

UK pest status report for *Meloidogyne arenaria*

Field	Detail
Pest species name	<i>Meloidogyne arenaria</i> (Neal 1889) Chitwood 1949
Pest taxon (order, family)	Tylenchida: Meloidogynidae
Synonyms	<p><i>Anguillula arenaria</i> Neal, 1889</p> <p><i>Tylenchus arenarius</i> (Neal, 1889) Cobb, 1890</p> <p><i>Heterodera arenaria</i> (Neal, 1889) Marcinowski, 1909</p> <p><i>Meloidogyne arenaria arenaria</i> (Neal) Chitwood, 1949</p> <p><i>Meloidogyne arenaria thamesi</i> Chitwood in Chitwood, Specht & Havis, 1952</p> <p><i>Meloidogyne thamesi</i> Chitwood in Chitwood, Specht & Havis, 1952 (Goodey, 1963)</p> <p><i>Meloidogyne thamesi gyulai</i> Amin, 1993</p> <p><i>Meloidogyne gyulai</i> Amin, 1993</p>
Pest common name	<p>Peanut root-knot nematode</p> <p>Root gall nematode</p> <p>Root-knot nematode</p> <p>Groundnut root knot nematode</p> <p>Root-knot nematode disease</p>
Regulatory status	<p>Great Britain: Provisional quarantine pest</p> <p>Northern Ireland: Regulated non quarantine pest</p>
Pest status in UK (as per ISPM 8¹)	<p>Absent: pest records invalid</p> <p>Note: there is an introduction record from the UK and a present record from Ireland reported on the Cabi Compendium (Seebens <i>et al.</i>, 2017 & CABI, EPPO, 2003) it is likely these records are incorrect. The supporting references given do not validate an introduction or confirm presence in the UK. These records are most likely a transient finding under glass, in association with an import or an incorrect identification (the UK introduction record is from 1889).</p>

<p>Global distribution</p>	<p><u>Africa</u>: Algeria, Côte d'Ivoire, Egypt, Ethiopia, Gambia, Ghana, Liberia, Libya, Madagascar, Malawi, Mauritius, Morocco, Mozambique, Nigeria, São Tomé and Príncipe, Senegal, South Africa, Sudan, Tanzania, Tunisia, Uganda, Zimbabwe.</p> <p><u>Asia</u>: Armenia, Azerbaijan, Bangladesh, Bangladesh, China (Anhui, Fujian, Guangdong, Hainan, Hebei, Henan, Hunan, Inner Mongolia, Jiangsu, Shaanxi, Shandong, Shanxi, Sichuan, Yunnan, Zhejiang), India (Andhra Pradesh, Chhattisgarh, Delhi, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu, Uttar Pradesh, West Bengal), Indonesia (Java, Sumatra), Iran, Iraq, Japan (Honshu, Kyushu, Ryukyu Islands, Shikoku), Jordan, Lebanon, Malaysia, Maldives, Mongolia, Nepal, North Korea, Pakistan, Philippines, Saudi Arabia, South Korea, Sri Lanka, Syria, Taiwan, Tajikistan, Thailand, Turkey, Turkmenistan, Uzbekistan, Vietnam.</p> <p><u>Europe</u>: Belgium, Bulgaria, Federal Republic of Yugoslavia, France, Germany, Hungary, Iceland, Italy (Sicily), Moldova, Montenegro, Netherlands, North Macedonia, Poland, Portugal, Romania, Russia (Central Russia, Eastern Siberia), Spain (Canary Islands), Switzerland, Ukraine.</p> <p><u>North America</u>: Belize, Bermuda, Costa Rica, Cuba, El Salvador, Guadeloupe, Guatemala, Jamaica, Martinique, Mexico, Puerto Rico, Trinidad and Tobago, United States (Alabama, Arizona, Arkansas, California, Florida, Georgia, Hawaii, Kansas, Louisiana, Mississippi, New Jersey, New York, North Carolina, Oklahoma, South Carolina, Texas, Virginia, West Virginia).</p> <p><u>Oceania</u>: Australia (New South Wales, Queensland, South Australia, Tasmania, Western Australia), Cook Islands, Fiji, Niue, Papua New Guinea, Samoa, Solomon Islands, Tuvalu.</p> <p><u>South America</u>: Argentina, Bolivia, Brazil (Alagoas, Amazonas, Bahia, Ceara, Goias, Mato Grosso do Sul, Minas Gerais, Para, Paraiba, Parana, Pernambuco, Rio de Janeiro, Rio Grande do Norte, Rio Grande do Sul, Santa Catarina, Sao Paulo, Sergipe), Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela.</p>
<p>Main hosts</p>	<p><i>Abelmoschus esculentus</i> (okra), <i>Arachis hypogaea</i> (groundnut), <i>Avena sativa</i> (oats), <i>Beta vulgaris</i> (sugarbeet), <i>Capsicum frutescens</i> (chilli), <i>Citrullus lanatus</i> (watermelon), <i>Coffea arabica</i> (arabica coffee), <i>Cucumis sativus</i> (cucumber), <i>Cucurbita pepo</i> (marrow), <i>Daucus carota</i> (carrot), <i>Glycine max</i> (soyabean), <i>Gossypium hirsutum</i> (Bourbon cotton), <i>Hordeum vulgare</i> (barley), <i>Ipomoea</i></p>

	<p><i>batatas</i> (sweet potato), <i>Medicago sativa</i> (lucerne), <i>Musa</i> spp.(banana), <i>Nicotiana tabacum</i> (tobacco), <i>Oryza sativa</i> (rice), <i>Passiflora edulis</i> (passionfruit), <i>Phaseolus vulgaris</i> (common bean), <i>Pisum sativum</i> (pea), <i>Prunus persica</i> (peach), <i>Psidium guajava</i> (guava), <i>Saccharum officinarum</i> (sugarcane), <i>Solanum lycopersicum</i> (tomato), <i>Solanum tuberosum</i> (potato), <i>Trifolium repens</i> (white clover), <i>Vigna unguiculata</i> (cowpea), <i>Vitis vinifera</i> (grapevine), <i>Zea mays</i> (maize).</p> <p>Note: Polyphagous species, attacking both monocotyledons and dicotyledons (Perry <i>et al.</i>, 2009).</p>
Likelihood for establishment in UK	Very likely but only in protected cultivation.
Website(s)	<p>https://gd.eppo.int/taxon/MELGAR/categorization</p> <p>https://www.cabidigitallibrary.org/doi/10.1079/cabicompendium.33233</p> <p>https://intranet.fera.gsi.gov.uk/applicat/ph/warehouse/organism/info.cfm?cslref=21020&pageType=INFO</p> <p>https://www.metoffice.gov.uk/weather/learn-about/how-forecasts-are-made/observations/weather-stations</p>

References

CABI, EPPO, 2003. *Meloidogyne arenaria*. [Distribution map]. In: Distribution Maps of Plant Diseases, Wallingford, UK: CAB International. Map 900.
DOI:10.1079/DMPD/20066500900

Evans, K., Trudgill, D.L. and Webster, J.M., 1993. *Plant parasitic nematodes in temperate agriculture*. CAB international. pp.142

Perry, R.N., Moens, M. and Starr, J.L. eds., 2009. *Root-knot nematodes*. CABI. pp. 63, 73, 205-208.

Seebens H, Blackburn T M, Dyer E E, Genovesi P, Hulme P E, Jeschke J M, Pagad S, Pyšek P, Winter M, Arianoutsou M, Bacher S, Blasius B, Brundu G, Capinha C, Celesti-Grapow L, Dawson W, Dullinger S, Fuentes N, Jäger H, Kartesz J, Kenis M, Kreft H, Kühn I, Lenzner B, Liebhold A, Mosena A (et al), 2017. No saturation in the accumulation of alien species worldwide. *Nature Communications*. 8 (2), 14435.
<http://www.nature.com/articles/ncomms14435>

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