

## UK pest status report<sup>1</sup> for *Xylella fastidiosa*

Field	Detail
<b>Pest species name</b>	<p><i>Xylella fastidiosa</i> Wells <i>et al.</i> 1987</p> <p>Subspecies:</p> <p><i>Xylella fastidiosa</i> subsp. <i>fastidiosa</i> Wells <i>et al.</i> 1987</p> <p><i>Xylella fastidiosa</i> subsp. <i>multiplex</i> Schaad <i>et al.</i> 2009</p> <p>Other subsp. have been proposed but have not been validly published including “<i>sandyi</i>”, “<i>morus</i>” and “<i>pauca</i>”</p>
<b>Pest taxon (order, family)</b>	Lysobacteraceae
<b>Synonyms</b>	Lysobacterales
<b>Pest common name</b>	alfalfa dwarf; almond leaf scorch; citrus variegated chlorosis; dwarf lucerne; leaf scorch disease; oleander leaf scorch; pear leaf scorch; pecan fungal leaf scorch; pecan leaf scorch; periwinkle wilt; phony disease of peach; plum leaf scald
<b>Regulatory status</b>	Quarantine pest
<b>Pest status in UK (as per ISPM 8)</b>	Absent
<b>Global distribution</b>	<i>X. fastidiosa</i> is known to occur over a wide range of climatic zones in tropical and subtropical areas, as well as in more temperate or even continental climate regions. Until the 2010s, <i>X. fastidiosa</i> was known to occur in the Americas (North America: Canada (British Columbia, Ontario, Saskatchewan), Mexico, United States of America (Alabama,

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<sup>1</sup> International Standard for Phytosanitary Measures (ISPM) 8 Determination of pest status in an area

	<p>Arizona, Arkansas, California, Delaware, District of Columbia, Florida, Georgia, Indiana, Kentucky, Louisiana, Maryland, Mississippi, Missouri, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Washington, West Virginia); Central America and Caribbean: Costa Rica, Puerto Rico; South America: Argentina, Brazil (Bahia, Espirito Santo, Goias, Minas Gerais, Para, Parana, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, Sao Paulo, Sergipe), Paraguay, Venezuela, only). In Asia, a bacterium causing pear leaf scorch disease in Taiwan and first identified as <i>X. fastidiosa</i> (Su et al., 2013) has later been reported as being a new species <i>X. taiwanensis</i> (Su et al., 2016). In the EPPO region, the outbreak of <i>X. fastidiosa</i> in olive trees in Apulia, Southern Italy (Saponari et al., 2013) and the presence of the bacterium in Mediterranean plant species in the natural and urban landscapes of Italy (Apulia, Toscana), France (Corsica and Provence-Alpes-Côte d’Azur), Spain (Balearic Islands, Comunidad Valenciana and Madrid) and Portugal (Porto), constituted a major change to its geographical distribution. Records from Turkey (Güldür et al., 2005), Lebanon (Temsah et al., 2015; Habib et al., 2016) and Kosovo (Berisha et al., 1998; EPPO, 1998) are considered invalid.</p>
<p><b>Main hosts</b></p>	<p><i>X. fastidiosa</i> is a polyphagous bacterium that can infect the xylem of a wide range of cultivated and wild host plants. A total of 595 plant species have been reported in the scientific literature (EFSA, 2020) as plant hosts of <i>X. fastidiosa</i>. From these, 343 were confirmed using at least two different molecular tests for the detection of the bacterium, and many of these plant species were found to have been infected in natural conditions.</p> <p><i>X. fastidiosa</i> is known to cause severe direct damage to several major crops including grapevine, almond, coffee, citrus, stone fruits, as well as forest, landscape and ornamental trees. The main and most common diseases caused by the bacterium are Pierce’s disease (PD) of grapevine in North America, citrus variegated chlorosis (CVC) in South America, and, in recent years, olive quick decline syndrome (OQDS). <i>Citrus sinensis</i>, <i>Citrus</i>, <i>Coffea</i>, <i>Polygala myrtifolia</i>, <i>Olea europaea</i>, <i>Prunus dulcis</i>, <i>Prunus persica</i> and <i>Vitis vinifera</i>.</p>
<p><b>Likelihood for establishment in UK</b></p>	<p>Of the known outbreaks to date, the outbreak of <i>Xylella fastidiosa</i> sub species <i>multiplex</i> detected in Corsica, mainland France, mainland Spain and Portugal, in a small area of southernmost Tuscany, and in nursery stock on the Spanish Balearic Islands is of most concern to the UK. This subspecies is able to survive in cooler climates and affect a wide range of hosts, including many native broadleaved trees such as oak. If an outbreak occurs in the UK it could become established due to several</p>

	native insects that are known to carry the disease but it is difficult to predict which potential UK plant host species may be susceptible to infection.
<b>Report files</b>	
<b>Website(s)</b>	<a href="https://www.cabi.org/cpc/datasheet/57195">https://www.cabi.org/cpc/datasheet/57195</a> <a href="https://planthealthportal.defra.gov.uk/pests-and-diseases/high-profile-pests-and-diseases/xylella/">https://planthealthportal.defra.gov.uk/pests-and-diseases/high-profile-pests-and-diseases/xylella/</a> <a href="https://gd.eppo.int/taxon/XYLEFA/datasheet">https://gd.eppo.int/taxon/XYLEFA/datasheet</a> <a href="https://planthealthportal.defra.gov.uk/assets/uploads/EvidenceStatement-XylellaFastidiosa.pdf">https://planthealthportal.defra.gov.uk/assets/uploads/EvidenceStatement-XylellaFastidiosa.pdf</a>
<b>Report author</b>	A. Aspin, Fera Science Ltd., January, 2022
<b>Sharepoint link (to be completed by Defra)</b>	

**Useful resources:**

- *UK pest status reports are uploaded on our country profile page on the International Phytosanitary Portal (IPP)*
- *The IPPC Pest Status Guide: Understanding the principal requirements for pest status determination*

**Before uploading the report:** *Delete sections and text which are in italics (other than species and host names) and footnotes. The report will be uploaded by Defra.*