



May 2006

BARC is part of the USDA's Agricultural Research Service and encompasses programs at the Beltsville Agricultural Research Center; the U.S. National Arboretum in Washington, D.C.; and worksites in Chatsworth, New Jersey; Presque Isle, Maine; and McMinnville, Tennessee. BARC is the largest and most diversified agricultural research complex in the world. BARC's record of accomplishments and its ongoing programs have made it a world leader in agricultural research.

Blowing Our Own Horn!



BARC SCIENTIST RECEIVES FDA's COMMISSIONER'S SPECIAL CITATION

Mark F. Feldlaufer, Research Leader of the Chemicals Affecting Insect Behavior Lab, has been selected to receive the Food & Drug Administration's highest public honor – the Commissioner's Special Citation. Dr. Feldlaufer is being recognized for his role in the ARS effort that resulted in FDA approval of a new antibiotic to control American Foulbrood disease of honey bees. American Foulbrood is a highly contagious disease of young honey bee larvae caused by the bacterium *Paenibacillus larvae*. The only approved antibiotic for the treatment of this devastating disease was oxytetracycline, and in 1999, reports of bacterial resistance started to surface. Within two years, widespread resistance to this antibiotic was documented across the U.S., putting all of our country's nearly three million bee colonies at risk. Dr. Feldlaufer and his research team initiated, designed, and conducted the necessary research to support the safety and effectiveness of the antibiotic tylosin for controlling American Foulbrood disease and worked closely with industry on labeling requirements for this antibiotic. The award will be presented by the FDA Commissioner at a ceremony on June 16.



17th ANNUAL BARC POSTER DAY AWARD WINNERS

The 17th Annual BARC Poster Day was held on April 26 at the ARS National Visitor Center. BARC Poster Day is an opportunity to publicly recognize our newest Research Scientists, Visiting Scientists, and Post-doctoral Research Associates, and it provides an excellent opportunity for these scientists to present their research results to the scientific community and others interested in advances in agricultural research. Award winning posters were presented by **David P. Puthoff** of the Molecular Plant Pathology Lab, **Martha C. Anderson** of the Hydrology and Remote Sensing Lab, **Meghan A. Kelly** of the Nutrient Requirements and Functions Lab, and **Chun-Chieh Yang** of the Instrumentation and Sensing Lab. Students from Eleanor Roosevelt High School who conducted research projects under the mentorship of BARC scientists also participated. In the Student Division, award winning posters were presented by Jason Kunz, Elizabeth Mongeon, and Jasmine Bennings. Friends of Agricultural Research-Beltsville (FAR-B) provided financial support so the students could present their work along with the BARC scientists. More information can be found at www.ars.usda.gov/ba/posterday.



Scientist Division Winners

Community Interest...

STREAM CLEAN-UP WITH COLLEGE PARK ROTARY

On April 29, **Dave Prevar** (Safety, Occupational Health and Environmental Staff), **Kevin Thorpe** (Insect Biocontrol Lab), and **George Meyers** (Research Support Services) performed a stream clean-up with the College Park Rotary Club at Little Paint Branch on the North Farm. The group, which included 11 Rotarians, picked up 25-30 large trash bags of debris from a section of the stream running from Sellman Road to near the East-side wastewater treatment plant. The quality of this stream is much better as a result of these efforts, and similar projects will be conducted in the future.



HOYER RESTORES FUNDING FOR TWO BARC LABS

On May 23, Congressman Steny H. Hoyer announced that the House of Representatives passed the Agriculture Appropriations bill for Fiscal Year 2007, and at Hoyer's request, the bill included full funding for BARC's Phytonutrients Lab and Fruit Lab, rejecting a proposal to close these research facilities. Scientists in the Phytonutrients Lab focus on defining the factors that regulate the content of health promoting nutrients found in fruits and vegetables which are believed to have a protective effect against cardiovascular disease and cancer. Researchers in the Fruit Lab use their knowledge about fruit breeding to produce new small fruit varieties with superior qualities insofar as size, taste, and resistance to disease. For more on Congressman Hoyer, please visit <http://hoyer.house.gov>.

EXPLORING ANIMAL SCIENCE AT LOCAL SCHOOL

Fourteen BARC scientists and support staff from four BARC labs participated in a hands-on science enrichment event at Beltsville Elementary School on May 2nd through May 4th. This year's theme was Exploring Animal Science, and students were captivated by demonstrations of a milking machine and explanations of basic animal genetics (Animal Improvement Programs Lab), observations of live honey bees in a sealed hive and presentations on plant pollination (Bee Research Lab), observations of chicks and information on preventing parasite transmission (Animal Parasitic Diseases Lab), and presentations on butterflies and insect life cycles (Systematic Entomology Lab).



Thoughtfully planned and carried out with the expert aid of Dianne Odland, ARS Information Staff, each lab's exhibits not only entertained the students, but they exposed the students to some basic science concepts. This is the third straight year that BARC has teamed with the Friends of Agricultural Research-Beltsville (FAR-B), Beltsville Elementary School, the University of Maryland, and others to bring science enrichment to the school. A poster contest is now underway for students to display what they learned from the program. Teachers will select 35 winning posters, and they will go on display at Citizens National Bank in the Chestnut Hills Shopping Center on or about June 1.



On the Research Side...

IMPROVED COORDINATION OF ARS RESEARCH WITH USEPA NEEDS

Ali M. Sadeghi, Soil Physicist with the Hydrology and Remote Sensing Lab, has begun serving a six-month detail to the U.S. Environmental Protection Agency's Chesapeake Bay Program Office (CBPO) in Annapolis, Maryland. Dr. Sadeghi will be involved in the on-going Bay restoration projects, primarily with nutrient and sediment reductions and modeling activities, as well as serve as a point of contact among other agencies and ARS. He will spend three days a week in Annapolis, where the other agencies are co-located with USEPA. Learn more about the Chesapeake Bay Program by visiting www.chesapeakebay.net.



FRUIT FLY DNA BARCODING INITIATIVE

Allen L. Norrbom, Entomologist with the Systematic Entomology Laboratory, attended the first meeting of the Steering Committee for the Fruit Fly DNA Barcoding Initiative held April 27 – 28 at the Royal Museum for Central Africa, Tervuren, Belgium. The meeting was sponsored by the Consortium for the Barcode of Life (CBOL). The participants organized a plan and began funding proposals for a project to sequence the "barcode gene" (cytochrome oxidase I) for all economically important fruit fly species (including major plant pests and beneficial weed biocontrol agents). This project shows great potential for providing more rapid identification of all stages of fruit flies, including the larvae. Visit CBOL at <http://barcoding.si.edu>.



Mark Your Calendar!

UPCOMING INSECT BIOCONTROL SEMINARS



Thursday, June 22, 10:00 AM
James D. Harwood, Department of Entomology, University of Kentucky
"Tracking the role of generalist predators in biological control"
 Building 011A, Conference Room, BARC-West
 For information contact: Fernando Vega, 301.504.5101

Tuesday, July 11, 10:00 AM
Hans Herren, President, Millennium Institute, Arlington, VA
"Insect management in sustainable agriculture: the ICIPE way"
 Building 011A, Conference Room, BARC-West
 For information contact: Fernando Vega, 301.504.5101

SATSUKI EXHIBIT AT THE U.S. NATIONAL ARBORETUM THROUGH JUNE 4TH

These late-blooming azaleas are miniature in form and are covered with breathtaking blossoms. This annual exhibit showcases the most spectacular examples from both the Arboretum's and the curator's collections. Satsuki have been grown and trained as bonsai for centuries in Japan. Satsuki bonsai are often designed in an informal upright shape or a cascade shape. Their miniature leaf size, awesome color display, and aged, rough trunk are qualities that make them good plants for bonsai training. The exhibit runs from May 26 through June 4, 10:00 a.m. to 3:30 p.m. daily, in the National Bonsai & Penjing Museum Special Exhibits Wing.



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