

Banana Malayan leaf spot (122)

Common Name

Banana Malayan leaf spot

Scientific Name

Haplobasidium musae

Distribution

Highlands of peninsular Malaysia, Papua New Guinea, Fiji, Samoa, and Tonga. It was first described from Fiji in 1916.

Hosts

Banana and plantain varieties.

Symptoms & Life Cycle

Symptoms vary in different locations. In Fiji, lesions on the upper leaf surface are diamond shape, light grey, 2-4 x 3-5.5 mm, and have 0.5 mm wide black borders (Photo 1). Dark growth of the fungus occurs on the under surface of the leaves. Spores are produced in these black velvety areas. The spots are scattered over the entire leaf; they do not merge, but, if numerous, parts of the leaf turn yellow. Symptoms in Samoa are similar.

In Papua New Guinea and Malaysia, lesions have dark purple borders, are pale grey on the upper and pale brown on the lower surface, and are either oval or round. Large patches of dead tissue occur when the spots merge.

Spores from the lower leaf surface are spread in wind and rain, and mainly infect the older leaves.

Impact

This is usually a minor disease, although severe development occurs in areas of Fiji where there is more and 1 m annual rainfall, and temperatures are below 24°C. It is also common in Samoa in the cooler areas, especially if the bananas are shaded, or are sprayed with oil against other diseases.

Detection & inspection

Look for the diamond shaped spots with black borders on the upper surface of the leaf, with black velvety spore masses below. Note that they are much smaller than diamond leaf spot, which are up to 10 cm long (**see Fact Sheet no. 72**).

Management

Malayan leaf spot is only a minor disease, and even at places of high elevation, where it is cool and rainfall is high, it is unlikely that control measures will be needed.

CULTURAL CONTROL

Infection from this disease is greater if the bananas are shaded; therefore, remove shade or plant bananas in the open.

RESISTANT VARIETIES

No information

CHEMICAL CONTROL

In the unlikely event that fungicides are needed, use those against black Sigatoka (**see Fact Sheet no. 02**), namely:

Protectant fungicides:

- Dithiocarbamates (e.g., mancozeb).
- Banana misting oil.

Systemic fungicides:

- Triazoles (e.g., propiconazole and flusilazole).
- Strobilurins (e.g., azoxystrobin).

It is important to rotate the fungicides in the different groups to prevent the build-up of resistant strains of the fungus. In drier times, mancozeb can be used alone.



Photo 1. Malayan leaf spots, *Haplobasidium musae*. Note that the spots are much smaller than those caused by diamond leaf spot, *Cordana musae*; Malayan leaf spots are about 5 mm long, whereas those of diamond leaf spot are up to 10 cm.

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.**

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Information from (including Photo 1) Gerlach WWP (1988) *Plant diseases of Western Samoa*. Samoan German Crop Protection Project, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Germany; and from Ploetz RC (Ed.) *Diseases of tropical fruit crops*. CABI Publishing. (https://books.google.com.au/books?id=tgL-tu6rpgC&pg=PA92&fpg=PA92&dq=Haplobasidium+musae&source=bl&ots=AjAy4tgZE&sig=ACfU3U3zP7zUmSn5FLTcWW5u6U3QA8BdrQ&hl=en&sa=X&ved=2ahUKEwifteuD8ZLVAhWqqkSFHYk_BcYQ6AEwDxoECA8QAw#v=onepage&q=Haplobasidium%20musae&f=false).

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