Botrytis

Botrytis cinerea

A necrotrophic fungus that affects many plant species, most notably grapes, (its latin name literally means grape disease) also known as grey mould.

The greatest damage is the economic impact from fruit loss due to the stem-end rot it causes.

Hort16A and the other new gold varieties are more resistant to Botrytis than the Hayward variety.

It is fast growing and can survive on many different sources of nutrients.

The fungus can produce 60000 spores on a piece of plant tissue the size of a fingernail, even one spore can infect a plant and cause disease.

Life Cycle Stages

1. Sclerotia
2. A germinating sclerotium
3. Botrytis conidiophores producing spores
4. Infection
5. An infected kiwifruit petal
6. Spreading lesion on leaf
7. A windblown cane- potential over-wintering site
8. Infected leaf tissue near fruit
9. Botrytis on the picking scar
10. Botrytis stem end rot

Botrytis survives winter as either small black sclerotia (1) or dormant mycelium. Spores produced in winter are then blown onto leaves and flowers in spring.

Life Cycle Stages and Control

Remove dead prunings from the canopy, especially in blocks with a history of Botrytis.

Keep an open canopy with good air circulation and sunlight to kill spores, minimize the amount of dead and decaying material in the orchard.

When fertilizing the plants avoid high nitrogen levels and excessive growth, causing leaf breakdown in shaded areas.

Post harvest curing for at least 48 hours is recommended to reduce damage.

Stages of Crop Growth Susceptible to Damage

Fading flowers and damaged leaves are fertile breeding grounds for Botrytis.

In warm wet conditions, wounded or dead tissue can be infected with fungal spores. It can also infect the fruit through the picking scar at harvest.

High dry matter fruit is less prone to Botrytis than low dry matter fruit.

It is important to avoid fruit becoming too mature if there is a risk of Botrytis.

Typical Symptoms of Plant Damage

Botrytis infects wounded, dying or dead plant tissue, and spreads to healthy tissue.

Rots can occur after 3 weeks in cold storage but typically appear after 6-8 weeks. Externally the affected areas appear darker whilst the internal flesh is glassy and water soaked. (10)