

Bacterial blight of grapevine

What is Bacterial blight of grapevine?

Bacterial blight of grapevine is a serious, chronic and systemic disease of grapevine that affects commercially important cultivars. It is caused by the bacterium *Xylophilus ampelinus* which survives in the vascular tissues of infected plants. Severe infection of susceptible cultivars can lead to a serious reduction in grapevine health and major harvest losses.

What should I look for?

Bacterial blight can affect the leaf, petiole, stem, root, shoot or flowers. Look for key symptoms such as linear reddish-brown streaks that appear and expand upwards on the shoot, darken, crack and develop into cankers. Shoots subsequently wilt, droop and dry up and young shoots may develop pale yellowish-green spots on the lowest internodes. Discolouration is less common on very young shoots, but the whole shoot dies back. Stem cross-section reveals tissue browning.

Cankers can also appear on the sides of petioles leading to one-sided (marginal) leaf necrosis. Necrotic leaf spots also occur sometimes and cankers may also appear on flower and fruit stalks. Flowers which have not reached maturity turn black and die back and roots may also be attacked resulting in retardation of shoot growth.

What can it be confused with?

Confusion may occur with other diseases. Cankers on shoots and leaf spots are similar to those induced by heavy infections by Grape anthracnose (*Sphaceloma ampelinum*), without the brown discolouration of vascular tissue and Phomopsis cane and leaf spot (*Phomopsis viticola*). Although symptom assessment and visual inspection can distinguish between these diseases, laboratory diagnostics should be conducted to confirm the absence or presence of Bacterial blight.



Leaf spot and marginal necrosis on leaves are symptoms of Bacterial blight of grapevine

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Cup shaped leaves are a symptom of Bacterial blight of grapevine

ARC Infruitec-Nietvoorbij, South Africa



Cankers will darken, crack and spread throughout the grapevine stem

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How does it spread?

Bacterial blight is readily transmitted with pruning tools, especially in wet and windy weather. The disease is associated with warm moist conditions, and spread is favoured by overhead sprinkler irrigation. Bacterial blight is able to survive in the wood, and thus may be transmitted from nursery to nursery in infected cuttings. Local spread in vineyards tends to occur along the rows from the initial disease centre. It may also be carried in irrigation water. Natural dispersal is limited to the vineyard and the immediate surrounding area.

Where is it now?

Bacterial blight of grapevine is currently found in South Africa, Spain, Argentina, France, Greece, Crete, Italy, Sicily, Sardinia and Slovenia.

How can I protect my vineyard from Bacterial blight of grapevine?

Only source high health status (preferably certified) plant material from reliable and accredited suppliers. Check your vineyard frequently for the presence of new pests and investigate any sick grapevines for unusual symptoms. Make sure you are familiar with common grapevine pests so you can tell if you see something different. Keep records of anything unusual and ensure all staff and visitors adhere to on farm biosecurity and hygiene practices.

If you see anything unusual, call the Exotic Plant Pest Hotline



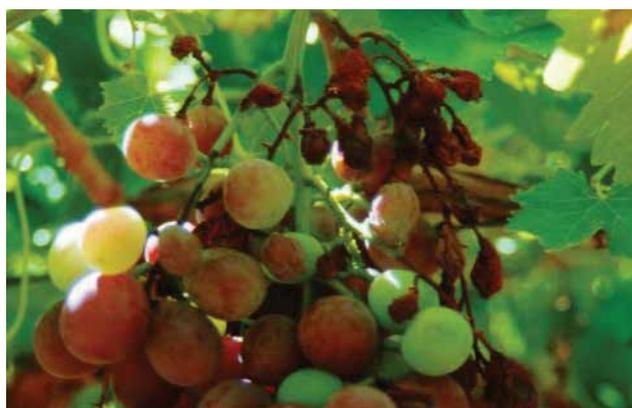
Shoots will eventually die back as the cankers spread throughout the stem

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Necrotic canker on developing grapevine shoot

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Parts of the grape bunch may become necrotic and die back

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