Horticulture

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Each growing season, student interns plan and maintain the beautiful Horticulture Garden located on Folwell Avenue on the St. Paul campus. Undergraduate intern Lindsey Miller is pictured above.

Two beloved faculty emeriti pass away

Save the date for April 1, 2014 for the Kermit Olson Celebration

New organic production research
A Quest for Clammy Azalea: Susko Journeys Throughout the U.S. South

It’s early morning, before the sweltering heat of Florida in June has quite set in. Alex Susko steps quietly out onto the sandy roadway from the back of the Dodge Caravan he has been calling home. Machete in hand, clad in a pair of workboots, bluejeans and a black oilskin hat, he scans the landscape slowly and methodically for any sign of his quarry. Halfway down along the sloping streambank, he successfully finds his mark. Characterized by branching, dark green ovate leaves and clusters of trumpet-like pink and white flowers, Susko has located his next specimen of Rhododendron viscosum, more commonly known as Clammy Azalea.

Last summer, Susko (Horticulture ’13, Ph.D. Applied Plant Science) spent two months on a lone expedition collecting plant and soil samples in remote areas and national forests throughout the southern U.S. and Gulf Coast. Susko relied on historic herbarium records, advice from local residents, and his knowledge of the plant’s preferred habitat to pinpoint azalea populations. Susko’s research, advised by professors Stan Hokanson and Jim Bradeen, examines the ability of plants to adapt to various pH levels in soil.

“In Minnesota, we tend to have alkaline soils,” Susko explains. “That can really limit plant growth for the Ericaceae family, which includes plants like blueberries, cranberries, rhododendrons, and azaleas.” The goal of Susko’s research is to screen for, and eventually breed, plants that can thrive in a wider range of soil pH. Susko took soil and leaf samples and mailed them to a USDA research lab where rapidly developing technology has made it possible to decipher sophisticated genomic data relatively quickly. He also sent cuttings back to Minnesota where they will be rooted for more testing at the UMN Horticultural Research Center.

The result? Hopefully, azaleas for your home garden that are more robust and require fewer inputs because they are well-suited to native soils. You may already be familiar with U of M cultivars such as Candy Lights or Golden Lights. Susko’s work may contribute to the development of new cultivars, furthering the U’s rich breeding program and adding color to the northern landscape. Susko’s research has been made possible through generous support from the Hueg Landscape Arboretum fellowship, as well as research grants from the Azalea Society of America and the American Rhododendron Society.

Student Spotlight: The Most Magical Internship on Earth

Many children grow up dreaming about taking a trip to Disney World to meet their favorite characters and experience the thrills of an animated world full of music, rides and spectacular shows. And while scores of people visit the theme park each year (over 52.5 million, to be more precise), few have the privilege of spending an entire summer within Disney’s magical borders.

Alisha Hershman (right, B.S. Horticulture ’15) became one of the lucky few when she was chosen for a gardening internship with Disney last year. Hershman had the opportunity to spend 3 months shadowing resident gardeners throughout areas of the park, exposing her to an array of garden maintenance experiences—from the posh gardens of Hollywood Studios, to miniature golf courses and sports-themed interior gardens at Disney’s All-Star Resort, to the “wild” habitat at Animal Kingdom. Hershman had some experience in the latter environment, having previously maintained grounds at the Como Zoo in St. Paul.

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cont’d: The Most Magical Internship on Earth

“It was really interesting to see how plants were deliberately used to coincide with the different park themes,” reflects Hershman. “I think sometimes the gardens can go unnoticed because of how they just fit right in with the theme, but they are such an integral part of the overall feel of the park.”

As part of her internship, Disney also provided weekly classes taught by garden managers and expert horticulturists. Students learned about plant identification and care, tool use, and safety techniques and had the chance to take learning tours of Bok Tower Gardens, Leu Gardens, SeaWorld, Gaylord Palms and other area gardens.

With one year left in school, Hershman is considering a career in public garden management. Her experience at Disney will certainly provide her with a head start in understanding a variety of garden landscapes.

To read more about Hershman’s Disney adventure, visit her blog at disneyhorticulturalmagic.blogspot.com.

Sharing a Vision for the Future of Horticultural Science

Mary Meyer steps down as ASHS President

From a wooden podium in front of a buzzing audience of 900 plus horticulturists from around the world, Professor Mary Meyer reflects on the essential role plants play in our everyday lives.

“I believe that horticulture is life, horticulture is universal, and horticulture is invaluable for our future. For years, actually, my whole life my vision has been pretty simple—to teach people about plants and to help them enjoy and understand the wonder of horticulture.”

At the same time, Meyer laments the dwindling knowledge current generations possess about plants and the field of horticulture. Quoting environmentalist Paul Hawkins, she notes that “the average citizen can recognize 1,000 brand names and logos but fewer than 10 local plants.”

In August, Meyer stepped down from her one-year term as president of the American Society for Horticultural Science (ASHS), a premiere professional organization that boasts over 2,500 active members. ASHS brings together researchers, educators, businesses and academic professionals to promote interest in research and education in all branches of horticulture in the United States and around the globe. Their activities are varied, but ASHS’ mission is primarily accomplished by producing academic journals, hosting professional development opportunities, advocating the importance of horticulture to key leadership, and by coordinating educational campaigns.

Meyer spent her year in office as an action figure—speaking at gatherings of educators, meeting with society members to elicit feedback on initiatives and conference planning, and advocating the need for research support to the legislature and other influential players.

Still, Meyer’s career as president is most defined by an ambitious campaign to promote horticulture as a viable career field for young people. Under Meyer’s leadership, ASHS has partnered with Longwood Gardens, American Public Garden Association, National Junior Horticultural Association, AmericanHort and the American Horticultural Society to roll out a ten-year national initiative to improve the public perception of plants and encourage young people to pursue a career in horticulture.

The initiative begins with an investigation of current perceptions of horticulture by a national communications and public relations firm. Findings will be used to develop an advocacy, marketing, and educational plan geared toward high school and middle school age students. With Scholastic Education, plant-based activities will be created and distributed to schools to help students understand that horticulture can be a fun and rewarding career.

“We believe that kids today want to make a difference,” Meyer comments, “and there are a lot of ways to do that in horticulture… I believe horticulture can make a positive difference in everyone’s life—through appreciation for plants by growing our own food, and by using plants for their beauty in and around our homes and workplaces.”

Meyer will serve as chair of ASHS for the next year to provide continuity in governance.

For more information about ASHS or the horticulture educational campaign, visit www.ashs.org.
If you’ve ever crunched on a salty Frito Lay potato chip or cut into a tender and fleshy RuneStone Gold, you’ve tasted a piece of Christian Thill’s legacy. In his decades-long career as a plant breeder and geneticist, Thill became well known for the high yield and desirable traits of his potato varieties, as well as for his heartwarming and energetic personality. On August 7, 2014 Christian passed away unexpectedly from a heart-related issue at age 53.

Professor Thill was hired into the Department of Horticultural Science in 1997, where he built upon the work of Professor Emeritus Florian Lauer to create the U of M potato breeding program known today. Thill was highly respected for his knowledge in the industry and served as editor of prestigious journals such as Crop Science and the American Journal of Potato Research.

Professor Thill taught courses in sustainable vegetable breeding and plant genetics. In the classroom and in the field, his thoughtful, caring nature and boundless energy portrayed a sense of genuineness and commitment to his students. In 2013, Thill was awarded the CFANS Student Board Award for Outstanding Professor.

“Christian was truly interested in our ideas,” notes Jenny Heck, a former student. “He encouraged us to follow through with our creative ventures and passions—whether it was a research paper or a million-dollar business proposal. He was also very dedicated to our education. I remember more than one evening where he stayed on campus with a group of students until 10 p.m. the evening before an exam to help us study.”

Thill’s passion and innovation did not go unnoticed among his colleagues in the potato industry. Susie Thompson, head potato breeder at North Dakota State University, recalls, “Christian was exuberant… he loved potatoes and the potato industry. He didn't always follow the conventional potato breeding program path, but instead thought out of the box, often borrowing techniques to try from other crops.”

Professor Thill will also be remembered for his bright smile and his generosity. Every harvest season, he hauled in mounds of potatoes straight from the field to friends, neighbors, the department, and local food shelves, excited to share the season’s bounty.

The MonDak Gold, a red-skinned potato with yellow flesh, was Thill’s latest variety. Bred to have a long storage life and few internal defects, the variety has shown great promise in its first year of commercial production in 2014. Christian Thill’s memory as a scientist and as a mentor will live on for years to come through the potato breeds he has left behind.

“I was Christian’s infectious enthusiasm that reaffirmed my desire to study plant breeding, and I am forever grateful to him.”

-Ryan Hayes, Former Advisee (Ph.D., Applied Plant Sciences '02)
Mentor a Student in the Plant Sciences

Each year, the College of Food, Agricultural and Natural Resource Sciences matches over 150 students with mentors working in the career field. The mentorship program is always seeking mentors to develop the next generation of professional and horticulture and accepts applications year round.

What does it take to be a mentor? As mentor and Plant Breeding alumnus Jim Radtke (pictured right) puts it: “Do you have experiences beyond attending classes? Can they be communicated? Then you have value to add as a mentor.”

“I think back to when I got my first job, and I realize it would have been nice to know a lot of things as I entered the career field. I felt like I wanted to give something back. I’ve had a varied career in breeding, research and the seed industry, and part of my role involved sitting on management teams. With all of that, I felt I could share some perspective with a student.

At first, I had no idea what I should be doing—we came together and said, where do we go from here? So we both learned as we went along. Conversations don’t take a lot of work—I shared experiences and ideas, learned about the courses Sarah was taking and her interests, and made suggestions. A mentor can even learn a little something from a mentee.”

Jim Radtke
Ph.D., Plant Breeding, ’81
VP of Product Development
Cibus Corporation

Sarah Hoerth
B.S., APS, ’15
Horticulture minor
CFANS

“I was looking for someone who had more life experience and could give me advice for what I can do with my future and how to get there. When I started, I was cautiously optimistic—you hope the person is going to be helpful and that the experience will be worthwhile.

Jim gave me great feedback, and he even helped me find an internship that got me interested in tissue culture, which I think is the direction I want to head career-wise.

I would recommend the program for people who are looking around and not sure what they want to do after graduation. It’s really valuable to talk to someone who has been in the same field.”

At a minimum, mentors commit one hour per month to having conversations with mentees about career goals, knowledge gained from working in the field, and plans and ideas for opportunities to pursue. Mentors also offer the opportunity for mentees to participate in a half-day (or more) job shadow.

For more information on becoming a mentor, contact Masha Finn at mfinn@umn.edu or (612) 624-9957.

Remembering Former Faculty James Bartz and Harold Pellett

Professor Emeritus Harold M. Pellett passed away at age 76 on July 22, 2014. Professor Pellett was a member of the UMN Horticultural Science faculty for 30 years (1967-1997), where he led the cold-hardy landscape plant research program located at the Arboretum and Horticultural Research Center.

Former Department Head James F. Bartz passed away on August 10, 2014 at age 84. After working as Director of Agriculture Research for Green Giant and Director of the Green Giant Home and Garden Centers, Bartz served as department head for the Department of Horticultural Science from 1982-1989. Bartz later went on to co-own Bartz Nursery in Ripon, Wisconsin.

The legacies of James Bartz and Harold Pellett will be remembered and celebrated by the department through the continuation of research initiatives begun under their tenure.

Memorial gifts in honor of Professors Pellett and Bartz may be arranged through donation to the Horticulture Service Fund. Contact Professor and Head Emily Hoover (hoover@umn.edu) for additional information.
Save the Date!

Mark your calendar for our annual Kermit A. Olson Memorial Lecture and Scholarship Ceremony. Alumni, friends, faculty, staff, and students are encouraged to attend.

**Kermit A. Olson Memorial Lecture and Scholarship Ceremony**

**Wednesday, April 1, 2015**
- Appetizer reception starting at 6pm
- Lecture and awards starting at 7pm
- UMN St. Paul Campus (room location TBA)

“Biocultural Diversity of Heirloom Vegetable and Fruit Cultivars in the American Mountain South”

Lecture featuring guest speaker

**Dr. James Veteto**
Assistant Professor, Department of Anthropology and Sociology
Western Carolina University

Detailed email invitation to follow. Contact Samantha Grover at sgrover@umn.edu or 612-624-4742 for more information about this event.

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Beetles in the *Brassica*

Graduate student Aimee Talbot and Assistant Professor Mary Rogers inspect organic broccoli plants for signs of pests.

Professor Rogers’ current research program investigates plant-insect interactions and biological and environmental strategies to improve production of organic vegetables and fruit.