

Department of Horticultural Science Newsletter

Fall 2005

North Carolina State University, Raleigh, NC 27695-7609

http://www.cals.ncsu.edu/hort_sci/

NEWS FROM THE DEPARTMENT HEAD

Julia Kornegay

We had a very successful year of outreach to the public. For example, over 80 people attended the **Vegetable Crops Field Day** at the Mountain Hort Crops Research Station on 4 August 2005. Attendees learned about new varieties, disease, insect and weed management procedures, slow release fertilizers, biological methods of pest control, and limited tillage and organic production systems.



DEPARTMENTAL HIGHLIGHT

Todd Wehner

The **cucurbit breeding** project has been run by Todd Wehner since 1979, and involves the genetic improvement of the major cucurbit crops cucumber and watermelon, as well as specialty cucurbits such as Oriental melon, and luffa gourd. Dr. Wehner is assisted by Tammy Ellington and a staff of between 5 and 10 graduate students, visiting scientists, and project assistants, for a total of 111 people over the last 26 years.

Research involves collecting seeds from centers of diversity such as China and southern Africa, evaluating the germplasm collection of 1300

cucumbers and 1600 watermelons for important horticultural traits, developing elite cultivars of the four cucurbit species, and training students and scientists for plant breeding careers. The project has produced 140 articles and book chapters, 32 cultivars and germplasm releases, and 40 graduate students and scientists since 1979.



Dr. Wehner teaches plant breeding **CS-HS 541**, seminar production **HS 601**, and plant breeding seminar **CS-HS 802**. He is chair of the **Cucurbit Genetics Cooperative**, and is the ASHS consulting editor for the **Vegetable Cultivar List**.

See <http://cucurbitbreeding.ncsu.edu/>

INTERESTING WEB SITES

Mary Peet

Have you noticed the small RSS link on the NCSU homepage? **NCSU RSS feeds** allow you to get the latest news from NCSU as soon as it is published. RSS is short for Rich Site Summary or Really Simple Syndication and is another term for a news feed. Instead of having to navigate to a website for news updates, news items are delivered to your computer directly.

You can **customize the NCSU news** you receive by choosing feeds from Agriculture and Life Sciences, NCSU Libraries, NC cooperative Extension, or Information Technology. The January 2005 edition of the NCSU Library Newsletter

http://www.lib.ncsu.edu/publications/NLarchive/NL.vol.32/NL_32_6.pdf discussed Newslogs in general and the many different feeds available from the library. You can also get RSS feeds from many other sources including Google, Apple and most news services (BBC, CNN, New York Times, ESPN, MSNBC). You can choose exactly which type of news you want and how you want it delivered on most sites.

All you need to get started is a **news reader**. There are a number of free programs available for both Windows and OSX operating systems, and the latest version of Safari, Firefox and Netscape browsers all support RSS.

Go to <http://www.ncsu.edu/rss.html> for more **information** and to select your NCSU feeds!

FACULTY NEWS

David Monks

Luz Reyes, Doug Sanders, Dennis Osborne and Donn Ward developed video tapes of Good Agricultural Practices and "Wash Your Hands, It is For the Kids" in both English and Spanish versions. This is part of the group's fresh produce food safety education program. The tapes are to be used to train on-farm food handlers (pickers and packers) in proper food safety procedures as a means of reducing food borne illness.

This project was a family affair because Luz and her son and daughter starred in the hand washing tape. She translated both tapes into Spanish, and her husband Dr. Jose Estrada provide the voice for Dennis Osborne's part in the Good Agricultural Practices video (Dennis sounded funny with a deep Latin voice). See

photo (Dr. Reyes and Ken Ellzy, Extension videographer):



Faculty Awards

Doug Sanders received the Pride of the Wolfpack award in May.

Todd Wehner received the Vegetable Breeding Award of Excellence from the Vegetable Breeding working group at the annual conference of the American Society for Horticultural Science in Las Vegas, NV in July.

A.D. Draper and **Jim Ballington** won the outstanding fruit cultivar award for 'ONeal' blueberry at the annual conference of the American Society for Horticultural Science in Las Vegas, NV in July.

Wayne G. Buhler, James R. Baker, Robert Bellingier, Rick L. Brandenburg, Mark Czarnota, **Erv Evans**, Paul Guillebeau, Bruce Martin, Tim R. Murphy, Lane P. Tredway and Colleen Y. Warfield received the ASHS Extension Materials Award for 'A Pesticide Applicator Certification Manual for the Carolinas and Georgia'.

Charles D. Safley, **E. Barclay Poling**, Michael K. Wohlgenant, Olga Sydorovych and Ross F. Williams received the ASHS Extension Materials Award for 'Producing and Marketing Strawberries for Direct Markets'.

STAFF NEWS

Barb Amos

Ann Green and Joe Conner were recognized for their years of service, 30 and 25, respectively, at a university luncheon held on August 25, 2005 at the McKimmon Center. Congratulations to both!

Staff Awards

Barb Amos was presented with the Golden Wrench award from Facilities Operations in recognition of her Building Liaison responsibilities.

Bernadette Clark has been awarded the status of Full All-America Selections (AAS) Bedding Plant Judge and Full AAS Cool Season Bedding Plant Judge. All-America Selections is a non-profit organization for evaluating new seed-grown flowers from around the world. AAS was established in 1932. It is the only independent, seed testing organization in North America. The North Carolina State University Trial Garden is one of 22 locations used for national evaluations. Bernadette has been evaluating bedding plant trials since 1984.



Departing Staff

The department bids farewell to two of its technical staff. **Brad Thompson** left August 31 for a new position with Bayer in Research Triangle Park. **Cindy Pierce** left September 5 for a position in Harnett County as an environmental health inspector. We wish them the best of luck in their new careers!

UNDERGRADUATE PROGRAM

Bryce Lane and Betty Coleman

Fall semester classes are well underway in the Department of Horticultural Science. All classes are fully enrolled with many over enrolled. We currently have 212 students in our 4-year undergraduate program and 85 in our 2-year program. We have 101 Landscape Hort Students (THL), 102 General Hort. Students (THG), and 9 Science Hort. Students (SH).

The student **Horticulture Club** is off to a great start. About 45 students have attended the first two meetings and activities for the fall are being planned. The club will be helping Pi Alpha Xi, our honorary fraternity, with the **Fall Plant Sale** which is scheduled for October 1-2.

GRADUATE PROGRAM

John Dole and Rachel McLaughlin

The Pi Alpha Xi **plant sale** is October 1 and 2 at the JC Raulston Arboretum. Bring your friends, and help the graduate students raise money for worthwhile activities at NC State.

Graduate students starting this fall

Colleen Brannen. Colleen was born in Omaha, Nebraska. She received her BS from University of Nebraska at Lincoln majoring in Horticulture. She also attended the University of Wollongong in Australia and Metropolitan Community College in Omaha NE. While attending the University of Nebraska, she was involved in the

Horticulture Club, a member of PAX and recognized as an Outstanding Woman in Science. Past work experiences have included work with the Omaha Zoo, volunteering at L'arche Farm & Gardens in Tacoma, Washington and most recently Camellia Forest Nursery in Chapel Hill. Colleen will be working on her MHS degree with Pat Lindsey.

Juliana Buckelew. Juliana was born in Davenport, Iowa. She received her BS from Iowa State University majoring in Horticulture. In May 2005 Juliana received her MS degree in our Department under the direction of David Monks. Past work experiences have included internships evaluating and caring for Mediterranean-climate plants at Longwood Gardens Research Greenhouses, Kennett Square, PA and consulting home gardeners on the Iowa State Horticulture Extension state-wide toll-free help line. Her job positions have included Special Gardens Coordinator at Seed Savers Exchange in Decorah, IA and Horticulture Research Technician for Oregon State University at North Willamette Research and Extension Center located in Aurora, OR. Juliana will be working on her PhD degree with David Monks with a weed science concentration.

Roland Leatherwood. Roland was born in Waynesville, North Carolina. He received his BS degree from UNC-Asheville majoring in German and Business Management. In August 2005 he received his MS in our Department under the direction of John Williamson. To prepare himself for graduate school, Roland took four semesters of coursework in the sciences. He was hired by the Dept. of Computer Science at NCSU to teach some of the IT classes. He also participated in an independent research activity with Dr. Davies in Botany. Roland will be working on his PhD degree with John Dole.

Per McCord. Per was born in Portland, Oregon. He received his BS from Brigham Young University majoring in Plant Genetics and Breeding. In August 2005 he received his MS in our Department under the direction of

Bryon Sosinski. While at BYU, he was a lab assistant and performed DNA extractions, assisted with RFLP/AFLP analyses of tomato and preparation of reagents. At Cornell University, Dept. of Plant Breeding, he was a lab technician and performed large-scale DNA extractions for mapping studies in Capsicum. He also assisted graduate students and postdoc fellows on various projects: cloning, transformations, recombinant protein expression and purification, SDS-PAGE, etc. Per will be working on his PhD degree with Craig Yencho.

Ramon Molina Bravo. Ramon was born in Chihuahua, Mexico. He received his BS and MS from New Mexico State University, Las Cruces majoring in Horticulture Science for both degrees. His MS research involved screening for AFLP molecular markers linked to the resistance to the fungal pathogen *Phoma terrestris* in *Allium cepa* L. Ramon will be working on his PhD degree with Gina Fernandez and Bryon Sosinski.

Chris Sickler. Chris was born in Reading, Pennsylvania. She received her BS from Pennsylvania State University majoring in Horticulture Science. In 2003 Chris received her MS from Washington State University majoring in Biology. Her Master's project involved evaluating Arabidopsis transformants with the mannose-6-phosphate reductase (M6PR) gene, which converts mannose-6-phosphate into mannitol-1-phosphate. Chris will be working on her PhD degree with Jim Burton.

NEWS FROM AROUND NORTH CAROLINA

Cunningham Research Station (Kinston)

Bill Jester

We have been selecting **hot pepper** lines based on HPLC measurement of capsaicin, with some over 600,000 Scoville units.

The **Phytophthora fruit rot watermelon** experiment is in progress and looks great except

that we have no Phytophthora showing up in the plots. We inoculated them before the rain from Ophelia. The station got about 3 inches of rain from the hurricane. For many of the area farmers it was a welcomed event. We have had little or no rain in 5 weeks in the area.

**Horticultural Crops Research
Station (Clinton)**

Allan Thornton

Harvest is under way in our trials and growers' fields with the newly released sweetpotato variety, 'Covington'. Early harvest feedback for 'Covington' is very positive. Preparations are underway for the **Sweetpotato Field Day** scheduled for October 12 at the Horticultural Crops Research Station.

**Vernon James Research and
Extension Center (Plymouth)**

Mark Clough

The new **Highway 64** is open between Plymouth and Columbia (70 mph). The station is still under quarantine and will likely be for 2 years at a minimum because of the **tropical spiderwort**. As yet, they have only found it on one seven-acre block of land, and are planning to fumigate soon.

WISH LIST

Julia Kornegay

We hope that our alumni and collaborators will review this list and **help us obtain these items**.

For Kilgore Hall

- stove and extraction hood
- poster printer (HP 1055CM)
- digital camera (5-8 Mpixels)

For the greenhouses

- two golf carts with rear utility beds

For the graduate student office

- double sided printer
- six replacement computers (Win, Mac)
- computer desks and chairs (8 - 10)

Departmental Newsletter Committee

- Editor: **Todd Wehner**

- Assistant: **Rachel McLaughlin**

Send items for the newsletter to Todd Wehner
(todd_wehner@ncsu.edu)