Pacific Pests, Pathogens & Weeds - Fact Sheets

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Capsicum frog-eye spot (092)

Photo 1. Leaf spots, brown with grey centres and yellow halos, caused by capsicum frog-eye, *Cercospora capsici*.

Photo 2. Large merging spots of capsicum frog-eye, *Cercospora capsici*.

Photo 3. Loss of leaves caused by capsicum frog-eye leaf spots, *Cercospora capsici*.

Common Name

Frog-eye leaf spot; stem-end rot, Cercospora leaf spot

Scientific Name

Cercospora capsici

Distribution

Worldwide, probably, in the tropics. Restricted distribution in Asia, South America, the Caribbean, Oceania, but not well documented. It is recorded from American Samoa, Fiji, Palau, Samoa, Solomon Island, Tonga, and Vanuatu.

Hosts

Capsicum annuum (capsicum) and *Capsicum frutescens* (chilli)

Symptoms & Life Cycle

The spots on the leaves are distinctive. They are brown, up to 10 mm diameter, and have a 0.5-1 mm whitish or grey centre, hence the name 'frog-eye' (Photo 1). As the spots develop, surrounding areas of the leaf start to turn yellow. In severe cases, the spots merge so that large areas of the leaves are diseased (Photo 2). Even a few spots on a leaf may result in early leaf fall (Photo 3). Spots also occur on the stems, as well as leaf and fruit stalks.

The spores of the fungus present on the underside of the leaves are spread by wind and rain.

Impact

A fungus causes the damage. In wet weather, the disease causes loss of leaves, and is likely to result in lower fruit production. In severe cases, the fungus causes a stem-end rot on the fruits.

Detection & inspection

Look for brown roughly circular spots with whitish centres, and yellow halos.

Management

CULTURAL CONTROL

Before planting:

- Practice crop rotation. Do not plant one crop of capsicum or chilli after another on the same land. Leave at least 3 years between crops after the disease has occurred.
- Do not plant new crops near those with frog-eye disease.
- The fungus is seed borne. Make sure fruits selected for seed do not have stem-end rots.

After harvest:

- Collect the remains of the crop and burn them. The fungus can survive in crop debris

RESISTANT VARIETIES
None known.

CHEMICAL CONTROL
Warm wet conditions favour the disease, and fungicides may be needed to give adequate control. Do the following:

- Use chlorothalonil, copper oxychloride or mancozeb.
- Treatment should start when the spots first appear, and continue at 10-14 days intervals until 3-4 weeks before last harvest.
- It is important to spray both sides of the leaves.

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Photo 2 Kohler F, Pellegrin F, Jackson G, McKenzie E (1997) *Diseases of cultivated crops in Pacific Island countries.* South Pacific Commission. Pirie Printers Pty Limited, Canberra, Australia.

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