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Autumn Leaves – Why They Fall and What You Can Do with Them

Trees are finally changing color as the temperatures fall and the leaves slowly drop. Leaves change color because of the destruction of chlorophyll. Chlorophyll is the pigment responsible for photosynthesis, but because deciduous trees enter dormancy in the winter, they don't need to go through photosynthesis, and destroy chlorophyll to reap any remaining nutrients from it in a process called resorption. Chlorophyll is the strongest pigment in a leaf, which gives leaves their green color throughout the growing season. When it is destroyed, it allows other pigments to reflect light, which creates the fall colors we're now enjoying. Yellow and orange pigments are always present in the leaf throughout the year, while red and purple pigments are the result of sugar accumulation after the leaf has been cut off from the rest of the tree.

Weather immediately before trees begin the shedding process will be the best indicator of your tree having strong or weak fall color. The sunnier it is, the more photosynthesis the leaves will go through, and the more sugars will build up in the leaf tissue. This reliance on weather is why trees can seem to change their color from fall to fall. There are ways to give your trees a better chance of good fall color – select new trees for purchase during the fall so that you can preview their expected fall color, select trees with larger leaves that can go through more photosynthesis, and open the canopy through selective pruning to allow more sunlight into the canopy.

Once leaves are on the ground, you have several management options. Mulching your yard with leaves is one. If this is your choice, you will need to mow over the leaves with your mower set on the highest deck height. This will tear up the leaves into smaller pieces that will allow sunlight to reach the grass and allow for more even decomposition of the leaf litter. If you already recycle your grass clippings, you will want to avoid recycling leaf litter in your yard to prevent excessive thatch buildup. You can instead add them to a compost pile, or mulch garden beds with the leaves. If this is your choice, you will still want to break the leaves up into smaller

pieces with a mower. However, instead of throwing them back onto your lawn, use a bag attachment to gather the leaf pieces to put into compost or your garden beds. If you can't use your leaves in the garden, municipal compost piles and burn sites will also take your fall leaves, or you can use them in fire pits.

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