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## **Fall on My Mind**

Some of you may be interested in the answer for two common fall questions. Of course, as in many cases with horticulture, the first answer is always, "It depends." These questions are not always asked for the same reasons based on who is doing the asking but the answers are still interesting.

The first question is of interest for farmers, house plant enthusiasts and those who still have actively growing gardens. How do you calculate the killing frost date in the fall? A map showing the average expected fall frost date in Missouri can be found by going to the following web site: <http://agebb.missouri.edu/weather/frost2.htm>. Pat Guinan, climatologist for the University of Missouri Extension, states "Typically, the first fall frost occurs over northern and central Missouri by the second and third week of October, respectively." The frost map clearly shows, based on past frost dates, when a killing frost is likely to occur throughout Missouri. It shows that southeast Missouri could have the first frost between October 25 and November 4, 2010. Before those dates there is a 50% chance that there will be a killing frost. This range of dates leaves quite a large gap so the best course of action is always to listen to the local weather for a clue that the temperature will drop down to 32 degrees Fahrenheit, a killing frost.

Another question that some of you are interested in knowing is why do some trees lose their leaves before and during fall while others do not? As many may be aware evergreens do not lose their leaves, actually known as needles or scales, as deciduous trees do. Evergreens do shed their needles up to three times per year but they shed only the old growth while retaining the newer growth. Because there are always needles present many don't notice when the needle shed occurs.

Of course what we desire from any deciduous tree is that they hold their leaves through the fall and have magnificently bright fall color before they lose all their leaves on one day

as the tree goes dormant. In this ideal scenario we would only have to rake or mow leaves once. In reality, many trees will not have leaves by the time fall comes around because of stress from disease, insects and climate.

As an example, this spring brought many fungal attacks on the leaves of area trees. Anthracnose is one particular fungus that is rampant and will slowly eat away at leaves. It usually does not kill the tree but it will cause premature drop of leaves on trees like sycamore, maple and dogwood. Likewise the Japanese beetle does such an excellent job of eating leaves from woody plants like roses, lindens and fruit trees that you may find most of the leaves are gone by the end of August. Finally, climate plays an important role in the health of trees. Some leaves are lost due to a lack of moisture which adds stress to woody plants. If a tree is not provided with enough water to maintain plant health it will begin to go dormant prematurely in an effort to prolong its life. As the tree goes dormant you will notice leaves dropping. This is why you will often hear that you should wait until spring before you decide if a tree is dead. If it is still alive, spring will bring new leaf buds and new growth. If you notice that a tree produces fewer and fewer leaves each spring then it is time to consider removing that tree before it dies completely and becomes a liability.

Of those trees that have leaves in the fall some groups, such as oak and beech, will retain their leaves through winter and only lose them when new growth occurs in spring. Depending on where you live in Missouri and the type of trees growing around you there may be leaves falling to the ground in the summer, fall or spring.

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