

Sharka disease Plum pox virus

What is it? Sharka disease or plum pox virus (PPV) is one of the most destructive diseases of summerfruit. It is transmitted by aphid vectors and has a very wide host range among prunus species. It does not actually kill trees by itself, but makes the fruit inedible and commercially worthless.

Distribution. PPV was first detected in eastern Europe from where it has spread to most countries of the Continent. Until 1992, no occurrence had been reported from outside the Euro-Mediterranean area. PPV was detected in Chile in 1992, the USA in 1999, Canada in 2000. China in 2004 and Argentina in 2005.

For current distribution go to https://gd.eppo.int/taxon/PPV000/distribution



Morphology. In spite of the irregular distribution of the virus inside the tree, visual inspection does allow detection by symptoms, especially during the period of active growth. Testing on susceptible plant indicators such as peach or downy cherry by chip-budding can produce symptoms in 6-8 weeks.

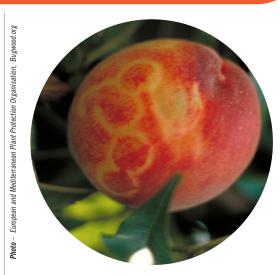
Biology. The causal agent, plum pox virus is easily transmitted by many aphid species and nursery grafting, and it has a very wide host range among prunus. Infected plants may not show symptoms for several months and they can be often transient in appearance. The disease symptoms are frequently mistaken for other disorders and the virus can become established in a new area before the first recognition of the disease.

Dispersal. Although spread is difficult to control within a local area because of aphid vectors, the long distance spread can be controlled by strict quarantine regulations and use of virus-free certified nursery stock.

Symptoms. Symptoms may appear on leaves or fruit. They are particularly obvious on leaves in spring as chlorotic spots, bands or rings, vein clearing or even leaf deformation in peaches. Infected fruit show chlorotic spots or rings. Diseased plums and apricots are deformed and show internal browning of the flesh as well as pale rings or spots on apricot stones. Symptoms of Sharka disease depend very much on the locality, season, summerfruit species, cultivar and plant tissue (leaf or fruit). Other symptoms on fruit include abnormal shape, black or brown lesions and premature drop.

Disease management:

- There is no anti-virus treatment available to control Sharka disease in orchards.
- An integrated approach to the management of PPV is required to prevent the effects of this disease.
- Management measures include the use of certified plant material where possible, controlling aphids in the field and destroying affected trees in orchards.
- If you believe you have found symptoms of Sharka disease in your orchard, call MPI's pest and disease hotline on 0800 80 99 66 or contact Summerfruit NZ.



Familiarise yourself with the common pests and diseases in your orchard so you can distinguish them from the attack of exotic organisms.



Photo – Biologische Bundesanstalt für Land und Forstwirtschaft, Bugwood.org



Photo — John Hammond. Agricultural Research Center. USDA

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To report any suspected exotic organism, call MPI on: