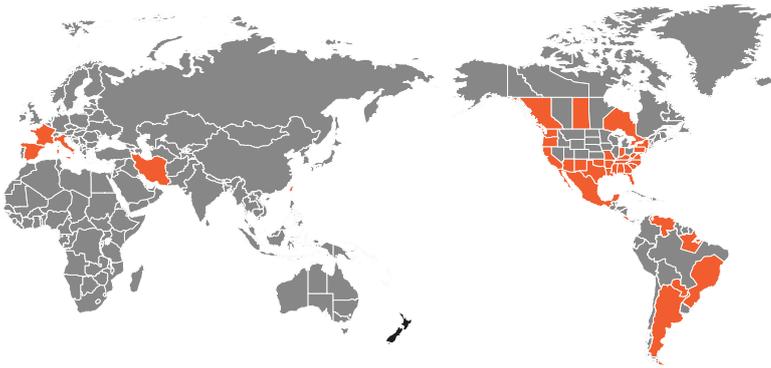


Phony peach disease *Xylella fastidiosa*

What is it? Phony peach disease and many other important plant diseases such as plum leaf scald, Pierce's disease of grapevine and citrus variegated chlorosis (CVC), are caused by the plant bacteria *Xylella fastidiosa* and its different subspecies. Although peaches are a major host for this bacterium, plums and apricots have also been reported susceptible to phony peach disease.

Distribution. The disease has been confirmed in south-eastern USA from Florida north to North Carolina and west as far as Missouri and eastern Texas. Plum leaf scorch is reported in Paraguay, Argentina, southern Brazil and in the USA along the Gulf coast.

For current distribution got to <https://gd.eppo.int/taxon/XYLEFA/distribution>



Biology. The bacterium colonises two distinct habitats, the xylem of plants and the foregut of vector insects that feed on xylem fluid. Sharpshooters such as *Homalodisca vitripennis* are reported as main vectors of the peach strain but are not the only ones. Both nymphs and adults can acquire the bacteria by feeding on the xylem fluid of an infected plant and transmitting the pathogen to healthy plants immediately after acquisition. The concentration of *Xylella* in a plant depends upon environmental factors, strains and the host plant species. To maximise the likelihood of detection, sampling should be performed during the period of active growth of the plants which happens from late spring to autumn.

Dispersal. *Xylella* is dispersed by its vectors on a local scale. Vectors could also be carried internationally on plants, cuttings or fruit. Vector insects that can overwinter as adults such as sharpshooters, have the ability to carry the pathogen through the winter and establish infections during spring, hence the importance of preventing introduction and establishment of these vectors.

Symptoms. Symptoms depend on hosts and *Xylella* strain combinations. As the bacterium invades xylem vessels it blocks the transport of mineral nutrients and water. Generally, symptoms include leaf scorching, wilting of the foliage, defoliation, chlorosis or bronzing along the leaf margin and dwarfing. Leaves and flowers appear early, and leaves remain on the tree longer than on healthy trees. Early in summer, because of shortened internodes, infected peach trees appear more compact, leafier and darker green. Affected trees yield increasingly fewer and smaller fruits and after 3-5 years they become economically worthless. Fruit may also be more strongly coloured and will often ripen a few days earlier than normal. Infected peach and plum trees bloom several days earlier than healthy trees and tend to hold their leaves later into the autumn. The leaves of infected peaches never display the typical leaf scorching seen on infected plum trees. Symptoms of plum leaf scald on leaves are a typical scorched and scalded appearance. Phony peach disease and plum leaf scald can limit the life of peach and plum orchards. Leaf scorching symptoms have also been reported on cherry in late summer/autumn in Italy.

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

Source: EPP0

Disease management:

- Chemical control of phony peach disease has not been successful in the field.
- Control is based essentially on the principle of locating and delimiting hot spots by trapping insect vectors and testing wild hosts serologically.
- Vector habitats can be eliminated as a preventative measure, but this is not possible in all situations.
- Control has been attempted by antibiotic treatment of grapevines against *X. fastidiosa* and by insecticide treatment against its vectors, but with only partial success. These methods are little used in practice.
- Control methods such as insecticides, destruction of infected trees and elimination of wild host plants around orchards allow a high degree of control, except in areas where incidence is very high.
- If you believe you have found symptoms of phony peach disease in your orchard, call MPI's pest and disease hotline on 0800 80 99 66 or contact Summerfruit NZ.

Photo – M. Scortichini, Istituto Sperimentale per la Frutticoltura, Rome (IT)



Photo – *Homalodisca vitripennis* (vector insect) Reyes Garcia III, USDA Agricultural Research Service, USA

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To report any suspected exotic organism, call MPI on:

0800 80 99 66