

Tulip Poplar Leaves Can't Take the Heat

By Susan Camp

The long, strange summer of weeks of blistering sun, interspersed with fast, hard rainstorms has taken a toll on the green things growing in our gardens and woods. The first trees on our property to show the effects of prolonged heat and sparse rainfall are the otherwise hardy tulip or yellow poplars (*Liriodendron tulipifera*). The large, four-lobed leaves shriveled and changed from their customary bright green to brown-edged, paper-dry shapes. Tulip poplars are not drought tolerant.

Tulip poplars are not poplars at all. They are members of the Magnolia family, and along with white pines, once were the tallest native trees in eastern North American forests. Native Americans built dugout canoes from the straight trunks, and European settlers harvested the trees to build log cabins. Today, tulip poplar wood is used to manufacture plywood, veneer, flooring, furniture stock, and paper pulp.

The fast-growing, deciduous tree reaches a height of 60 to 90 feet with a spread of 35 to 50 feet in cultivation. In the forest, the tree can reach a height of 150 feet or more. The immature tulip poplar has a pyramidal shape, becoming more oval as it ages. In the forest, it develops the characteristic, long, straight trunk with few side branches and a high leaf canopy.

Tulip poplar makes an excellent shade tree in the right location, but because of its height, it should not be planted near a house or other structure. It is not a desirable street tree, and should not be planted under or near power lines. Tulip poplar wood is weak, and branches frequently break during high winds or icy conditions.

The yellow-green, tulip-shaped flowers that give this tree its name bloom between April and June. A band of light orange, called a corolla, at the base of each petal attracts nectar seekers, especially bees. Hummingbirds also sip tulip poplar nectar, and the tree serves as a host plant for the eastern Tiger Swallowtail butterfly caterpillar.

After the flowers drop, cone-shaped fruit, filled with single-winged seeds called samaras, develop. The seeds provide winter food for squirrels and deer munch on the twigs. The dry cones remain on the tree, providing visual interest.

Tulip poplar thrives in USDA Zones 4 through 9. The tree requires full sun and moderately moist, well-drained soil with a pH of 4.5 to 7.5. It has shallow roots, which contribute to its difficulty in withstanding long, hot, dry spells. With its heavy canopy, the tree can uproot in a windstorm.

On the bright side, tulip poplar is subject to few serious insect pests or diseases. Aphid infestation produces sticky, sweet honeydew on the leaves, leading to sooty mold. The yellow poplar weevil

can invade, chewing oblong feeding holes into the leaves. The black weevils resemble ticks, and property-owners may become alarmed about an invasion of “flying ticks.” Verticillium wilt, mildew, and fusarium and nectria cankers are diseases that can affect tulip poplar. A positive aspect of tulip poplar is that it is not a preferred host of the spongy (gypsy) moth caterpillar.

Virginia Cooperative Extension (VCE) Publication 450-237 “Problem-Free Trees for Virginia Landscapes” provides basic information on several popular, relatively disease and insect pest-free native and exotic trees. The NC State Extension Gardener Plant Toolbox entry “Liriodendron tulipifera” and the Missouri Botanical Garden Plant Finder entry “Liriodendron tulipifera” offer further details on growing and maintaining this majestic native tree.

It is too late this year for the leaves of our local tulip poplars to turn their clear, golden, autumn color. The long, hot spell has taken its toll on the leaves, and most of them will be crunched under our feet-- dry, brown, and brittle. This is not an unusual occurrence for our region, just a little more pronounced this year.

The tulip poplars are hardy trees, and the long periods without rain won't destroy them. In the spring, the lovely, nectar-filled blossoms and bright green leaves will reappear and we will once more enjoy their unique beauty and welcome shade.