State Climate Office of North Carolina: Overview of the Capabilities for Climate-Based Agricultural and Biological Systems Research Support

Decision support tools for crop management assist growers in making decisions on when to plant, protect, and harvest crops. High-resolution climate data are very useful in agricultural and life sciences research and extension. The NCARS funds scientists in the State Climate Office (SCO), a public-service center housed at NCSU, and supports weather stations at many locations in support of research in CALS. The SCO is committed to expanding the office's agricultural work to include other crops and biological systems. They maintain a large database -- NC CRONOS -- of high-resolution weather and climate observations. These data are routinely used by dozens of user groups for custom applications. Several examples follow.

In collaboration with CALS faculty, the State Climate Office of North Carolina (SCO) developed and refined decision support tools for crop management. The SCO has worked with plant pathologists to provide an automated disease advisory system for peanuts in North Carolina. Software was developed that calculates the number of favorable hours for peanut leaf spot and Sclerotinia blight development. Daily e-mails are distributed during the growing season for several ECONet stations. A web interface also provides a custom disease forecast based on the most recent fungicide spray date; an experimental 3-day forecast is also provided to help anticipate disease conditions. By identifying the opportune times to spray fungicide, growers save time and money and realize increased yields.

The SCO is currently working on a turfgrass irrigation project. Considering recent weather conditions, turf species, soil conditions, and geographic location, irrigation advisories will be made available to turf managers and the public. A website will be available in 2007 to provide customized turf irrigation recommendations. The SCO team will partner with media and local governments to publicize the website so as to conserve water resources. This project is partially supported by the North Carolina Center for Turfgrass Environmental Research & Education.

The SCO is collaborating with researchers in other crops including grapes, blueberries, tobacco, soybeans, peaches, and apples to develop decision support tools. It is anticipated that models with utility for animal stress, insect communities, and plant communities can be developed. Other areas of interest and importance include pathogen transport, frost and freeze prediction, and animal waste management. The SCO can use high-resolution environmental observations and weather prediction to develop support applications whenever there is knowledge of weather sensitivities in a wide variety of biological systems.

On the web:
http://www.nc-climate.ncsu.edu

E-mail:
**NORTH CAROLINA COOPERATIVE EXTENSION SERVICE**

**Program News**
The 2007 Extension Conference is scheduled for March 12-14, 2007 at the McKimmon Center for Extension and Continuing Education in Raleigh. Please mark these dates on your calendars. More details will be forwarded soon.

A new Memorandum of Understanding (MOU) was developed with a county partnership committee comprised of County Managers, the Executive Director of the North Carolina Association of County Commissioners (NCACC) and Cooperative Extension Administration from both NC State University and NC A&T State University. This MOU serves as the formal agreement between Extension and each individual county government for bringing Extension programs and having University positions in the county. The main change is that all newly hired employees will now be on the University payroll system. This fiscal change prevents differences in retirement benefits that employees have experienced in the past from counties that provided separate payrolls. Current employees can elect in two open enrollments whether to switch to the University payroll system or not. Another key change is the implementation of a permanent advisory committee representing county management, the NCACC, NC A&T SU and NCSU.

**Personnel Updates**

**Director, Personal and Organizational Development**
Dr. Mitch Owen is the new Director of Personal and Organizational Development effective November 1, 2006. Dr. Owen replaces Dr. Richard Liles, who retired earlier this year.

Dr. Owen joined the NC Cooperative Extension Service in 1984 as Assistant Agricultural Extension Agent, Farm Management and Marketing. From this position, he moved to the position of Area Specialized Associate Agent, then to Extension Specialist, and since 2000, has served as Innovation and Organization Development Leader for the Personal and Organizational Development Unit.

Dr. Owen brings a wealth of experience to this new position. Please join us in congratulating Mitch on his promotion as the new Director of Personal and Organizational Development.

**Director, Marketing Search**
The interview process is completed for this position.

**COLLEGE ADVANCEMENT**

**CALS Faculty/Staff Retiree Luncheon**
The CALS Faculty/Staff Retiree Luncheon will be held December 2, 2006 at the McKimmon Center. The keynote speaker for this year's retiree luncheon will be NC State alumnus and former Chairman of the Joint Chiefs of Staff General Hugh Shelton. For more information, contact the CALS Alumni and Friends Society at 919.515.7222.

**Comprehensive Gift Planning Web Site**
To serve faculty and staff with helpful information, we have created a comprehensive gift planning web site. We have an increasing number of friends of the College who now are benefiting from life
income gifts, gift annuities and other charitable vehicles. Thank you for taking the time to explore the benefits of gift planning at http://cals.giftlegacy.com/

You may also support any area of the College and join or renew your Arboretum membership online using our secure website. Visit http://www.cals.ncsu.edu/givenow for safe, convenient online giving!

We need your help!
We need your help! We request that all departments and county offices please continue to send us your updated retiree lists, with all contact information available. Once an employee retires, just send Julia Brooks (julia_brooks@ncsu.edu) a quick e-mail letting her know so that she can add them to our list.

Advancement Advantage Guide to Services on-line
College Advancement is pleased to announce the availability of our Advancement Advantage Guide to Services on-line. This information is designed to educate CALS faculty, staff and administrators about the resources available through these divisions. By doing so, we hope to expand access to our services, and increase support of and service to departments and college-wide initiatives. This web site is a work in progress and will be updated on a regular basis. To access this information, just click on the link below:

http://www.cals.ncsu.edu/advancement/resource_guide.htm

ACADEMIC PROGRAMS

Dr. John C. Cornwell Retirement Reception
Dr. Kenneth L. Esbenshade, Associate Dean and Director of Academic Programs and the Agricultural Institute cordially invite you to attend a retirement reception honoring Dr. John C. Cornwell for his years of dedicated and faithful service to the College of Agriculture and Life Sciences. Dr. Cornwell has held positions in the Department of Animal Science and is currently the Associate Director of Academic Programs and Director of the Agricultural Institute. He will retire effective January 1, 2007. The retirement reception will be held on Thursday, December 14, 2006 at the Ruby S. McSwain Center, 4415 Beryl Road from 4:00 – 6:00 p.m. with a program at 4:30 p.m.

Please RSVP by Friday, December 8, 2006, to www.cals.ncsu.edu/cornwell_retirement or 919.515.3248. Contributions to a book of letters may be sent to Alease Hancock, Box 7642, Raleigh, NC 27695-7642 by Friday, December 8, 2006.

Senior Breakfast
On Wednesday, December 6, the Agricultural Institute Alumni Committee will host a breakfast honoring Agricultural Institute students graduating during the fall semester. The breakfast will be in 2405 Williams Hall at 7:30am. Please RSVP at the following web link:

http://harvest.cals.ncsu.edu/index.cfm?showpage=732&eventid=6

Agricultural Institute Graduation Ceremony
On December 20 at 3:30pm, the Agricultural Institute will host a Graduation Ceremony at the NC State University Club, for students graduating during the fall semester. A reception will follow the ceremony. All are welcome to attend. Please RSVP at the following web link:
The CALS Ambassadors hosted the 3rd Annual Leadership Capstone on Thursday, November 28, 2006. Each year, the Ambassador Leadership Capstone is a highlight event that culminates leadership across the University. The CALS Ambassadors invite other ambassador groups to celebrate the closing of a successful semester, recognize the impact of student leaders on campus, and hear an inspirational message related to leadership. We were honored to have First Lady Mary Easley provide the keynote address this year. CALS administration, faculty, and ambassador advisory board members, as well as student ambassadors throughout North Carolina State University were in attendance. We were very appreciative to have the NC Pork Council sponsor this year's event.
## December Commodity Meetings

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
<th>Location</th>
<th>Liaison</th>
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<tbody>
<tr>
<td>National Poinsettia Trial Open House (NC Commercial Flower Growers Assoc.)</td>
<td>December 3, 2006</td>
<td>McSwain Education Center, JC Raulston Arboretum, Raleigh, NC</td>
<td>Tom Monaco</td>
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<tr>
<td>NC Farm Bureau Annual Convention</td>
<td>December 3-5, 2006</td>
<td>Four Seasons Hotel, Greensboro, NC</td>
<td>Johnny Wynne</td>
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<td>NC Agricultural Consultants Association Meeting (Fall)</td>
<td>December 5-6, 2006</td>
<td>Blue Ridge Ramada Inn, Raleigh, NC</td>
<td>Tom Monaco</td>
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<td>Crop Protection Association of NC (Winter)</td>
<td>December 12, 2006</td>
<td>McKimmon Center, Raleigh, NC</td>
<td>Tom Melton</td>
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<td>Southeast Vegetable &amp; Fruit Expo</td>
<td>December 13-14, 2006</td>
<td>Myrtle Beach Convention Center, Myrtle Beach, SC</td>
<td>Tom Monaco</td>
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