

# Department of Horticulture

Saunders Hall, Blacksburg, VA 24061  
[www.hort.vt.edu](http://www.hort.vt.edu) (540)231-5451



Roger Harris, Department Head [www.hort.vt.edu](http://www.hort.vt.edu)

## November/December 2012

Happy holiday season everyone! It is amazing how quiet and peaceful Blacksburg becomes after finals. Locals enjoy the temporary lull in traffic, but we of course miss our students and look forward to the hustle-bustle of the new semester. Our fall semester ends with a holiday pot luck gathering at the Hahn Pavilion the morning of graduations where we welcome our new graduates and their families (see list below). Alumni, we would love to hear from you. Please e-mail me with an update that you would like to share in our annual newsletter, "Seeds". One way to stay connected with VT is through the university [You Tube](#) channel. Please visit the [Horticulture](#) Department web site often for special departmental features. Enjoy!

With kind regards, *Roger*

### Congratulations to our new BS Horticulture alumni!

Paul Conca - LCON

Cody Erickson - LCON

Katie Dawson - EHRT

Drew Foy - EHRT

Stefan Moritz - EHRT

Garrett Williams - LCON

### Arboriculture Field Days

Arboriculture came to campus right before Thanksgiving when Jim Martin with Growing Earth Professional Tree Care, Todd Nelson from Fairfax County Urban Forestry Division, Ed Milhous with TreesPlease, Adam Braaten with Bartlett Tree Experts, and Kevin Sigmon with AEP all made the trek to campus and spent the afternoon with Horticulture students in HORT 3644 Landscape Establishment and Management. Students learned hands-on skills and talked with professionals about what they do in their careers as arborists and urban foresters. Thanks all for coming—it was great to see you as always. -Susan Day (Photos below by Ed Milhous)



## Recent publications:

- Pantazis, C.J., S. Fisk, K. Mills, B. Flinn, V. Shulaev, R.E. Veilleux, and Y. Dan. 2012. Development of an efficient transformation method by *Agrobacterium tumefaciens* and high throughput spray assay to identify transgenic plants for woodland strawberry (*Fragaria vesca*) using NPTII selection. 2012. Plant Cell Reports. Published online 16 November 1-8.
- Wiseman, P.E., S.D. Day, and J.R. Harris. 2012. Organic amendment effects on soil carbon and microbial biomass in the root zone of three landscape tree species. *Arboriculture and Urban Forestry* 38(6): 262-275.
- Weekley, J., J.Gabbard, and J. Nowak. 2012. Micro-level management of agricultural inputs: emerging approaches. *Agronomy*. 2:321-357.
- Torrens-Spencea, M.P, G. Gillaspay, B. Zhao, K. Harich, R.H. White, J. Li. 2012. Biochemical evaluation of a parsley tyrosine decarboxylase results in a novel 4 hydroxyphenylacetaldehyde synthase enzyme, *Biochemical and Biophysical Research Communications*. 418 (2): 211-216.
- Zhu, H. , R. Xia, B. Zhao, Y. An, C.D. Dardick, A. M. Callahan and Z. Liu. 2012. Unique expression, processing regulation, and regulatory network of peach (*Prunus persica*) miRNAs. *BMC Plant Biology*. 12:149 doi:10.1186/1471-2229-12-149 3.
- S. Wu and B. Zhao. 2012. The Selection of Recombinant Binary Plasmids Generated by Gateway LR Cloning in the Escherichia coli Strain C2110. *Molecular Biotechnology*. DOI 10.1007/s12033-012-9548-1.
- Andersen, P.C., S.M. Olson, M.T. Momol, and J.H. Freeman. 2012. Effect of mulch and insecticide on incidence of tomato spotted wilt, plant growth, and yield of tomato. *HortScience* 47:861-865.
- Reiter, M.S., S.L. Rideout, and J.H. Freeman. 2012. Nitrogen fertilizer and growth regulator impacts on tuber deformity, rot, and yield for russet potatoes. *International Journal of Agronomy*. doi:10.1155/2012/348754.
- McAvoy, T., M. Paret, J.H. Freeman, S. Rideout, and S.M. Olson. 2012. Evaluation of grafting using hybrid rootstocks for management of bacterial wilt in field tomato production. *HortScience* 47:621-625.
- Adkins, J.I. , J.H. Freeman, and S.M. Olson. 2012. Evaluation of in-row diploid watermelon pollenizer competition with triploid watermelon based on four planting ratios. *HortTechnology* 22:70-71.
- Byker, C., S. Clark, J. R. Enoch, T. Montgomery, and E. Serrano. 2012. Heifer Internatinal alternative break: sustainable dietary impacts. *Journal of Hunger and Environmental Nutrition*. 7:122-136.
- Da, K., J. Nowak, and B. Flinn. 2012. Potato cystosine methylation and gene expression changes induced by a beneficial bacterial endophyte, *Burkholderia phytofirmans* strain PsJN. *Plant Physiology and Biochemistry* 50: 24-34.

Michel, H. M. and **M. A. Williams**. 2012. Soil habitat and horizon properties impact bacterial diversity and composition. *Soil Biology & Biochemistry*. 75(4): 1440 -1448.

Flecher, K.J., J.J. Coombs, A.N. Massa, C.H. Hansey, J.P. Hamilton, **R.E. Veilleux**, C.R. Buell, and D.S. Douches. 2012. Integration of two diploid potato linkage maps with the potato genome sequence. *PLoS One*. 7(4): 1-11.

**Mweetwa A. M.**, D. Hunter, r. Poe, K.C. Harich, I. Ginzberg, **R.E. Veilleux**, and **J.G. Tokuhisa**. 2012. Steroidal glycoalkaloids in *Solanum chacoense*. 2012. *Phytochemistry*. 75: 32-40.

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MS student **Tyler Hoskins** was recently sponsored by the Virginia Nursery & Landscape Association to attend the International Plant Propagator's Society annual conference at Auburn University. Tyler met local growers, listened to research presentations, and toured local nurseries.

**Jerzy Nowak** (CALs, Horticulture) and Kurt Richter (university's international office) recently travelled to Stellenbosch University (South Africa) to participate in a meeting organized by TEAM Africa ([TEAM Africa](#)). The primary objectives of their trip were: (1) learn about the scope of the TEAM Africa agriculture education transformation program and its implementation strategies, and (2) explore the potential for collaboration between the TEAM Africa and the innovate, a \$6.2 million USAID project awarded to the Virginia Tech-led consortium of land grant universities (VT, Penn State, Tuskegee, U. Florida). The consortium will develop web-based training/education materials to stimulate innovation and entrepreneurship in the agricultural sector in over 20 developing countries.

PhD student **Mara Grossman** is part of the new CALs Teaching Scholars program. The program is administered by the Department of Agricultural and Extension Education (AEE). Students take a series of classes on teaching pedagogy and meet regularly with mentors in AEE and their own department. As part of the program, Mara will be taking over the teaching of our Plant Propagation class during her final year of study. The initial cohort of students is shown in the photo on the right. Mara is on front row on the right.



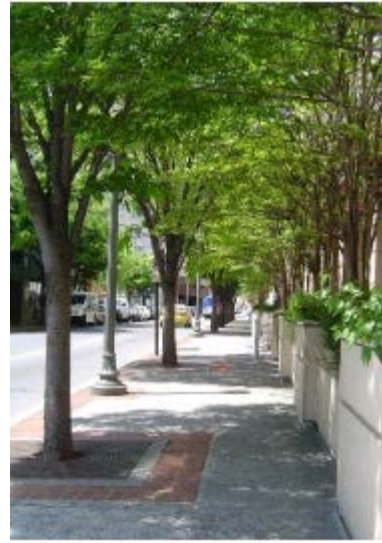


**Jim Owen** and colleagues from several other southeastern universities were recently awarded the Extension Communications Blue Ribbon Award from the American Society for Horticultural Science for their publication *Preparing Nursery Crops for the Winter in the Southeast United States*.

The University of Tennessee recently announced their new Tennessee Master Nursery Program. According to the announcement, "Among the international experts Tennessee growers have access to are **Sarah White**, an assistant professor specializing in remediation science at Clemson University; **Jim Owen**, an assistant professor at Virginia Tech with expertise in irrigation, substrates and production technology; and **Brian Jackson**, an assistant professor focusing on container substrates at North Carolina State University. Specialists from Tennessee are also sharing their knowledge with participants." Sarah White (MS) and Brian Jackson (PhD) are both graduates of our department.

**Greg Peck's** recent article in the Virginia Farm Bureau's magazine was picked up by the Washington Post and several other media outlets. In the article, Dr. Peck states, "From my conversations with growers, I would say that most (Virginia) growers were happy with the yields, quality and prices they've received this year."

John McGee, Eric Wiseman, and **Susan Day** have unveiled their on-line *Urban Tree Canopy Mapper*. The user-friendly tool allows both professionals and average citizens to zoom in for views and create custom maps of the urban tree canopy in their communities. Check it out at [Urban Canopy Mapper](#).



Trees in urban areas provide a wealth of environmental, economic, and social benefits.



**Emily Depew's** container garden in HORT 4784, Medicinal Plants and Herbs, was voted best in class. She is shown in the photo on the left receiving a Kroger gift certificate for winning from the class professor, **Greg Welbaum**.

From the archives - snow in Christiansburg, 1960!

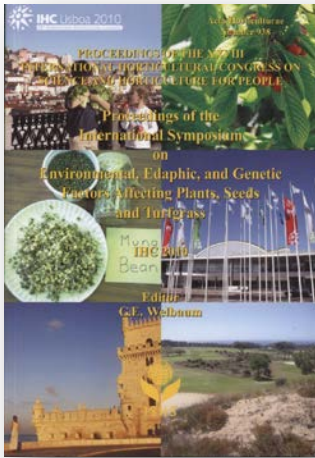


*In February and March 1960 this area fell victim to record snowstorms that brought much travel within the county to a halt. At that time, of course, there was no interstate and The Lee Highway (Rt. 11 - 460) was the main thoroughfare through Southwest Virginia. Truckers and travelers were forced to abandon their vehicles at times and take refuge in the local fire station after hotels/motels filled. This picture, taken on what is now North Franklin Street near the intersection with Cambria Street (the present day Horne Funeral Home is built on the top of the far hill, right side) shows a 1959 Pontiac between tall snowdrifts. Such sights were common during the winter of 1960.*

Saunders Hall has been full of fresh flowers this semester thanks to Barbara Leshyn's Floral Design class. Thanks Barbara and student florists!

















The *Proceedings of the International Symposium on Environmental, edaphic, and Genetic Factors Affecting Plants, Seeds, and Turfgrass* is published. The symposium, part of the International Society of Horticulture, was organized by **Greg Welbaum**. Greg also edited the proceedings.

The selection of distinctive plants for 2013 is out! Ask for these plants at your favorite garden center, and tell them that Beautiful Gardens sent ya. **Lisa Lipsey** is the Beautiful Gardens program director.



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<i>Juniperus horizontalis</i> 'Mother Lode'	<i>Ilex crenata</i> 'Drops of Gold'	<i>Spirea thunbergii</i> 'Ogon'
		
<i>Hypericum calycinum</i> 'Brigadoon'	<i>Liriope muscari</i> 'Pee Dee Ingot'	<i>Aralia cordata</i> 'Sun King'

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