



THE FAR-B NEWS

Dedicated to promoting the research and education programs of the
Henry A. Wallace Beltsville Agricultural Research Center, Beltsville, Maryland

Friends of Agricultural Research-Beltsville, Incorporated P.O. Box 1061, Beltsville, MD 20704-1061

JANUARY 2013

Editor: Hank Becker

President's Message

Finally, we have the Presidential election year behind us. As we go to press however, the Country still faces the fiscal cliff on January 1, 2013. If this happens, the Beltsville Area will lose 7.8 percent of the current budget. Let's hope that Congress and the White House can come to an agreement to prevent this possibility.

At the December 11, 2012 meeting of the FAR-B Board of Directors, a budget was passed for 2013. This included funding four summer high school interns (\$4,600 each) for the Beltsville Area. The Area office will have a call for proposals from the permanent SY's and a committee will select the top four proposals to fund. It is our sincere hope that these internships will provide meaningful research experiences for academically promising high school or college students so that they will consider science or an agriculturally-related career when they complete their formal education. This year's budget is a negative one again—we will be spending more than we take in. We seem to follow the Federal Government way of spending with the exception that we do have a little surplus. We anticipate an operating income of \$10,400 with operating expenses of \$30,600. The difference will come out of our reserve funds. We are always hopeful that we will get more members and donations so that we can limit the use of our reserves.

FAR-B co-sponsored numerous major events at BARC this past year. This included the support of the Beltsville Area Diversity Taskforce which included eight meeting throughout the year (see their report below). Also, we supported the Student Discovery Garden which had over 1000 visitors this past year. For a complete list of activities FAR-B sponsored, visit our website: www.far-b.org.



For the second year, FAR-B helped sponsor the Beltsville – University of Maryland Fall Symposium Trends in Agriculture held at the National Wildlife Visitor Center. The title this year was *Feeding the next two billion people – A role for advanced genetic technology*. About 150 attended.

Once again a group of FAR-B members will be judging Middle School Science Fair projects in Howard, Montgomery, and Prince George's Counties.

Unfortunately, Howard County was left out in 2012. Judging Middle School County Science Fairs has been one of our outreach activities for the past six years. There are lots of very bright young women and men at these science fairs, and we believe our small cash awards and our certificates help keep them interested in science. We give awards in three areas; Environmental Science, Biology, and Microbiology and Health. Each category awardees receive a first (\$30), second (\$20) and third (\$10) place gift card and a certificate. Last year we gave out 18 awards. If you're interested in judging these young developing scientists, please call or send me an email. We can use your help. And I guarantee you will enjoy visiting with these youngsters as they talk about their projects.

In April, FAR-B will again be hosting the luncheon for the BARC Poster Day and presenting awards to the top three posters presented by the High School Interns who are working in various BARC laboratories. The top award is the **Vernon G. Pursel Student Scientific Achievement Award**.

The science trailer from the Maryland Agricultural Education Foundation will be returning to the Beltsville Academy under the sponsorship of FAR-B. FAR-B, along with the school and its PTA will again sponsor the trailer in the fall of 2013.

In closing, please remember that it's time to send in your FAR-B membership dues. They are very essential for FAR-B to continue our support of various activities at BARC. In 2012, FAR-B was not included in the Combined Federal Campaign (CFC)--our biggest single source of income for FAR-B. We were just informed that the CFC application was just submitted.

Wishing you all a great New Year!

James Anderson, President

Area Director's Message

As I write this, as all Americans are I am mindful of the looming budget crisis; there is a lot of uncertainty associated related to our fiscal future. At the same time I am convinced that the research that is conducted in the Beltsville Area is and will continue to be recognized as among the very best. I continue to believe that this recognition is our strongest argument for continued support for our programs.

This past year has been a very successful one for us. Building 306 has been fully renovated into a state-of-the-art facility and is occupied by the Bee Research and Bovine Functional Genomics Labs. Congressman Hoyer was able to attend the rededication of the building and he saw first-hand some of the facilities needs that still exist at Beltsville. The Administration Building at the US National Arboretum is about to be re-occupied following a much needed and well executed renovation.

We are delighted that Dr. John Milner has become the Director of the Beltsville Human Nutrition Research Center. His enthusiasm and scientific leadership has already been apparent at BHNRC. In October, we had a large reorganization in the Beltsville Area with the formation of the Beltsville Agricultural Research Center. This reorganization will foster interdisciplinary research, streamline the organization, and make the structure of the Beltsville Area more in line with the other Areas in ARS. In a short period of time, Drs. Wanda Collins and Morse Solomon were able to begin the implementation of the reorganization. Dr. Collins retired at the end of 2012 and we owe her a debt of gratitude for her

leadership of the Plant Sciences Institute and the new BARC. Dr. Solomon will become the Assistant Director of BARC and he will be joined by Dr. Steven Shafer as Director and Dr. Ellen Harris as Associate Director. This is group of leaders from different backgrounds and I think they will form a dynamic leadership team for the new Center. In the past year, we have also had the formation of the Business Service Centers in ARS. While there have been some growing pains associated with this loss of some of our personnel, I think that Beltsville has been fortunate in having some very capable people assigned to service us.

In the past year, the Beltsville Area has enthusiastically received a number of employees who were reassigned from other Areas. We are happy to have them join us and they have added significantly to our research capabilities. Unfortunately, we along with all of ARS have been under a hiring freeze that limited our ability to fill all but the most urgent of positions. I am afraid that even though the positions are starting to be filled, it will be some time before we are fully staffed. In the meantime, it is not uncommon to see many of our employees in every job category taking on extra duties and doing more than one job. While this is not desirable way of doing business, it clearly is a testament to the dedication of our employees and their appreciation of the importance of the research that we conduct.

Despite the uncertainties, I look forward to the coming year. I truly believe we have a solid foundation of world-class research ongoing in Beltsville and are on the right track for continuing to build on that foundation. As always, we view FAR-B as our partners in this endeavor and I am sure I speak for everyone at Beltsville in thanking the members of FAR-B for their support.

Joseph Spence, Area Director

Financial Report

In 2012, FAR-B had operating income of \$20,027 and expenses of \$37,318 for a net loss of \$17,291. The main sources of income were Combined Federal Campaign (\$6,138), dues (\$4,182), donations (\$2,539), interest and dividends (\$1,680)

and workshops and the 2nd Annual Beltsville Area – University of Maryland symposium (\$6,930 minus \$7,995 expenses, about half of which were for a workshop at the end of 2011). The operating loss was anticipated because the FAR-B Board decided it was not appropriate to continue increasing reserves, as had been the case for the past 4 years, when FAR-B's goal is to support research and education activities in the Beltsville Area as well as in local schools. Dues income was down 2 percent from 2011 and CFC income dropped 34 percent. Donations were down 35 percent from 2011, but they had spiked that year because of support for the Vernon Pursel Memorial Fund. FAR-R percent expenditures by category were: research (64), education (27), outreach (3) and administration (5).

In 2012, FAR-B fully funded four high school student interns in the Beltsville Area as well as again supporting the following activities: the numerous programs organized by the Beltsville Area Diversity Task Force, including the Student Discovery Garden, the science enrichment program at the Beltsville Academy, the BARC Poster Day, and awards at middle school science fairs in Montgomery and Prince George's Counties. FAR-B also assisted with the 2nd Annual BA-UMD Symposium held in October.

Additional details of these activities are given elsewhere in this newsletter. See the reports on the Diversity Task Force and Mobile Science Lab and Thank You Note from the Plant Sciences Institute in this newsletter.

Richard Zimmerman, Treasurer

FAR-B Membership Report

FAR-B's membership currently stands at 19 patron members (\$100 annually), 72 personal members (\$30 annually), and 60 associate members (\$15 annually-USDA employees). A concerted effort is being made to inform Beltsville employees that they are eligible to be associate members and to get them to join. Efforts to recruit sustaining members (\$500 annually) have been unsuccessful. As always, we would appreciate any assistance you can provide to

help us get the word out about renewing membership or by joining FAR-B.

Allan Stoner, Membership Chair



Thank You Note from the Plant Sciences Institute

Dear Jim,

PSI has awarded its 2012 FAR-B student intern funds to Dr. Phyllis Martin in the Invasive Insect Biocontrol and Behavior Lab. Dr. Martin provided the following short synopsis of the program of research the student is expected to complete:

We have observed that phenotypically different *Bacillus thuringiensis* strains affect the germination and growth of corn seeds. Phenotypes that utilize sugars tend to inhibit germination and those that do not tend to stimulate germination and increase initial shoot and root growth. The project would be to confirm this phenomenon with strains already tested and test the general applicability to strains that are potentially toxic to corn seed maggot. Student would determine parameters for optimal corn seed germination, test various Bt strains for effect on germination, confirm phenotypes of Bt strains using agar dots and extend phenotype to Biolog identification, learn to titer Bt strains to determine optimal concentrations. Standard laboratory techniques to be used include media preparation, phase contrast microscopy, use of biosafety cabinets, autoclaves, and spectrophotometers. Student would learn to analyze the data using spreadsheets.

Dr. Martin has an excellent reputation with student interns and always provides a great learning experience. She has selected Mr. Robert Matthews, a student at Frederick Douglass High School in Upper Marlboro, MD, to receive this internship.

On behalf of Dr. Martin, IIBBL, and PSI, I would like to express our gratitude for the opportunity FAR-B gives to provide yet another unique, rewarding experience to a young high school student that could possibly lead him into a career in agriculture. Your support is important to us and we hope to have a very positive report for you at the end of this internship.

Please share this with FAR-B members.

Wanda Collins, PSI Director

Mobile Science Lab Week

FAR-B again partnered with the Maryland Agricultural Education Foundation, the Beltsville Academy, and the school Parent Teachers Association from October 22 to 26, 2012, to bring another week of agricultural science education to the school's eager-to-learn students. This year marks the ninth straight year that FAR-B has sponsored an event that FAR-B has come to think of as "Mobil Science Lab Week" at the Beltsville Elementary School.

We would be equally accurate to think of this annual event as "Agricultural Science Education Week."

The Beltsville Academy is a special school, serving a special student community. The total enrollment for fall 2012 stands at 960 students, of which approximately 54 percent are Hispanic, 23 percent Black, 8 percent Asian, 3 percent Multi-race, and 12 percent White. Sixty-three percent of the students receive food assistance. Fourteen percent of the students--served by 17 special education teachers--are in special education. Fourteen Beltsville Academy students are enrolled in the school's regional autistic program.

Every week-long event has been special--each featuring distinct themes and emphases. For the first couple of years, FAR-B pretty much ran its own science education show--literally. That first year, FAR-B's super kid friendly Al Stoner entertained every Beltsville Academy class with selections from the USDA-ARS publication *Science in Your Shopping Cart*. What a bravado performance that was! In time, Al would be joined by others -- notably Jim Anderson, Information Staff's Dianne Odland, several other FAR-B members, and a goodly number of BARC employees barrowing precious time from regular research duties to help with the worthy cause at the school.

Four years ago, FAR-B, the school, and its PTA hit on the idea of contracting with the Maryland Agricultural Education Foundation (MAEF) to bring one of the three Mobile Science Labs to the school

for a week of instruction in agricultural science and the importance of agriculture in daily life.

MAEF is a non-profit organization established in 1989 following a Governor's Task Force on agriculture in education. The foundation offers several educational activities for everyone from classroom teacher to kindergarten student. Perhaps the best known, most visible of MAF programs, are Mobile Science Labs (three in all). Labs visit Elementary schools throughout the state where MAF instructors lead students through hands-on scientific activities concentrating on agricultural products; aquatics-conservation; or food and fiber and biotechnology.



Beltsville students conduct lab experiments on chocolate.

MAEF mobile science labs log about 75 school visits annually, reaching some 60,000 or more elementary-age students each year. Schools and their partners pay roughly 40 percent of the cost of lab operations, with the balance being underwritten by Ag Tag revenues and other contributions. Those combined resources are no trivial matter to FAR-B; it means that FAR-B literally can maximize its return on limited resources. MAF raises funds from grants and the like. Their base funding comes from state sales of Ag Tag license plates that one sees everywhere on cars and trucks. MAF receives 50 percent of every original Ag Tag sale--100 percent of every tag renewal sale.

At Beltsville Academy this year, student classes from kindergarten through grade five were treated to one of three age-targeted themes in the Mobile Science Lab:

Kindergartens and first and second graders grinned their way through a live puppet show titled "How Groundhog's Garden Grew." Students participated in telling a story using props and puppets and culminate the activity as they recall story elements and make a "healthy hand" reminding them to eat more fruits and vegetables each day.

Third and fourth graders lived it up with "The Science of Chocolate", a new Mobile Science Lab theme this year, partially funded by a grant from the Hershey Company. Students acted like food sci-

tists as they discovered the properties of chocolate, investigated the taste and production of chocolate, and explored the concept of viscosity.

And those big fifth graders really delved into the some heavy-duty science in a Mobile Science Lab theme called “Banana DNA.” Students put their scientific skills to works as they created banana slurry and extracted the DNA from the banana in an effort to understand how biotechnology enables scientists to change characteristics in food products.

Jim Butcher, Chair Community Outreach



The Beltsville Area Diversity Task Force

The Beltsville Area Diversity Task Force (BADTF), with the gracious support of FAR-B, celebrated Native American Heritage Month on November 15, 2012,

with guest speaker Robert Killen, a commissioner on the Maryland Commission on Indian Affairs (MCIA). The MCIA “promotes awareness and a better understanding of both historical and contemporary Native American contributions to life in Maryland” and “assists state, local and private agencies responsible for addressing the educational, social and economic needs of Native American communities in Maryland.” Among the attendees were students from the Beltsville Academy.

Killen spoke about Native American history and offered a unique outlook on Native identity. He told stories from his perspective as a member of the Pocomoke tribe, who lived in what is now known as the Eastern Shore of Maryland. Killen spoke cheerily of his childhood years, playing Indian wrestling or counting coup with his playmates, then catching fish for his family’s dinner. He explained that Indian games imitated skills needed in life. For instance, counting coup demonstrates skill as a warrior: If you could, while weaponless, sneak up on your “enemy” and touch him, then you were considered very brave. Student attendees enjoyed playing those and many other games introduced by Killen. He also told the students the story about the origin of the tipi and invited them to explore the tipi

Commissioner Robert Killen of the Maryland Commission on Indian Affairs demonstrates Native American games to students from Beltsville Academy.



that was set up adjacent to the BA Student Discovery Garden.

Interjected between the cultural stories and childhood recollections were truths that brought social and economic issues of the time into stark focus. Killen spoke of his parents warning him “never let on that you are Indian” because “you will be treated very poorly by the western people.” He grew up with none of the amenities we take for granted today, like indoor plumbing. He summed up everything in a matter of fact way, with a few poignant words: “That’s just the way it was.”

As recently as January 9, 2012, Maryland Governor Martin O’Malley signed two historic executive orders, establishing the Piscataway Indian Nation and the Piscataway Conoy Tribe as the first state-recognized tribes in Maryland history. Through a law enacted by the Maryland General Assembly, in order to be officially recognized by the state, a petition must be submitted to MCIA that documents Native American identity and indigenous status to Maryland. Official recognition of Native American tribes will open up potential funding sources for education, public health, housing, and minority business contracting.

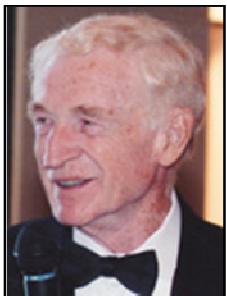
BADTF would like to thank FAR-B for their support of this event and the many other heritage celebrations throughout 2012. FAR-B’s continual contributions have allowed the BADTF to carry out its mission to assist the BA Administration in creating and maintaining a workforce that represents the diverse surrounding community, free of prejudice or discrimination. Educating the BA community is a primary means of accomplishing this goal and FAR-B is an integral part of that. To find out more about BADTF, please see our website at: <http://www.ars.usda.gov/Aboutus/docs.htm?docid=17502>.

Verneta Gaskins
Chair Beltsville Are Diversity Taskforce

IN MEMORIAM

Bruce E. Schwartz

Bruce E. Schwartz, 81, a longtime resident near Adamstown, MD, died on Sunday, September 9, 2012 at his home from complications of chronic obstructive pulmonary disease (COPD). He was the son of the late D.A. and Margaret Schrell Schwartz and was born and grew up in Herkimer, NY. He graduated from Herkimer High School, attended Rider College in NJ and then moved with his family to Tucson, AZ where in 1953 he received his BA in Journalism from the University of Arizona. In 1954 he entered the US Army and was stationed in Fort Lewis, WA where he was recognized with an Armed Services award for his many achievements as a public affairs specialist.



After his military service, he headed back east to begin a lifelong career in journalism, public relations, advertising, and community service. Mr. Schwartz started as the bureau chief for the Oneonta Daily Star in NY, on to Baltimore, MD as publications director for the United Appeal, and then to Akron, OH to work in advertising for Malone Associates, Inc. From there, he worked in Corning, NY for 10 years as the director of community affairs for the College Center of the Finger Lakes.

In 1975 he and the family moved to the family farm near Adamstown, MD. In the late 1970's and early 1980's he worked 25 years for the USDA Information Staff first in Washington, DC and then at BARC, where he became the Chief of the Current Information Staff in charge of press releases and Media Liaison. He was a great mentor and Editor and supervised writing staffs at Beltsville, Peoria, IL, New Orleans, LA and Albany, CA. He retired in 1986.

Schwartz was part of the Carroll Manor Civic Association as an activist for the betterment of his local community. His first wife of 28 years, Dorothy Renn Schwartz, preceded him in 1987. He married Eileen Bartosic Schwartz in 2001 and is survived by her along with his two daughters Steph-

anie Schwartz and Anne Schwartz Novak, his four stepchildren Bart Bartosic, Ellen Bartosic Valli, Thomas Bartosic, and Stephen Bartosic, his two grandsons Ryan and Cameron Novak, his six step-grandchildren Juliet Valli Ramirez, John Valli, Elizabeth and Thomas, Jr. Bartosic, and Joey and Tommy Bartosic, step-great-grandchild Christian Ramirez, and several nieces and nephews.

A memorial service was held at the Keeney & Basford Funeral Home, 106 E Church St, Frederick, MD on Saturday, November 17, 2012. In lieu of flowers, please make memorial donations to Hospice of Frederick County, 516 Trail Avenue, P.O. Box 1799, Frederick, MD 21702.

William E. Robbins

William E. Robbins passed peacefully on Thursday, May 31, 2012 at home surrounded by caring family. He is survived by his two daughters, Pamela Sue Robbins and Martha Diane Robbins-Holland, and his grandchildren, Danielle, Rachel, Delaney, and Ian.

As the retired Lab Chief of Beltsville Agriculture Research Center (BARC), Bill continued to be involved in his community. He was involved in his community--from volunteering with the Montgomery County Park Department to participating in the Northwood-Four Corners Civic Association or as resident scientist on Margate Road. Along with being active in the community, Bill especially liked hiking the Northwest Branch Parks and wooded areas. It brought him great joy to walk, fish, and explore the woods with his many canine companions.

William was a first born generation in America; his family originated in Germany. He taught himself to read English through the daily newspapers. Being a child during the Depression taught William the value and importance a good education had in shaping a person's future. This belief in a good education was strongly passed to his children and grandchildren.

William served his country in the US Army, working with toxic chemicals and their uses. He also served overseas numerous times, but found his

love of chemistry and science carried over to college, where he majored in biochemistry and entomology. He was chosen from Corvallis, OR to move to Silver Spring, MD to head the BARC as Lab Chief.

Mr. Robbins's family had a memorial gathering on Saturday, June 23rd at his Margate residence.

William A. Moats

William A. Moats, 83, a research chemist who retired from the Agriculture Department's Agricultural Research Service in 1997, died Aug. 2 at a nursing home in Canandaigua, NY.

He had pneumonia, said his daughter Sandra Moats. A former Potomac resident, he had lived in the Washington area for 60 years before moving to New York in 2010.

Dr. Moats worked for the Agricultural Research Service for four decades. He was the author or co-author of dozens of publications related to the detection of bacteria and pesticides in animal products. He was the editor of the book *Agricultural Uses of Antibiotics* (1986) and co-editor of *Veterinary Drug Residues: Food Safety* (1996).

Dr. Moats held leadership positions with the American Chemical Society and organized several symposiums at national meetings. He received professional honors from that group and the Association of Official Analytical Chemists.

William Alden Moats was a Des Moines native. He received a bachelor's degree in chemistry from Iowa State University in 1950 and a doctorate in biochemistry from the University of Maryland in 1957.

Survivors include his wife of 54 years, Sheila A. Moats of Canandaigua, and two daughters, Laura Moats of Naples, NY, and Sandra Moats of Racine, WI.

Dr. John Lydon

John Lydon passed away on October 18 at the Community Regional Medical Center in Fresno, CA. As National Program Leader (NPL) for Weed Science in the Office of National Programs, John

was visiting the ARS Lab in Parlier, CA 2 weeks earlier to meet with stakeholders at an annual insect pest management research meeting when the car in which he was riding was struck by another car at a rural intersection.

John suffered massive head and internal injuries in the accident and had been under intensive care since. Joel Siegel, a Research Entomologist in Parlier, was also injured in the collision, but has since been released from the hospital though he continues to recover from his injuries.

As National Program Leader since 2009, John led ARS research initiatives involving invasive plants, herbicide resistance, and biological control. Prior to assuming his duties as NPL, John was a research scientist for the Sustainable Agricultural Systems Laboratory at the Beltsville Agricultural Research Center for many years.

John was a truly insightful and dedicated scientist, whose most recent work had shown the importance of physiological control mechanisms in plants. He was very proud of this achievement and had only recently completed an important manuscript on the work. That direct experience in science made him a realistic and respected scientific administrator at the Office of National Programs.

In a short amount of time, he had become an essential member of the ARS leadership team charting the course for plant protection research. His specialty was weeds, but he also managed the entire area-wide integrated pest management program, was one of the main liaisons to the National Invasive Species Council, sat on the committee that evaluates potential biological control agents for APHIS, and helped with the scientific direction of ARS' Overseas Biological Control Laboratories.

John was a respected scientist and colleague with many friends in the Beltsville Area and throughout all of ARS. John's wife, Martina, also a member of our ARS family, works at the National Agricultural Library in Beltsville. All in ARS extend to Martina and her family our most sincere condolences on their loss. We all join with his family in mourning his passing.

Friends of Agricultural Research-Beltsville, Incorporated

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We were just informed that the CFC application was just submitted.

Thank you for your support!

MEMBERSHIP LEVELS

Personal Membership.....	\$30
Patron Membership.....	\$100
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Associate Membership	\$15 (USDA employees)

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