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I recently had the opportunity to observe some of the best natural scenery that I have ever seen while riding with a couple county agent buddies of mine in the hill country between Lake Guntersville and Monte Sano State Park. The sun was shining down through the valleys and almost seemed to make the maple trees which are numerous in North Alabama glow red. To top it off we were treated to a rainbow that seemed to reach from the mountaintops to the maple trees. People travel near and far to see such scenery, and we have it right here in Alabama. I have always said that we live in one of if not the most beautiful state in the nation. Anyway, that experience got me to thinking a little bit about fall colors and where they come from.

Here is a little bit of fun fall trivia for your enjoyment. Do you know what a ripening banana has in common with fall leaves? The green color in bananas when you buy them at the grocery store is actually chlorophyll, the same pigment that gives leaves their green color. As bananas ripen, the chlorophyll breaks down and disappears allowing the yellow color which has been there all along to show through. The potential for the yellows and oranges of fall leaves have likewise been there all summer long and have been covered up by the green chlorophyll.

The cool mornings and changing of leaf color from green to reds, yellows, and oranges can only mean that fall has arrived. Another reminder is the fact that there is now a constant supply of freshly dropped leaves on the ground. The tremendous variety and mixing of the reds, yellows, orange, and even purples for some plant species mixed with the greenery of our pines really makes a wonderful display that comes and goes fairly quickly in our part of the country.

Now you know that the leaves do not actually “change” colors by magic in response to frost but rather because of chemical processes in the plant that cause chlorophyll (and the green color) to break down. Photosynthesis, the food-making process in the plant takes place in the green chlorophyll containing leaves. In addition to chlorophyll, leaves contain yellow, orange, and often other color pigments such as carotene (the pigment that gives carrots their orange color). For most of the year, the yellows and

oranges are hidden, or have not been expressed but as daylight hours shorten and temperatures drop….you guessed it, we get the first hint of fall colors.

While all this is going on inside the plant, other changes are going on as well. Other chemical changes cause yellow or red or even purple pigments to form. This is what gives such plants as dogwood, sumac, sweetgum, and other trees their red to purple fall colors. Other trees have colors that easily distinguish them as well. Sugar maple takes on a fiery orange color, hickories show only yellow colors, while oaks are primarily reddish brown to brown.

Warm sunny days with nighttime temperatures below 45 degrees tend to raise the level of red coloration. The cool nighttime temperatures trap the sugars produced during the daytime inside the leaves. Common trees with red fall color include red and silver maple, flowering dogwood, sweetgum, blackgum, red oak, and scarlet oak.

The interesting thing about fall color is that it can vary from tree to tree because of things like genetics or physical location. The color can even vary on the same tree, for example, leaves directly exposed to the sun may turn brilliant red while those on the shady side of the tree may turn yellow or may even simply turn brown and shed off. Trees of the same species and the same location can vary in fall color from year to year depending upon weather conditions.

As the leaves “change” color, other things are happening to them. At the base of the leaf where it attaches to the branch or limb the leaf gradually separates from the tree and the result is the all to familiar fall leaf drop. At the same time scar tissue forms on the twig to seal the scar left where the leaf was attached. And you thought that all leaves did in fall was simply change colors and fall!

By the way, speaking of brilliant fall color, if you are looking for a couple great looking trees that offer some of the best fall color that Alabama has to offer try planting a Chinese pistache tree (not to be confused with the tree that produces pistachio nuts). It is a great medium sized tree that will add color to any Walker County landscape and is even a good urban tree for high use areas in our urban landscapes.

The flowers of the Chinese pistache tree are very inconspicuous at best, but the long clusters of purple-red fruit can be very attractive. It has a medium texture and its compound leaves are usually a deep dark green during the summer. But that’s not the best part. The best part is its fall color in brilliant red-orange that will rival any sugar maple in the country! Another great thing about Chinese pistache trees is that it is extremely tough

and will adapt to a wide variety of soil conditions. It is also very drought tolerant after it gets established.

It is an “ugly duckling” tree as a juvenile, often having a crooked trunk and unruly branches. After about three to five years; however, it begins to mature into an arching tree with an oval-rounded canopy reaching a height of 30 to 50 feet when it is full grown. Just trust me on this one, forget about the name, overlook the three to five years when the tree doesn’t look so good but go ahead and plant one or two Chinese pistache trees and look forward (a few years down the road) to some of the best fall tree color you have ever seen.

Ginkgo trees are another example of a tree that will work in local landscapes that also has great fall color…. In this case yellow. It also has very interesting fan shaped foliage during the summer time. Have patience if you decide to plant ginkgo as it is not necessarily the fasted growing tree around to say the least. One additional thing, if you decide to use ginkgo make sure that you purchase certified male plants to avoid problems down the road with fruit that will drop off the tree and create odor problems. Certified male ginkgo trees will produce no fruit.

Here are a few other trees (some of them are natives as well) that you may want to consider for fall color ….. either Japanese or red maple (red), downy serviceberry (yellow or orange), shagbark hickory (yellow), sourwood (red), shining sumac (brilliant red), flowering dogwood (maroon/burgundy), or perhaps even black gum (red).