

Cucumber target spot (189)

Common Name

Cucumber target spot, cucumber leaf spot, *Corynespora* blight

Scientific Name

Corynespora cassiicola

Distribution

Asia, Africa, North, South and Central America, the Caribbean, Europe, Oceania. It is recorded on cucurbits from the Cook Islands, Federated States of Micronesia, Fiji, and Vanuatu.

Hosts

Common on a wide range of crops, including, beans and other legumes, capsicum, cucumber (**see Fact Sheet no. 189**) and other cucurbits, lettuce, papaya, tomato. Ornamentals and weeds are also hosts. The fungus causes an important disease of tomato in Pacific islands (**see Fact Sheet no. 163**). It is also reported to be a disease of rubber in Asia and Africa.

Symptoms & Life Cycle

Numerous cream-coloured round spots, up to 4 mm diameter; often, irregular shaped or angular, bordered by veins (Photos 1-5). The leaves dry out and fall prematurely. Fruits of cucumber are not affected. The fungus is a secondary invader of rotting fruits of papaya and tomato.

The spores are spread by wind-blown rain, and if windy wet weather continues for a few days, spread is fast and plants lose their leaves quickly.

The source of the fungus is from other infected crops, the remains of the previous crop and, perhaps, other host species. The fungus is very common on papaya leaves causing angular, light brown or grey spots, 2 mm diameter, sometimes surrounded by a yellow margin; the centres of the spots often fall out producing a 'shot-hole' effect.

Impact

A fungus causes this disease. Where rainfall is high and large numbers of small spots occur on the leaves, they dry out, fall down, the plants die prematurely, and yields are seriously affected (Photo 2). The fungus also causes a leaf spot on papaya, and a common and serious disease on tomato, also called target spot (**see Fact sheet no. 163**).

Detection & inspection

Look for round, but often angular, cream spots on the leaves, bounded by the veins.



Photo 1. Cucumber target spot, *Corynespora cassiicola*, on cucumber.



Photo 2. Cucumber target spot, *Corynespora cassiicola*, causing serious yellowing, wilt and leaf drop on cucumber.



Photo 3. Cucumber target spot, *Corynespora cassiicola*, on cucumber.



Photo 4. Cucumber target spot, *Corynespora cassiicola*, on cucumber. Note, fruits are not attacked.

Management

CULTURAL CONTROL

Cultural control is important. The following should be done:

Before planting:

- Do not plant new crops next to older ones that have the disease.
- Plant as far as possible from papaya, especially if leaves have small angular spots, with 'shot-hole' symptoms.
- Check all seedlings in the nursery, and throw away any with leaf spots.

During growth:

- Keep plots free from weeds, as some may be hosts of the fungus.
- Grow cucumbers on a trellis or vertical wires to increase air circulation around them. If the leaves dry quickly, there is less time for the spores to germinate and infect.
- Do not work in the cucumbers plots when leaves are wet, especially if some plants have signs of leaf spot. Touching the plants can help to spread the disease in water droplets.

After harvest:

- Collect and burn as much of the crop as possible when harvest is complete.
- Practice crop rotation, leaving 3 years before replanting cucumber on the same land.

RESISTANT VARIETIES

There are reports of varieties with resistance to leaf spot. Check with retailers (or seed catalogues) if any are available in your country.

CHEMICAL CONTROL

Warm wet conditions favour the disease such that fungicides are needed to give adequate control. The products to use are chlorothalonil, copper oxychloride or mancozeb. Treatment should start when the first spots are seen and continue at 10-14-day intervals until 3-4 weeks before last harvest. It is important to spray both sides of the leaves.

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval. Recommendations will vary with the crop and system of cultivation. Expert advice on the most appropriate pesticides to use should always be sought from local agricultural authorities.



Photo 5. Close-up, cucumber target spot, *Corynespora cassiicola*, on cucumber. Note the angular shape of the lesions.

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Information from *Corynespora* blight (*Corynespora cassiicola*) in Southern Plant Diagnostic Network (undated) Invasive.org.

(<https://www.invasive.org/collections/viewcollection.cfm?id=3566>). Photos 2&3 Konrad Englberger, Pohnpei, Federated States of Micronesia. Photo 4 Kohler F., et al. (1997) *Diseases of cultivated crops in Pacific Island countries*. South Pacific Commission. Pirie Printers Pty Limited, Canberra, Australia.

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