

## **Edema – Plants Get It Too**

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As the new Environmental and Community Horticulture Extension Agent for Alachua County, I am getting the opportunity to meet the community, as well as answer questions about what is going on with your plants. I enjoy the detective work that goes into diagnosing a plant problem and then educating you on how to manage the issue since I was trained in just that. I have several degrees from the University of Florida including a Doctorate in Plant Medicine (DPM), Master's in Science Education, and Bachelor's in Entomology and Nematology.

Identifying the cause of the problem is not always easy, especially if you cannot see a bug or fungus on the plant. This was the case recently. A homeowner with a young Meyer's lemon tree in a container came into the office with yellow spots on the upper surface and little watersoaked warty spots on the underside of the leaves. At first, the homeowner thought that it might be the ominous citrus greening and the plant would have to be destroyed. He told me that the plant had gotten soaked a few weeks ago due to storms, so he moved it. The new growth looked healthy. Little did he know that the excessive water caused all the problems.

This problem is called edema (oedema, corky scab). It can occur on many different plants including ornamentals such as begonia, cacti, eranthemum, ferns, geranium, jade, orchid, palms, pansies, peperomia, schefflera, and violet. Edema may also be a problem on fruits and vegetables including bean foliage and pods, broccoli, Brussels sprouts, cabbage, cauliflower, citrus fruit and foliage, potato foliage, tomato fruit and foliage, and most cucurbit fruit, foliage and stem.

Although several factors can cause edema, the most common is the presence of warm soil water and a cool, moist atmosphere. The roots absorb more water than the leaves need, so it collects in the leaves and enlarges the cells. Several weeks ago there was this perfect set of circumstances to cause this problem. Thankfully, this problem is only aesthetic, so the warty leaves will eventually fall off and the new leaves will be healthy.

If you have a plant that is susceptible to edema, you may want to avoid irrigation or watering during cool, overcast humid weather. For potted plants, use a well-

drained potting medium and remove saucers when there is excessive rain. You also want to avoid excessive fertilization during the winter months when the plant is growing slower.

In addition to edema, water issues can cause a slew of problems to plants, including death. Water-logged soils can displace the air surrounding the roots and cause them to weaken and die, especially if the plant gets too much water too often. It stresses the plant, making it more susceptible to insects and diseases. It is important to evaluate the low spots in your yard and follow the Florida-Friendly landscaping principle: right plant, right place. For information about water problems or Florida-Friendly landscaping, visit the University of Florida IFAS Extension website at [www.solutionsforyourlife.com](http://www.solutionsforyourlife.com). If you have a plant issue that you can't solve, contact the Master Gardeners at the UF/IFAS Extension Alachua County Office at 352-955-2402.