

## Recognise and differentiate between anthracnose (canker), dead arm and black rot on leaves and shoots

Symptoms that we no longer expect to recognise appear in resistant grape variety plots. This sheet summarises the characteristic symptoms of anthracnose, dead arm and black rot on leaves and herbaceous shoots.



- Anthracnose (*Elsinoë ampelina*)**
- ▶ A rare disease nowadays, very sensitive to fungicides.
  - ▶ Symptoms easily confused with dead arm.
  - ▶ Small spots measuring a few millimetres on leaves, usually along the nerves, with occasional limb distortion.
  - ▶ Affects young tissues preferably (leaves and apex).
  - ▶ Necrosis of tissues, the leaf has a shot hole appearance.
  - ▶ Localised lesions on shoots and petioles, spread over the surface and in depth, become paler at the centre.



- Dead arm (*Phomopsis viticola*)**
- ▶ First symptoms in Spring at the base of young shoots.
  - ▶ Fairly compact, elongated and dark lesions that ultimately meet, become paler and weaken the tissues.
  - ▶ On leaves, the symptoms are similar to anthracnose. Small dark spots arranged along the nerves, sometimes surrounded by a yellowish halo and distortions.
  - ▶ Presence of pycnides.



- Black rot (*Guignardia bidwellii*)**
- ▶ Originated in North America.
  - ▶ On leaves, circular spots of up to a centimetre, grey-brown then brown edged with black, clearly visible pycnides (arrows).
  - ▶ Symptoms less frequent on shoots than on tendrils, petioles and peduncles. Brown to black elongated, cankerous lesions, sprinkled with pycnides.