



Pacific Pests, Pathogens & Weeds - Fact Sheets

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Bele (*Abelmoschus*) leaf blotch (322)



Photo 1. Spots, round to irregular with wide dark margins, on the upper surface of bele caused by leaf mould, *Pseudocercospora abelmoschi*.

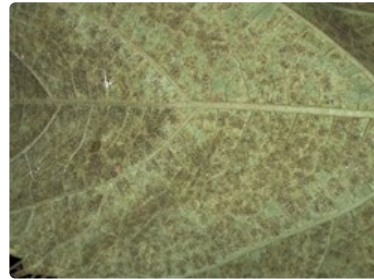


Photo 2. Under surface of bele leaf covered by sporulating infections of leaf mould, *Pseudocercospora abelmoschi*.



Photo 3. Upper surface of okra leaf showing dark patches of *Pseudocercospora abelmoschi*.



Photo 4. Leaf mould, *Pseudocercospora abelmoschi*. Patches joining together and forming spores on the underside of an okra leaf.



Photo 3. Close-up of the sclerotia of charcoal rot, *Macrophomina phaseolina*

Common Name

Leaf mould, leaf blotch

Scientific Name

Pseudocercospora abelmoschi; previously *Cercospora abelmoschi*, *Oidium abelmoschi*.

Distribution

Worldwide. In tropical and warm temperate countries. Asia, Africa, North, South and Central America, the Caribbean, Oceania. Recorded from American Samoa, Australia, Fiji, Palau, Samoa, Solomon Islands, Tonga, and Vanuatu.

Hosts

Bele (*aibika*, *sliperi kabis*, island cabbage), *Abelmoschus manihot*. Also recorded on okra (*Abelmoschus esculentus*).

Symptoms & Life Cycle

Leaf spots are circular to irregular, often limited by the veins, brown with a blackish brown margin on the upper leaf surface (Photo 1), and pale brown mould on the underside (Photo 2). Often, spots do not develop, instead there are sooty, olive–brown to blackish-brown indistinct angular leaf blotches (Photo 3). Spores develop predominantly on the lower leaf surface; the patches with spores may join together so that fungal growth covers the whole leaf (Photo 2&4). Severely affected leaves may become chlorotic, rolled, wilted, and fall to the ground.

Spread is by spores blown in the wind. Survival is in crop debris.

Impact

The disease is only of minor importance. It is mostly on older leaves and so it is likely that the impact on *bele* is minimal as it is the young leaves that are used as a greens. However, on okra the disease may have greater impact. It is said to be serious in Bangladesh where the use of fungicides is said to be needed to bring about control.

Detection & inspection

Look for the pale brown spots with distinct margins on the older leaves on the upper surface (*bele*), or dark indistinct patches (*okra*). Look at the underside of the leaf to see blackish-brown fungal growth, sometimes covering the whole leaf.

Management

CULTURAL CONTROL

Before planting:

- Do not plant new crops next to those that are infected: spores blowing from existing infected plants are a major source of infection.

During growth:

- Remove older infected leaves, and burn them, when harvesting young leaves (*bele*) or fruit (*okra*) for consumption.

After harvest:

- Collect and burn or bury as much of the crop as possible after final harvests.
- Do not plant crops of *bele* or *okra* one after another in the same land; use a rotation of at least 2 years, rotating with other types of vegetables.

CHEMICAL CONTROL

If blemish-free leaves are required, use copper fungicides or mancozeb.

AUTHORS Grahame Jackson & Eric McKenzie

Information from *Pseudocercospora abelmoschi*. Editor Bob Macfarlane. Ecoport: http://ecoport.org/ep?Fungus=23085&entityType=FU****&entityDisplayCategory=full. Photos 1,2&4 (taken by Eric McKenzie), and used in this fact sheet, appeared previously in McKenzie E (2013) *Pseudocercospora abelmoschi* PaDIL - <http://www.padil.gov.au>

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