

This short description was prepared in the framework of the EU FP7 project DROPSA - Strategies to develop effective, innovative and practical approaches to protect major European fruit crops from pests and pathogens (grant agreement no. 613678). This pest was listed in the DROPSA alert list for *Vitis* fruit.

### **Alternaria viticola (Ascomycota)**

**Fruit pathway:** Mainly attacks young, tender rachises, peduncles, fruits and pedicels of grape fruit with no symptoms seen in old inflorescences (Biosecurity New Zealand 2009, Biosecurity Australia 2011). Immature infected berries may be present in a cluster of mature uninfected berries when berry development is uneven across a cluster. The fungi may be transmitted as spores on asymptomatic grapes (Biosecurity New Zealand 2009). Uncertain: Spots on the fruit skin probably consist of mycelium and fall off when the berries reach half size. The berries apparently continue to develop normally. Fruit that have lost their spots are potentially infected but appear normal (Biosecurity Australia 2011).

**Other pathways:** Plants for planting. Soil: *A. viticola* mainly attacks young, tender stalks. This fungus overwinters on tendrils, branches and in bud scales (DAFF 2013, Biosecurity New Zealand 2009). The first invasion occurs via overwintering conidiospores the tendrils of branches, epidermis, bud scales and diseased debris (Liu *et al.* 1996).

**Hosts:** *Vitis vinifera* and some hybrid grapes (DAFF 2013).

**Distribution:** Asia: China (DAFF 2013, Biosecurity New Zealand 2009, Biosecurity Australia 2011).

**Damage:** *Alternaria viticola* can cause serious drop off of flowers and young fruit. Grape production has been seriously damaged in some areas of China. Yield losses of 30–40% have been reported from Xinjiang province and 30–50% in southeast Shandong (Biosecurity Australia 2011, citing others). *A. viticola* affects stems, inflorescences and berries and in these plant parts the disease development and symptoms are distinct. Infection of the stalks starts with the peduncle and spreads to the pedicels (Biosecurity Australia 2011, citing others). Wounds favour infection, but the pathogen can invade through natural openings (Biosecurity New Zealand 2009). Infected stalks go brown and dry out causing the flower buds and young fruit on the infected inflorescences to shrink, dry out and drop off (Biosecurity Australia 2011, citing others). The fungus infects repeatedly on pedicels and berries within a bunch (Biosecurity Australia 2011, citing others). Infected berries develop dark brown or black spots on the skin, which fall off within the berry development (Biosecurity Australia 2011).

**Other information:** Quarantine Pest status in Australia (DAFF 2013). Conidia can be spread via wind and rain (Ma *et al.* 2004).

<b>Impact:</b> High	<b>Intercepted:</b> not known	<b>Spreading/invasive:</b> not known
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### **References:**

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- Biosecurity New Zealand 2009. Import risk analysis: table grapes (*Vitis vinifera*) from China. MAF Biosecurity New Zealand, Wellington, New Zealand, 314 p.
- DAFF 2013. Final Review of policy: importation of grapevine (*Vitis* species) propagative material into Australia. Department of Agriculture, Fisheries and Forestry, Canberra
- Liu SF, Cheng ZJ, Zhang CX 1996. Study on occurrence and integrated control of *Alternaria viticola*. China Proceedings of the third national conference of integrated pest management, Beijing, China, just abstract available: 341–345.
- Ma J, Zhu X, Zhao L 2004. Preliminary study on spike: stalk brown spot of grape. Xinjiang Agricultural Sciences, just abstract available 41:353–354.