

## CITRUS BIOSECURITY THREAT: Pseudocercospora Leaf and Fruit Spot



### Symptoms

Leaf symptoms initially appear as green-yellow patches. At maturity, the leaf spots are circular with a pale-brown or greyish centre. With the onset of the rainy season, the centres turn brown to blackish-brown when sporulation is dense. The lesions are usually surrounded by a dark-brown margin and a prominent yellow halo. Occasionally, the centre falls out, creating a shot-hole spot. Several lesions can coalesce, causing generalised chlorosis, premature abscission, and defoliation of the affected tree. Young leaves and fruit appear to be more susceptible than older mature leaves.

On young fruit, brown necrotic lesions form. These are usually circular to irregular, with a slightly sunken brown centre, with a surrounding ring of raised tumour-like growths, surrounded by a yellow halo. During wet weather, the lesions sporulate and become black.

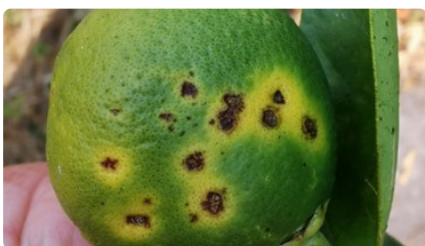
In young fruit, a generalised necrosis sometimes forms, resulting in premature abscission of the fruit, or diseased fruit ripen prematurely and drop or dry up and remain on the tree. Affected fruit have longitudinal and transversal cracks in the rind with the internal locules exposed.



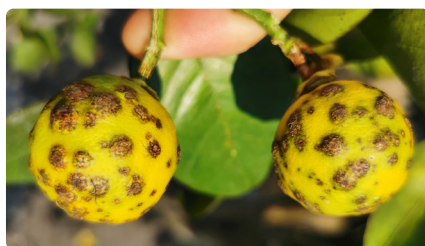
Leaf spots without sporulation



Leaf spots turn blackish-brown with sporulation during humid conditions



Fruit lesions with yellow halos

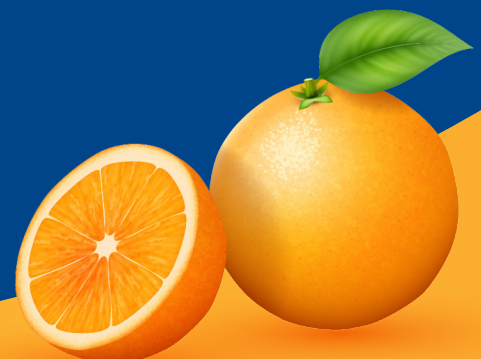


Severe fruit lesions

### The disease

- This leaf and fruit spot disease is caused by the fungus *Pseudocercospora angolensis*.
- Severe infection of trees can result in premature abscission of young fruit and leaves.
- The juice content of diseased fruit is markedly reduced, making them unsuitable for fresh consumption or processing.
- Yield losses of 50-100% can occur and production may cease where the disease is endemic.

Stem symptoms are seldom found. When infection of stems occurs, the lesions are dark-brown and usually occur as extensions of petiole lesions. Several lesions at the stem tip results in dieback. Lesions on other parts of the stem coalesce, become corky, and crack. At the base of the dead stem there is usually profuse growth of secondary shoots.



## Host range

- All *Citrus* spp.
- African cherry orange (*Citropsis tanakae*);  
Round kumquat (*Fortunella japonica*)

## Current distribution

- Yemen
- Various countries in Africa, as far south as Angola, Mozambique, Zambia and Zimbabwe



## Method of spread

- **Infected plant propagation material**  
Citrus propagation material (trees, cuttings, grafts, budwood, rootstock seedlings) and propagation material of other hosts
- **Infected fruit**

## Preventative actions

- Quarantine procedures for importation of citrus propagation material, fruit and other hosts
- Plant certified disease-free citrus trees
- Awareness and surveillance to ensure early detection and rapid implementation of control measures
- Do not bring illegal plant material into South Africa and onto your farm!



For more information on this disease, or if you find anything unusual, contact Wayne Kirkman from CRI's Biosecurity Division: [waynek@cri.co.za](mailto:waynek@cri.co.za), 084 458 0349

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