Mistletoe and Resurrection Fern

We all know the legends and traditions of mistletoe, particularity at Christmas time. Of course my good (or bad) fortune did not allow me to stand under any mistletoe this Christmas. And as it would go for me, I would later walk outside to find mistletoe sprouting in my pecan trees. If you drive through downtown Thomasville or anywhere in the county, you will see the same thing.

Mistletoe is an evergreen, parasitic plant found on a wide host range of trees. Mistletoe obtains water and minerals from the host but it is not totally dependent on the host. Leaves of the mistletoe contain chlorophyll and are capable of making their own food from carbon dioxide and water like other plants. Birds feed on the berries produced and excrete them to new hosts. When the seeds germinate, it grows through the bark and into the vascular system of the host where it obtains water and minerals.

The mistletoe grows slowly at first and it may be years before seeds are produced. Healthy trees are able to tolerate small mistletoe infestations, but individual branches may be compromised and susceptible to wind or cold injuries. Heavy infestations may reduce the overall plant health or kill a tree especially if the tree is already stressed from environmental factors.

Since mistletoe takes several years to produce seed, simply removing it will provide some protection. Mistletoe may also be pruned out one foot below the point of attachment. If the mistletoe is located on a main limb or trunk, removing the top of the mistletoe and wrapping the cut with an opaque plastic to prevent sunlight may be beneficial. Additionally, the growth regulator ethephon may be used when the host is dormant.

Resurrection fern (*Polypodium polypodioides*) is another plant currently growing on the branches of pecan and other large trees. However, this plant is not a parasite like mistletoe. Although resurrection fern grows on top of other plants, it does not steal nutrients or water from its host plant. The fern is an air plant, which means it attaches itself to other plants and gets its nutrients from the air, water, and the outer surface of bark. It is often found in the company of other air plants such as Spanish moss.

The resurrection fern gets its name because it can survive long periods of drought by curling up and appearing dead. When just a little water is present, the fern will uncurl and reopen, appearing to resurrect. According to the National Wildlife Federation, it can lose about 75 percent of its water content during a typical dry period and possibly up to 97 percent in an extreme drought. By contrast, most other plants can only lose 10 percent of their water content before they die. When it is exposed to water again, it will “come back to life” and look green and healthy.

Although resurrection fern does not provide great aesthetics, we do not recommend treating it since it does not hurt the host plant.

I’ve also heard resurrection fern called “miracle plant.” In 1997, it was taken into space aboard the Space Shuttle Discovery to watch its resurrection in zero gravity. Considering the “miracle” nature of resurrection fern, I think I’ll stand under a covered with resurrection fern next Christmas.

Information from this article was taken from Extension Publication, “The Truth about Slime Molds, Spanish Moss, Lichens and Mistletoe” and National Wildlife Federation, “Resurrection Fern.”

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