

The Grapevine

Why do leaves turn colors in the fall?

Fall has officially arrived and surprisingly it actually feels like fall so far this week. This weekend as I was in Northeast Kansas I noticed that the first fall colors were starting to show up. While there have been some very stressed trees turning colors early most trees hadn't started changing colors till the cooler temperatures arrived. Fall is one of the most beautiful seasons as the leaves turn brilliant colors and the trees start to shed their leaves for the growing season. Have you ever wondered why leaves change color in the fall? Let's find out!

Most of the year the leaves on trees are green because of the green pigment in chlorophyll that allows the trees to produce the energy that they need to grow, bloom and produce fruit. The other colors, except red and purple, needed for leaves to color in the fall are already but masked by the chlorophyll. The red and purple pigments are produced after the chlorophyll is destroyed. As fall progresses and certain weather conditions are met the leaves will develop an abscission layer at the base of the petiole, where the leaf attaches to the stem, which prevents sugars from being transported down the trunk to the roots for storage. As the sugars accumulate in the leaves the high concentration causes more intense colors. Certain trees, such as oaks and maples, naturally have more fall color than others and these types of trees tend to be more common in Michigan, New England and other parts of the country than Kansas. This makes it appear our native trees do not color as well however they simply have a different range of colors.



Weather does play a role in how well a tree colors in the fall. Unfortunately, with our hot and dry summer our fall color is likely to be less showy this year than others. Other weather conditions such as cloudy days and warm nights, heavy rains in the spring or fall and frosts will also impact the amount of fall color we have and how long it hangs around. Try to enjoy the cooler days and the start of fall color while you have a chance.

What to do with fall leaves

The drought conditions of this summer may put a damper on our fall color but the leaves will still fall. There are many benefits to utilizing the leaves in your landscape however too many can and will kill the lawn or desirable plants. Even if you don't have trees in your yard there will likely be some leaves that are blown in from your neighbors. Before the leaves fall is a good time to plan for what to do with your leaves.



Falling leaves are an excellent source of organic matter to replenish nutrients in soil and improve the soil structure but in a lawn setting they can quickly create a mat that will kill the grass underneath. One of the best ways to utilize leaves in your lawn is to use a method called mulch mowing. As you get a thin layer of leaves on top of your grass, one to two inches not 6-8" of leaves, mow your lawn with the bagger off. The mower will chop the leaves into small bits that can fall through the grass to land on the soil surface. These pieces will break down over the winter and add to the soil. You can tell you have been successful with mulch mowing when you look behind you and see mostly grass with a few leaves. If you see mostly leaves you probably waited too long. Should you have lots of trees in your yard this may have to be done

multiple times a week when the leaves are falling the most.

Leaves are an excellent addition to any compost pile. For the best results be sure to mulch the leaves so they are in smaller pieces before putting them in the compost pile as this allows them break down faster. You can also add

mulched leaves directly to the garden and either leave them on the surface or till them into the soil to break down for next year. Leaves can be an excellent mulch around perennials and other flowers in your flower beds. They help insulate the soil and keep delicate crowns of tender plants protected from the freeze/thaw cycles we see in the spring. If possible leave some leaves sitting for native pollinators and other beneficial insects to overwinter in. Many of our good bugs utilize leaves and standing plant material to survive till next spring. No matter how you use your leaves, make a plan on what to do with them so you can avoid sending them to the landfill this fall. Happy Growing!!

Plant of the Week-

This week's plant of the week is the Sugar Maple. It seemed appropriate to highlight considering this week's topic is fall color and the Sugar maple is one of the best for fall color in our area. This maple is a native to the United States and is one of the most common hardwood trees in the eastern part of the country. There are also some native areas of Sugar maples in the eastern part of Kansas and the Caddo area of Oklahoma. Sugar maples leaves are 3 to 5 lobed, approximately 3 to 6" across and generally dark green in color. Trees are upright to oval or almost egg shaped and typically have dense foliage. In a landscape setting these maples are typically 60-70' tall however in their native area they can reach 100-120' tall. In the fall these trees turn a brilliant yellow to burnt orange to red depending on the variety. This maple gets its name from the sweet sap that is commonly used to make maple syrup. The other common names for the Sugar maple are the "rock maple" or "hard maple" referring to it's dense wood that is among the hardest known. There are a multitude of cultivars available on the market for this tree but the ones that appear to do the best in our area are from the Caddo region of Oklahoma. At the John Pair research center in Haysville Kansas the "John Pair" Sugar Maple and the "Legacy" variety were among the most consistent and hardiest Sugar maples trialed. These selections are resistant to leaf tatter, tolerate heat and drought conditions better than other cultivars. These maples are an excellent shade and lawn tree if you give them room to grow and spread. They do not do well in crowded areas or spots where there is a ton of pollution.



Insect of the Week-

This week's insect is the carpenter ant. Carpenter ants are fairly common in Kansas. They get their name because of their tendency to build their nests in wood. Unlike termites, carpenter ants don't actually feed on wood, they just use it as a place to live. These are the largest ants in Kansas with adults ranging in size from 1/4" for workers to 3/4" for queen depending on the species of ant. They range in color from reddish brown to black with some species having a red front and a black rear. The easiest way to identify these ants is by the ring of tiny hairs at the tip of the abdomen. Carpenter



ants will burrow into soft, moist wood to establish their nests. They prefer wood that has already started to decay however they will also excavate into perfectly sound wood. In houses these ants build "galleries" to rear young. These galleries are formed without regard for the grain of the wood and tend to follow the softer parts of the wood. An indication you have carpenter ant issues is the saw dust they eject from their galleries. Houses near wooded areas are more likely to have issues with carpenter ants than those away from trees. In trees, carpenter ants are taking advantage of wood that has already started to decay. They tend to be a symptom of an already existing issue in a tree rather than being the cause of the damage. In a home the first step to controlling the ants is finding their nest. The first places to inspect are areas that have been affected by water seepage such as window sills,

roofs, porches, posts and columns along with rotten stumps, logs or trees nearby. Apply pyrethroid products directly to the nest according to the label requirements to eliminate the parent colony. It's also recommended to apply spot treatments and an insecticide spray around the perimeter of buildings to prevent the infestation of the area by a new colony. Be sure to fix the issue that caused the rotten or damp wood as well.

Reminders-

- Plant Kentucky bluegrass by October 1. Tall fescue should be seeded no later than October 15.
- Herbs can be dug from garden and transplanted into pots for indoor use during the winter.
- Dig sweet potatoes before the first frost. Sweet potatoes will not lose flavor or get woody if left in the ground however they can be damaged by frost and shorten their shelf life.
- Start bringing houseplants inside.

Upcoming Events

- **October 5, 2022: Improving Soil Health in the Landscape and Garden**
Is your landscape and garden soil healthy? Learn how to measure and improve your soil's health in the home landscape and garden. Dr. DeAnn Presley, Professor and Extension Specialist for Environmental Soil Science and Management, will explore ways to improve your soil, including cover crops and soil amendments. Learn how to build your soil's organic matter, and improve the growing potential of your soil. The KSRE Garden hour sessions are held via Zoom starting at noon. For more information or to register [click here](#).
- **November 2, 2022: Wildlife Damage Prevention and Control in the Lawn and Garden**
Have your prized vegetables and beautiful landscapes ever become an all-you-can-eat buffet for local wildlife? Learn how to identify the squirrels, rabbits, deer, gophers, or other wildlife that may be causing problems, and better understand how to prevent their damage. Join Dr. Ricketts, as he shares practical tips to prevent and control common wildlife damage issues. For more information or to register [click here](#).