Life Cycle Stages

Mycelium fungal growth occurs along connecting root strands occurs at a rate of a few millimeters per day.

Boot-string like black rhizomorphs also grow through soil to contact uninfected vines. These rhizomorphs rely on wood as a food base to survive.

Thirdly but less common the mushrooms can produce basidiospores, which are wind-dispersed.

The disease progressively infects adjacent plants and can move faster on dead rather than live roots.

Typical Symptoms of Plant Damage

The first symptom of infection on kiwifruit vines is basal bark cracking and swelling. Dark stain or ooze may appear from these cracks.

Dense white mushroom smelling fungal growth will be evident beneath the bark at the infection site. In rare cases mushrooms may appear on severely infected vines.

Canopy wilting or yellowing will follow, some plants may continue to survive for several years yet if left untreated will rarely recover, and vine death will occur.

Fruit from infected vines may mature early, soften prior to harvest, and face storage difficulties.

Life Cycle Stages and Control

Armillaria is difficult to control and not fully understood. It is often easier to relieve the stress caused by the disease if the disease is determined to be secondary. For example it is advisable to drop up to half of the fruit on Armillaria infected vines.

Once Armillaria has been correctly diagnosed, you should act quickly to remove diseased material to slow infection. Remove as much of the roots as you can. Also remove willows and gum from the orchard, including stumps.

Map the infected area, allowing a two-vine perimeter around infected vines. Sluice roots of all vines in the infection zone to get air and sunlight into the roots and crown area.

Inject healthy vines with trichoderma. Then mulch with a trichoderma and bran mix.

Plant new plants dipped in a tricoderma-bran mix, and look after them.

Alternatively some success has been shown using Terracin, a broad-spectrum biocide, combined with Mycorrcin a product that activates beneficial soil microbes.

Stages of Crop Growth Susceptible to Damage

Vines adjacent to infection areas will be more susceptible if stressed eg from water logging, drought or from crop loading.