

Citrus Leprosis Fruit, Leaf, and Stem Symptom Identification

Citrus Leprosis Facts

- Nonsystemic virus, does not move throughout the tree.
- Spread by various flat mite species (*Brevipalpus* spp.).
- Primarily affects sweet orange and mandarin varieties, but other varieties can be affected.
- Limes are known to be asymptomatic, possibly resistant.
- Lesions are the result of the virus being injected by flat mite feeding.
- Disease management begins with managing the mites.

Fruit Symptoms

- Early symptoms are chlorotic lesions on fruit (see other side).
- Early lesions on fruit are flat, generally circular with early stages of necrosis.
- Older necrotic lesions turn rusty-red to brown with depressed centers and surrounded by a yellowish halo in immature fruit.

- Older lesions can exhibit concentric green rings within the lesion (also called zone pattern).
- Under high temperatures, the necrotic center may crack.

Leaf Symptoms

- 1 to 3 centimeters (0.39 to 1.2 inches) in diameter on both sides of the leaf.
- Start as chlorotic circular lesions.
- Later become brown in color with pinpoint pattern on yellow background.
- Lesions on leaves are usually flat but later become slightly raised.

Stem Symptoms

- Early stage, shallow lesions on stem.
- Reddish-brown color and are irregular, raised.
- Older lesions cause corky, scaly bark.



Immature fruit symptoms with halos.
Credits: UF/IFAS



Fruit symptoms with zone pattern.
Credits: UF/IFAS



Leaf symptoms with zone pattern.
Credits: UF/IFAS



Early bark scaling stem symptoms.
Credits: UF/IFAS

Leprosis lesions are localized, and the virus does not move throughout the tree.



Necrotic fruit symptoms; no halo.
Credits: UF/IFAS



Early fruit symptoms.
Credits: UF/IFAS



Chlorotic circular lesions (zone pattern) on upper side of leaf.
Credits: UF/IFAS



Chlorotic circular lesions (zone pattern) on under side of leaf.
Credits: UF/IFAS



Fruit symptoms with zones and slight necrosis in the middle.
Credits: UF/IFAS



Concentric green rings within lesions on immature and mature fruit.
Credits: UF/IFAS



Ring structure (zone pattern) of the lesions.
Credits: UF/IFAS



Young (left) to old lesions (far right) on leaves.
Credits: UF/IFAS



Fruit symptoms showing color change.
Credits: UF/IFAS



Older, depressed lesions.
Credits: UF/IFAS



Young twig symptoms with rings.
Credits: UF/IFAS



Severe bark scaling stem symptoms.
Credits: UF/IFAS