Citrus canker is a devastating bacterium infecting the citrus industry of Florida. It has already caused for over two million citrus trees to be destroyed statewide. This damage is not confined to the commercial groves. Nearly 600,000 of the infected trees were found on residential property. With the recent report of citrus canker found in Brevard County, it is no surprise that a concern has developed in Osceola County.

Although, citrus canker has clear visible symptoms, they are similar to those of other citrus diseases, which have, on occasion, been mistakenly diagnosed as citrus canker. Careful diagnosis of citrus diseases must be accomplished in order to effectively control the problem. Sometimes this may be difficult to achieve without the assistance of a professional due to the similarities of the symptoms.

Citrus canker is a highly contagious disease caused by the bacterium *Xanthomonas axonopodis*. It is most likely to develop and be noticeable when heavy rains occur and the temperature is greater than 68°F. Citrus canker causes defoliation of the trees, dieback, severely blemished fruit, reduced fruit quality, and premature fruit drop. Symptoms will appear on the fruit, leaves, and twigs of the infected plants. They consist of small, round, blister-like formations, called lesions. The lesions appear 7 to 14 days after infection and are tan in color with a yellow, water-soaked ring surrounding them. Lesions will be identical on both the upper and lower surfaces of the leaves. When mature, the lesions will rupture, leaving holes in the leaves.

**Melanose** (*Diaporthe citri*) is a foliar and fruit disease that has similar symptoms to citrus canker. It affects developing leaves and fruits and develops during times of heavy rainfall. Early symptoms emerge as small, brown, sunken spots, which later become raised bumps, filled with a reddish-brown gumlike substance. It appears to have somewhat of a mudcake appearance. The spots may be surrounded by yellow haloes, particularly on the leaves. The raised bumps are darker in color than the citrus canker lesions. Melanose can be controlled with multiple applications of copper fungicide during early fruit development.

**Greasy Spot** (*Mycosphaerella citri*) symptoms are also similar to that of citrus canker. This disease is prevalent in areas of humid climates. Yellow spots will first appear on the upper surfaces of the leaves and slightly raised blisters will develop on both surfaces of the leaves. The brown blisters will have a greasy appearance to them. Leaf drop will occur and fruit production will be decreased. This disease favors high humidity, high temperatures, and long periods of leaf wetness. Greasy spot differs from citrus canker by the absence of the water-soaked areas surrounding the blisters and the lack of roundness of the blisters. It can be controlled with a fungicide.

Some citrus are susceptible to **Citrus Scab** (*Elsinoe fawcettii*). It affects emerging leaves and fruit. Cork-like growths will develop on the surfaces with depressions forming on the opposite side of the leaves. It causes the leaves to be deformed and the fruit to be unmarketable. Citrus scab can be distinguished from melanose, by the lighter coloration and more corky feeling of the lesions. It can be distinguished from citrus canker because it does not have a yellow ring surrounding the lesions. A copper fungicide can be applied after petal drop for control. Also, overhead irrigation should be minimized during periods of new growth.

**Alternaria brown spot** (*Alternaria citri*) can be misdiagnosed as citrus canker due to the similar appearances of the symptoms. Young shoots, emerging leaves, and developing fruit are affected by the disease. Signs of infections include brown spots on leaves and fruits surrounded by yellow rings. The brown spots mature into raised lesions with a corky appearance. As they age, they will fall and produce holes in the leaves. Dieback and defoliation are results from this disease. Alternaria brown spot can be distinguished from citrus canker by the blackening of leaf veins leading from the brown lesions. Alternaria
can be controlled with multiple applications of a copper fungicide.

A number of citrus diseases have and will probably continue to be misdiagnosed as citrus canker. If you suspect that citrus canker has invaded your citrus trees, please call the APHIS' Plant Protection and Quarantine unit at (210) 548-2750.

If you have questions about citrus canker or any other plant related questions, please contact the Osceola Master Gardener Plant Clinic at (321) 697-3000. They are available to take your calls, Monday to Friday from 10am to 2pm.

A free Bromeliad seminar will be held at the Osceola County Agricultural Center on February 6th at 1:30 pm. Please call (321) 697-3000 to register.

Beginning Landscape Design classes are coming in March. Call for more information.

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