



Grey mould of pome fruit

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*Grey mould is a post-harvest disease of apples, pears and other fruits caused by the fungus *Botrytis cinerea*. The disease is found worldwide wherever these fruits are grown.*

Symptoms

Grey mould causes a firm, tan or brown rot of fruit. It can occur at injuries anywhere on the fruit, and also at the calyx and stalk ends of uninjured fruit. The rot is initially light brown and it becomes darker as it progresses. The rotted area may become wrinkled after removal from storage. A fine grey fungal growth may appear over the rotted area, and when the fruit are held at high humidity grey spore masses usually appear. Rotted fruit smell sweet and fermented, quite unlike the musty smell of blue mould rotted fruit. Spread from fruit to fruit is rapid, resulting in nests of infection.

Economic importance

Grey mould is an important post-harvest disease of apples and pears, although in recent years blue mould and mucor rots have caused greater losses.



Figure 1. Grey mould of Granny Smith apple

Disease cycle

Grey mould is rarely seen in the field, although calyx infections that occur around flowering can cause a dry eye rot, sometimes apparent in the field, which subsequently develops in storage. Most infections appear to result from the contamination of wounds with spores that have spread from decaying plant material in the orchard and from contaminated bins, flumes and dip tanks. The disease can spread quickly through stored fruit.



*Figure 2. Calyx-end rot of Packham Triumph pear caused by *Botrytis cinerea**

Control

- Post-harvest fungicides are currently available for the control of grey mould. As with blue mould, however, isolates of *Botrytis* that are resistant to some of these fungicides are present in some packing sheds, restricting their effectiveness. Consequently, increased reliance should be placed on careful harvesting and handling practices and thorough shed hygiene.
- Careful picking and handling of fruit to avoid injuries to the skin is most important. Rough areas in the grading and packing line, including dust and debris which could abrade fruit, must be eliminated.
- Clean all picking bins pre-season, and avoid soil build up on their undersides during picking. Do not pick wet fruit, and avoid picking fruit that has fallen to the ground, as this may introduce soil and infected fruit directly into the fruit bin.
- Minimise the contamination of pre-storage drenches, dips or sprays by washing fruit and bins in fresh or sanitised water before further treatment. Minimise the contamination of flumes and dump tanks by appropriate filtration, water sanitation and regular changes of water. Rollers, brushes and belts must not become contaminated with spores, and should be thoroughly cleaned as necessary.

- Washing of fruit in fresh or sanitised water after rots and other disorders have been sorted out will help to minimise further contamination and infection of fruit.

For effective pest and disease control, correct diagnosis is essential. A commercial diagnostic service is available at the DPI PIRVic Knoxfield Centre. For further information, contact the Diagnostic Service. ph: (03) 9210-9222 or fax (03) 9800 3521.

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