

Grapevine Root and Trunk Diseases in the Okanagan Valley

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Vineyard surveys conducted over the last several growing seasons (2007-2009), have identified a significant number of vines showing symptoms of root and trunk disease. Symptoms range from rapid decline and plant death to a slow, general loss of vigour with delayed growth, yellowing and premature loss of leaves, trunk dieback, or dead arm and cankers. These symptoms are typical of several root and trunk diseases: Blackfoot disease (caused by *Cylindrocarpon spp.*), Esca (caused by *Phaeomoniella* and *Phaeoacremonium spp.*), Botryosphaeria dieback/canker (caused by *Botryosphaeria spp.*) and/or Eutypa dieback (caused by *Eutypa spp.*) [All of these diseases can cause the decline of vines over a period of several years]. Our lab has confirmed the following diseases in the Okanagan Valley: Blackfoot, Esca, and Botryosphaeria dieback/canker. Other less common root diseases such as Roesleria root rot have also been found in association with the above diseases. In addition, we have also seen numerous vines infected with crown gall a bacterial infection caused by *Agrobacterium tumefaciens* and *Agrobacterium vitis*. The key symptoms for this disease is the formation of galls on the trunk of the vine near the soil surface or aerial galls which can extend 20 cm to 30 cm up the trunk. This presentation will discuss the above diseases and their potential control measures.