

Fall 2007, Volume 15

Seeds

ALUMNI SPOTLIGHT

Jane and Bill Foster

Bill and Jane (Cassidy) Foster graduated from Virginia Tech with B.S. degrees in Horticulture in 1982. Jane, originally from Delaware, was a straight-A student and president of the Horticulture Club. Bill, originally from Washington State, took an



avid interest in undergraduate research and college life. Bill had a reputation of living life to the fullest while attending Virginia Tech. Despite this, he developed an interest in undergraduate research and worked with Dr. Robert Wright on the chemical properties of pine bark which is the "soil" for most container-grown plants in the south. Bill's research was noteworthy and resulted in lead

authorship of a refereed article in the prestigious *Journal of the American Society for Horticultural Science*. Bill, with his analytical skills of a keen researcher, could not help but notice Jane's wit and ready smile. After a courtship that started in their senior year, Jane and Bill were married a year later in 1983.

Jane and Bill undertook an itinerant life style for the next fifteen years. Following VT, they moved to Raleigh, North Carolina, where Bill worked as a research technician at North Carolina State University on a sweet potato project. They then moved to Gainesville, Florida, where Bill earned his masters degree in horticulture at the University of Florida working with heat stress of container-grown plants. This work earned him another refereed journal publication. The next destination was Mobile, Alabama, where Bill became the Superintendent of Auburn University's Ornamental Horticulture Research Station for three years. Bill and Jane's next challenge was the difficult decision to leave the university system and join the private (see **FOSTERS** on back)

Greetings from the Department of Horticulture

The University and the Department went through a traumatic experience on April 16. The tragedy has unified Virginia Tech's community probably stronger than ever before. Several memorial projects are now under development that include participation of students, victim families, faculty, staff, alumni, and others across the US and beyond. One project is a Hokie Spirit Garden Trail that will integrate green spaces on campus, including proposed development of new theme gardens, and link the Trail to the Huckleberry Trail. Both walking and biking trails are considered. The project is a partnership between the campus community and the green industry. The Horticulture Department plays a significant role in this undertaking as well as in the development of a Jocelyne Couture-Nowak Memorial Garden as a part of the Terrace Garden currently under construction at the Peggy Lee Hahn Garden. Here I would like to take the opportunity to thank the alumni for the support you gave me and my family after my wife's tragic death. Your sympathy and kindness helped carry us through these darkest hours and have been a source of our strength. Here is the url of the article on our family which has been recently published in the *Chronicle of Higher Education*: <http://chronicle.com/free/v54/i04/04a00101.htm>.

I hope all of you had a successful year and are looking forward to receiving good news from

(see **GREETINGS** on back)

Donnie Sowers Retires

Donnie started working in the department while still in high school in 1964. After a couple of years in the Army, he began a four decade career in the department. Donnie's work was primarily in pomology, and he worked with a broad spectrum of programs and



people - Dr. Horsfall (orchard mouse control) and Dr. Mattus (apple maturity and storage, physiological disorders, nutrition, and growth regulators). Donnie then worked for a few years with Drs. Lee, Kushad, and Myers in several areas of pomology. Donnie was a vital asset to Drs. Marini and Barden in their efforts on peach and apple pruning, rootstock evaluation, orchard systems, fruit thinning, and pre-harvest drop

control. Donnie closed out his career with Dr. Harris at the Urban Hort Center on shade tree research. He was always ready to lend a helping hand to anyone who needed it. He contributed greatly to the development of many grad students.

In 2006, Donnie retired and is enjoying life with his wife Linda on their farm in Christiansburg. Among his new interests is the restoration of old cars. Over the years Donnie has been an avid cribbage player, deer hunter, and story teller. We are glad to see him enjoying retirement and wish him the best. His ready smile, hearty laugh, and tall tales are missed by those who worked with him!

New Container Substrate Receives Patent

A patent has been awarded to Dr. Robert Wright for the development of WoodGro™, a new plant growing substrate made from ground pine trees for greenhouse and nursery crops. This is a totally different approach to container substrate production in



that a new material is created for use as a container substrate rather than mining peat (a non-renewable resource) or using a by-product of another industry such as pine bark or coconut coir. Whole loblolly pine logs are coarsely chipped and further ground to produce a substrate designed to meet specific substrate requirements (porosity, water holding capacity, etc.).

A wide variety of nursery and greenhouse crops has been shown to grow well in WoodGro™, and these plants have been shown to perform as well in the landscape as those grown in traditional substrates.

Where Are They Now? Dr. Bob Lyons

Dr. Lyons is presently the Program Director for the Longwood Graduate Program in Public Horticulture and Professor of Landscape Horticulture at the University of Delaware. He has taught courses in herbaceous plant materials, their diversity, and use in the landscape while on the faculty of Virginia Tech, North Carolina State University, and the University of Delaware. He co-founded



and became the first Director of the Virginia Tech Horticulture Gardens during his tenure from 1981 to 1998. His teaching awards include the Wine Award for undergraduate teaching at Virginia Tech, the Chadwick Award from the American Nursery and Landscape Association, and the Outstanding Educator Award from the American Society for Horticultural Science. He has been a photographer for

over 25 years and has published widely in homeowner, commercial, and educational publications (print and electronic); he has exhibited and lectured nationally about horticultural photography, and has received awards from the Garden Writers Association of America for both his photography and writings.

Horticulture Club

The Horticulture Club continues to be an active student organization in the Department, whose membership extends across multiple departments. The Club is involved in a range of activities both on- and off-campus. Several fundraisers are undertaken each year to provide revenue for student travel to meetings and



other venues. The signature event each year continues to be the "Plant Sale," spread over several days around spring commencement. Last year's sale was among the most profitable ever. Community service is also an important

activity for the Club. For the current academic year, the Club will carry on their normal annual activities such as Adopt-a-Highway, but also take on some new assignments, such as a service project at Pandapas Pond for a new garden. The Club is strongly committed to VT-Engage, a new initiative to pledge volunteer service to the community in commemoration of the victims lost in the April 16 campus tragedy.

Alumni News

2000-2007

Jeff S. Mohr BS '05 is Vice President/COO for Greenshades Landscaping, Inc. He lives in Timonium, MD.

Melissa Holder Swanson BS '04 is a designer/estimator with Bramer Brothers Landscaping. She recently started her own landscape design service business called Distinct Designs by Melissa Swanson. She and her husband Joshua (VT '04) live in Louisville, KY.

1990-1999

Holly McPhail Tuttle BS '99 is an Assistant Scientist with BASF. She plans to go Grad School to major in plant pathology. She and her husband Thomas, who works for the *Durham Herald Sun*, live in Durham, NC.

Christopher D. Williams BS '98 is an Account Manager/Sales Trainer for Rosen's, Inc. He and his wife Lara live in Hamilton, OH.

Edward R. Olsen BS '90 is a Horticulture teacher at Powhatan High School. He started teaching last fall. He and his wife Kristie and their two children, Rob age 10 and Drew age 7, live in Midlothian, VA.

Chris Wiseman BS '90 is Senior Manager, IT Audit at Ernst & Young LLP. He and his wife Charlotte, whom he married in 2006, live in Atlanta, GA, where he works as a CPA.

1980-1989

Matthew E. Peterschmidt BS '88 is the Garden & Greenhouse supervisor of the Mount Vernon Ladies Association. He and his wife Kathryn (BS Arch '93; MS Arch '99) and daughter Lillianne, who was born in February 2006, live in Alexandria, VA.

Henry R. Owen MS '84, Ph.D. '87 was promoted last year to full Professor of Biological Sciences at Eastern Illinois University. He lives in Charleston, IL.

David L. Steward MS '85 is the program head of Horticulture Technology at J. Sargeant Reynolds Community College. He is the owner of Garden Creations, a design/build, garden care business. He and his wife Susan celebrated 25 years of marriage in August 2006. They and their two daughters, Kelsey age 19, and Ryan age 16, live in Richmond, VA.

John E. Donegan BS '77, MS '80 was promoted to Florida Sales Manager for Florikan E.S.A. in January 2006. His wife Linda graduated with a BA in Fine Arts from Thomas Edison State College in 2006 and was promoted to Director of the Fine Arts Department at Wellington Christian School. They live in Royal Palm Beach, FL, and their two daughters Erin (23) and Becky (20) are attending college in Florida.

1970-1979

Donna Downing Gray BS '77 is a real estate agent with Aldridge & Southerland. She was the top producing agent in 2006. Donna lives in Farmville, NC.

**Alumni: We would love to hear from you. Please complete the Information Form below.
We'll publish your information in next year's issue.**

DEPARTMENT OF HORTICULTURE ALUMNI INFORMATION FORM

The Virginia Tech Department of Horticulture wishes to have current information on your activities and accomplishments. Please complete this form to let us know where you are and what you're doing.

Name _____ Degree _____ Year _____
(Last) (First) (M.I.) (Maiden)

Address _____

Position and employer _____

Spouse's Name _____

News of interest _____

E-mail address: _____

Return to: Joyce Shelton, Dept. of Horticulture (0327), Virginia Tech, Blacksburg, VA 24061

VT-ENGAGE Horticulture Alumni-Pledge Your Support

On October 16, 2007, Virginia Tech launched VT-ENGAGE, a combined community and university initiative to honor the victims of April 16, 2007, and their dedication to serving others and to reaffirm the University's commitment to *Ut Prosim* (That I May Serve) by facilitating opportunities for Hokies to participate in community service, service learning, and encourage a spirit of volunteerism. The goal of VT-ENGAGE is 300,000 hours of community service to be performed by students, faculty, and staff by April 16, 2008. The Virginia Tech Alumni Association also is challenging alumni around the world to pledge an additional 300,000 hours of community service to bring the total to 600,000 hours. Individuals are encouraged to sign up for at least 10 hours of service to help reach the 600,000 hour goal. The pledged service can be within your community or through your local alumni chapter. Contacts for your local alumni chapter can be found at www.alumni.vt.edu.

Find out about volunteer opportunities at the VT-ENGAGE website and pledge your service hours online at www.engage.vt.edu.

Mexican Tour

This past May, Barbara Kraft, Spanish instructor from the Horticulture Department, led a group of Horticulture and Agriculture students to study sustainability in agriculture throughout the northern Baja area of Mexico by visiting vegetable, flower, beef, wine, dairy farms, and food production plants. The trip was made possible through a grant which supports the North American



Mobility Project that gives students the opportunity to study in Mexico and Canada. Contrary to the image that one may have of Mexican food production as small out-dated farming, the students visited

some of the most modern food production plants in the world. For example, vegetables in Baja California, Mexico, are grown under Israeli designed tents, using Japanese desalination processes for water from the Pacific Ocean. These vegetables are then packaged at 60,000 cases per day and shipped to the northeastern United States. The need for water conservation was also seen in dairy production. The milk barns recycle the water used to clean the dairy parlor and feed lot by washing it into ponds. The methane created in these ponds powers electrical pumps that recycle the water back to the barns. The group also toured The University of Baja California and the University of Guanajuato to give the students a firsthand view of student life in Mexico. The goal of this trip was to encourage students to study abroad.

Virginia Tech Urban Horticulture Center

The Urban Horticulture Center, on Prices Fork Road, about 2 miles from campus, was established in 1989 as a site for research, teaching, and outreach in support of the landscape, nursery, and urban forestry industries. Through the generous support of these industries, the Departments of Horticulture and Forestry, as well as the College of Agriculture and Life Sciences, the site has become a beehive of activity during most months of the year. There is a full-time manager on site that directs the day-to-day activities of up to ten faculty who utilize the facility. In addition, it is the site where numerous graduate students conduct their research. During each year there are also several outreach events where groups



such as Master Gardeners and trade organizations visit the Center to learn firsthand about ongoing research programs. Numerous VT classes also meet there for laboratory exercises, giving them hands-on experiences with various aspects of landscape management and nursery production. Examples of on-going research projects at the center are as follows: transplanting techniques for improved survival of landscape plants, evaluation of new plant introductions, development of new container substrates for nursery production, effects of pruning on strength of landscape trees, and new constructed soils for parking lots and streets that encourage tree root growth under pavement.

Brian Jackson Receives Awards

Brian Jackson, a Ph.D. candidate working with Dr. Robert Wright, received the Graduate Student Teaching Award of Merit for the



College of Agriculture and Life Sciences for the 2006-2007 academic year. The award was sponsored by the North American Colleges and Teachers of Agriculture. He was the first from the Horticulture Department to ever receive the college's highest teaching honor for graduate students. This past summer Brian also won first place in

the Ph.D. student research competition at the annual Southern Nursery Association Research Conference held in Atlanta, Georgia, and third place in the student research poster competition at the American Society for Horticultural Science Conference held in Scottsdale, Arizona.

New Faculty

Dr. Rumen Conev

Dr. Rumen Conev received his Ph.D. in 1992 from the Agricultural University, Plovdiv, Bulgaria. He was awarded with a post-doctoral fellowship of the Japanese Science and Technology Agency



(STA) for his *Prunus* breeding project, which he implemented in 1995 at the National Institute of Fruit Tree Science, Tsukuba, Japan. He was also invited as a visiting scholar in Israel at the Institute of Horticulture, Volcani Center, for two consecutive years - 1999 and 2000, and had collaborative projects in numerous countries in Europe, Asia, and America. More recently Dr. Conev was a researcher at the University of Guelph,

Canada. Dr. Conev has over 20 years of experience in horticultural research with an emphasis on plant breeding, evaluation, and introduction of woody plants.

Dr. Conev joined a Virginia horticulture research team in 2005 when he assumed the responsibilities as a Director of Beautiful Gardens™ Plant Introduction Program that focuses on identifying, acquiring, rigorous testing, and promoting novel or underused ornamental germplasm with high commercial potential and wide adaptability. In February 2007 Dr. Conev joined the Department of Horticulture as an Assistant Professor and initiated an ornamental plant breeding program utilizing both classical and contemporary approaches in germplasm improvement. His current efforts are directed at developing mountain laurel germplasm better suited to the South, developing sterile versions of naturally fertile plants to eliminate the hazard of potentially seed-invasive plants, and developing commercial lines of edible ornamental plants.

Dr. Josh Freeman

Dr. Josh Freeman received a B.S. degree in entomology from Clemson University in 1998 and a Ph.D. in horticultural sciences from the University of Florida in 2007. His previous research was



on pollination of triploid seedless watermelons and integrated management of tomato spotted wilt in fresh market tomato. He began his appointment as an Assistant Professor of Horticulture at Virginia Tech in August 2007. He has both extension and research responsibilities and is located at the East-

ern Shore AREC in Painter. His research interests are in vegetable production systems, water and nutrient management, implementation of alternative vegetable crops, and integrated management of insect and disease pests. His work will focus primarily on vegetable crops important to Virginia including tomato, potato, and fresh market beans. Dr. Freeman and his wife Lindsey are both originally from South Carolina.

Dr. Jeremy Pattison

Dr. Jeremy A. Pattison received his B.S. degree in biology in 2000 from East Stroudsburg University and later obtained his Ph.D. from Cornell University in 2004. His graduate work investigated the genetics of *Phytophthora* root rot resistance in red raspberries using molecular markers. In November 2004 he was hired as the small fruit research and extension specialist at the Southern Piedmont AREC. This position was made available by a grant procured from the tobacco indemnification commission by the Virginia Small Fruits and Specialty Crops Grower Association. In January 2005, the position was transitioned to a tenure track appointment with the rank of Assistant Professor. Dr. Pattison's research interests include optimizing production practices for increased quality and yield, off-season production and utilization of wild germplasm for gene pool enhancement, and novel gene discovery. The majority of his effort is focused on strawberry; however, research trials have been initiated on wine grapes, brambles, blueberries, and specialty vegetables.

Dr. Rongcai Yuan

Dr. Rongcai Yuan received his B.S. degree from Jiangxi Agricultural University, P. R. China (1984), his M.S. degree from South China Agricultural University, P. R. China (1987), and his Ph.D. degree from the University of Massachusetts (1998). In April 2005 he became Assistant Professor of Horticulture (tree fruits horticulturist) working at the Alson H. Smith Jr. Agricultural Research and Extension Center, Winchester. His research interests are predictable fruit thinning, prevention of preharvest fruit drop, return bloom, improvement of fruit color development, control of vegetative growth, collection and evaluation of tree fruit crops, and other problems related to tree fruit crop production. Current projects include physiological and molecular studies on chemical thinning and preharvest fruit drop of apples as well as evaluation of cultivars and protected culture in cherries.

Dr. Bingyu Zhao

Dr. Bingyu Zhao received his B.S. in agronomy in 1994 from Laiyang Agricultural College, his M.S. degree in plant genetics and breeding in 1997 from the Chinese Academy of Agricultural



Sciences, and his Ph. D. in molecular plant pathology from Kansas State University in 2004. Dr. Zhao joined the Department of Horticulture at Virginia Tech as an Assistant Professor in June 2007 after his postdoctoral training at the University of California-Berkeley. Dr. Zhao's research focus is on switchgrass (*Panicum virginicum*), which is considered a prime candidate for large-scale biomass production for ligno-cellulose, derived bio-energy. He will focus on the improvement of biomass production and plant resistance to abiotic and biotic stresses to secure yield stability and a steady supply of feedstock to biorefineries.

FOSTERS (from front)

sector. Bill joined Sierra Chemical Company (which eventually was acquired by The Scotts Company). At Scotts, he worked in technical services, product development, and marketing and moved from Alabama to Florida to California and finally to Ohio. These collective research and business experiences led to Bill's current and crowning achievement of becoming chief executive officer and president of BioWorks in 1998. BioWorks, located in the scenic Finger Lakes portion of upstate New York, develops and sells environmentally responsible, safe, and effective biologically based pesticides to horticultural operations throughout the U.S. and around the world. Although settled in New York, Bill's business activities entail travel through much of North America, Europe, and South and Central America. In the midst of the many moves, Jane was enrolled in a floriculture program and pursued her horticultural interests by floral arrangement activities and gardening. Most importantly, she provided their family with the strength and good natured spirit to survive the many moves.

In 1990, Jane and Bill were blessed with the birth of their son, Ben. Ben is their pride and joy. Ben, now a junior at McQuaid Jesuit High School, is starting to research college opportunities. Jane and Bill are very active in Ben's education as well as the local community and church.

Bill and Jane have stayed in touch with the Horticulture Department through the many years since graduation. This fall Jane and Bill (with Ben) attended their 25 year College of Agriculture and Life Sciences Alumni gathering at VT. Jane and Bill are devoted Hokies and wonderful ambassadors for the Horticulture Department, and we in the Department are proud of their many accomplishments. One final note, Bill is in the early stages of developing a BioWorks' scholarship at VT in the Horticulture Department for undergraduate students.

GREETINGS (from front)

the Department. 2007 was a year of hiring new faculty and staff, and success in solicitation of competitive grant funds to allow us to manage our operation and support the growing graduate program in the midst of state budget reductions.

New Hires. In addition to new faculty presented elsewhere in this newsletter, we have hired four new staff members, John Freeborn, Floriculture and Control Growth Environment technician; Paul Chumbly, Manager of the Horticulture Garden; Michael Barnes, project manager for the WoodGro™ substrate project; and Kerry Huffman, technician for the strawberry genomics project.

Student Enrollment: Despite our recruiting efforts, our undergraduate enrollment in Horticulture has not been growing (approximately 110 majors, including double majors). We hope that our new course, The Green Industry Forum, that is bringing industrial instructors to campus every week during the fall semester and articulation agreements with community colleges will help us to promote our program across the state. Our graduate enrollment is healthy, with 15 PhD and 8 MS students on campus and 8 non-thesis MS at Virginia Beach. We also continued contributing to the implementation of the new MS online program (<http://www.online.cals.vt.edu/masters/>).

Please see other Departmental highlights through the text and share your reflections and ideas with the Seeds editor, Dr. Robert Wright (wrightr@vt.edu). I would like to thank you for your continuous support of the Department and hope to see many of you during the year ahead. Have a Happy Holiday Season!

Jerzy Nowak
(jenowak@vt.edu)

Seeds

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