The department of horticultural science and the JC Raulston Arboretum sadly said goodbye to Dr. Bob Lyons during a farewell reception on December 7. Dr. Lyons was recently hired by Longwood Gardens to be the director of the Longwood graduate program in public horticulture, through the University of Delaware. We are proud to see one of our finest going off to new and exciting challenges. We know that it will enhance the reputation of our college and department, but we will miss him a lot.

Bob began working at NC State in 1999 as the JC Raulston Distinguished Professor in horticulture and Director of the JCRA. The Ruby McSwain Education Center was built under Bob's watchful eye. He expanded and enhanced a number of the arboretum's living collections, and brought color to the plantings through bold additions of perennials and annuals.

Bob has also expanded the educational and public programming of the arboretum. He oversaw the development of a series of highly successful symposia, lectures, travel tours, internships, field days, and other public events that have attracted a wide variety of people to the arboretum, and enhanced its membership and support. Our students, especially those in the landscape design curriculum, have been increasingly involved in the arboretum through their class projects and the internship programs that Bob has supported.

Bob has also maintained and expanded the arboretum's historical ties with the ornamental and landscape associations and industries. His research and extension activities on perennials and annuals provided these industries with new plant introductions which have added greater sophistication and depth to residential and commercial landscapes and home gardens.

Bob also brought a corporate structure and management style that strengthened the business aspects of the arboretum. The arboretum is much more successful now in raising operational money than it has ever been in the past. Indeed, about half of the arboretum staff are funded through self-generated funds, not through state appropriated funds.

Over the spring and summer, the Department of Horticultural Science is going to very busy interviewing candidates for four new faculty positions. These are: mountain ornamentals research/extension specialist, urban horticulturist, viticulturist, and the director of the JC Raulston Arboretum. Interviews for the mountain ornamentals position are already being scheduled for January and February. This position will be based at the Mountain Horticulture Crops Research and Extension Center in Fletcher.

Faculty interviews are time consuming processes, involving a significant number of people within the department and college, and, if appropriate, with industry leaders and representatives from other groups. We usually try to invite at least three candidates for interviews, and each interview lasts about two days (three if the candidate is interviewing for a position based at MHCREC). It is an exhausting experience for both the interviewees and interviewers, but critically important. Shortcuts cannot be taken. We look forward to having new faculty in the department and the new ideas and experiences they bring.
The mission of the Landscape Design program in the department of Horticultural Science is to provide innovative teaching, research, and outreach in the art and science of design of landscapes using horticultural plants. The strength of the program lies in the balance of its strong foundation in both the art of design as well as the science of horticulture.

The landscape design program has been revising its curriculum over the past several years. The web page now lists the courses required for graduation and the sequence in which the courses must be taken. In addition, the web page now includes studio descriptions and images of students in action and examples of their work.

Check the web site for these planned future additions: highlights of current service learning projects, a criteria list for potential "real world" clients, lists of current landscape trends, and highlights of what some of our past graduates are doing now.

http://www.cals.ncsu.edu/hort_sci/landscape/Ind main.html

Hortivar is available on the web at http://www.fao.org/hortivar is a tool for retrieval of information on the performance of horticultural cultivars in relation to agro-ecological conditions, cultivation practices, the occurrence of pests and diseases and timing of the production. It is suitable for recording data obtained producers and by public, private sector, seed companies and horticultural research centers around the world that conduct field trials to assess the performance of horticultural crop cultivars in different agro-climatic and agro-economic environments. It is also a portal to foster communication among all the stakeholders of the horticulture industry, worldwide.

The 2004 Southeastern Vegetable and Small Fruit Expo had 500 attendees in Greenville, NC on Nov. 30 to Dec. 2. The NC Vegetable Growers Association sponsored the program along with sister organizations of the NC Watermelon Growers, NC Greenhouse Vegetable Growers, NC Sweetpotato Commission, and NC Pickle Packers that also held educational sessions during the EXPO. There were over one hundred commercial and educational exhibits in the Tradeshows. In addition to speakers from NC State and NC A&T faculties, several out of state speakers were present from the University of Florida, Clemson, Virginia Tech, and the University of Georgia.

The NC VGA presented special recognition to Beargrass, NC native, Dean Johnny Wynne for his innovative approaches and support of the industry through the NC Specialty Crops
Program, his leadership and his constant encouragement of improving vegetable crops in North Carolina. Another special recognition went to Cathy Price for her work to improve the trade show this year, and for her support through the years.

The NCVGA gives awards annually for support. The 2004 recipient is Bill Jester. He has extensive experience with vegetables, has worked for a major processor and several counties in eastern NC, and always has answers to grower questions.

The educator award this year, as chair of the outstanding expo educational program, went to Gerald Holmes.

The leadership award went to Doug Sanders. He has provided leadership for this organization for many years, does a lot for them, and is always ready to lend a helping hand or provide advice.

The first NC Vegetable Hall of Fame inductee was Mr. Kendall Hill of Hugo, NC, as an outstanding grower who has provided leadership throughout the years. Mr. Hill has done things for the good of the industry and at times when he should have been home tending his fields. He has been an innovator in use of technology, and has always encouraged others to strive for excellence as he does. He has always been open to new ideas and techniques and allowed his farm to be a testing ground. He is interested in seeing everyone make a success. The award consisted of a plaque for him to keep and a special plaque that is passed on each year.

Mike Uchneat (MS, 1993) visited the department September 20 to recruit students for floricultural breeding jobs at Panamerican Seed.

Juan Carlos Gilsanz (MS, 1996) received a medal from INIA Las Brujas of Uruguay for 25 years of dedicated service.

Sergio Carballo (MS 1994) hosted the first Uruguayan Food Safety Conference with over 80 attending. It was organized with Facultad de Agronomia at the National University of Uruguay and LATU the national testing laboratory of Uruguay.

Faculty News
David Monks

Drs. Collins, Niedziela, Sawyer, Wise, and Zorner were reappointed as Adjunct professors in Horticulural Science.

The department has several positions open, and will be advertising and interviewing over the next few months: 1) urban horticulturist; 2) mountain ornamental extension; 3) viticulture extension; 4) director of the JC Raulston Arboretum. See the web page for more information: http://www.cals.ncsu.edu/hort_sci/hsassist.html

Gustavo Gimenez (MS, 1998) recently hosted Jim Ballington as a featured speaker at a conference for the 40th anniversary of the INIA Las Brujas research station in Uruguay to speak on the future of fruit crop breeding in INIA. While there, Jim also presented a special workshop on blueberry breeding in warm temperate and sub-tropical South America.

Bryce Lane has returned from study leave. He visited Spain, New Zealand, and Australia to investigate new travel opportunities for our undergraduate students. During the trip to England, Bryce visited English Garden Centers and attended the world's largest retail garden center trade show in Birmingham. He also continued to produce shows for the second

Alumni News
Todd Wehner

Marc Cathey was the recipient of the 2004 Outstanding Alumnus Award for the Department of Horticultural Science. Dr. Cathey received his award at the fall graduation program at the JC Raulston Arboretum.
season of "In the Garden" for UNC TV, including two shows that featured British gardens.

Elzbieta Kozik (Head, Plant Breeding Dept., Veg. Crops Institute, Skierniewice, Poland) was a visiting scientist with Todd Wehner in October and November. They studied chilling resistance in watermelon in the phytotron (Dr. Kozik is on the left in the cucurbit genetics photo below).

Two new postdoctoral scientists are working with Steve Clouse on the NSF Arabidopsis proteomics project. Murali Dhandaydham was previously a postdoc in Charlie Opperman's lab at NCSU, and before that did postdoctoral work at UNC Chapel Hill. Srijeeet Mitra was a postdoctoral scientist in plant molecular biology and biochemistry at the University of Michigan. Both Murali and Srijeeet are originally from India. Murali received his Ph.D. from the Center for Cellular and Molecular Biology, Hyderabad, India, and Srijeeet received his Ph.D. in Plant Molecular Genetics from the Bose Institute in Calcutta, India.

Steve Clouse delivered several invited research seminars this fall, including the NSF Plant Phosphorylation Workshop at Snowbird, Utah in October, the George Lynn Cross seminar in biology at the University of Oklahoma in November, and the Department of Biology seminar at the University of South Carolina, also in November.

Todd Lasseigne will be leaving his position as assistant director of the JC Raulston Arboretum on December 31.

Kim Powell will be interim director of the JC Raulston Arboretum beginning January 1.

Faculty awards

Dennis Osborne and Doug Sanders received the ASHS National Extension Materials Award in the video category for the film "Bridging the GAPS from Farm to Table". The film was a joint effort of NCSU and NCDA. It introduces elements of the new national fresh produce food safety system and previously had received the Southern Region award in the same category. CALS personnel sharing the award with Dennis and Doug are Ken Ellzey and Sonya Williams in Communication Services.

Paul Nelson received the 2003 H. Marc Cathey award presented by the American Horticulture Society. Interesting note: Gus DeHertogh received the award in 2001 (Nelson, DeHertogh, and Cathey are shown left to right in the photo).

Jeanine Davis was awarded the activist of the year by the Carolina Farm Stewardship Association.

The Epsilon Sigma Phi team award for 2004 went to Dennis Osborne, Donn Ward, and Doug Sanders for their program 'creating food chain security and food safety: a fresh-produce food safety training program'.
The Epsilon Sigma Phi retired faculty service award for 2004 went to Larry Bass for his work with 4-H, Almanac Gardener, and university fund raising.

September 2003 - Joe Love, professor, extension specialist for floriculture. Joe developed a very effective extension program in support of the commercial floriculture industry in the state. He and Roy made numerous trips throughout the state to assist our growers. Joe was instrumental in creating the NC Commercial Flower Growers Association and created the Floriculture short course which has now grown into a regional conference.

July 2004 - Mitchell Jenkins, professor, extension and research. Mitch was located at the HCRS in Castle Hayne. He was hired to locate a research facility in the Castle Haynes area in support of the cut flower industry that existed there in 40s and 50s as well as the vegetable industry. His research was primarily with gladiolus which were the leading crop in that area at the time. He also developed some vegetable cultivars such as 'Smoothie' cucumber and 'Vates' collard.

October 2004 - Henry Covington, professor, extension specialist, sweetpotato and white potato. Henry along with Dan Pope and Lee Kushman launched the sweetpotato industry in the 60’s. Dan was the breeder who introduced the Jewel variety of sweetpotato on which the industry was built. Henry developed the cultural practices for growing Jewel and Lee Kushman developed the curing procedures and post harvest physiology. Henry established the Covington young extension award in the Southern Region of the American society for Horticultural Science.

November 2004 - Fred Cochran, professor, research, teaching and administration. Fred served as head of the Horticultural Science dept for 11 years 1956-1967. He was an outstanding teacher and was named to the academy of outstanding teachers at NC State. Fred was involved in breeding of woody ornamentals. He and colleagues from LSU released 17 azalea cultivars in the CarLa series between 1976 and 1981. Fred was also well known for his grafting of Japanese maples; he gave many of these away to faculty in the department and there are some of his maples at the JCRA.

In Memoriam
Tom Monaco

In the past two years, five of our emeritus faculty passed away.

January 2003 - Roy Larson, professor, floriculture teaching and research. Roy was an outstanding teacher and taught the undergraduate floriculture courses. He received many teaching awards and was world renowned for his research with azaleas and poinsettias; use of growth regulators. He is responsible for developing the techniques for year round flowering of azaleas for the florist trade and initiated the poinsettia cultivar trials which continue today. He is the first member of our faculty to be elected president of the American Society for Horticultural Science.
**Staff News**
Barb Amos

Welcome to Lisa Barrow who started working half-time (September 27) as an Office Assistant for the Specialty Crops Program in Kinston; and to Elaine Levin who started working half-time (October 4) as a Processing Assistant on campus.

**Staff awards**

The departmental SPA awards were won this year by Jennie Ferrell and Christie Gordon. Congratulations!

Congratulations to Luz Reyes, Deborah McGuinn, and Barb Amos, all winners of Pride of the WolfPack awards.

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**Undergraduate Program**
Bryce Lane

Departmental graduation ceremonies were held at the Ruby McSwain education center on December 15 at 11:30 following the University graduation at the RBC. There were 16 seniors graduating.

The spring semester will begin Monday, January 10. All HS classes are full, so instructors are working hard to accommodate students trying to add courses.

This year's team for ALCA Student Career Days is preparing for the career fair and competition. We have 40 students looking forward to visiting the University of Maryland, March 18 to 23. Following the event, they will visit gardens in the Delaware Valley area, including Longwood Gardens, Chanticleer, Swarthmore College Arboretum and the National Arboretum. The team is selling baked goods (next to the coffee) to raise money for expenses. They are also accepting donations.

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**Graduate Program**
John Dole and Rachel McLaughlin

On January 6, the department will welcome its newest graduate students. The students will have an orientation from 8:30 to 10:30 am, followed by a meeting of all the graduate students from 10:45 to 11:45 am. From 11:45 am to 12:30 pm there will be a departmental social welcoming the new students into the department. All faculty, staff, and students are welcome to attend the graduate-faculty social.

Graduate students finishing this winter

Jeff Adkins is an Assistant Professor in the Department of Plant Science at the University of Rhode Island. His research will focus on breeding and genetics of ornamental plants and teaching undergraduate Plant Propagation.

Adam Bruckner finished his MS in late August. He has left the plant world and is now studying osteopathic medicine at the Virginia College of Osteopathic Medicine in Blacksburg, VA. Adam worked with Dr. Craig Yencho and Dr. Bryon Sosinski in Horticultural Science and Dr. Xiang in Botany.

Frankie Fanelli is teaching Horticulture courses at Johnston Community College and will continue to work for the JC Raulston Arboretum as their Volunteer Coordinator.

Nihat Guner completed his PhD this fall and began working as a project leader and watermelon breeder at Sakata Seeds in Lehigh Acres, Florida (nguner@sakata.com).

Upon graduating with a M.S. degree from the Department of Horticultural Science in December 2004, Brian Krug will pursue his Ph.D. degree under the direction of Dr. Brian Whipker. Brian's research program will be focused on boron deficiency in pansy and gerbera plug production.
Jennifer Leonard has been working part time for a landscape architect in Durham and is slated to move to a full time schedule after graduation.

Erin Naegle has been teaching biology in high school. Erin says "teaching is fabulous. The students weren't as wild about respiration and photosynthesis as I was hoping they would be. However, they are really interested in genetics. I have been bombarded with questions this week. Of course, I think some of it has to do with learning about the sex chromosomes and sex-linked genes. Something about saying sex seems to get their attention." She continues, "I have learned about a program at Idaho State University. They have a doctorate of the arts program that is designed to generate people who are excellent biology teachers for undergraduate universities. I think that the degree would make me more marketable, and I would have more choice as to where I ended up teaching. I plan to visit the campus this fall to get a better idea if it is something that I want to commit to."

Carroll Williamson will be returning to Darlington at the end of December to start up his own field nursery and work along with his father in his nursery in Darlington, South Carolina. Carroll will be growing and selling large ornamental shade trees wholesale. Additionally, he will be getting married in October, 2005 in Raleigh.

Graduate student awards

Richard Olsen received first place award in the student competition at the International Plant Propagator's Society, Southern Region (Greenville, SC) for his presentation 'xChitalpa the next generation'.

Allan Thornton and Gerald Holmes, Plant Pathology, cooperate to initiate a fungicide trial to help growers tackle this problem. Four new materials performed strikingly better than recommended fungicides and will be used to update recommendations to growers.

JC Raulston Arboretum (Raleigh)
Bob Lyons

At the end of December 2004, I will be leaving my post as Director of the JC Raulston Arboretum to assume the position of Director of the Longwood Graduate Program in Public Horticulture, administered through the University of Delaware. This unique program trains M.S. students to enter the management arena of public gardens, arboreta, and similar institutions and is closely aligned with Longwood Gardens in Kennett Square, Pennsylvania. In light of how much has been accomplished with my staff, I have truly learned a lot during my six years here. Leaving the JCRA will not be easy. I have made many friends here and find the plant collections to be the best, and getting even better.

I will have offices at both Longwood Gardens and the University of Delaware so please stop by if you are in the Kennett Square, Pennsylvania or Newark, Delaware areas! – Bob Lyons, Director

LCPTRS-Cunningham Research Station (Kinston)
Bill Jester

Romaine lettuce trials on the station ended last week. Dr. Ron Newton, Chair of the Department of Biology and Dr. Tom Feldbush, Professor, Department of Biology, East Carolina University visited Bill Jester at the Specialty Crops office in December to discuss collaborative projects involving tomato and melon. Bob Occhinifinto, President and Ron Fisher, Chemist, NVE Pharmaceuticals flew to Kinston in November to discuss a collaborative hot pepper project with Bill Jester and the Specialty Crops program.

NEWS FROM AROUND NORTH CAROLINA

Horticultural Crops Research Station (Clinton)
Allan Thornton

Cucumber downy mildew was the headline story for 2004. Our current recommendations seemed ineffective in controlling the disease.
Mountain Horticultural Crops Research and Extension Center (Fletcher)
Tom Ranney

The construction of the new patio and outdoor reception area at the MHCREC is nearly complete. The arbor is being construction by our own crew: Tom Eaker, Nathan Lynch, Joel Mowrey, Tom Hoyt, and Joe Conner (see photo).

Vernon James Research and Extension Center (Plymouth)
Mark Clough

In September Mark Clough traveled to the USDA-ARS Potato Breeders harvest in Aroostook County Maine to select lines for testing in North Carolina in 2005. Potato seedlings for our single hill trial will be ready for harvest in December.

Construction of Highway 64 behind the James Center continues, though it will be a while before it opens. For those familiar with the area, the bypass around Creswell is complete, with five miles of four lanes.

The James Center is fully functioning, and hosting quite a few events including November political rallies and public hearings on further road construction in the area. For our events schedule, see http://www.ces.ncsu.edu/plymouth/events/

Wish List
Julia Kornega

Because of on-going budget restrictions, the horticulture department can no longer purchase all the items needed by our programs. 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 Mixels)

For the greenhouses
- two golf carts with rear utility beds
- wireless network hubs (802.11b or g)

For the graduate student office
- double sided printer
- flatbed scanner
- six replacement computers (Win, Mac)
- computer desks and chairs (8 - 10)

Horticulture Facilities
David Monks

The faculty/staff lounge is now carpeted, painted, and ready for use. Additional furniture will be obtained for the lounge this spring.

Kilgore Hall laboratories 206, 210 and 254 are being renovated to expand research in some areas. Steve Clouse will occupy 210 and 254 (along with his current lab, 253) in order to house several new postdoctoral scientists and graduate students involved in molecular biology research. Paul Nelson will move his plant nutrition research program to lab 206 from 254. The darkroom (205) is also being reworked to make it more useful.

Helen Kraus is moving from a 2nd floor office to Dot Duke's old office on the 1st floor. Stu Warren will move to Bob Lyons' old office.

Departmental Newsletter Committee
- Editor: Todd Wehner
- Assistant: Rachel McLaughlin
Send items for the newsletter to Todd Wehner (todd_wehner@ncsu.edu)