

Plum pox



Infected plum fruits showing uneven ripening and blotching

What is it?

Plum pox, also known as Sharka, is a serious virus disease of many wild and cultivated species of *Prunus*, including plums, damsons, greengages, apricots, peaches and almonds. It was thought that cherries were immune, but a cherry strain of Plum pox virus has been confirmed attacking both sweet and sour cherries on the continent of Europe.

The yield of affected trees may be reduced by 20 to 30%, and on sensitive varieties such as Victoria, fruit is pock-marked and unsaleable. Losses are also caused by premature fruit drop, low sugar content, poor flavour and reduced shelf-life.



Where is it found?

Plum pox was first encountered in Bulgaria in 1917, and has spread from there to most of the European continent, affecting different countries to varying extents. To date it is widespread in Albania, Bulgaria, the Czech Republic, Germany, Greece, Hungary, Poland, Romania, Slovakia and parts of the former Yugoslavia. It is also found locally in parts of Austria, Belgium, Cyprus, Egypt, France, Italy, Luxembourg, Moldova, Portugal, Russia, Spain, Switzerland, Syria, Turkey, Ukraine and the UK.

Outside the Euro-Mediterranean area there are also records from the North (USA and Canada) and South America (Argentina and Chile), Africa (South Africa) and most recently Asia (China). Strains of varying virulence have been recognised in Eastern Europe, some of which appear much more damaging than that present in the UK.

How does it develop and spread?

The disease can be spread in two main ways. Firstly, and most importantly, it is spread on infected rootstocks or budwood, which potentially allows rapid movement of the disease around the country. Secondly, it is spread by aphids from other infected trees or wild hosts such as blackthorn (*Prunus spinosa*). This results in localised dispersal of the disease, especially within and between orchards.

The disease develops slowly inside the tree, usually affecting only one or two branches at first, but spreading through the tree as the virus multiplies over a period of several years.

What are the symptoms?

Symptoms of plum pox can vary greatly depending on the host species and variety, the locality and the season.



Infected plum leaves showing chlorotic rings, lines and blotches



On plum leaves, it can cause pale green or light yellow chlorotic spots, blotches, bands, rings or line patterns, which are often difficult to see in bright sunlight. Leaf symptoms are most easily seen on fully expanded leaves from late May/early June; they are often irregularly distributed and may appear on only a few branches or leaves.

Plum fruit symptoms depend on the original colour of the fruit. Dark-skinned fruits show bluish, necrotic rings which may be sunken, while pale-skinned fruits show uneven ripening, blotching and rings. Necrotic tissue can extend through the flesh to the stone, on which a reddish necrotic ring may develop

The visual symptoms and accompanying reduction in sugar content make affected fruit unmarketable. The presence of other viruses, such as plum line pattern virus, can increase the severity of plum pox symptoms.

Similar symptoms are found on the leaves and fruit of most of the other susceptible *Prunus* species, with the following exceptions. The leaf symptoms on peach are distinctive; affected leaves are distorted when they first unfold, having a wavy edge and a slight twist, and the veins show pale green or bright yellow flecks or lines. These symptoms disappear as the leaves mature. Peach fruit may have paler coloured rings and lines than those found on plums; they are generally more susceptible to damage from the disease. Almonds show few leaf symptoms.

What action can be taken?

There are no effective control measures against *Plum pox virus*, therefore when trees used for propagation are found to be infected they are grubbed under statutory notice. There are no requirements for any action to be taken in orchard outbreaks.

Use of certified planting material, removal of wild hosts and control of aphids on a holding will all help to prevent any outbreaks of the disease and reduce the risk of the disease spreading. All susceptible *Prunus* material intended for planting that is moved into or within Great Britain must have been either officially certified as being free from *Plum pox virus* or derived from material which has been officially tested and found to be free from the disease within the last three growing seasons.

Keep a good look out?

Plum pox is a notifiable disease. If its presence is suspected on a registered nursery or other registered premises, it must be reported to the local Defra Plant Health and Seeds Inspector or the PHSI HQ, York:

Tel: 01904 455174

Fax: 01904 455197

Email: planthealth.info@defra.gsi.gov.uk

Website: www.defra.gov.uk/planth/ph.htm

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