



## Pacific Pests and Pathogens - Fact Sheets

### Banana diamond leaf spot (072)



Photo 1. Large diamond-shaped spots of *Cordana musae*, parallel to the leaf veins.



Photo 2. Association of diamond leaf spot, *Cordana musae*, with leaf spots of banana black cross, *Phyllachora musicola*. The suggestion is that *Cordana* is a weak pathogen needing a wound to infect.



Photo 3. Diamond leaf spots, *Cordana musae*, centred on those of banana black cross, *Phyllachora musicola*.

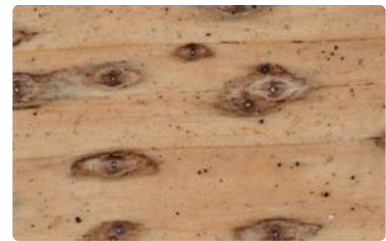


Photo 4. Leaf spots of *Cordana johnsonii*, up to 2 cm x 1 cm, brown or grey on lower surface, with small black centres. Paler on upper surface. (This is a photo of a herbarium-dried leaf.)

#### Common Name

Banana (Cordana) leaf spot, banana diamond leaf spot

#### Scientific Name

*Cordana musae*

#### Distribution

Widespread. In the tropics. Asia, Africa (restricted), Oceania. It is recorded from American Samoa, Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Marshall Islands, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu, and Wallis & Futuna.

#### Hosts

*Musa* spp., and also *Musa acuminata* subsp. *banksii* (Samoa).

#### Symptoms & Life Cycle

The spots are oval to diamond-shaped, up to 10 cm long, and at right angles to the length of the leaf (Photo 1). They are brown on the upper surface, zoned, with yellow margins, and grey to brown below. The spots often merge, covering large areas of the leaf; this occurs particularly at the margin of the leaf giving a band of dead tissue with a zigzag yellow border between diseased and healthy parts.

Banana (*Cordana*) leaf spot infections often occurs on banana black cross leaf spots (Photos 2&3, and see **Fact Sheet no. 71**). This suggests that the fungus is a weak pathogen and needs a wound to infect.

Spores are produced on the underside of the leaf in large numbers, making the spots appear greyish-brown and

hairy. They are spread in wet, windy weather.

Another species, *Cordana johnsonii*, occurs in Australia and Tonga (Photo 4).

## Impact

Usually, the disease is of minor importance on Cavendish bananas, but can sometimes be severe on plantains, that is, cooking bananas, but it is not likely to reduce yields to the extent that control measures are required. This disease is said to be worse if misting oils are used. Misting oils are used for the control of black Sigatoka (see **Fact Sheet no. 02**).

## Detection & Inspection

Look for the diamond-shaped brown spots, with a yellow border, often common along the margin of the leaf. Look to see if the spots are centred on the star-shaped spots of *Phyllachora*.

## Management

### CULTURAL CONTROL

Control measures are unlikely to be needed against this disease.

### RESISTANT VARIETIES

Cavendish varieties are resistant. The fungus usually infects cooking bananas, but the damage is usually insignificant. There is no information on the resistance of the FHIA varieties bred in Honduras, Central America, and imported by the Secretariat of the Pacific Community (CePaCT lab) for distribution in the region.

### CHEMICAL CONTROL

The disease is of minor importance in commercial varieties and, even in those that are susceptible, it is not thought to lower yield sufficiently to need control by fungicides.

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Photo 4 (taken by Eric McKenzie), and used in this fact sheet, appeared previously in McKenzie E (2013) *Cordana johnsonii* PaDIL - <http://www.padil.gov.au>.

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The mobile application is available from the Google Play Store and Apple iTunes.

