

NEWS RELEASE

Media Contacts: Dr. Robert Bardon, 919/515-5575 or
robert_bardon@ncsu.edu
Tracey Peake, 919/515-6142 or tracey_peake@ncsu.edu

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Drought May Affect Fall Color in Triangle, NC State Professor Says

FOR IMMEDIATE RELEASE

The late season dry spell in the northeastern portion of North Carolina will probably have an adverse effect on the fall foliage in that part of the state, although the mountains should have a typically colorful season.

Dr. Robert Bardon, associate professor of forestry and extension forestry specialist at North Carolina State University, says that the drought will result in an earlier and shorter display of color for the affected region.

“For a really vibrant fall display, you want warm days and cool nights with some rain,” says Bardon. “Moisture helps drive the process that produces color changes in leaves. The drought just makes the leaves shut down, which speeds up the color changes, as well as the rate at which the trees will lose their leaves.”

Bardon added, “We’re already seeing some color changes in this part of the state – poplars and maples and trees with shallower root systems will show the effects of the dry weather first.”

During the spring and summer, leaves manufacture most of the food necessary for a tree’s growth. The food-making process occurs in cells that contain the pigment chlorophyll, which gives the leaves their green color. The leaves also contain other pigments that are masked most of the year by the greater amount of chlorophyll.

In the fall, shorter and cooler days cause the leaves to stop making food. As the chlorophyll breaks down, the green color disappears and yellow colors surface. Other chemical changes create additional pigments that vary from yellow to red to blue. Drought conditions stop the food-making process prematurely and hasten the breakdown of chlorophyll, resulting in a quick and early color change.

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Fortunately for leaf watchers, the Blue Ridge Mountains and other areas in the western part of the state not affected by the dry weather should have a typically vibrant fall season. The best time to see fall colors in North Carolina is from mid-October to mid-November, says Bardon. Leaves in the higher elevations, such as Mount Mitchell, will change colors first.

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