

# CITRUS DISEASE SPOTLIGHT

**Figure 1.** Young (far right) and mature (near right) leaf symptoms of psorosis. In the far right photo, the two bottom leaves are healthy.



**Figure 2 (photos above and below).** Trunk symptoms of psorosis with severe bark sloughing



## Psorosis

By Megan Dewdney

**P**sorosis is a viral disease that has diminished in importance in Florida over the last 50 years. The clean budwood program is largely responsible for the elimination of psorosis as a commercial problem. The disease does occasionally rear its head when non-certified budwood has been used for grafting. With the nursery regulations instituted for huanglongbing (HLB), it is expected that psorosis will remain a memory rather than a regular concern.

**Pathogen scientific name:** *Citrus psorosis virus*

**Leaf symptoms:** In nearly fully expanded leaves, chlorotic flecking, vein banding and asymmetrical chlorosis may be visible. With some strains, the leaf symptoms remain on mature leaves, but in most cases, the symptoms fade with maturity. In high-temperature climates, the leaf symptoms are often very faint or not visible (Figure 1).

**Tree symptoms:** Psorosis causes scaling and bark flaking on the trunks and limbs of trees and eventual tree decline. This is most common on sweet orange or grapefruit, but can occur on mandarin or tangerine-type trees. The symptoms are caused by an impregnation of the wood with gum, giving an irregular circular pattern. Callus is often produced around the edges of scaling bark. With some virus strains, the lesions rapidly expand, causing the bark to slough off in large strips (Figure 2).

**Fruit symptoms:** Ring spots can occur on fruit rind in severe cases. With young fruit, the rings are chlorotic, but the center remains green. The fruit can have a mottled appearance. On mature fruit, the rings can



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**Figure 3.** Psorosis affected mature and young fruit. The gray rings are clearly visible on one mature fruit.

be grayish and depressed or yellow on a green background. The tissue in the center of the rings may or may not be discolored when the fruit is mature, and necrosis can occur (Figure 3).

The use of virus-free nucellar clones and budwood sources has been successful in controlling psorosis in

Florida. The continued use of these resources in the nursery industry prevent spread of psorosis. While it has not been conclusively shown that psorosis is spread via seed, seed sources of rootstocks should also be indexed for viruses in case they are a source of inoculum. When psorosis is present in

a grove, disinfestation of tools should be practiced by dipping pruning or budding tools in a solution of bleach.

*Megan Dewdney is a University of Florida-IFAS assistant professor at the Citrus Research and Education Center in Lake Alfred.*

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