



There is a natural progression of fall. Leaves turn colors and drop to the ground. This year, it seems that some trees aren't quite ready to part with their leaves and are having a tough time letting go. Find out what is going on and if there is anything that you can do to aid in the process.

In a normal year, deciduous trees drop their leaves in the fall. Shorter days and longer nights triggers the trees to begin this process. Trees like maples, linden, and hackberry create an abscission zone at the base of the petiole, leaf stem, and the leaf scar which contains a separation layer. This separation layer allows the leaves to fall from the tree once the days become shorter.

Other trees like to hold onto their leaves a little while longer. Some oak species, naturally hold onto their brown leaves throughout the fall and winter until they drop them the following spring. When a tree holds onto its brown leaves, it is known as foliar marcescence. It is unknown why some trees keep their leaves. Some ecologists speculate that the brown leaves are unpalatable to browsing deer and help prevent damage. Others suggest that the leaf retention means trapped snow around the base of the tree, meaning an increase in soil moisture when the snows melt. Whatever the cause, it is an interesting adaptation.

This year hasn't been a normal year for some trees. Temperature extremes and snow interrupted the trees natural leaf-dropping progression. The abrupt temperature change interrupted the abscission process and instead of leaves changing colors and dropping, the growing leaves turned into flash-frozen, brown leaves that remain attached. When the abscission process is altered, the number of marcescent leaves may increase and include tree species that normally drop their leaves.

Not all trees are affected the same way. The marcescent characteristic may be more noticeable in younger trees, lower limbs on certain trees, more mature trees, or in certain species. It seems this year, some species of maples seem to be affected more than others and are still holding tight to their leaves.

Even though you would like to help, there isn't much you can do. Because this is a natural process that occurs, there isn't anything that can be done to help fix the problem this fall. The brown leaves will either fall off over the winter or remain on the tree until next spring. The expanding buds will push off the remaining leaf holdouts when the new growth begins to emerge. If the leaves remain attached this winter, strong winter winds and snow combination can lead to an increase in limb breakage. Assess the tree next spring once the leaves fall off to see if there are any limbs that need to be removed.

For now, enjoy the brown leaves and the rustling sound they make until the tree is finally ready to part ways with the leaves and let them go.

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