personal career development and staff development resources. Early reviews of the ARS Cultural Transformation site are positive, with most reviewers finding the consolidation of many sites into one and the personal development resources the most beneficial. Please visit and let us know what is helpful, and give us your ideas to improve the site.✤



A student enjoys pesto made with freshly harvested basil for an afternoon snack.

ARS employees in Ithaca, NY, worked for months on preparing and cultivating a People's Garden—in its second season—and it's paying off. The garden is a joint effort between ARS employees from the Robert Holley Center for Agriculture and the Cornell Child Care Center (CCCC), operated by Bright Horizons Family Solutions. This year's garden contains okra, sweet corn, string beans, tomatoes, gourds, pumpkins, cucumbers, basil, and dill, and is surrounded by a border of flowers. It is one of three official gardens at the CCCC—one for infants, one for toddlers, and one for preschoolers. CCCC students—who also helped with planting and picking—get to enjoy fresh produce from their "own" garden at snack time. The success of Ithaca garden has inspired the company to develop a specific gardening curriculum for their more than 600 schools and day care centers that will enhance science activities, promote healthy eating, and develop lifelong habits that lead to wellness. This effort will also reinforce Bright Horizons' support of the First Lady's *Let's Move!* Initiative and the Partnership for a Healthier America. In 2012, Bright Horizons hopes to increase the number of People's Gardens to include day care centers nationwide with the help of USDA. ✤



Students help in the garden.

"Leaders of Tomorrow" Summer Interns.

The Beltsville Area's summer intern committee, the "Leaders of Tomorrow," celebrated their "Fourth Annual Summer Program," on August 3 at the ARS Beltsville Agricultural Research Center (BARC). This year's program focused on raising awareness about the diverse career options within USDA and cultural transformation. Since its inception, **Joseph Spence**, Beltsville Area Director, and the Friends of Agricultural Research-Beltsville (FAR-B) have supported this effort, and continue to provide summer intern opportunities at BARC. The program featured a keynote motivational speech given by ARS Intern **Jojuann Gross**, who will be attending the University of Maryland in College Park this fall, majoring in molecular biology and genetics. An interactive panel of distinguished ARS speakers represented a variety of career backgrounds, including molecular biology, hydrology, law, microbiology, veterinary medicine, physical security, human resources, journalism, public relations, computer science, and information

technology. The USDA interns were enthusiastic to have the opportunity to ask work- and life-related questions of panel members who worked in their potential fields. ✤

On July 5–6, 2011, the USDA Hispanic-Serving Institutions National Program's Future Scientists Program held a 2-day workshop at the ARS Range Management Research Unit (at the Jornada Experimental Range) and the ARS Southwestern Cotton Ginning Research Laboratory, both in Las Cruces, NM. Nineteen science teachers from New Mexico and Texas schools learned how to raise corn earworm and how to conduct entomological research in their classrooms—the makings of interesting hands-on student projects! Supervisory Research Range Management Specialist **Kris Havstad**, Research Molecular Biologist **Mary Lucero**, and Research Physical Scientist **Dawn Browning** all gave presentations and information that the teachers could incorporate into class activities. The teachers also toured the cotton gin and learned about cotton ginning and its history of ginning from Supervisory Agricultural Engineer **Ed Hughs**, Research Textile Technologist **Carlos Armijo**, and Textile Equipment Operator **Ernest Herrera**. The workshop was funded by the CHS Foundation. ✤

Photo Corner

Students from a local Puerto Rico school pose in front of a Giant Canoe Tree at the ARS Tropical Agriculture Research Station in Mayaguez, PR.

Plant Geneticist Tim Porch, ARS Tropical Agriculture Research Station in Mayaguez, PR, points out heat-tolerant beans to visiting students.

Notable Awards

Greg Hanson, Research Leader, ARS Hydraulic Engineering Research Unit, Stillwater, OK, received the Hancor Soil and Water Engineering Award. This award recognizes members of the American Society of Agricultural and Biological Engineers (ASABE) who have made noteworthy contributions to the advancement of soil and water engineering. ✤

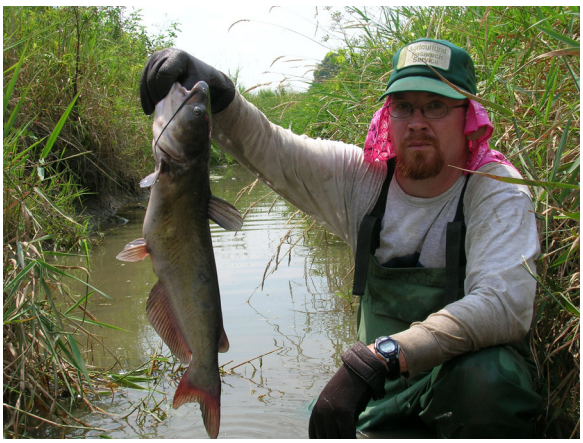
Sherry Hunt and ASABE President Ron McAlister.

Research Hydraulic Engineer **Sherry Hunt**, ARS Hydraulic Engineering Research Unit, Stillwater, OK, received ASABE's Gale A. Holloway Professional Development Award. This award recognizes outstanding leadership and active involvement of early career ASABE members. ✤

Agricultural Engineer **Dennis C. Flanagan**, ARS National Soil Erosion Research Laboratory, West Lafayette, IN, was named a 2011 ASABE Fellow. He is being recognized for his outstanding leadership in developing and implementing new erosion prediction technology, and for his ASABE leadership in soil and water conservation. ✤

Supervisory Agricultural Engineer **Jeff Arnold**, ARS Grassland Soil and Water Research Laboratory, Temple, TX, was also named a 2011 ASABE Fellow. ✤

All award recipients were recognized at the ASABE Annual International Meeting in Louisville, KY, held on August 7–10. ✤



Rocky Smiley with channel catfish captured while sampling an Ohio stream.

Research Ecologist **Peter (Rocky) Smiley, Jr.**, ARS Soil Drainage Research Unit, Columbus, OH, was selected as the winner of the Society for Ecological Restoration's (SER) 2011 John Rieger Award. He is being honored for vital contributions to re-establishing and re-invigorating SER's Midwest-Great Lakes Chapter. This award honors those who have dedicated their time and skills to advancing ecological restoration and/or to developing the organization. He was honored at SER's Gala Awards Banquet, held on August 23 in Merida, Yucatan, Mexico. ✤

The Florida Entomological Society presented its 2011 Annual Achievement Award for Team Research to Research Entomologist **Wayne Hunter**, Research Molecular Biologist **Robert Shatters**, and Research Leader **David Hall**, all with the ARS U.S. Horticultural Research Laboratory in Fort Pierce, FL. The team completed the first draft of the Asian citrus psyllid genome. This award recognizes that research and is for outstanding contributions to help combat the global threat of citrus psyllids, an exotic pest responsible for spreading citrus greening disease that results in severe fruit decline. The team was honored at the Society's annual meeting in Fort Myers, FL, on July 26, 2011. ✤

Research Molecular Biologist **Hyun Lillehoj**, ARS Animal Parasitic Diseases Laboratory, Beltsville, MD, was given the 2011 Phibro Animal Health Excellence in Poultry Research Award by the American Association of Avian Pathologists (AAAP). She is

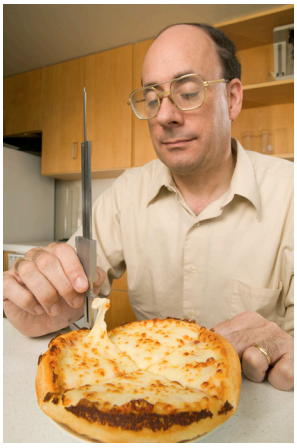
being honored for sustained excellence in poultry disease and health research for the past 20 years. This is the most prestigious award that AAAP presents.

Microbiologist **Michael Day**, ARS Endemic Poultry Viral Diseases Research Unit, Athens, GA, received the Bayer-Snoeyenbos New Investigator Award. This award is given to an AAAP member or associate whose career as an independent investigator in poultry medicine began less than 7 years ago and who, during that time, made meritorious research contributions to the avian field.

Supervisory Research Geneticist **Hans Cheng**, ARS Avian Disease and Oncology Laboratory, East Lansing, MI, received the 2011 Embrex Fundamental Science Award given by the Poultry Science Association (PSA). This award is given to a PSA member who has made sustained high-quality contributions to fundamental science that has advanced poultry science.

Microbiologist **Robert Silva**, ARS Avian Disease and Oncology Laboratory, East Lansing, MI, was awarded the 2011 P.P. Levine Award for the best paper published in the *Journal of Avian Diseases* in 2010.

The above awardees were honored at the joint meeting of the American Association of Avian Pathologists and the Poultry Science Association, held on July 16–19, 2011, in St. Louis, MO. ✤

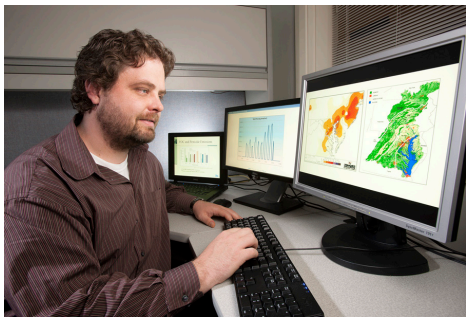


Michael Tunick.

Research Chemist **Michael Tunick**, ARS Dairy and Functional Foods Research Unit, Wyndmoor, PA, was named a 2011 American Chemical Society (ACS) Fellow. This honor recognizes ACS members who have demonstrated excellence in their contributions to the chemical science field and the profession.

Laura McConnell.

Research Chemist **Laura McConnell**, ARS Environmental Management and Byproduct Utilization Laboratory, Beltsville, MD, was awarded the ACS Agro Division Fellow Award. She is being recognized for her continued and substantial contributions to the agrochemical science field and to the Society.



Cody Howard.

Environmental Engineer **Cody Howard**, ARS Environmental Management and Byproduct Utilization Laboratory, Beltsville, MD, won the 2011 Agro New Investigator Award sponsored by the ACS AGRO Division and DOW Agrochemicals. This award recognizes scientists who obtained their doctoral degree within the last 5 years and who have significant research or professional accomplishments.

All three ACS award winners will be honored at the 242nd ACS National Meeting in Denver, CO, on August 31. ✤

Poultry Research Physiologist **Murray Bakst**, ARS Animal Biosciences and Biotechnology Laboratory, Beltsville, MD, is the recipient of the 2001 George Hammell Cook Distinguished Alumni Award, presented by Rutgers University's Cook Community College. This award is presented annually to alumni whose outstanding accomplishments in professional or volunteer work reflects dignity and distinction on their alma mater. The Cook Award is the highest honor presented by the Cook Alumni Association to undergraduate alumni. ✤

Did You Know?

When you buy a loaf of freshly baked bread or a bowl of cereal or a box of crackers, you barely think about the work the baker put into it. And you almost certainly never think beyond the baker, say to the ARS research labs strategically placed in different wheat growing regions of the country. These labs work to ensure there will always be a continuous supply of wheat to meet world demand for products like flour, breads, cereals, cookies, crackers, pasta, beer, and other wheat-based products.

For more than half a century, ARS scientists have helped elevate wheat's status as a high-quality, nutritious food. You know that "San Francisco" sourdough bread that many people find so irresistible? Researchers at the ARS Western Regional Research Center in Albany, CA, made it possible for San Francisco-style sourdough bread to be baked anywhere in the world—thanks to an ARS discovery of how to grow a certain yeast used in sourdough.

Among the different wheat classes are hard, soft, white, red, and durum. Soft wheats are used to make pastries, cookies, crackers, Asian noodles, and flat or hearth breads, such as pita bread. Researchers at the ARS Western Wheat Quality Laboratory in Pullman, WA, and the ARS Soft Wheat Quality Laboratory in Wooster, OH, evaluate soft white wheat. Hard wheats are used to make the everyday loaves of bread we've come to love. This is because hard wheat has higher gluten, which is what gives bread its mixing strength. ARS' Center for Grain and Animal Health Research Laboratory in Manhattan, KS, evaluate hard wheats, and researchers at the ARS Cereal Crops Research Unit in Fargo, ND, evaluate durum and hard wheat quality.

ARS scientists helped the wheat industry create a new subclass of soft wheat with higher protein content—a multifunctional soft wheat. This creation makes it possible for the baking industry to use soft wheat for a range of consumer products to take advantage of extended commercial markets. It gives crackers and other "delicate" wheat products their crispness without having to blend in hard wheat, thereby reducing production costs.

Still other ARS labs are identifying ways to fight and prevent major wheat diseases and pests, and are breeding new wheat varieties to ensure wheat growers worldwide meet crop demands. They know that U.S. wheat quality and sustained production is key to competing in the world market.

*By **Don Comis**, ARS Information Staff.*

Please submit story ideas and national award items to Tara T. Weaver-Missick, tara.weavermissick@ars.usda.gov or call 301-504-1663.