

Extension Fact Sheet 15: White Thread of Cocoa



Common name: White thread

Scientific name: *Marasmiellus (Marasmius) scandens*

Host: Cocoa is the major host, but it also occurs on mango.

Damage

M. scandens is a fungus. The disease that it causes is known as white thread. It is associated with poor tree maintenance. If management is poor, large number of leaves can be destroyed, but the impact on yield has not been recorded. Normally, the disease is of little economic importance.

Biology and Life Cycle

The life cycle of this fungus has not been fully described. The white threads are a collection of strands of the fungus, and these grow over branches and leaves (photo lower, right). The fungus produces toadstools, and these produces spores. However, the toadstools are not often seen.

Spread of the fungus is thought to occur as follows:

- Along the branches as white threads, growing onto the leaf stalks and then over the surface of the leaf blades, which turn brown and die;
- From tree to tree when infected branches fall from shade trees above;
- As airborne spores released from toadstools during wet weather.

As the leaves are infected, they turn dark brown and die (photo, left), but even though they are no longer attached to the branches, they remain suspended in place by the threads of the fungus (photo above, right).

Signs and Symptoms

Look for patches of dead leaves, held in place by white threads. The fungus can be more clearly seen over the leaf blades when they are wet (photos above, centre & right).

Management

Cultural control:

Prune out the infected leaves and branches; this is the best way of managing outbreaks of white thread. The prunings should be taken out of the plantation and burnt.

Chemical control:

Chemical control is not recommended for this disease.

Horse hair blight



Common name: Horse hair blight

Scientific name: *Marasmius crinis-equi*

The fungus is often thought to cause a disease, but it does not. The threads are brown to black resembling horsehair. The fungus grows over the healthy leaves, but does not infect them. However, when the leaves break naturally from the stems, they are held in place by strands of the fungus; this gives the appearance that the fungus has killed them.