

Xylella fastidiosa

Synonyms

- leaf scorch disease (e.g., oleander leaf scorch, pear leaf scorch, pecan leaf scorch, maple leaf scorch, and almond leaf scorch)
- periwinkle wilt
- pecan fungal leaf scorch
- phony disease of peach
- plum leaf scald
- alfalfa dwarf
- citrus variegated chlorosis
- dwarf lucerne

Plant hosts

Maple (*Acer* spp.), pecans (*Carya* spp.), citrus (*Citrus* spp.), sweet gum (*Liquidambar styraciflua*), lucerne (*Medicago sativa*), mora (*Morus alba*), oleander (*Nerium oleander*), sycamore (*Platanus occidentalis*), *Prunus* spp. (e.g., cherry, peach, almond, plum, and pears), elm (*Ulmus* spp.), grape (*Vitis* spp.), periwinkle (*Vinca minor*), grasses (*Poaceae*), and other minor hosts.

Symptoms

On grapevines, the most characteristic symptom of primary infection is leaf scorch. An early sign is sudden drying of part of a green leaf, which then turns brown while adjacent tissues turn yellow or red. The desiccation spreads and the whole leaf may shrivel and drop, leaving only the petiole attached. Diseased stems often mature irregularly, with patches of brown and green tissue. In later years, infected plants develop late and produce stunted chlorotic shoots. Chronically infected plants may have small, distorted leaves with interveinal chlorosis and shoots with shortened internodes. Highly susceptible cultivars rarely survive more than 2- to 3-years, while more tolerant cultivars may survive for more than 5-years. Young vines succumb more quickly than older vines.

On peaches, young shoots are stunted and bear greener, denser foliage (due to shorter internodes) than on healthy trees. Lateral branches grow horizontally or droop, so that the tree seems uniform, compact, and rounded. Leaves and flowers appear early, and leaves remain on the tree longer than on healthy trees. Affected trees yield increasingly fewer and smaller fruits until, after 3- to 5-years, they become economically worthless.



Symptomatic grape leaf.



Leafhopper

Images courtesy of the APS Journal

Transmission

Local spread of the bacterium is primarily through insect vectors such as leafhoppers and sharpshooters. The movement of infected plant material, such as fruit that is also infested with an insect vector, has been cited as the primary means of long distance dispersal. Long distance dispersal is further complicated by the fact that some infected plants appear symptomless.

Geographic distribution

Taiwan, India, Turkey, France, Italy, Serbia and Montenegro, Morocco, Canada (Ontario), Mexico, Costa Rica, Argentina, Paraguay, Brazil, and Venezuela. In the USA, it has been reported in AL, AZ, AR, CA, DE, DC, FL, GA, IN, KY, LA, MD, MS, MO, NE, NJ, NM, NY, NC, PA, RI, SC, TN, TX, VA, and WV.

Applicable Regulations

[OAR 603-052-1221](#), Quarantine: Glassy-winged sharpshooter