

## **Fall takes toll on tree leaves**

Imagine you're a tree leaf on a deciduous tree. In spring, you're brand new - blemish free. You experience the first rays of light. You begin to photosynthesize. This is what green leaves do.

In April the first windstorm blows you violently into other leaves and stems. You sustain a small puncture wound. Because you're a leaf, the puncture wound remains. Trees don't heal as people do. So any damage is permanent.

In May, a few aphids find you. But lady beetles consume most of the aphids and a blowing rain dislodges the remaining few.

June brings hot weather and July is dryer than normal. The tree's owner is not watering properly. To compensate, the tree begins dropping leaves. But you stay firmly attached.

The tree's owner overdoes it in fertilizing his lawn, burning some tree leaves. Your leaf margin is now brown and crisp as a result. Most tree roots are shallow and grow outward, two to three times beyond the branch spread into adjacent lawn areas. Your ability to do your job and contribute to the tree through photosynthesis is diminished.

In August you're exposed to direct sunlight all day, partly because of longer day length and partly because of the loss of other leaves that once helped shade you. Because you're a leaf, you can't seek shade from the blistering sun and excessive heat.

In September the tree's owner applies weed and feed to his lawn. Tree roots growing out in the lawn take up some of the herbicide from the application. The herbicide injures many of the leaves, including you.

Shorter days and cooler temperatures of fall bring on changes in your physiology. The green pigment chlorophyll that has allowed you to produce sugars through photosynthesis since you first emerged is now breaking down. Your green color begins to fade revealing fungal spots, sun scorch and the puncture wound from spring.

Your color changes to a slight purplish-red as a result of fall weather conditions.

In October, many of your neighboring leaves begin falling to the ground.

Before you fall, the tree's owner becomes concerned about all the brown spots that you have and rushes to his County Extension Office with you in hand.

The extension agent tells the tree's owner that the spots are a natural part of the senescence process in fall. He advises to only water as needed during dry periods and cautions the tree's owner to be careful with lawn fertilizers and weed and feed products near trees.

In spring, the tree produces new, healthy leaves. And the tree's owner follows better management practices for his trees.

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