



Department
for Environment
Food & Rural Affairs

Pests associated with growing media

Background

Soil and growing media, either alone or round the roots of growing plants, can be associated with many undesirable organisms. These include pests and diseases (which are covered in this document), as well as other contaminants such as invasive weed seeds.

Soil is subject to regulation by plant health authorities around the world. In the UK, all soil and growing media (other than that consisting entirely of peat) is prohibited from non-European countries, with the exception of Egypt, Israel, Libya, Morocco and Tunisia. However, soil “intended to sustain the vitality of the plants” is permitted, and therefore small amounts of soil associated with growing plants may arrive in the UK from many origins.

This document highlights a selection of pests on the UK Plant Health Risk Register which have had soil and growing media identified as one of the pathways by which they could potentially enter the UK, and move around the country. It is not intended to be a comprehensive guide, but rather to highlight the variety of pests which may travel associated with soil and to remind nurseries to be vigilant.

The table which follows is divided into three parts:

1. Pests and diseases present in part of the UK which may be spread by movement of soil
2. Pests and diseases absent from the UK but present in the EU, which may be spread by the movement of soil
3. Pests and diseases absent from both the UK and EU, which may be spread by the movement of soil

Hyperlinks in the table are to sources of further information, such as factsheets or Pest Risk Analyses. Summary information about all of the pests and diseases listed here is on the [UK Plant Health Risk Register](#) or the [UK Plant Health Information Portal](#).

Organisms on the [UK Plant Health Risk Register](#) (as of July 2017) which have been assessed as having soil or growing media as one of the pathways on which they might enter or spread in the UK. These lists merely highlight some example pests of concern to the UK, and are in no sense a complete or comprehensive list. Organisms not on the Risk Register may still pose a risk to the UK.

Present in UK	Present in EU	Present rest of the world	No. of Risk Register pests	Example nematodes (associated with soil or roots)	Example bacteria, fungi and viruses which may be associated with soil	Example insects (root feeders, or pupae in soil)
✓	✓	✓	27	<p><i>Ditylenchus destructor</i> Globodera pallida Globodera rostochiensis Meloidogyne fallax <i>Tylenchorhynchus claytoni</i></p>	<p><i>Beet necrotic yellow vein benyvirus</i> Phytophthora kernoviae Phytophthora ramorum <i>Raspberry ringspot virus</i> Synchytrium endobioticum (potato wart)</p>	<p><i>Dendrolimus pini</i> (pine lappet moth) Paropsisterna selmani (a eucalyptus beetle) <i>Simo hirticornis</i> (a weevil)</p>
x	✓	✓	52	<p><i>Aphelenchoides besseyi</i> <i>Bitylenchus aerolatus</i> <i>Bitylenchus ventrosignatus</i> Helicotylenchus dihystra <i>Heterodera elachista</i> <i>Meloidogyne chitwoodi</i> <i>Meloidogyne ethiopica</i> Meloidogyne incognita Paratrichodorus minor <i>Paratylenchus tenuicaudatus</i> <i>Pratylenchus brachyurus</i> <i>Pratylenchus mediterraneus</i> Pratylenchus scribneri <i>Tylenchulus semipenetrans</i> <i>Xiphinema brevicolle</i> <i>Xiphinema rivesi</i></p>	<p>Ceratocystis platani (plane wilt) Fusarium oxysporum f. sp. lactucae (lettuce wilt) <i>Phytophthora acerina</i> <i>Plasmopara halstedii</i> (downy mildew of sunflower) <i>Xanthomonas vesicatoria</i> (leaf spot of tomato) Xanthomonas translucens pv. translucens (bacterial leaf streak of wheat)</p>	<p>Epitrix spp. (potato flea beetles) <i>Lilioceris merdiger</i> (onion beetle) Popillia japonica (Japanese beetle) <i>Reptalus panzeri</i> (vector of maize redness) Strauzia longipennis (sunflower maggot) Tecia solanivora (Guatemalan potato moth) Thaumetopoea pityocampa (pine processionary moth) Weevils such as <i>Curculio elephas</i>, <i>Listroderes costirostris</i>, Naupactus leucoloma and <i>Otiorhynchus meridionalis</i></p>

Organisms on the [UK Plant Health Risk Register](#) (as of July 2017) which have been assessed as having soil or growing media as one of the pathways on which they might enter the UK. This list merely highlights some example pests of concern to the UK, and is in no sense a complete or comprehensive list. Organisms not on the Risk Register may still pose a risk to the UK.

Present in UK	Present in EU	Present rest of the world	No. of Risk Register pests	Example nematodes (associated with soil or roots)	Example bacteria, fungi and viruses which may be associated with soil	Example insects (often root feeders, or pupae in soil)
x	x	✓	96	<p>Globodera pallida (non-European strains)</p> <p>Globodera rostochiensis (non-European strains)</p> <p><i>Hoplolaimus</i> spp.</p> <p><i>Nacobbus aberrans</i></p> <p><i>Punctodera chalconensis</i></p> <p><i>Rotylenchulus macrosoma</i></p> <p><i>Scutellonema bradys</i></p> <p><i>Tylenchorhynchus crassicaudatus</i></p> <p><i>Tylenchorhynchus leviterminalis</i></p> <p><i>Xiphinema</i> spp. (non-European species)</p>	<p>Phytophthora pinifolia</p> <p><i>Phytophthora pluvialis</i></p> <p><i>Phymatotrichopsis omnivora</i> (Phymatotrichum root rot)</p>	<p><i>Delia sanctijacobi</i> (potato worm)</p> <p>Diabrotica spp. (rootworm beetles)</p> <p><i>Epicauta</i> spp. (South American blister beetles)</p> <p><i>Epitrix</i> spp. from the Americas</p> <p><i>Heteronychus arator</i> (black maize beetle)</p> <p>Keiferia lycopersicella (tomato pinworm)</p> <p><i>Limonius californicus</i> (sugarbeet wireworm)</p> <p><i>Margarodes</i> spp. (ground pearl scale insects)</p> <p><i>Psylliodes punctifrons</i> (cabbage flea beetle)</p> <p><i>Strobilomyia viaria</i> (Canadian larch cone fly)</p> <p><i>Thecodiplosis japonensis</i> (pine needle gall midge)</p> <p>Weevils such as <i>Anthonomus quadrigibbus</i>, <i>Conotrachelus nenuphar</i>, <i>Listroderes delaigui</i>, <i>Naupactus xanthographus</i>, <i>Phlyctinus callosus</i></p>

Advisory Information

Suspicious pests or diseases associated with imported soil, or any other non-native plant pests or diseases, should be reported to the relevant authority:

For **England and Wales**, contact your local **APHA Plant Health and Seeds Inspector** or the **PHSI Headquarters**, Sand Hutton, York.

Tel: 01904 405138

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

For **Scotland**, contact the **Scottish Government's Horticulture and Marketing Unit**:

Email: hort.marketing@gov.scot

Web: <http://www.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth>

For **Northern Ireland**, contact the **DAERA Plant Health Inspection Branch**:

Tel: 0300 200 7847 Email: planthealth@daera-ni.gov.uk

For additional information on UK Plant Health please see:

<https://secure.fera.defra.gov.uk/phiw/riskRegister/>

<https://planthealthportal.defra.gov.uk/>

<https://www.gov.uk/plant-health-controls>

<http://www.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth/PlantDiseases>

<https://www.daera-ni.gov.uk>

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