

Drought Woes: Will My Tree Die?

All over Putnam County trees appear to be dying. From ridgetops to roadsides, an alarming premature brown color has settled in on the forest canopy. Not the bright color of early fall leaves, but a strange rusty brown. Our lab is receiving daily calls: will my trees die?

The answer is: probably not. As drought conditions persist, trees begin to reallocate resources, storing away nutrients in buds, roots, and wood, and giving up on leaves. Leaves are covered with tiny pores called stomates through which water and gasses are exchanged with the surrounding atmosphere. During droughts, deciduous trees are forced to either drop their leaves, or retain their leaves and risk losing more water every day through those stomates.

Every plant has its drought adaptations and losing leaves to cut losses is one of them. After all, if trees didn't have these adaptations, their species wouldn't have lasted this long. Maple and dogwood for example lose their leaves early during droughts, whereas oaks and hickories appear more drought tolerant.

However, where trees are growing in thin or rocky soils, have suffered yearly from lack of water, or are already under attack from pathogens or insects, drought may be the final straw. How do you know if your tree has really died or is just cutting its losses?

Wait it out. Resist the temptation to cut the tree or shrub down. It may very well be alive, with good buds set up to grow next spring. If you have evergreens suffering from drought stress, continue to water them as long as your well, or town, allows. Infrequent but deep watering is preferred to frequent shallow waterings. Continue watering evergreens deeply every week as long as we get less than one inch of rainfall. Do so until the ground freezes or regular rains return. Because evergreens cannot shed their leaves, they are especially vulnerable to water loss through their stomates during the long winter. Watering helps them go into winter with their "reservoirs" full.

Next spring watch your trees closely. You may see delayed signs of emerging leaves, but in most cases your trees will grow. They may not be as vigorous as in years previous, so if practical care for them by making sure they receive the equivalent of one inch of rainfall a week. Trees on ridgetops and rocky soils are most likely to succumb.

If you have a large tree overhanging your home, driveway, or yard, seek the advice of a certified arborist. They can help you assess the tree's vigor.

Don't panic. Give trees some credit. They have adaptive strategies. After all this drought is not their first rodeo!



