



Preparing Today's Youth for Tomorrow's Workforce

ARS' Eastern Regional Research Center (ERRC), Wyndmoor, PA, hosted five students from W.B. Saul High School of Agricultural Sciences, Philadelphia, PA, during Pennsylvania's Career Exposure Day held on February 2. Pennsylvania's Career Exposure Day is part of WorkReady Philadelphia's citywide, year-round effort to help prepare youth ages 14 to 21 with skills they need to succeed in the workforce.

This activity provides opportunities for area businesses and other employers to welcome students into their workplace for a 1-day career exploration experience. Career Exposure Day gave ERRC scientists an opportunity to serve as role models and share information that would influence these young peoples' life choices. ERRC Center Director **Sevim Erhan**, in addressing the students, inquired about their career choices and discussed research at ERRC. The students were accompanied by their Food Science Teacher, Mr. Gaetano Amoroso, who stated that each time he visits ERRC, he is impressed with the facility and the work under way there. Mr. Amoroso also noted that his first "microbiologist" will be graduating this May.

Andrew Gehring, Acting Research Leader of the Microbial Biophysics and Residue Chemistry Research Unit, spoke on future collaborations involving the students. Philadelphia's WorkReady representative also attended and offered to fund summer students at ERRC. During lunch, other ERRC employees gave their time as well. North Atlantic Area Civil Rights Coordinator **Benne Marmer** gave a talk on careers in USDA, and Biological Science Technician **Tawana Simons**,

a W.B. Saul High School graduate, spoke of her educational and work experiences. The following mentors volunteered part of their day to allow the students to shadow them: Biological Science Technician **Aisha Abdul-Wakeel**, Supervisory Physical Scientist **William Damert**, Administrative Librarian **Wendy Kramer**, Biological Science Technician **Susan Lawlor**, Molecular Biologist **David Needleman**, Microbiologist **Douglas Soroka**, Chemist **Gary Strahan**, Office Automation Clerk **Kellie Ann Tennant**, and Computer Assistant **Patricia Williams**.

ARS' National Agricultural Library (NAL) has received \$206,600 from The Ceres Trust to fund the digital conversion of more than 7,000 original watercolor paintings from the USDA Pomological Watercolor Collection, one of NAL's unique collections. The funding will provide for long-term storage of the watercolor paintings, preserving the collection in digital format, as well as providing Web access to the public. The paintings are scientifically accurate illustrations of new fruit varieties and specimens collected by USDA plant explorers and Agricultural Experiment Station cooperators, including



Rubus fruticosus blackberry;
Date 1913. Artist A.A. Newton.

horticulturists from USDA and agricultural colleges. The collection dates from 1887 to the 1940s. The Ceres Trust is a nonprofit organization that focuses on the support and promotion of organic and sustainable agriculture.

ARS will use Areawide Program funds to pay for cooperative agreements for research on alternatives to the banned soil fumigant methyl bromide in California, Oregon, and Washington. After a



Strawberries.

review process that relied heavily on stakeholder input, ARS is issuing cooperative agreements totaling \$1 million for 11 projects that will develop alternatives to replace methyl bromide for use on strawberries, sweet potatoes, perennial tree crops and nurseries, vineyards, forest nurseries, floriculture and raspberries. These cooperative projects are conducted in growers' fields under standard production procedures, and involve ARS and university scientists, growers, and commodity associations. This program mirrors a similar program in the southeastern United States funded for a similar amount earlier this year.

Tara Smith, team leader of the ARS National Agricultural Library's (NAL) Food Safety Information Center, has established a new partnership with the United Kingdom's Microbiological Safety of Food Funders Group (MSFFG) that has resulted in 459 new international projects records being added to the Research Projects Database at NAL's Food Safety Research Information Office (FSRIO). For the first time, projects were electronically transferred, increasing the efficiency of sharing research information.

Around ARS

Agronomist **Kim Cassida**, Chemist **Joyce Foster**, Animal Scientist **Jim Neel** and Animal Scientist **Ken Turner** from the ARS Appalachian Farming Systems Research Center in Beaver, WV, spoke at the Southwest Pennsylvania Sheep and Goat Workshop on February 20, 2010. Topics included research updates on finishing lambs and goat kids on pasture; nontraditional forages for Appalachia; development, management and productivity of silvopasture (pasture within woodlots); and control of small ruminant gastrointestinal parasites. Producers from small farms in Pennsylvania and surrounding states received research-based production and management information for small ruminants, farm resources and budgeting.

In a ceremony on March 1, ARS National Program Leaders and scientists strengthened their 25-year relationship with the American Farm School in Thessaloniki, Greece.

Diplomats, academics and community representatives from throughout the Balkans attended the ceremony. ARS' European Biological Control Laboratory in Montpellier, France, has operated a satellite lab in Thessaloniki, Greece since 1981. The Thessaloniki lab has been productive, finding biological control agents against some of the United States' most problematic weeds and pests. Most recently, the team completed a successful project with the University of Florida on mosquitoes, leading to a new project funded by the Department of Defense. The American Farm School is a private, nonprofit educational institution founded in 1904 that serves the rural population of Greece and the Balkans. The School prepares its graduates for prominent roles in community life and in the agriculture and food sectors by teaching farming and business practices that are economically viable, ecologically sound and socially responsible.



Mosquito.

On March 6, Animal Scientist **Ken Turner** with the ARS Appalachian Farming Systems Research Center in Beaver, WV, discussed recent research about sheep and goat production on Appalachian pastures at the Alabama Cooperative Extension System's 4th Annual Small Ruminant Spring Symposium. The symposium focused on hair sheep and nutrition from a holistic perspective. The event was held at Alabama A&M University's Winfred Thomas Agricultural Research Station in Hazel Green, AL.



Sheep.

Turner also discussed health management for hair sheep at the First Quarter Membership Meeting of the Scott County (VA) Hair Sheep Association. The event was held on March 11, 2010 in Blountville, TN. Turner's presentation on internal parasite control was part of the association's Education Program. The group began in 2000 when 25 farmers met in a barn to discuss the possibilities of beginning a cooperative effort to raise and market hair sheep in Scott County, Virginia. The group now has 300 member farms with approximately 15,000 production ewes.

ARS employees are participating in **USDA National Nutrition Month** activities during the month of March. The kick-off event was held on March 3. USDA nutrition experts and others will staff tables every Wednesday in the Department's South Building and Whitten Patio for the remainder of the month. This year's theme is "Local, Sustainable and Healthy Eating."

Nutritionist **Harry Dawson** with the ARS Diet, Genomics, and Immunology Laboratory in Beltsville, MD, was reappointed to the Journal of Nutrition's Editorial Board for a 2-year term.

Agricultural Engineer **Barry Allred**, ARS Soil Drainage Research Unit, Columbus, OH, has been elected Vice President of Committees for the Environmental and Engineering Geophysical Society for a 2-year term.

Under the leadership of NAL employee **Susan McCarthy**, who was appointed as USDA's 2009 CFC Campaign Chairman, USDA had a stellar year, surpassing all fundraising efforts going back as far as 2005, and an impressive result given this year's economic downturn. USDA raised \$2,044,577, which is 106 percent of the goal. The 2009 campaign will end with a March 24 awards ceremony. Deputy Secretary **Kathleen Merrigan** and REE Under Secretary **Molly Jahn** will present agency awards.

Scientists at the **ARS Invasive Plant Research Laboratory**,

Ft. Lauderdale, FL, were recently granted a permit to release a plant hopper to control water hyacinth—a floating aquatic weed. This will



Plant hopper.

be the first release of an agent targeting this weed since 1977. The plant hopper was discovered by scientists at the ARS South American Biological Control Laboratory (SABCL) in Argentina. Two major releases of this insect

in Florida are planned this summer that will involve local, State and Federal cooperators (the Florida Fish and Wildlife Conservation Commission, the South Florida Water Management District, the St. Johns River



Water hyacinth.

Water Management District and the Army Corps of Engineers). One release will occur on June 2 in South Florida north of Ft. Lauderdale during a visit of scientists from SABCL. The date of the second release has yet to be determined, but will occur in northern Florida near Jacksonville.

Soil Scientist **Charlie Feldhake**, ARS Appalachian Farming Systems Research Center, Beaver, WV, presented a talk on creating and managing silvopastures in the eastern United States as part of a pre-conference workshop titled "Harvesting the Back Forty: Agroforestry in the Mid-Atlantic and Beyond." The workshop was attended by about 2,000 people, including producers from small farms

in Pennsylvania and adjoining states, as well as by Penn State Cooperative Extension personnel. The conference was held February 4-6, 2010 and was sponsored by the Pennsylvania Association for Sustainable Agriculture.

Notable Awards

Research Chemist **Gillian Eggleston**, with the ARS Southern Regional Research Center's (SRRC) Commodity Utilization Research Unit in New Orleans, LA, won the prestigious George and Eleanor Meade Best Paper Award from Sugar Industry Technologists (SIT), Inc., for her paper on "Factory Trials to Determine How Trash Impacts Downstream Processing." The award will be presented to her at SIT's annual international meeting on May 18.



Eggleston (red jacket) and production manager Adrian Monge inspect sugarcane and associated trash at a factory yard.

Eggleston also won the Frank Chapman Memorial Award for Best Poster Presentation for "Optimization of Amylase Applications in Raw Sugar Manufacture that Directly Concern Refiners." This award also will be presented to her at SIT's awards banquet in May.

Nestor B. Knoepfler, a former ARS-SRRC scientist, is the recipient of the American Association of Textile Chemists and Colorists (AATCC) Henry E. Millson Award for Invention for his research accomplishments. The award was established in 1979 to recognize and encourage contributions to textile technology. This award is named in honor of Henry E. Millson, renowned scientist, researcher and textile chemist. Knoepfler's career with ARS focused on cotton flame retardancy, cotton and cotton linters, cotton batting products and oilseed processing and process development. He died January 15, 1994, at the age of 75. This award will be posthumously presented to Knoepfler's three daughters and to Research Leader Brian Condon of SRRC's Cotton Chemistry and Utilization Unit in New Orleans, LA,

at the 2010 AATCC International Conference on May 18-20 in Atlanta, GA.

Knoepfler's work in developing nondurable boric acid-treated flame retardant (FR) cotton batting in the early 1970s helped the cotton batting industry. Flame retardants are chemicals that are added to combustible material (cotton) to make it more resistant to ignition. They are designed to minimize the risk of a fire starting on a textile product and coming into contact with small heat sources such as a cigarette, candle or a lighted match stick. If the flame-retardant material is ignited, the flame retardant will slow down the combustion and prevent spreading to other items.

David Laird, Soil Scientist, ARS Soil, Water and Air Resources Unit, National Laboratory for Agriculture and the Environment, Ames, IA, presented the 2010 Roscoe Ellis Jr. Lecture at Kansas State University on March 10. The Lecture was titled "Global Initiative and the Biochar Revolution." On March 11, he also gave an invited science lecture titled "Clay-Humic Complexes and Black Carbon in Soil Mesoaggregates" for the faculty and student in the Department of Agronomy at Kansas State University.

Jerry Hatfield, Laboratory Director of ARS' National Laboratory for Agriculture and the Environment in Ames, IA, has

been awarded the 2009 Werner L. Nelson Award from the Fluid Fertilizer Foundation for his outstanding contributions in the development of soil fertility practices and plant nutrition management to increase crop yield for the benefit of the North American farmer and consumer.

This honor is bestowed on an individual who has demonstrated leadership, innovation, keen insight and integrity in pursuing wise and careful use of fertilizer to maximize crop yields.



Hatfield (left) and technician Kenwood Scoggin examine a particulate sampler for an air quality study.

Research Physical Scientist **Wade Crow**, ARS Hydrology and Remote Sensing Laboratory, Beltsville, MD, has received the Journal of

Hydrometeorology Editor Award for rigorous, insightful, and timely reviews that greatly aided the editors of the journal.

Hydrologist **Bill Kustas**, ARS Hydrology and Remote Sensing Laboratory, Beltsville, MD, has been named a Fellow of the American Meteorological Society for major accomplishments and contributions to the atmospheric and hydrologic sciences.

Hydrologist **Tom Jackson**, ARS Hydrology and Remote Sensing Laboratory, Beltsville, MD, has been named a Fellow of the Society of Photo-Optical Instrumentation Engineers for specific achievements in remote sensing in hydrology.

Research Chemist **Jim Reeves**, ARS Environmental Management and Byproducts Utilization Laboratory, Beltsville, MD, has won the Hirschfeld Award for NIR (near-infrared) spectroscopy, considered by most to be the most prestigious award for near-infrared research. Reeves also won the 2010 Eastern Analytical Symposium Award for Achievements in NIR.



Reeves analyzes manure for nitrogen in the field using a prototype NIR filter spectrometer.

Ecologist **Martin Williams**, ARS Global Change and Photosynthesis Research Unit, Urbana, IL, received the 2010 University of Illinois ACES Service Recognition Award, which recognizes outstanding service to the College of Agricultural, Consumer and Environmental Sciences.

Rangeland scientist **Kirk Davies**, ARS Range and Meadow Forage Management Research Unit, Burns, OR, received the Society for Range Management's (SRM) Outstanding Young Range Professional Award for establishing a rigorous research program, publishing outstanding articles, and conducting high-impact outreach.

Retired rangeland scientist **David Ganskopp**, previously with the ARS Range and Meadow Forage Management Research Unit, Burns, OR, received a Fellow Award from the Society for Range

Management (SRM) for significant contributions to SRM and service-based leadership of the range management profession.

Did You Know?

After a roller-coaster winter, spring is finally here! One sign of spring is emerging flowers and buds on trees. In the Washington area, in particular, cherry blossom buds are beginning to make a much-anticipated appearance. Those buds are a prelude to the National Cherry Blossom Festival, which will be held in Washington, DC, March 27–April 11, 2010. Each year, more than half a million people come to Washington to participate in the festival. The festival commemorates the gift of 3,000 Yoshino cherry trees given by Japan to the United States in 1912 as a spirit of friendship. Today, only about 125 of the original 3,000 cherry trees remain. Typically, Yoshino cherry trees live an average of 47 years, yet the trees along the Tidal Basin are now almost 100 years old—talk about good living! Still, many of the remaining trees are dying of old age.

Researchers at ARS' U.S. National Arboretum (USNA) in Washington have an ongoing breeding program aimed at developing new cultivars of ornamental cherry trees with resistance to diseases and pests, tolerance to environmental stresses and superior ornamental characteristics. The ARS team of scientists took cuttings from the original cherry blossom trees and grew more than 500 saplings in their greenhouses. More than a decade ago, ARS gave those cuttings to the National Park Service to help them preserve the genetic lineage of the original trees.

But the beauty of this magnificent tree extends beyond the Tidal Basin. USNA kept several of those cuttings as part of a permanent repository, preserving these regal beauties. More than 2,000 trees representing over 200 types of flowering cherry trees are on display at USNA via a self-guided tour called "Beyond the Tidal Basin: Introducing Other Great Flowering Cherry Trees." The USNA flowering cherry tree breeding work started in the early 1980s, and has continued to blossom. They recently developed

two new flowering cherry trees, 'Dream Catcher' and 'First Lady.'

Flowering cherry trees are a high-value ornamental crop. Approximately 1.3 million flowering cherry trees are sold each year in the United States, with an estimated total value of \$24.8 million. USNA research will ensure that this beautiful treasure lives on for future generations to enjoy.

Written by **Tara T. Weaver-Missick**, ARS Information Staff.

2010 Cherry Blossom Activities

Watch Them Bloom

Peak Bloom Date Forecast: April 3 through April 8

Blooming Period: March 31 through April 11

USNA Talk & Tour:
Creating Diversity in
Flowering Cherries,
March 28, 2:00 –
3:30 pm



Cherry blossom.

Research Geneticist Margaret Pooler at ARS' U.S. National Arboretum will share a behind-the-scenes look at how Arboretum scientists have created new varieties of flowering cherries. A brief walking tour of some of the trees will follow the talk. Participation is free, but registration is required. Call 202-245-4521 to register. Visit USNA on the Web for a virtual tour of their gardens:

<http://www.usna.usda.gov>

U.S. National Cherry Blossom Festival

For a complete list of activities, visit:

<http://www.nationalcherryblossomfestival.org>

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