

## Can State Expect Bright Autumn?

By Carol L. Spence

LEXINGTON, Ky., (Oct. 10, 2007) – Ask anyone. Chances are they'll say the only color they're seeing lately is brown – brown from dust, dead grass and dried up gardens. The continued hot weather and dry conditions across the state can make anyone question whether or not there will be anything worth seeing this fall. But hope might be in the air – or at least in the shortening days.

According to Doug McLaren, University of Kentucky forestry specialist, the length of days has more bearing on when fall color appears than temperature or moisture, though the latter two do play roles in the amount of color.

"The shorter days activate a 'chemical clock,' which tells trees to shut down chlorophyll production in preparation for winter," he said. "That will happen, regardless of rainfall or temperature."

Shorter days trigger the formation of a layer of cork cells at the base of each leaf. This restricts the flow of water and minerals into the leaf, which means that spent chlorophyll, the green pigment in foliage, cannot be replaced. As chlorophyll dies, it no longer masks other pigments present in the leaf. Voila! Suddenly a green leaf is transformed to orange or yellow.

The amount of light also affects color brilliance. The production of one group of leaf pigments, the anthocyanins, is dependent on the breakdown of sugars in the presence of bright light in late summer.

"The brighter the light, the more anthocyanins are produced and the more brilliant the color," McLaren said.

So that sounds like good news for those 'fallophiles' out there who hunger for drives along boldly colored country roads. But wait, there's something else to consider.

"The brightest colors develop when autumn days are sunny and cool, along with nights that are chilly, but not freezing," McLaren said.

That doesn't sound encouraging for a year when October's daytime temperatures still hover along the 90-degree border and nights are reminiscent of late June. This year, because of the extreme summer and fall we've experienced, McLaren doesn't hold out much hope for a radiant autumn.

"I think the total luster of all the colors is going to be a lot duller," he said.

Typically, fall color moves from east to west across the state. The latest fall foliage map from the Kentucky Department of Tourism indicates that certain pockets in the far eastern part of the state, the south central region and central region centering around the Jefferson County

area are showing a 21 percent to 40 percent move toward peak color, while the rest of the state still remains in the 8 to 20 percent range.

High season for the best fall color in the state typically is in the middle of October. In the best of years, autumn foliage in Kentucky would be hard put to find rivals.

“Because we in Kentucky have such a diverse climate and soil composition,” McLaren said, “many tree species common to both northern and southern states grow here. This provides a variety of fall colors.”

McLaren is predicting that the best weekends to hit Kentucky country roads and parks will be Oct. 13-14 and Oct. 20-21. And even if crisp autumn-like temperatures haven't arrived by then, perhaps the sight of red or yellow dotting a hillside will make us feel a little of fall's comfort.

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