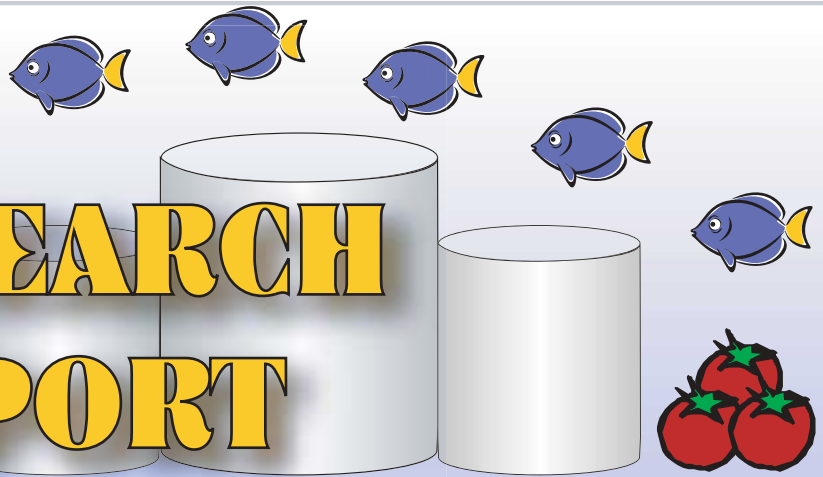


WVSU

1890 RESEARCH

NEWS REPORT



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WEST VIRGINIA STATE UNIVERSITY

April 26, 2004

WVSU Cooperative Extension Programs Sponsors Junior Master Gardeners

The WVSU Department of Agriculture, Consumer, Environmental, Outreach Programs (ACEOP), sponsors a Junior Master Gardeners program which instructs elementary school children in several fields in the area of natural science.

The Junior Master Gardeners program is spearheaded by Mrs. Melissa Williams, greenhouse manager and extension specialist. She initiated the program after completing training at Texas A&M (Agriculture and Mechanics), also a land-grant institution. "Every state and several countries have taken advantage of this training to provide students with an ecological education that includes the study of insects, humans, wildlife, and agriculture. It mixes college-bound and vocational disciplines," stated Mrs. Williams.

The program is a partnership between ACEOP, Putnam County Schools, and Master Gardeners. Mrs. Williams has been working with Buffalo Elementary fourth grade teachers and their classes, since the initiation of the Junior Master Gardeners program in November of 2003. The two-hour classroom program which she conducts once a week, meets the state's teaching standard requirements for science, math, language arts, and history. According to Mrs. Williams, through mapped-out weekly teaching activities, the program combines the concepts of how plants grow, where some plants grow, and how they benefit wildlife.

There are 36 children enrolled in this program. They have grown plants from seedlings at the campus experimental research plots using commercial fertilizer as part of their hands-on instruction. The students plant projects at the campus greenhouse were taken to the Buffalo Elementary's greenhouse and will eventually be sold as part of their fund-raising efforts to support school programs. Presently, ACEOP provides the textbooks, supplies, and equipment for the program.

When the students complete the program in accordance with Texas A&M requirements, they are awarded medals and certificates. This semester's group received citations on Thursday, April 1, for completing the second chapter.

According to Mrs. Williams, this year, the program will extend to include a kindergarten group for which the fourth graders will serve as mentors. Next semester, Mrs. Williams will not only restart the program with the next fourth graders, but will continue working with the fifth grade participants.



Mrs. Williams conducts class at the WVSU greenhouse.

Agriculture Complex Renamed After Commissioner



(L to R) Mr. John Perdue, Governor Wise, Mrs. Douglass, Commissioner Douglass, Dr. Carter

The State of West Virginia honored Commissioner of Agriculture Gus Douglass by renaming the Guthrie Agricultural Center in his honor during a ceremony on March 30. The new official name approved by the 2004 Legislature is The Gus R. Douglass Agricultural Complex at Guthrie.

Governor Bob Wise was the keynote speaker. Other speakers included West Virginia State University President Hazo W. Carter, Jr., and West Virginia Treasurer John Perdue, who began his career working for Commissioner Douglass as an insect technician and pesticides inspector. Mr. Frank Lee, assistant for economic development for Governor Wise, was the master of ceremonies. Dr. Mark Chatfield, associate director of Agricultural Research Program, and Dr. Orlando

McMeans, dean and director of Land-Grant Programs, were also in attendance.

Commissioner Douglass is the senior agriculture commissioner in the United States. He was first elected in 1964, and was a gubernatorial candidate in 1988. He and his son, Tom, operate their 540-acre family farm in Mason County, specializing in beef cattle and grain production.

In 2001, Commissioner Douglass donated the thermophilic anaerobic digester to WVSU for the augmentation of research projects on campus. Today, these projects are addressing environmental concerns in the State of West Virginia by recycling poultry and other waste matter and converting them into useful products. The research projects eventually developed into a microbiology master's degree program.

Announcement

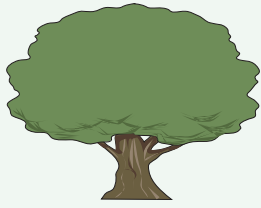
The 2004 Research Symposium at WVSU

Dr. Neil O. Anderson, assistant professor of horticultural science at the University of Minnesota (UM), is scheduled to give a general public address on his ornamental work of mums and lilies breeding, at 7:30 p.m., Thursday April 29, at the Erickson Alumni Center. Area garden clubs have been invited to attend.

At 8:30 a.m., Friday, April 30, he is the guest speaker for the 2004 Research Symposium, which will be held in the Cabell Auditorium, in Hamblin Hall. According to Dr. Barbara Liedl, assistant professor of biology, Dr. Anderson's oration will be on invasive (plant) species. She stated, "I am very excited to have him come for a couple of rea-

sons. First, we have some plants in the field that come from his program. Second, we are hoping to write a proposal to investigate the "birth" of the noxious (poisonous) weed, and purple loosestrife."

Dr. Mark Chatfield, associate director for the Agricultural Research Program, stated that the University's research scientists and students will make presentations on their research activities. "We have invited our stake holders; Commissioner of Agriculture Gus Douglass; Deputy Commissioners, Steve Hannah and Janet Fisher; the Department of Environmental Protection; the Department of Natural Resources; and American Electric Power Company.



WVSU Supports Arbor Day Celebration

The West Virginia Division of Forestry gave recognition to **Dr. Barbara Liedl**, associate professor of biology and research scientist; and **Dr. Mark Chatfield**, associate director of agricultural research programs, for providing \$3,000, through the Renewable Resource Extension Act (RREA), for the purchase of 75 trees that were used in Arbor Day ceremonies across the

State of West Virginia on April 9. RREA offers national resource and environmental awareness programs as a collaborative venture between West Virginia State University and West Virginia University.

Three types of trees, the "Forest Pansy Redbud," the "Kousa Dogwood," and the "Royal Burgundy Cherry," were purchased for planting on Arbor Day. Also, a tree will be

planted at the school of the WV Arbor Day Poster contest winner.

"This is an excellent way to promote urban forestry in WV and advertise the urban forestry program at WVSU," stated Dr. Liedl. "Also, Arbor Day ceremonies are a great way for the public to learn more about the role trees play in our lives."

West Virginia has sites with Tree City USA status.

Chemical Company Donates Equipment to Biology Department

The Bayer CropScience Company in Institute, donated over \$200,000 worth of lab equipment to the WVSU Department of Biology on April 2.

According to Mr. Hal Turley, public relations specialist, the plan originated with Dr. Mohamed Itani, a lab manager for Bayer, who was an adjunct chemistry professor at WVSU two years ago. The company is downsizing and revamping their labs with more modern equipment. Dr. Itani contacted Dr. Harold Pinnick, professor and chair of the Department of Chemistry at WVSU, and asked if the University could use the analytical equipment, most of which is new. "This turned out to be a win-win situation for all concerned," said Mr. Turley. "We freed up space, and at the same time, we help our neighbors by providing lab equipment they can use. We're



Bayer CropScience personnel deliver equipment through Hamblin Hall basement.

happy to help the university and the students."

Dr. Mark Chatfield, associate director of agricultural research programs, assisted in unloading the trucks. He stated, "They've given us analytical equipment worth over \$200,000. This equipment will bring our program to a new level of capacity.

Research Student Presentation at Legislature

Ms. Mandy Cummins, senior biology student, at West Virginia State University (WVSU) presented a poster at the capitol for Undergraduate Day at the Legislature 2004 on February 26. She presently is working on a project under Bioplex as one of Dr. Barbara Liedl's students. Dr. Liedl is assistant professor of biology and a research scientist at WVSU.

The research presentation focused on the use of liquid effluents produced via thermophilic anaerobic digestion of poultry litter as an alternative fertilizer. According to Dr. Liedl, in an experimental trial, lettuce was grown hydroponically using nutrient film (residue) technique (NFT). (Hydroponics is the science of growing plants with their roots in nutrient mineral solutions rather than soil.) Three levels of effluents were chosen based on nitrogen levels. Plants were started in Rockwool and transplanted into NFT. The solutions were monitored on a daily basis.

Experimental conclusions demonstrated:

1. The lowest effluent concentration produced shoot fresh weight not significantly different from those produced in a commercial solution.
2. Increased concentration of effluents produced bitter tasting lettuce.
3. Lettuce grown is the lowest effluent concentration grew at a steady rate after two weeks, while the commercially fertilized lettuce grew slowly with a large increase between four and five weeks.

"The "digester's" effluent shows promise as an alternative fertilizer for hydroponics," stated Dr. Liedl.

This research is essential considering fertilizer costs and increased awareness of pollution run-off which are increasing pressures on farmers, added Dr. Liedl. "Thermophilic anaerobically digested manure is a promising alternative, especially with the increasing public demand for organically grown produce," she concluded.

WVSU 1890 Research News Report

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The WVSU 1890 Research News Report is distributed to the students, faculty, staff, friends and supporters of West Virginia State University. For additional information call (304) 766-4276.

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