



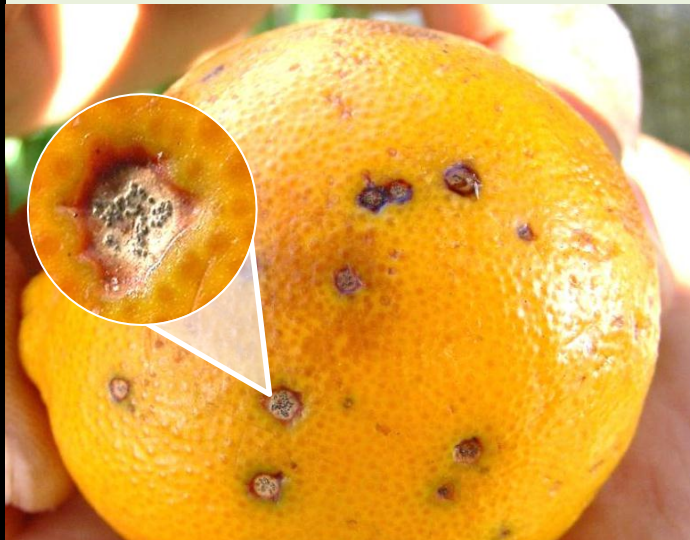
Angular leaf spot
(FUNGUS - *Pseudocercospora angolensis*)

- Leaf spots - light brown or greyish, circular (up to 10 mm), mostly solitary, usually surrounded a prominent yellow halo
- Fruit spots - circular to irregular. In young fruits the spots become hard and raised surrounded by a yellow halo. Centre of spots often cracked



Citrus scab
(FUNGUS - *Elsinoe fawcettii*)

- Leaf spots – cream to tan wart-like outgrowths, circular or irregular with sunken centres, mostly along the main veins on the lower leaf surface.
- Leaves can become misshapen stunted or puckered
- Fruit spots - circular to irregular raised corky areas or crater-like outgrowths



Black spot
(FUNGUS- *Guignardia citrocarpa*)

- Fruit spots - small, round, sunken with gray centres and brick-red to chocolate brown margins. Green halos are often seen around the lesions.
- Fungal bodies appear as slightly raised black dots in the centre of lesions. They usually appear as fruit begins to colour



Citrus canker
(BACTERIA - *Xanthomonas citri* subsp. *citri*)

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- Leaf spots – young spots are small blisters surrounded by a yellow ring. Older spots turn tan to brown, and have a water-soaked margin surrounded by a yellow ring. The centre of the lesion becomes raised and corky.
- Fruit spots - Young lesions are raised, blister-like, tan, surrounded by yellow halos, depending on fruit maturity Older spots are circular dark brown to black with brown to black sunken, corky centres



Zinc deficiency
(NUTRIENT DEFICIENCY – Zinc)

- Occurs first on new growth and remains on leaf as it matures. Early stages appear as small blotches of yellow between green veins on the leaf.
- Under severe deficiency, leaves become increasingly yellow except for the green venial areas
- Leaves will be small with narrow pointed tips on terminal growth.



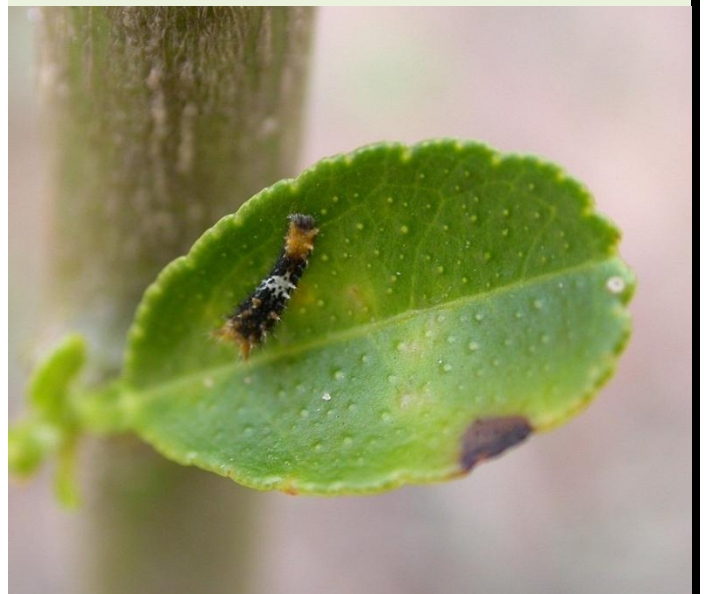
Citrus greening
(BACTERIA – *Candidatus Liberibacter africanus*)

- Leaf symptoms - Blotchy mottle (random pattern of yellowing on leaves that is not the same on the right and left sides of the leaf, yellow veins, vein corking or green islands)
- Fruit symptoms - Lopsided, misshapen or small green fruit. Bitter taste with small aborted seeds
- Tree symptoms - Yellow shoots, stunting, twig dieback



Citrus thrips
(INSECT - *Scirtothrips aurantii*)
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- Citrus thrips are tiny (0.7 to 1 mm in length), orange yellow insects
- Thrips feeding causes brown circular rings of russet marks around the stem of the fruit



Orange dog fly
(INSECT - *Papilio demodocus*)

- Young caterpillars are brownish with white patches and are spiny.
- Fully grown caterpillars are about 4.5 cm long green with light markings and eye-like spots towards the head of the body.