

CITRUS DISEASE SPOTLIGHT

Algal disease

By Megan Dewdney



A disease not seen much in recent years is now being found more frequently. This disease spotlight is in response to the increased number of inquiries about the algal disease. Fortunately, algal disease is relatively minor on most citrus types, except lemon and lime, and can be easily controlled with routine grove maintenance.

Pathogen scientific name: *Cephaleuros virescens* (green alga). This organism is not a parasite and grows only superficially, but can damage trees.

Leaf symptoms: Little damage is done to leaves, and the raised lesions can occur on either surface (Fig. 1). Occasionally chlorosis can occur around lesions. Eventually the lesions will dry and flake off the leaf surface, leaving a small depression.

Tree symptoms: Algal disease can often be seen on branches and is most visible when fruiting bodies of the disease are present. The lesions (Fig. 2) are raised, velvety and are often brick-red in color. The lesions have been called donut-shaped in reference to the gray color at the center of the lesions. The rest of the year, the lesions are gray-green. Individual lesions are approximately 0.5 inch (1.25 cm) in diameter but, in severe cases, the lesions can coalesce to cover the entire branch.

The first symptom is bark thickening around lesions that can lead to further cracking and loss of bark in small pieces. In extreme cases, growth of a branch can be stunted, leading to chlorotic leaves and leaf drop. The disease can kill branches up to 2 inches (5 cm) in diameter.

Fruit symptoms: Fruit blemishes are usually not harmful as they occur on over-ripe, unmarketable fruit and can be removed with brushing. The black lesions (Fig. 3) are circular with diameters between 1/16-1/4 of an inch (0.15-0.6 cm). If inspected with a hand lens, the lesions are highly branched structures.

Management: The routine use of copper for foliar diseases such as greasy spot, melanose or canker is usually sufficient to control algal disease. Spray applications need to have enough volume (at least 125 gal/acre) and pressure (175 psi) to penetrate the canopy sufficiently to wet the wood where the disease is located. If the disease is uncontrolled, then copper applications with oil or a spreader sticker during late dormancy (February), another post-bloom, and a final application when the fruiting bodies become red in June will be necessary. Once under control, the disease can be kept in check by routine copper applications.

Megan Dewdney is a University of Florida-IFAS assistant professor of plant pathology. 🍊



Fig. 1 (top). Leaf symptoms of algal disease on Tahiti lime. Mild chlorosis can be seen around some lesions.

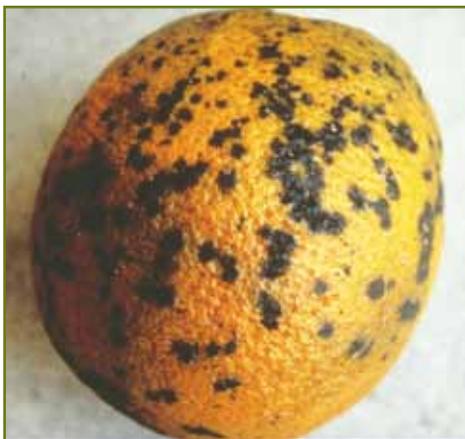
Photo by J.W. Miller

Fig. 2 (above). Raised fruiting lesions of algal disease exhibiting the brick-red color and donut morphology. Some bark cracking can be seen in the center of some lesions.

Photo by Steve Futch

Fig. 3 (right). Typical algal disease lesions on over-mature fruit

Photo by C.O. Youtsey



WE HAVE SAVED TREES FROM GREENING!

Citrus Canker



C.S.S.

Citrus Tree Disease Protection



Citrus Greening

Citrus Spray Solution (C.S.S.) offers protection from bacterial tree related diseases such as citrus canker and greening. It also protects against viral diseases such as tristeza. C.S.S. treats fungus, molds, rust, mildew, moss and leaf spots. C.S.S. also protects against such vectors as aphids, thrips, mites, and Asian citrus psyllid (ASP) carrying the greening bug as well as other harmful insects.

C.S.S. has successfully regenerated trees with: Citrus canker, greening, tristeza, molds, fungus and vectors. After proper treatment, a strong and healthy tree will flourish. In the case of canker disease the tree will lose all affected leaves and grow healthy new leaves without detriment to the existing fruit. C.S.S. can be used to replace any existing oils (including 405).

Our product is currently being used in Reese Groves

We are offering a FREE sample of C.S.S. for your company to use on a trial basis. Please take advantage of this opportunity. The results will speak for themselves!!

Environmentally friendly, made of vegetable based ingredients.

Sunbelt Research & Development Ph. 239-945-2478 www.sunbeltcitrus.com

WE HAVE SAVED TREES FROM GREENING!