

UK pest status report for *Synchytrium endobioticum*

Field	Detail
Pest species name	<i>Synchytrium endobioticum</i> (Schilb.) Percival
Pest taxon (order, family)	<i>Chytridiales, Synchytriaceae</i> (Species Fungorum, 2023)
Synonyms	<i>Chrysophlyctis endobiotica</i> Schilb., <i>Synchytrium solani</i> Masee (Species Fungorum, 2023).
Pest common name	Wart disease of potato (CABI, 2023).
Regulatory status	Great Britain: Regulated quarantine pest Northern Ireland: Regulated quarantine pest
Pest status in UK (as per ISPM 8)¹	Present - not widely distributed and under official control
Global distribution	<p>Europe: Central Russia (widespread), Bulgaria, Czech Republic, Estonia, Georgia, Germany, Ireland, Italy, Luxembourg, Montenegro, Romania, Russia, Slovakia, Sweden, Turkey, Ukraine, UK (present, restricted distribution), Armenia, Belarus, Denmark, Finland, Greece, Netherlands, Poland (few occurrences).</p> <p>Oceania: New Zealand (restricted distribution)</p> <p>Africa: South Africa (restricted distribution), Tunisia (few occurrences).</p> <p>America: Bolivia, Falkland Islands, Peru (present), Canada (restricted distribution)</p> <p>Asia: Bhutan, China, Nepal, India (restricted distribution) (EPPO, 2023)</p>
Main hosts	<i>Solanum tuberosum</i> , <i>Nicandra physalodes</i> , <i>Solanum americanum</i> , <i>Solanum dulcamara</i> , <i>Solanum lycopersicum</i> , <i>Solanum nodiflorum</i> , <i>Solanum villosum</i> (CABI, 2023)

<p>Likelihood for establishment in UK</p>	<p>The pathogen is already present in the UK, albeit localized. Without current regulations, it is likely it would establish widespread in the UK. Potatoes are a highly valuable crop in the UK. However, with prevention strategies such as only planting resistant seed potato varieties, not introducing soil or planting stock from suspect areas, and with the use of buffer zones round contaminated areas, the spread of <i>S. endobioticum</i> is effectively contained (Mulder and Turkensteen, 2005; EPPO, 2017).</p> <p>Climate conditions are not a limiting factor for establishment of the disease, because it prefers cool and wet conditions, but outbreaks have been reported in South Eastern Europe where there are warmer summers (EFSA, 2018).</p> <p>Resting spores can remain viable in soil for decades (CABI, 2023), so crop rotation is not effective at managing the disease, and contamination by the pathogen cannot be eradicated if it enters an area, so the spread must be prevented (Wale et al., 2008).</p>
<p>References</p>	<p>CABI (2023). <i>Synchytrium endobioticum</i> (wart disease of potato). CABI Digital Library. [Accessed 11/04/2023]. https://www.cabidigitallibrary.org/doi/10.1079/cabicompendium.52315</p> <p>EFSA (2018). Pest categorisation of <i>Synchytrium endobioticum</i>. EFSA Panel on Plant Health. https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2018.5352</p> <p>EPPO (2017). PM 9/5 (2) <i>Synchytrium endobioticum</i>. Bulletin OEPP/EPPO Bulletin. 47 (3), p511–512.</p> <p>EPPO (2023). EPPO Global Database: <i>Synchytrium endobioticum</i>. [Accessed on 11/04/2023]. https://gd.eppo.int/taxon/SYNCEN</p> <p>Mulder and Turkensteen, (2004). <i>Potato Diseases</i>. Nivap Holland.</p> <p>Species Fungorum (2023). <i>Synchytrium endobioticum</i> (Schilb.) Percival [Accessed on 11/04/2023]. https://www.speciesfungorum.org/GSD/GSDspecies.asp?RecordID=120395</p> <p>Wale, S, Platt, HW, Cattlin, N. (2008). <i>Diseases, Pests and Disorders or Potatoes. A Colour Handbook</i>. Manson Publishing.</p>

¹ International Standard for Phytosanitary Measures (ISPM) 8 Determination of pest status in an area:
<https://www.fao.org/3/x2968e/x2968e.pdf>