

Department of Horticulture

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December 2010

December is a special time around Saunders Hall, especially as the end-of-semester frenzy of final exams and grades gives way to down-time with family and loved ones. Blacksburg temporarily becomes a very quiet place and the first significant snow of the season paints a lovely picture. We were surprised with a beautiful snow on Christmas morning this year. For some, it is a time of transition. We celebrated the holiday season and bid farewell to our fall graduates with a nice gathering at the Hahn Pavilion on graduation day. Our fall graduates are listed below. I would once again like to extend a heart-felt congratulation to our graduates for a job well done and I wish you all success in whatever path you follow! As always, we would love to hear updates on our alumni and other friends. Enjoy! With kind regards, *Roger*

Fall Graduates - B.S.

Rachel Caskie
Brad Eggleston
Scott Ellis
John Pancake
Karl Thornhill
Joey White

Fall and Summer Graduates - M.S. and Ph.D.

Summer 2010

Phyllis Carder - M.S. Thesis title: Microbial communities of spinach at various stages of plant growth from seed to maturity.

Fall 2010

Rachel Layman - M.S. Thesis title: Rehabilitation of severely compacted urban soil to improve tree establishment and growth.

Robert Lindsay - M.S. Thesis title: Seed germination, kanamycin sulfate selection, and the influence of nitrogen treatments on an insertional mutant population of *Fragaria vesca* L.

Juan Ruiz-Rojas - Ph.D. Dissertation title: Characterization of T-DNA integration sites within a population of insertional mutants of the diploid strawberry *Fragaria vesca* L.

Hong Zhu - Ph.D. Dissertation title: investigation of regulatory mechanism of chemical-mediated fruit thinning in apple (*Malus x domestica* Borkh.).

Horticulture Students in New Innovative Classrooms

Horticulture faculty are involved in a new teaching project involving two new classrooms constructed at Virginia Tech designed to facilitate a hands-on, collaborative teaching approach called *SCALE-UP* (Student-Centered Active Learning Environment for Undergraduate Programs). In *SCALE-UP* classrooms, students sit in three groups of three students at round tables. Each table has three networked laptop computers. Monitors and white boards surround the room allowing plenty of workspace and sharing of information among student groups as they work in teams on problems, projects or cases.

In November of 2008, Virginia Tech's Center for Excellence in Undergraduate Teaching and the Physics Department at Virginia Tech hosted Prof. Robert Beichner, Alumni Distinguished Undergraduate Professor at North Carolina State University, to conduct a workshop and seminar on *SCALE-UP* at Virginia Tech. Inspired by this workshop, Virginia Tech made plans to seek grant funding for creating two *SCALE-UP* classrooms, one in Derring Hall and one in Cheatham Hall. A small group of faculty from across campus, including horticulture faculty **Susan Day** and **Barbara Kraft**, have been planning implementation of the classrooms during the past two years and several HORT classes will be able to use the new facilities. Currently HORT 3644 Landscape Establishment & Maintenance and HORT 2134 Plants and Greenspaces in Urban Communities are being taught in the new *SCALE-UP* classrooms. Dr. Beichner and representatives from the Provost's office visited HORT 3644 this fall to see the new classroom in action. Faculty member Susan Day really enjoys the new space, "The atmosphere is very relaxed, and there is plenty of space to move around and work on projects that let you apply the material learned in class."



Students in HORT 3644 work on creating a weed management plan in the *SCALE-UP* classroom in Cheatham Hall

The seed conference at International Horticulture Congress in Lisbon, Portugal that was organized and led by **Greg Welbaum** this past summer was recently featured in the newsletter of the International Society for Seed Science (ISSS). The program consisted of an oral session with three invited presentations on Seed Microbiology, six short presentations, an oral session on Seed Biology and Technology, and a poster session. The oral session on Seed Microbiology highlighted new research on microbial seed transmission using novel genetic-based techniques to detect nonculturable organisms that until recently evaded detection. There is an upcoming meeting of the ISSS in April in Brazil. Check it out at: <http://www.kew.org/iss/> Click on *Meetings* on left.

Robert McDuffie is offering two study abroad opportunities for the summer of 2011. The first is a trip to visit the Gardens of Italy from May 25 until June 8. The second trip is July 12 -25 and is entitled, The Gardens of Scotland. These trips are open to students, alumni and anyone interested in visiting gardens overseas. Check out the website at: <http://www.mcduff.hort.vt.edu/studyabroad.html>

According to **Alex Niemiera**, woody landscapes are for winter enjoyment too! His latest testimonial was a seminar presentation in December 2 at the Hahn Horticulture Garden Pavilion titled *Landscaping with Woody Plants for Year-Round Appeal*. Alex is also investigating controlled fertilizer release during winter months in a project funded by The Scotts Company



Hort Professors (from right - Roger Harris and Alex Niemiera) and friends (foreground - Rocket and from left - Pete Schmitthenner) on the loose near Blacksburg before Christmas.