

Drought Response:

College of Agriculture and Life Sciences

North Carolina Cooperative Extension

North Carolina Cooperative Extension specialists, agents and Master Gardener volunteers have been busy getting information about drought management to North Carolinians through a number of educational programs. These efforts rely on the best research-based science from the College of Agriculture and Life Sciences at North Carolina State University and other sources as well as guidance from local government policies regarding water use and any restrictions in place due to drought. Some of these Extension programs are described here.

Web Presence:

Cooperative Extension has maintained a drought information Web site since August 2007. This site (<http://www.ces.ncsu.edu/disaster/drought/>) contains information for use by Extension agents and others on drought and crops, horses, livestock, gardens and landscapes, nursery crops, timber and turfgrass. It also contains information on water harvesting.

County Programs:

Cooperative Extension maintains centers in all 100 North Carolina counties and on the Cherokee Reservation. Agents in these county offices tailor programs to the specific needs of county residents and local governments, so a list of everything Extension has done and is doing across the state to help North Carolinians deal with drought would be lengthy, indeed. Following is a sampling of the drought assistance and information Extension has provided and is providing. It is likely that every county Extension center has addressed the drought in some way.

- The Triad area has a long history of water-use limitations, due to growth pressures and the need for new water resources to meet demand. To encourage waterwise gardening, a five-county area developed the program, “**Carolina Lawns and Gardens,**” based on a similar program from Florida. The program focuses all consumer horticultural information around conserving water and water quality. The five counties involved are **Guilford, Forsyth, Alamance, Rockingham and Davidson**. The program has been so successful and timely that Lucy Bradley, urban horticulture specialist, is developing a grant to take the effort statewide. Since the Triad area implemented the program, it has been adopted by South Carolina, Tennessee and Minnesota as well.
- In **Craven County**, Cooperative Extension partnered with the city of New Bern and the East Carolina Council of Governments to obtain grant funds for the installation of a water harvesting system at a municipal building. The system includes a 3,000-gallon cistern connected by pipe and gutters to the roof of a city building. More than 1,600 gallons of water will be diverted to the cistern for each inch of rain on the building roof. Water will be pumped from the cistern to a

tanker truck, then used to irrigate city parks, reducing the city's potable water consumption.

- Extension is providing similar educational efforts in other counties. In **Alexander County**, the 4-H agent is focusing on water conservation in after-school groups, while agents have written newspaper articles and talked about conservation on radio shows. And agents are focusing on conservation through the local speakers' bureau.

Master Gardener Initiatives:

In **Wake County**, Cooperative Extension initiated a waterwise gardening program through a partnership with the Wake County Master Gardener program, the horticultural agent and the Neuse Education Team. This program has assisted homeowners in reducing water use in the landscape by teaching county residents about water-conserving practices. **One hundred and fifty Master Gardeners** were trained through water education workshops. In turn, the Master Gardeners developed waterwise gardens at the N.C. State Fairgrounds and Lake Crabtree County Park. The Master Gardeners have hosted tours of these gardens and provided information to fairgoers visiting the fairgrounds flower show area. These two gardens are visited by more than 250,000 people each year, many of them Wake County homeowners who will learn about gardening practices that will ensure a beautiful landscape, maintain water quality and conserve water resources.

The Master Gardeners also developed a Web site, www.ncwaterwise.info. This page has information about water conservation and links to numerous other sites that provide additional water conservation and water quality tips. Master Gardeners designed and printed 30,000 bookmarks to provide waterwise tips and market the Master Gardener phone number and the waterwise Web site.

Reaching Consumers and Growers Through News Media:

- Both Mitch Woodward, Extension area specialized environmental agent stationed in Wake County, and Carl Matyac, Wake Extension agent, appeared repeatedly on North Carolina News Network radio programs discussing drought-related topics, including conserving water, xeriscaping and water harvesting. Woodward has appeared on other media outlets as well.
- Dr. Jonathan Schultheis, department Extension leader in Horticultural Science, appeared on the Southern Farm Radio Network and discussed drought implications for sweet potatoes.
- Agents frequently write columns in local newspapers to provide educational information to county residents. Those who report creating columns related to gardening and drought include: Gary Pierce, **Harnett County**; David Barkley, **Brunswick County**; Tom Glasgow, **Craven County**; Danny Lauderdale, **Pitt County**; Linda Blue, **Buncombe County**; Katy Shook, **Gates, Perquimans and**

Chowan counties; Lenny Rogers, Alexander County; Carl Matayac, Wake County.

Outreach Through UNC-TV:

- The **Almanac Gardener** television show on WUNC-TV has focused repeatedly on water conservation over the last two seasons. The show included the following segments:
 - *Carolina Yards and Neighborhood Program*, featuring Karen Neill, Guilford County Horticulture Agent (this segment featured nine principals of landscape design, including using less water);
 - *Using Mulches to Conserve Water*, featuring Bill Lord, area environmental education agent stationed in Franklin County;
 - *Choosing the Right Mulch for Your Landscape*, featuring Linda Blue, urban horticulture agent in Buncombe County;
 - *Micro-Sprinklers*;
 - *Building a Rain Barrel*, featuring Karen Neill;
 - *Drought-Resistant Plants for a Rock Garden*;
 - *Rain Garden in Cary N.C. to Prevent Runoff and Water Plants*, featuring Bill Lord;
 - *Water Reuse-A Way to Conserve Water-Cary*, featuring Bill Lord;
 - *Improving Your Garden Soil So You Use Less Water*, featuring Bill Lord; and
 - *Permaculture: The No Waste Landscape* (including cisterns for watering), featuring Will Hooker, professor of Horticultural Science.

- A segment of the UNC-TV program “**In the Garden with Bryce Lane,**” titled “Gardening During a Drought” aired Jan. 19, 2008. During the show’s five-season run on UNC-TV, drought and waterwise gardening have been regular topics.

Extension’s Successful Gardener:

Extension’s Successful Gardener is a multi-county program for branding consumer horticulture education initiatives. The program includes an award-winning color newsletter distributed through gardening centers, among other outlets. The newsletter has been a source of drought information. Successful Gardener’s monthly e-tips repeatedly contained drought information, particularly in the summer and fall of 2007, while the June/July 2007 issue, which was distributed to about 6,000 readers, included an article on “Dealing with Drought.” E-tips go to about 4,000 people each month.

JC Raulston Arboretum:

The JC Raulston Arboretum has had a number of educational programs in the past six months dealing with drought and water management. **Bill Hunt**, Department of Biological and Agricultural Engineering, was the keynote speaker at the September Arborfest event, speaking on water management in residential settings. Later last fall, **Will Hooker** of Horticultural Science gave a presentation on “Permaculture Basics” and

discussed water capture and management as a part of his presentation. Finally, **Helen Kraus**, Horticultural Science, gave a presentation on rain gardens and reducing runoff.

These are just a few of the efforts of the faculty of the College of Agriculture and Life Sciences and North Carolina Cooperative Extension to help North Carolinians deal with the drought. And this effort is continuing. As long as North Carolina is in the grip of a drought, the College and Cooperative Extension will continue to work with North Carolina residents and the state's agricultural sector to find ways to deal with the dry conditions.

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