Pacific Pests, Pathogens & Weeds - Fact Sheets

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Yam leaf spot (312)

Photo 1. Typical infection on mature leaves of *Dioscorea esculenta* by leaf spots of *Guignardia dioscoreae.*

Photo 2. Yam leaf spots of *Guignardia dioscoreae* on *Dioscorea esculenta,* tan with darker margins.

Photo 3. Yam leaf spots, *Guignardia dioscorea,* on *Dioscorea pentaphylla.*

Common Name

Yam leaf spot

Scientific Name

Guignardia dioscoreae. Previously known as *Guignardia dioscoreae-bulbiferae* and *Phyllostricta dioscoreae. Guignaria* is the sexual state, and *Phyllosticta dioscoreae* is the asexual state, i.e., spores are produced without mating strains combining.

Distribution

Widespread. Africa, Asia, North America, Oceania. It is recorded from American Samoa, Australia, Federated States of Micronesia, Fiji, Papua New Guinea, Samoa, Solomon Islands, and Tonga.

Hosts

Yams, including *Dioscora alata*, *Dioscorea bulbifera, Dioscorea esculenta, Dioscorea fasciculata, Dioscorea pentaphyla,* and *Dioscorea villosa.* Commonly, the spots are seen on *Dioscorea esculenta.*

Symptoms & Life Cycle

Leaf spots, circular or irregular, up to 10 mm diameter, tan or grey, merging, with a dark brown or black border (Photos 1-3). Both sexual and asexual fruitbodies are often present in the one spot; these can be seen as black pin points.

Spread of the disease occurs when the spores ooze from the fruitbodies during wet weather and are splashed by rain or carried in the wind.

Impact

Symptoms are most commonly seen on *Dioscorea esculenta*, but the damage is seldom serious enough for growers to seek control measures.

Detection & inspection

Look for the large, up to 10 mm wide, grey to tan leaf spots, with dark margins, on mature leaves. The spots often merge.

Management

CULTURAL CONTROL

Probably the most important method of cultural control of this disease is to collect and burn or bury the vines after harvest, and practice crop rotation, where an interval of 2-3 years separates yams grown on the same land.

RESISTANT VARIETIES

The disease is most important on *Dioscorea esculenta*, Lesser or Chinese yam. In most countries where this yam is commonly grown there are several varieties. There is no report on differences in susceptibility on different varieties, but it is likely that some are more tolerant to infection, and tests would be worthwhile.

CHEMICAL CONTROL

There are no reports of attempts to control this disease with fungicides; however, should infections be so severe that fungicides were needed, use copper products, chlorothalonil or mancozeb.

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Photos 1-3 (taken by Eric McKenzie), and used in this fact sheet, appeared previously in McKenzie E (2013) *Guignardia dioscoreae.* PaDIL - (http://www.padil.gov.au).

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