



Pacific Pests, Pathogens & Weeds - Fact Sheets

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Coconut leaf stripe (139)



Photo 1. Seedling from a nursery in Samoa showing coconut leaf stripe disease. The disease sometimes develops after a few days of heavy rain.

Common Name

Coconut leaf stripe

Scientific Name

Unknown; possibly a bacterial disease.

Distribution

Narrow. It is reported only from the Philippines and Samoa.

Hosts

Coconut

Symptoms & Life Cycle

The cause of the disease in Samoa is unknown. Bacteria have been isolated from the stripes, and so has the fungus, *Fusarium*, but they have not been shown to be the cause. In the Philippines, two bacteria, *Pseudomonas* sp. and *Erwinia* sp., have been isolated from the stripes.

Symptoms are similar in Samoa and the Philippines: yellowish streaks or stripes occur parallel to the veins on the older leaves. As the stripes age they turn brown and, depending on the severity of the attack, they may extend the entire length of the leaf (Photo 1). If conditions are particularly favourable for disease development, the leaves show symptoms of blight, and even the unopened leaves are affected. In these cases, the seedlings die. In Samoa, disease outbreaks have occurred 4-5 days after heavy and lengthy storms.

Impact

There is little information on coconut leaf stripe disease. In Samoa, it occurs in coconut nurseries during the wet season. There are occasions when up to 50% of the seedlings have been killed by the disease at the Olomanu coconut nursery.

Detection & inspection

Look for yellow stripes, several centimetres long or along the entire length of the leaf, rapidly turning brown, causing leaves to dry and die. Look for affected leaves during the wet season, November to April, especially a few days after heavy downpours of rain.

Management

CULTURAL CONTROL

Cultural control is particularly important in the management of this disease, and outbreaks can be reduced or eliminated by doing the following:

- Cover seedbeds with coconut fronds as soon as the shoots emerge from the seednuts.
- Do not cover seednuts with soil.
- Remove infected seedlings as soon as they are seen, and burn them.
- Move the nursery to a different site after an outbreak of the disease.

As these measures are so effective in controlling the disease, it suggests that the disease is soil borne.

RESISTANT VARIETIES

It is known that Malayan Dwarf and the hybrid Malayan Dwarf x Rennell are susceptible to the disease. However, the susceptibility of other varieties is unknown.

CHEMICAL CONTROL

Use copper products, applied at the first sign of the disease, and then regularly afterwards. In the Philippines, the removal and burning of infected foliage prior to weekly spraying is recommended.

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Information (and Photo 1) Gerlach WWP (1988) *Plant diseases of Western Samoa*. Samoan German Crop Protection Project, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Germany.

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