

Greetings Alumni, Students, Friends, and Colleagues:

The arrival of summer gives us a chance to take stock of our accomplishments for the year and share those successes with our alumni and friends. Thanks to all of you who visited the department during the past year or responded to last year's newsletter. We enjoyed and very much appreciated hearing what you are doing. I would like to extend an invitation to all of you to keep us updated. In September 2007, the department underwent a comprehensive review of our programs – our first since 2000. The review team was coordinated by the Cooperative State Research, Education, and Extension Service (CSREES). The department was commended for its productivity in the tripartite mission of Research, Teaching, and Extension, and noted for its collegial and collaborative environment. Further evidence of the success of our programs can be documented through large sponsored awards obtained by PPWS faculty members this past year:



Elizabeth Grabau,
Plant Pathology, Physiology
and Weed Science
department head

- **Boris Vinatzer** was awarded a prestigious Career Award from the National Science Foundation for his work in evolutionary genomics of *Pseudomonas syringae*.
- **David Schmale** received a USDA National Research Initiative Award in Plant Biosecurity.
- **John McDowell** and **Brett Tyler** were funded by the National Science Foundation for a collaborative project on Oomycete Effector Proteins.
- **Jim Westwood** is part of a joint Parasitic Plant Genome Project grant.
- And most recently, **Steve Rideout** received notice of a grant from the USDA-CSREES Methyl Bromide Transitions Program.

Other achievements include the graduation of four students, recognition of the Turf Team among the top three turf programs in the country, and events hosted by our department, which are highlighted inside this newsletter. As always, check the PPWS website (www.ppws.vt.edu) for current activities, events, and other information.

Elizabeth Grabau, department head

Sansanalak Rachdawong (Ph.D. PPWS, 1999) is an assistant professor in the Division of Biotechnology in the School of Bioresources and Technology at King Mongkut's University of Technology Thonburi (KMUTT) in Thailand. As a graduate student in PPWS, Rachdawong developed a DNA-based PCR test to differentiate causal agents of take-all of wheat, which greatly improved management of this disease. As a researcher at KMUTT, she discovered an endophytic fungus associated with Jasmine rice and was able to transfer the endophyte to other rice cultivars grown in Thailand to confer the Jasmine rice characteristic to those varieties. In 2002 Rachdawong was recognized by the Thai government as one of the top ten scientists in Thailand.



Sansanalak Rachdawong, Ph.D.,
PPWS, 1999

Note: Please update your information at the Alumni Association website at www.alumni.vt.edu/gateway (select "View and Update Your Profile").

Theses and Dissertations

- **Grace Hite**, Kenbridge, Va., Differential Response of a Virginia Common Lambsquarters (*Chenopodium album*) Collection to Glyphosate, M.S. spring 2008
- **Stacey Simon**, Frederick, Md., Using Synthetic Gene Clusters to Model R Gene Evolution by Meiotic Recombination in *Arabidopsis thaliana*, Ph.D. fall 2007
- **Amanda Stiles**, Fairfax, Va., Isolation and Characterization of Late Pathway Genes in Phytic Acid Biosynthesis in *Glycine max*, Ph.D. summer 2007
- **Jian Sun**, Tianjin, China, Investigating the Evolution of Gene Families Using Synthetic Gene Clusters, Ph.D. spring 2008

Awards and Scholarships

Alumni

- **Caitilyn Allen** (Ph.D. PPWS, 1987), professor at the University of Wisconsin-Madison, and **Sansanalak Rachdawong** (Ph.D. PPWS, 1999), assistant professor in the Division of Biotechnology in the School of Bioresources and Technology at King Mongkut's University of Technology, Thonburi, Thailand, were each honored with a 2008 College of Agriculture and Life Sciences Alumni Award.

Students

- **Jeneylyne Colcol**, Valencia City, Bukidnon, Philippines, was awarded first place in the Potomac Division American Phytopathological Society's annual meeting student paper competition with her presentation "Sensitivity of Grape Downy and Powdery Mildew to Commonly Used Fungicides," spring 2008.
- **Matt Goddard**, Knoxville, Tenn., was awarded the Chester L. and Betty R. Foy Graduate Award in fall 2007. He was also the recipient of the Louis and Ginger Brooking Turf Graduate Student Scholarship, Department of Crop and Soil Environmental Sciences, spring 2008. Additionally, he received the 2008 United States Golf Association Mid-Atlantic Region Green Section Intern award.
- **Grace Hite**, Kenbridge, Va., was the recipient of the 2008 Outstanding Graduate Student Award, Virginia Crop Production Association, winter 2008.
- **Jennifer Jester**, Cosby, Mo., was the recipient of the Kriton K. Hatzios Crop Protection Graduate Scholarship, fall 2007.



The department has come closer to completing the endowment for a new graduate scholarship thanks to a generous contribution from Dr. Larry and Mrs. Mary Ann Moore to the Lawrence I. Miller and Laurence D. Moore Graduate Scholarship, named for the two former department members. When fully endowed, the scholarship will be awarded annually to a graduate student in PPWS.

Dr. Larry Moore's contribution supports graduate scholarship.

- **Stacey Simon**, Frederick, Md., was the recipient of the Bruce W. Perry Scholarship, fall 2007.
- **Virginia Sykes**, Virginia Beach, Va., won second place in one of five sessions in the 2007 C-5 Turfgrass Science Division of the Crops Science Society of America's oral presentation contest with her presentation "Resistance Screening of *Festuca arundinacea* Germplasm to *Rhizoctonia* Species Using Digital Image Analysis."
- **John Willis**, Trenton, Tenn., was the recipient of the Arthur J. Webber Graduate Student of the Year Award, PPWS, spring 2008.



John Willis receives the Webber Award from Grace Hite.

Faculty

- **David Schmale**, assistant professor, received the 2008 Award for Excellence in Remote Sensing and Precision Agriculture from the National Association of Agricultural Agents.



Dawen Xie, Employee of the Month for June 2008.

Staff

- **Dawen Xie**, information technology specialist, was recognized as College of Agriculture and Life Sciences Employee of the Month for June 2008.

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New Faculty

Sakiko Okumoto joined PPWS as an assistant professor in October 2007. She earned her degree in Plant Physiology at Tübingen University in Germany and completed her postdoctoral training at the Carnegie Institution of Washington in Stanford, Calif. Her research focuses on nitrogen sensing and transport in plants. In particular, she is interested in the role of amino acids as “nitrogen currency.” She uses fluorescent biosensors to visualize amino acid movements in plants to elucidate basic regulation mechanisms for nitrogen flux. Her ultimate research goal is to increase productivity in crop plants through improved nitrogen usage.



Sakiko Okumoto

Hatzios Library Dedication

Members and friends of PPWS came together on April 18 to dedicate a new departmental library in honor of former colleague **Kriton Hatzios**. Hatzios joined the Virginia Tech faculty in 1979 after earning his doctorate at Michigan State University. In 1997, he became department head of PPWS and in 1999, he was named director of the Virginia Agricultural Experiment Station and associate dean for research in the College of Agriculture and Life Sciences, a position he held until his death in 2003. Hatzios was a nationally and internationally recognized leader in herbicide metabolism. His extensive personal library in plant physiology and weed science was donated to the department by his wife Maria. The Hatzios Memorial Library is housed on the fourth floor of Price Hall.



Pictured from left to right are Craig Nessler, associate dean; Maria Hatzios, foreign language instructor; and Elizabeth Grabau, department head.

Virginia Tech Hosts the 2007 Northeastern Weed Science Society's Weed Contest

The annual Northeastern Weed Science Society's Weed Contest was hosted by Virginia Tech in July 2007. A total of 45 graduate and undergraduate students participated from six universities. Students participated in four contest segments, including weed identification, unknown herbicide identification, sprayer calibration, and farmer problems. **Shawn Askew**, associate professor and Extension turfgrass weed specialist, organized the contest with planning assistance from **Julie Keating**, program support technician. An array of herbicide-injury identification plots were planted and maintained by **John Willis**, Ph.D. graduate student. The contest included “real-world” problem-solving scenarios, such as: invasive weed identification and management for a newly-acquired property, a brush pile burn that deactivated the preemergent herbicide applied to a corn field, insect repellent that left green footprints on a golf putting green, contaminated hay mulch that killed tomatoes and “Your glyphosate killed my goat” in which **Scott Hagood**, professor PPWS, gave a stellar performance as the irate and devastated goat farmer.



A participant engaging in weed identification during the contest.

Virginia Tech Hosts the 22nd Tomato Disease Workshop



Steve Rideout addresses participants.

Steve Rideout, PPWS assistant professor at the Eastern Shore Agricultural Research and Extension Center, hosted the 22nd Annual Tomato Disease Workshop on Oct. 24–26, 2007. The workshop provides a forum for the presentation of new products and recent research results relating to disease etiology, pathogen epidemiology, breeding for disease resistance, and chemical, cultural, and biological disease management strategies. The Williamsburg workshop included a trip to the Eastern Shore to view Virginia's largest area of tomato production. The event attracted over 80 participants from 17 states and three countries. Fresh market tomatoes ranked as the top cash crop in the commonwealth in 2006. Virginia ranks third in tomato production value in the United States (behind California and Florida).

PPWS Graduate Students Participate in “The Big Event”

On Saturday, April 5, members of the PPWS Graduate Student Organization (GSO) participated in “The Big Event.” The Big Event is Virginia Tech’s largest community service project and was designed as a means of thanking the New River Valley for supporting and hosting the university. Students and student organizations completed over 450 service projects that ranged from painting to yard work to trash pickup. PPWS GSO members formed two teams that helped two households with jobs that included washing windows and clearing yard brush. The PPWS graduate students found the project very rewarding due to the great appreciation shown by the individuals helped, the opportunity to bond as a group, and also enjoyed working outdoors on a spring day.



PPWS graduate student participants: Grace Hite, John Willis, Sajeewa Amaradasa, Jennifer Jester, Leigh Ann Harrison, Nicole Juba, and Matt Goddard.

Faculty and Classified Staff Updates

Julie Keating joined the department as a full-time university staff member in June 2007. She is a program support technician in Associate Professor Shawn Askew’s turfgrass weeds program at the Glade Road PPWS facility. Previously she worked part-time for Askew.

Haijie Liu joined the department as a laboratory specialist senior in May 2007. She works for both Boris Vinatzer and Elizabeth Grabau.

The following faculty and staff members are commended for their years of service to the university: **Donna W. Ford** (30 years), **Pat Phipps** (30 years), **Diane Reaver** (20 years), **Verlyn Stromberg** (25 years), and **Henry Wilson** (40 years).