

Ag Column
Chris Ramsey
August 29, 2016

Changing Leaves Will Soon Transform Our Landscape

Just this past week, I left the house early one morning. I was quickly reminded of the beauty of fall we would soon enjoy. With the sky a bright blue, the sun bright in my face, the air had just a touch of coolness we expect to feel as fall approaches. Leaves will soon be changing to red, yellow, orange, and purple.

You may ask, “Just how does this process work?” According to Dr. Wayne Clatterbuck, UT Extension Forestry Specialist, the change of leaf color occurs as chlorophyll in the leaf breaks down allowing the pigments, carotene and xanthophyll, to be visible. These pigments are responsible for orange and yellow coloring in leaves. With cooler nights and bright sunny days, the leaves produce anthocyanins, which are responsible for the red, pink and purple colors.

As we progress into fall, Clatterbuck says leaves cease photosynthesis and the production of chlorophyll. This results in a higher concentration of sugars in the leaf. As leaves begin to separate from their stem, sugars get trapped in the leaf. This separation also keeps nutrients and water out of the leaf. Optimum temperatures, light, and water during the final days of summer and early fall encourage sugar accumulation. A higher sugar content will encourage brighter fall color.

As we near peak leaf color, drier conditions and moderate temperatures will increase the color intensity of fall color. Clatterbuck warns that an early frost will kill leaves, making them turn brown and fall more quickly.

You may also notice that two trees of a similar species may have variations in color. Genetic diversity within the species, meaning the trees can accumulate sugars at different rates, causes different color variations. Sugar maples provide great orange color and sweetgum adds some red and purple. Some of the brightest yellows come from ginkgo, hickories, honeylocust and ash. Red maples, blackgum and red oak will show up with the most brilliant coloring.

As you plan your fall driving trips, remember you will see leaves start to change earlier at higher elevations due to cooler temperatures. Although it varies from year to year, we are likely to see our best leaf color during the last two weeks of October. There are many two to three hour drives within our area for you to enjoy. Get out and enjoy the beautiful leaf color this fall.