

**2024 FIRST CONSULTATION 1 July – 30 September 2024**  
**Compiled comments for Draft annex to ISPM 27: *Meloidogyne mali*. (2018-019)**


**Participants**

Name	Summary
Eswatini	The Kingdom of Eswatini is fine with the draf standard
Gabon	Nous validons ce projet d'annexe à la NIMP 27.
Malawi	We support Wet the Draft Annex

**T** (Type) - B = Bullet, C = Comment, P = Proposed Change, R = Rating  
**S** (Status) - A = Accepted, C = Closed, O = Open, W = Withdrawn, M = Merged

Para	Text	T	Comment
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(383) Costa Rica (30 Sep 2024 11:22 PM)</b> No comments I agrred
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(380) Belarus (30 Sep 2024 3:00 PM)</b> The Republic of Belarus would like to formally endorse the EPPO comments submitted via the IPPC Online Comment System
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(377) Barbados (30 Sep 2024 11:32 AM)</b> Barbados has no objections to this draft.
G	(General Comment)	C	<i>Category : TECHNICAL</i> <b>(372) Peru (29 Sep 2024 6:07 PM)</b> Peru agrees with COSAVE comments
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(359) Nigeria (28 Sep 2024 1:48 AM)</b> NO COMMENTS
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(358) Germany (27 Sep 2024 6:00 PM)</b> Germany would like to formally endorse the EPPO comments submitted via the IPPC Online Comment System.
G	(General Comment)	C	<i>Category : TECHNICAL</i> <b>(357) Chile (27 Sep 2024 4:24 PM)</b> Chile agrees with COSAVE comments
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(335) Benin (26 Sep 2024 1:48 PM)</b> Pas de commentaire
G	(General Comment)	C	<i>Category : TECHNICAL</i> <b>(311) Kenya (26 Sep 2024 10:53 AM)</b> Kenya is in agreement with the draft standard
G	(General Comment)	C	<i>Category : TECHNICAL</i> <b>(297) European Union (25 Sep 2024 6:39 PM)</b>

			We compared the draft DP with EPPO PM 7/136 (1). We think the "Fig 1 Flow diagram for the detection and identification of Meloidogyne" in EPPO standard can be added here. But we understand that flow diagrams are not included in all protocols.
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(296) Guyana (25 Sep 2024 4:56 PM)</b> Guyana supports this draft annex.
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(294) United Kingdom (24 Sep 2024 4:45 PM)</b> The UK would like to formally endorse the EPPO comments submitted via the IPPC Online Comment System. EPPO have submitted these comments on behalf of the UK and as such they should be considered as UK national comments.
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(293) Switzerland (24 Sep 2024 12:18 PM)</b> Switzerland would like to formally endorse the EPPO comments submitted via the IPPC Online Comment System
G	(General Comment)	C	<i>Category : TECHNICAL</i> <b>(271) Uruguay (21 Sep 2024 1:24 PM)</b> Uruguay agrees with COSAVE comments
G	(General Comment)	C	<i>Category : TECHNICAL</i> <b>(269) EPPO (17 Sep 2024 4:24 PM)</b> We compared the draft DP with EPPO PM 7/136 (1). I think the "Fig 1 Flow diagram for the detection and identification of Meloidogyne" in EPPO standard can be added here. But we understand that flow diagrams are not included in all protocols.
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(97) New Zealand (10 Sep 2024 11:44 PM)</b> New Zealand supports this protocol with modifications. Thanks to the authors who developed this very useful diagnostic protocol
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(95) Mexico (6 Sep 2024 12:42 AM)</b> Mexico supports the DRAFT ANNEX TO ISPM 27: <i>Meloidogyne mali</i> (2018-019). Some proposals are included
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(85) Senegal (29 Aug 2024 11:47 AM)</b> We support the draft annex
G	(General Comment)	C	<i>Category : EDITORIAL</i> <b>(63) South Africa (20 Aug 2024 12:00 PM)</b> No comment.
G	(General Comment)	C	<i>Category : TECHNICAL</i> <b>(16) Colombia (15 Aug 2024 6:40 PM)</b> It is suggested to include a glossary of terms for clarity, because terminology used in this document may vary
G	(General Comment)	C	<i>Category : SUBSTANTIVE</i> <b>(1) Nigeria (22 Jul 2024 11:54 AM)</b> The protocol has been sufficiently dealt with, There are no comments from this end.

1	<b>DRAFT ANNEX TO ISPM 27: <i>Meloidogyne mali</i> (2018-019)</b>	C	Category : SUBSTANTIVE <b>(381) Russian Federation (30 Sep 2024 5:19 PM)</b> 'General comment': "The Russian Federation would like to formally endorse the EPPO comments submitted via the IPPC Online Comment System"
1	<b>DRAFT ANNEX TO ISPM 27: <i>Meloidogyne mali</i> (2018-019)</b>	C	Category : SUBSTANTIVE <b>(371) Malawi (29 Sep 2024 10:46 AM)</b> We support the Draft Annex
1	<b>DRAFT ANNEX TO ISPM 27: <i>Meloidogyne mali</i> (2018-019)</b>	C	Category : TECHNICAL <b>(295) Canada (24 Sep 2024 8:17 PM)</b> Canada supports the DRAFT ANNEX TO ISPM 27: <i>Meloidogyne mali</i> (2018-019).
1	<del>DRAFT ANNEX TO ISPM 27</del> <b>PROYECTO DE ANEXO A LA NINF 27 : <i>Meloidogyne mali</i> : <i>Meloidogyne mali</i> (2018-019)(2018-019)</b>	P	Category : SUBSTANTIVE  Honduras <b>(96) Honduras (8 Sep 2024 10:33 PM)</b> Honduras apoya el PROYECTO DE ANEXO A LA NINF 27 <i>Meloidogyne mali</i> (2018-019)
1	<b>DRAFT ANNEX TO ISPM 27: <i>Meloidogyne mali</i> (2018-019)</b>	C	Category : SUBSTANTIVE <b>(47) Malawi (16 Aug 2024 4:42 AM)</b> We support the draft Annex
15	2018-11 SC <del>added-adicionou</del> <i>Meloidognye mali</i> (2018-009) <del>to-work-programme</del> ao programa de trabalho, <del>priority-prioridade</del> 3.	P	Category : TECHNICAL <b>(68) Guinea-Bissau (20 Aug 2024 5:01 PM)</b> Nome cietifico deve ser italico ou sublinhado
15	2018-11 SC <del>added-adicionou</del> <i>Meloidognye mali</i> (2018-009) <del>to-work-programme</del> ao programa de trabalho, <del>priority-prioridade</del> 3.	P	Category : SUBSTANTIVE <b>(67) Guinea-Bissau (20 Aug 2024 4:57 PM)</b> priorrizado
15	2018-11 SC added <i>Meloidognye mali</i> (2018-009) to work programme, priority 3.	C	Category : EDITORIAL <b>(51) South Africa (20 Aug 2024 11:32 AM)</b> Proposal to write genus and species in full for the first time when this is used in the text.
15	2018-11 SC added <del><i>Meloidognye-Meloidogyne</i></del> <i>mali</i> (2018-009) to work programme, priority 3.	P	Category : EDITORIAL <b>(12) Colombia (15 Aug 2024 5:41 PM)</b> Corrected spelling mistake for "Meloidognye" to "Meloidogyne".
19	<del>20204-06-2024-06</del> SC approved the draft DP for consultation	P	Category : EDITORIAL <b>(298) European Union (25 Sep 2024 6:47 PM)</b>
19	<del>20204-06-2024-06</del> SC approved the draft DP for consultation	P	Category : EDITORIAL <b>(208) EPPO (17 Sep 2024 4:24 PM)</b>
31	Evelyn van Heese ( <del>NIVIP(NVWA-NIVIP, Kingdom-of-the-Netherlands)</del> NL)	P	Category : EDITORIAL <b>(299) European Union (25 Sep 2024 6:50 PM)</b>
31	Evelyn van Heese ( <del>NIVIP(NVWA-NIVIP, Kingdom-of-the-The</del> Netherlands)	P	Category : EDITORIAL <b>(209) EPPO (17 Sep 2024 4:24 PM)</b> additional comment: The Netherlands should be NL
32	Dr <del>Aphorio-Daniel Apolonio</del> Silva de Oliveira ( <del>(NVWA-NIVIPNVWA, Kingdom-of-the-Netherlands)</del> NL)	P	Category : EDITORIAL <b>(300) European Union (25 Sep 2024 6:52 PM)</b>

			Pls verify name of contributors. Please refer to the institute as NVWA-NIVIP, in line with previous comment.
32	Dr <del>Apherie Daniel Apolonio</del> Silva de Oliveira ( <del>NVWA</del> <del>NVWA-NIVIP</del> , <del>Kingdom of the The</del> Netherlands)	P	<i>Category : EDITORIAL</i> <b>(210) EPPO (17 Sep 2024 4:24 PM)</b> Pls verify name of contributors. Please refer to theb institute as NVWA-NIVIP, in line with previous comment.
33	Yiwu Fang (Technical Center of Ningbo Customs, <del>China</del> <del>CN</del> )	P	<i>Category : EDITORIAL</i> <b>(301) European Union (25 Sep 2024 6:52 PM)</b>
33	Yiwu Fang (Technical Center of Ningbo Customs, <del>China</del> <del>CN</del> )	P	<i>Category : EDITORIAL</i> <b>(211) EPPO (17 Sep 2024 4:24 PM)</b>
46	The annex is a prescriptive part of ISPM 27 ( <i>Diagnostic protocols for regulated pests</i> ).	C	<i>Category : TECHNICAL</i> <b>(382) Congo, DR (30 Sep 2024 9:33 PM)</b> nous soutenons ce projet de document et attendons d'autres clarifications
48	The root-knot nematode genus <i>Meloidogyne</i> comprises at present more than 100 formally described species. All species are endoparasitic and some are well known for their negative impact on crops worldwide ( <del>Karssen, (Karssen et al. Wesemael and Moens, 2013).</del>	P	<i>Category : EDITORIAL</i> <b>(131) Japan (17 Sep 2024 12:03 PM)</b>
48	The root-knot nematode genus <i>Meloidogyne</i> comprises at present more than 100 formally described species. All species are endoparasitic and some are well known for their negative impact on crops worldwide ( <del>Karssen, (Karssen et al Wesemael and Moens2013).</del> , 2013).	P	<i>Category : TECHNICAL</i> <b>(98) New Zealand (11 Sep 2024 12:16 AM)</b> Reference added. Karssen G, Wesemael W, Moens M. (2013) Root-knot nematodes. In: Perry RN, Moens M. (Eds) Plant Nematology. 2nd edition, CAB International, Wallingford, UK, 73-108.
48	The root-knot nematode genus <i>Meloidogyne</i> comprises at present more than 100 formally described species. All species are endoparasitic and some are well known for their negative impact on crops worldwide (Karssen, Wesemael and Moens, 2013).	C	<i>Category : SUBSTANTIVE</i> <b>(86) Mexico (6 Sep 2024 12:18 AM)</b> It is suggested to update species information considering Subbotin et al, 2021 who mention 98 valid species, seven species inquerendae and six species nomina nuda. Subbotin, S. A., Rius, J. E. P., and Castillo, P. 2021. Systematics of root-knot nematodes (Nematoda: Meloidogynidae). Leiden, the Netherlands: Brill.
48	The root-knot nematode genus <i>Meloidogyne</i> comprises at present more than 100 formally described species. All species are endoparasitic and some are well known for their negative impact on crops worldwide (Karssen, Wesemael and Moens, 2013).	C	<i>Category : SUBSTANTIVE</i> <b>(73) Guinea-Bissau (21 Aug 2024 12:17 PM)</b> We do not have the coments, it can be like it is
48	The root-knot nematode genus <i>Meloidogyne</i> comprises at present more than 100 formally described species. All species are endoparasitic and some are well known for their negative impact on crops worldwide ( <del>Karssen, Wesemael and Moens, 2013).</del>	C	<i>Category : EDITORIAL</i> <b>(52) South Africa (20 Aug 2024 11:33 AM)</b> Proposal to write the reference as "Karssen et al., 2013" as there are more than two authors.
49	A relatively small number of the described species are known to parasitize trees	P	<i>Category : EDITORIAL</i>

	and shrubs (Jepson, 1987). One such species is <i>Meloidogyne mali</i> Itoh, Ohshima and Ichinohe, 1969 – a species described from <i>Malus domestica</i> (apple) in Japan (Itoh, Ohshima and Ichinohe, 1969). <i>Meloidogyne M-mali</i> is a polyphagous and economically important pest species that induces large root galls on host plants, affecting the ability of the plant to take up water and nutrients from the soil. It was added to the European and Mediterranean Plant Protection Organization's <i>List of pests recommended for regulation as quarantine pests</i> (EPPO A2 List: EPPO, n.d.(a)) in 2017.		<b>(133) Japan (17 Sep 2024 12:07 PM)</b> If the scientific name comes at the beginning of the sentence, the genus name should not be omitted.
49	A relatively small number of the described species are known to parasitize trees and shrubs (Jepson, 1987). One such species is <i>Meloidogyne mali</i> Itoh, Ohshima and Ichinohe, 1969 – a species described from <i>Malus domestica</i> (apple) in Japan ( <del>Itoh, (Itohet et al.</del> Ohshima and Ichinohe, 1969). <i>M. mali</i> is a polyphagous and economically important pest species that induces large root galls on host plants, affecting the ability of the plant to take up water and nutrients from the soil. It was added to the European and Mediterranean Plant Protection Organization's <i>List of pests recommended for regulation as quarantine pests</i> (EPPO A2 List: EPPO, n.d.(a)) in 2017.	P	Category : EDITORIAL <b>(132) Japan (17 Sep 2024 12:05 PM)</b>
49	A relatively small number of the described species are known to parasitize trees and shrubs (Jepson, 1987). One such species is <i>Meloidogyne mali</i> Itoh, Ohshima and Ichinohe, 1969 – a species described from <i>Malus domestica</i> (apple) in Japan (Itoh, Ohshima and Ichinohe, 1969). <i>M. mali</i> is a polyphagous and economically important pest species that induces large root galls on host plants, affecting the ability of the plant to take up water and nutrients from the soil. It was added to the European and Mediterranean Plant Protection Organization's <i>List of pests recommended for regulation as quarantine pests</i> (EPPO A2 List: EPPO, n.d.(a)) in 2017.	C	Category : TECHNICAL <b>(100) New Zealand (11 Sep 2024 12:24 AM)</b> Steward to consider adding a reference.
49	A relatively small number of the described species are known to parasitize trees and shrubs (Jepson, 1987). One such species is <i>Meloidogyne mali</i> Itoh, Ohshima and Ichinohe, 1969 – a species described from <i>Malus domestica</i> (apple) in Japan ( <del>Itoh, Japan Ohshima and Ichinohe, 1969</del> ). <i>M. mali</i> is a polyphagous and economically important pest species that induces large root galls on host plants, affecting the ability of the plant to take up water and nutrients from the soil. It was added to the European and Mediterranean Plant Protection Organization's <i>List of pests recommended for regulation as quarantine pests</i> (EPPO A2 List: EPPO, n.d.(a)) in 2017.	P	Category : TECHNICAL <b>(99) New Zealand (11 Sep 2024 12:23 AM)</b> Remove as it is a duplication of a reference
49	<del>A relatively small number of the described species are known to parasitize trees and shrubs (Jepson, 1987). One such species is <i>Meloidogyne mali</i> Itoh, Ohshima</del>	P	Category : EDITORIAL <b>(66) Guinea-Bissau (20 Aug 2024 4:52 PM)</b> da proteção das Plantas

	<p>and Ichinohe, 1969 — a species described from <i>Malus domestica</i> (apple) in Japan (Itoh, Ohshima and Ichinohe, 1969). <i>M. mali</i> is a polyphagous and economically important pest species that induces large root galls on host plants, affecting the ability of the plant to take up water and nutrients from the soil. It was added to the European and Mediterranean Plant Protection Organization's <i>List of pests recommended for regulation as quarantine pests</i> (EPPO A2 List: EPPO, n.d.(a)) in 2017. Um número relativamente pequeno das espécies descritas é conhecido por parasitar árvores e arbustos (Jepson, 1987). Uma dessas espécies é <i>Meloidogyne mali</i> Itoh, Ohshima e Ichinohe, 1969 - uma espécie descrita de <i>Malus domestica</i> (maçã) no Japão (Itoh, Ohshima e Ichinohe, 1969). <i>M. mali</i> é uma espécie de praga polífaga e economicamente importante que induz grandes galhas radiculares nas plantas hospedeiras, afetando a capacidade da planta de absorver água e nutrientes do solo. Foi adicionado à lista da Organização Europeia e Mediterrânea de <i>Proteção de Plantas recomendadas para regulamentação como pragas de quarentena</i> (Lista A2 da EPPO: EPPO, s.d.(a)) em 2017.</p>		
49	<p>A relatively small number of the described species are known to parasitize trees and shrubs (Jepson, 1987). One such species is <i>Meloidogyne mali</i> Itoh, Ohshima and Ichinohe, 1969 — a species described from <i>Malus domestica</i> (apple) in Japan (Itoh, Ohshima and Ichinohe, 1969). <i>M. mali</i> is a polyphagous and economically important pest species that induces large root galls on host plants, affecting the ability of the plant to take up water and nutrients from the soil. It was added to the European and Mediterranean Plant Protection Organization's <i>List of pests recommended for regulation as quarantine pests</i> (EPPO A2 List: EPPO, n.d.(a)) in 2017. Um número relativamente pequeno das espécies descritas é conhecido por parasitar árvores e arbustos (Jepson, 1987). Uma dessas espécies é <i>Meloidogyne mali</i> Itoh, Ohshima e Ichinohe, 1969 - uma espécie descrita de <i>Malus domestica</i> (maçã) no Japão (Itoh, Ohshima e Ichinohe, 1969). <i>M. mali</i> é uma espécie de praga polífaga e economicamente importante que induz grandes galhas radiculares nas plantas hospedeiras, afetando a capacidade da planta de absorver água e nutrientes do solo. Foi adicionado à lista da Organização Europeia e Mediterrânea de <i>Proteção de Plantas recomendadas para regulamentação como pragas de quarentena</i> (Lista A2 da EPPO: EPPO, s.d.(a)) em 2017.</p>	P	<p>Category : <i>TECHNICAL</i>  <b>(65) Guinea-Bissau (20 Aug 2024 4:46 PM)</b>  no tenhs comentarioa</p>
50	<p><i>M. mali</i> is widely distributed in Japan, where the stunting and severe decline of infected trees in orchards has been reported (Nyczepir and Halbrendt, 1993). It has been recorded parasitizing a large number of <del>host</del> trees, shrubs and herbaceous plants, as listed in the EPPO (2017) pest risk analysis for <i>M. mali</i>. To date, very little information is available on yield losses in cultivated plants. As this is <del>an</del></p>	P	<p>Category : <i>EDITORIAL</i>  <b>(302) European Union (25 Sep 2024 6:56 PM)</b>  Suggestion to call this "an emerging pest" only when recently new or more findings have been reported    Created by merging other changes together</p>

	<del>emerging-a</del> pest on many tree and ornamental <del>plant hosts</del> plants, the economic impacts of the <del>damage or</del> loss <del>of these hosts</del> in natural environments have also not yet been established.. The following examples, however, may provide an indication of the impact:		
50	<i>M. mali</i> is widely distributed in Japan, where the stunting and severe decline of infected trees in orchards has been reported (Nyczepir and Halbrendt, 1993). It has been recorded parasitizing a large number of host trees, shrubs and herbaceous plants, as listed in the EPPO (2017) pest risk analysis for <i>M. mali</i> . To date, very little information is available on yield losses in cultivated plants. As this is an emerging pest on many <del>tree-trees</del> and ornamental plant hosts, the economic impacts of the loss of these hosts in natural environments have also not yet been established.- The following examples, however, may <del>provide an indication of</del> <del>indicate</del> the impact:	P	Category : EDITORIAL <b>(272) Kuwait (24 Sep 2024 7:31 AM)</b>
50	<i>M. mali</i> is widely distributed in Japan, where the stunting and severe decline of infected trees in orchards has been reported (Nyczepir and Halbrendt, 1993). It has been recorded parasitizing a large number of <del>host</del> -trees, shrubs and herbaceous plants, as listed in the EPPO (2017) pest risk analysis for <i>M. mali</i> . To date, very little information is available on yield losses in cultivated plants. As this is <del>an</del> <del>emerging-a</del> pest on many tree and ornamental <del>plant hosts</del> plants, the economic impacts of the <del>damage or</del> loss <del>of these hosts</del> in natural environments have also not yet been established.- The following examples, however, may provide an indication of the impact:	P	Category : EDITORIAL <b>(212) EPPO (17 Sep 2024 4:24 PM)</b> Suggestion to call this "an emerging pest" only when recently new or more findings have been reported  Created by merging other changes together
50	<del>M-</del> <i>Meloidogyne mali</i> is widely distributed in Japan, where the stunting and severe decline of infected trees in orchards has been reported (Nyczepir and Halbrendt, 1993). It has been recorded parasitizing a large number of host trees, shrubs and herbaceous plants, as listed in the EPPO (2017) pest risk analysis for <i>M. mali</i> . To date, very little information is available on yield losses in cultivated plants. As this is an emerging pest on many tree and ornamental plant hosts, the economic impacts of the loss of these hosts in natural environments have also not yet been established.- The following examples, however, may provide an indication of the impact:	P	Category : EDITORIAL <b>(134) Japan (17 Sep 2024 12:07 PM)</b>
50	<i>M. mali</i> is widely distributed in Japan, where the stunting and severe decline of infected trees in orchards has been reported (Nyczepir and Halbrendt, 1993). It has been recorded parasitizing a large number of host trees, shrubs and herbaceous plants, as listed in the EPPO (2017) pest risk analysis for <i>M. mali</i> . To date, very little information is available on yield losses in cultivated plants. As this is an emerging pest on many <del>tree</del> -horticultural and ornamental plant hosts, the economic	P	Category : EDITORIAL <b>(101) New Zealand (11 Sep 2024 12:26 AM)</b> Tree is a more general term, suggest revising to Horticulture to be more specific.

	impacts of the loss of these hosts in natural environments have also not yet been established.. The following examples, however, may provide an indication of the impact:		
50	<i>M. mali</i> is widely distributed in Japan, where the stunting and severe decline of infected trees in orchards has been reported (Nyczepir and Halbrendt, 1993). It has been recorded parasitizing a large number of host trees, shrubs and herbaceous plants, as listed in the EPPO (2017) pest risk analysis for <i>M. mali</i> . To date, very little information is available on yield losses in cultivated plants. As this is an emerging pest on many tree and ornamental plant hosts, the economic impacts of the loss of these hosts in natural environments have also not yet been established. The following examples, however, may provide an indication of the impact:	P	Category : EDITORIAL (87) Mexico (6 Sep 2024 12:19 AM) Delet final point
51	<i>Morus</i> sp. (mulberry): In a pot trial, up to 50% crop loss was shown in young trees, depending on the level of <i>M. mali</i> infestation (Toida, 1991).	P	Category : SUBSTANTIVE (102) New Zealand (11 Sep 2024 12:29 AM) Add scientific name
52	<i>Malus domestica</i> (apple): <i>M. mali</i> is described as one of the most damaging nematodes for apples in northern Japan, causing the stunting and severe decline of trees in orchards (Itoh, Ohshima and Ichinohe, 1969; Nyczepir and Halbrendt, 1993). <i>M. mali</i> reduces apple tree growth by 15–43% and fruit yield is reduced on heavily infested trees (Nyczepir and Halbrendt, 1993).	P	Category : EDITORIAL (303) European Union (26 Sep 2024 12:12 AM)
52	<i>Malus domestica</i> (apple): <del><i>M. Meloidogyne mali</i></del> is described as one of the most damaging nematodes for apples in northern Japan, causing the stunting and severe decline of trees in orchards ( <del>Itoh, (Itoh et al. Ohshima, 1969; Nyczepir and Ichinohe Halbrendt, 1993).</del> <i>Meloidogyne</i> , 1969; Nyczepir and Halbrendt, 1993). <del><i>M. mali</i></del> reduces apple tree growth by 15–43% and fruit yield is reduced on heavily infested trees (Nyczepir and Halbrendt, 1993).	P	Category : EDITORIAL (135) Japan (17 Sep 2024 12:09 PM)
52	<i>Malus domestica</i> (apple): <i>M. mali</i> is described as one of the most damaging nematodes for apples in northern Japan, causing the stunting and severe decline of trees in orchards (Itoh, Ohshima and Ichinohe, 1969; Nyczepir and Halbrendt, 1993). <i>M. mali</i> reduces apple tree growth by 15–43% and fruit yield is reduced on heavily infested trees (Nyczepir and Halbrendt, 1993).	P	Category : EDITORIAL (213) EPPO (17 Sep 2024 4:24 PM)
52	<i>Malus domestica</i> (apple): <i>M. mali</i> is described as one of the most damaging nematodes for apples in northern Japan, causing the stunting and severe decline of trees in orchards (Itoh, Ohshima and Ichinohe, 1969; Nyczepir and Halbrendt, 1993). <i>M. mali</i> reduces apple tree growth by 15–43% and fruit yield <del>is</del> <u>was</u> reduced on heavily infested trees (Nyczepir and Halbrendt, 1993).	P	Category : EDITORIAL (103) New Zealand (11 Sep 2024 12:29 AM)
53	This species is considered to have been introduced into the <del>Kingdom of the Netherlands</del> , during <del>which time a breeding programme that involved importing a large amount of <i>Ulmus</i> sp. (elm) material (seeds including seeds, cuttings and</del>	P	Category : EDITORIAL (304) European Union (26 Sep 2024 12:23 AM)

	occasionally rooted <del>material) was imported</del> material. In 1992, rooted elm seedlings were sent to several other European countries (Heybroek, 1993). The nematode was reported from elm trees in Italy by Palmisano and Ambrogioni (2000) as a new species <i>Meloidogyne ulmi</i> , which was later synonymized to <i>M. mali</i> (Ahmed <i>et al.</i> , 2013). To date, in addition to Japan, <i>M. mali</i> has been reported locally in Europe, the Republic of Korea and the United States of America (EPPO, n.d.(b)). Based on a pest risk analysis, <i>M. mali</i> is regulated in many countries (EPPO, n.d.(b)).		
53	This species is considered to have been introduced into the Kingdom of the Netherlands, during <del>which time a breeding programme that involved importing a large amount of <i>Ulmus</i> sp. (elm) material (seeds</del> material, including seeds, cuttings and occasionally rooted <del>material) was imported</del> material. In 1992, rooted elm seedlings were sent to several other European countries (Heybroek, 1993). The nematode was reported from elm trees in Italy by Palmisano and Ambrogioni (2000) as a new species <i>Meloidogyne ulmi</i> , which was later synonymized to <i>M. mali</i> (Ahmed <i>et al.</i> , 2013). To date, in addition to Japan, <i>M. mali</i> has been reported locally in Europe, the Republic of Korea and the United States of America (EPPO, n.d.(b)). Based on a pest risk analysis, <i>M. mali</i> is regulated in many countries (EPPO, n.d.(b)).	P	Category : EDITORIAL (214) EPPO (17 Sep 2024 4:24 PM)
53	This species is considered to have been introduced into the Kingdom of the Netherlands, during which time a large amount of <i>Ulmus</i> sp. (elm) <del>material</del> propagation materials (seeds, cuttings and occasionally rooted material) was imported. In 1992, rooted elm seedlings were sent to several other European countries (Heybroek, 1993). The nematode was reported from elm trees in Italy by Palmisano and Ambrogioni (2000) as a new species <i>Meloidogyne ulmi</i> , which was later synonymized to <i>M. mali</i> (Ahmed <i>et al.</i> , 2013). To date, in addition to Japan, <i>M. mali</i> has been reported locally in Europe, the Republic of Korea and the United States of America (EPPO, n.d.(b)). Based on a pest risk analysis, <i>M. mali</i> is regulated in many countries (EPPO, n.d.(b)).	P	Category : EDITORIAL (105) New Zealand (11 Sep 2024 12:31 AM) to be more specific about type of material
53	This species is considered to have been introduced into the Kingdom of the Netherlands, during which time a large amount of <i>Ulmus</i> sp. (elm) material (seeds, cuttings and occasionally rooted material) was imported. In 1992, rooted elm seedlings were sent to several other European countries (Heybroek, 1993). The nematode was reported from elm trees in Italy by Palmisano and Ambrogioni (2000) as a new species <i>Meloidogyne ulmi</i> , which was later synonymized to <i>M. mali</i> (Ahmed <i>et al.</i> , 2013). To date, in addition to Japan, <i>M. mali</i> has been reported locally in Europe, the Republic of Korea and the United States of America (EPPO, n.d.(b)). Based on a pest risk analysis, <i>M. mali</i> is regulated in many	C	Category : SUBSTANTIVE (104) New Zealand (11 Sep 2024 12:31 AM) For this paragraph consider revising the geographical distribution where it is not directly relevant for diagnosis.

	countries (EPPO, n.d.(b)).		
53	This species is considered to have been introduced into the Kingdom of the Netherlands, during which time a large amount of <i>Ulmus sp.</i> (elm) material (seeds, cuttings and occasionally rooted material) was imported. In 1992, rooted elm seedlings were sent to several other European countries (Heybroek, 1993). The nematode was reported from elm trees in Italy by Palmisano and Ambrogioni (2000) as a new species <i>Meloidogyne ulmi</i> , which was later synonymized to <i>M. mali</i> (Ahmed <i>et al.</i> , 2013). To date, in addition to Japan, <i>M. mali</i> has been reported locally in Europe, the Republic of Korea and the United States of America (EPPO, n.d.(b)). Based on a pest risk analysis, <i>M. mali</i> is regulated in many countries (EPPO, n.d.(b)).	C	<i>Category : SUBSTANTIVE</i> <b>(88) Mexico (6 Sep 2024 12:20 AM)</b> Include reference: Eisenback et al, 2017.
53	This species is considered to have been introduced into the Kingdom of the Netherlands, during which time a large amount of <i>Ulmus sp.</i> (elm) material (seeds, cuttings and occasionally rooted material) was imported. In 1992, rooted elm seedlings were sent to several other European countries (Heybroek, 1993). The nematode was reported from elm trees in Italy by Palmisano and Ambrogioni (2000) as a new species <i>Meloidogyne ulmi</i> , which was later synonymized to <i>M. mali</i> (Ahmed <i>et al.</i> , 2013). To date, in addition to Japan, <i>M. mali</i> has been reported locally in Europe, the Republic of Korea and the United States of America (EPPO, n.d.(b)). Based on a pest risk analysis, <i>M. mali</i> is regulated in many countries (EPPO, n.d.(b)).	C	<i>Category : EDITORIAL</i> <b>(54) South Africa (20 Aug 2024 11:36 AM)</b> Proposal for addition of "from where the elm material was imported" and source information.
53	This species is considered to have been introduced into the Kingdom of the Netherlands, during which time a large amount of <i>Ulmus sp.</i> (elm) material (seeds, cuttings and occasionally rooted material) was imported. In 1992, rooted elm seedlings were sent to several other European countries (Heybroek, 1993). The nematode was reported from elm trees in Italy by Palmisano and Ambrogioni (2000) as a new species <i>Meloidogyne ulmi</i> , which was later synonymized to <i>M. mali</i> (Ahmed <i>et al.</i> , 2013). To date, in addition to Japan, <i>M. mali</i> has been reported locally in Europe, the Republic of Korea and the United States of America (EPPO, n.d.(b)). Based on a pest risk analysis, <i>M. mali</i> is regulated in many countries (EPPO, n.d.(b)).	C	<i>Category : EDITORIAL</i> <b>(53) South Africa (20 Aug 2024 11:35 AM)</b> Proposal for replacement of "time" with "a time period".
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2)-juveniles in those egg masses (J2) in takes	P	<i>Category : SUBSTANTIVE</i> <b>(373) Korea, Republic of (30 Sep 2024 6:34 AM)</b> Since second-stage juvenile is generally expressed as J2, it is suggested to express the whole thing as J2, and delete in those egg masses as it is redundant.

	approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).		
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations <del>in</del> <u>may develop during</u> the growing <del>season may develop</del> <u>season</u> , depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	P	Category : EDITORIAL <b>(360) China (29 Sep 2024 2:59 AM)</b>
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <del>Maluspumila</del> <u>Malus pumila</u> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) <del>juveniles in those egg masses</del> <u>juveniles</u> takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible ( <del>G. Karssen, personal communication, 2024</del> ). <del>It has also been suspected that M. mali overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known</del> (Ahmed <i>et al.</i> , 2013).	P	Category : TECHNICAL <b>(308) European Union (26 Sep 2024 12:41 AM)</b> The results of Ahmed et al 2013 and Karssen pers communication are the same: See Ahmed et al: 'Regarding this, a very interesting observation was made during early spring of 2013 at the trial field "Mierenbos". Egg-laying females were already found in most galls that were examined, a rare phenomenon known to occur only in <i>M. ardenensis</i> (Stephan and Trudgill 1982). The only plausible explanation to why egg-laying females can be observed so early in the year is that, like reported for <i>M. ardenensis</i> , the nematodes overwintered in the roots.'
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one	C	Category : TECHNICAL <b>(306) European Union (26 Sep 2024 12:29 AM)</b> This sentence is not very clear. Does it mean that the development from eggs to J2 juveniles takes place in the egg masses? Otherwise

	generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).		please delete "in those egg masses". additional comment: See also next comment, J1 is in the egg, J2 is motile outside the egg. Check the reference what juvenile stage is meant or, delete it.
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <del>Maluspumila</del> <i>Malus pumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	P	Category : TECHNICAL <b>(307) European Union (26 Sep 2024 12:34 AM)</b> J1 is in the egg, J2 is motile outside the egg. Please verify the reference on what juvenile stage is meant
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <del>Maluspumila</del> <i>Malus pumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	P	Category : TECHNICAL <b>(305) European Union (26 Sep 2024 12:25 AM)</b> Is <i>Malus domestica</i> not the preferred name? Also used in alinea 52
54	<del><i>M. Meloidogyne</i></del> <i>mali</i> has sedentary endoparasitic habits. Males are common, as	P	Category : EDITORIAL

	<i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage ( <del>J2</del> ) juveniles ( <del>J2s</del> ) in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).		<b>(136) Japan (17 Sep 2024 12:19 PM)</b>
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	C	<i>Category : TECHNICAL</i> <b>(218) EPPO (17 Sep 2024 4:24 PM)</b> Is <i>Malus domestica</i> not the preferred name? Also used in alinea 52
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at	C	<i>Category : TECHNICAL</i> <b>(217) EPPO (17 Sep 2024 4:24 PM)</b> This sentence is not very clear. Does it mean that the development from eggs to J2 juveniles takes place in the egg masses? Otherwise please delete "in those egg masses". additional comment: See also next comment, J1 is in the egg, J2 is motile outside the egg. Check the reference what juvenile stage is meant or as here and by NL suggested, delete it

	which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).		
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	C	Category : TECHNICAL <b>(216) EPPO (17 Sep 2024 4:24 PM)</b> J1 is in the egg, J2 is motile outside the egg. Please verify the reference on what juvenile stage is meant
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> <i>Malus pumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	P	Category : TECHNICAL <b>(215) EPPO (17 Sep 2024 4:24 PM)</b> The results of Ahmed et al 2013 and Karssen pers communication are the same: See Ahmed et al: 'Regarding this, a very interesting observation was made during early spring of 2013 at the trial field "Mierenbos". Egg-laying females were already found in most galls that were examined, a rare phenomenon known to occur only in <i>M. ardenensis</i> (Stephan and Trudgill 1982). The only plausible explanation to why egg-laying females can be observed so early in the year is that, like reported for <i>M. ardenensis</i> , the nematodes overwintered in the roots.'
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common in this species, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young	P	Category : EDITORIAL <b>(106) New Zealand (11 Sep 2024 12:36 AM)</b> to clarify that in this species males are common compared with other nematode species. development is from an egg not from an egg mass

	females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the <del>roots</del> <u>root galls</u> of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).		
54	<del><i>M. mali</i> has sedentary endoparasitic habits. Males are common, as</del> (Janssen <i>et al.</i> , 2017). <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	P	Category : SUBSTANTIVE <b>(55) South Africa (20 Aug 2024 11:38 AM)</b> Proposal for deletion of “has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode” because it was mentioned in the first paragraph.
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Maluspumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations <del>in</del> <u>during</u> the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	P	Category : EDITORIAL <b>(34) China (16 Aug 2024 1:44 AM)</b>
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <del><i>Maluspumila</i></del> <u><i>Malus pumila</i></u> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also	P	Category : EDITORIAL <b>(13) Colombia (15 Aug 2024 5:42 PM)</b> Suggested to review the spelling of “ <i>Maluspumila</i> ” and check the italics for scientific names.

	reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).		
54	<i>M. mali</i> has sedentary endoparasitic habits. Males are common, as <i>M. mali</i> is a sexually reproducing nematode (Janssen <i>et al.</i> , 2017). In Japan, the life cycle of <i>M. mali</i> on <i>Malus pumila</i> has been observed to last 18–22 weeks, with one generation per year (Sakurai <i>et al.</i> , 1973; Inagaki, 1978). The development from egg masses to second-stage (J2) juveniles in those egg masses takes approximately two weeks. Further generations in the growing season may develop, depending on the temperature and the presence of perennial host plants; this is also reported for the related species <i>M. ardenensis</i> . Egg-laying females of <i>M. mali</i> (and <i>M. ardenensis</i> ) have been observed in the Kingdom of the Netherlands in early March, which may indicate that overwintering of young females is possible (G. Karssen, personal communication, 2024). It has also been suspected that <i>M. mali</i> overwinters within the roots of infested plants, although the developmental stage at which this occurs is not yet known (Ahmed <i>et al.</i> , 2013).	C	Category : EDITORIAL <b>(33) CA (15 Aug 2024 11:44 PM)</b> hjkhkjhklhh COMENTARIO
55	<i>M. mali</i> shares geographical areas and hosts with <del>five-four other</del> species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in <del>Japan and Thailand</del> Japan (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <del>and</del> <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmasso and Trudgill, 1993; Subbotin, Palomares-Rius and Castillo, 2021)) <del>and</del> <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	P	Category : TECHNICAL <b>(289) Japan (24 Sep 2024 11:23 AM)</b> Meloidogyne vitis is not distributed in Japan, so the description "M. vitis in Japan (on Vitis vinifera (Yang et al., 2021)) " is incorrect. Meloidogyne mali is not distributed in Thailand.
55	<i>M. mali</i> shares geographical <del>areas-distribution</del> and hosts with five species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmasso and Trudgill, 1993; Subbotin, Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	P	Category : EDITORIAL <b>(309) European Union (26 Sep 2024 12:44 AM)</b>

55	<i>M. mali</i> shares geographical areas and hosts with five species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; <del>Brown, Dalmasso and Trudgill, 1993;</del> Subbotin, Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	P	Category : TECHNICAL (291) Japan (24 Sep 2024 11:29 AM) Brown, Dalmasso and Trudgill, 1993 does not provide any information on the distribution of <i>M. suginamiensis</i> in Japan.
55	<del><i>M. Meloidogyne mali</i></del> shares geographical areas and hosts with five species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> ( <del>Subbotin, (Subbotin et al</del> Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> ( <del>Subbotin, (Subbotin et al</del> Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmasso and Trudgill, 1993; <del>Subbotin, Subbotin et al</del> Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	P	Category : EDITORIAL (290) Japan (24 Sep 2024 11:24 AM)
55	<i>M. mali</i> shares geographical <del>areas-distribution</del> and hosts with five species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmasso and Trudgill, 1993; Subbotin, Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	P	Category : EDITORIAL (219) EPPO (17 Sep 2024 4:24 PM)
55	<i>M. mali</i> shares geographical areas and hosts with five <del>other</del> species of <i>Meloidogyne</i> for which it could be confused <del>based</del> on <del>the basis of</del> its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmasso and Trudgill, 1993; Subbotin, Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	P	Category : EDITORIAL (107) New Zealand (11 Sep 2024 12:38 AM) Clarify that there are five species in additional to the species in this diagnostic standard
55	<i>M. mali</i> shares geographical areas and hosts with five species of <i>Meloidogyne</i> for	C	Category : SUBSTANTIVE (57) South Africa (20 Aug 2024 11:40 AM)

	which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmaso and Trudgill, 1993; Subbotin, Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).		Proposal that an authority name and year be stated since mentioning for the first time if necessary.
55	<i>M. mali</i> shares geographical areas and hosts with five species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmaso and Trudgill, 1993; Subbotin, Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	C	Category : SUBSTANTIVE <b>(56) South Africa (20 Aug 2024 11:39 AM)</b> Proposal that an authority name and year be stated since mentioning for the first time if necessary.
55	<i>M. mali</i> shares geographical areas and hosts with five species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in <del>Japan and Thailand</del> Japan (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmaso and Trudgill, 1993; Subbotin, Palomares-Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).	P	Category : SUBSTANTIVE <b>(50) Thailand (19 Aug 2024 3:35 AM)</b> Thailand is of the view that we are very concerned in the text specifying the occurrence of <i>M. camelliae</i> in Thailand. This is because <i>M. camelliae</i> is notified as quarantine pest in our country and the referenced document (Subbotin, Palomares-Rius and Castillo, 2021) has no scientific information to confirm the presence of this pest in Thailand. So, we would like to delete "and Thailand" from this paragraph and we do appreciate if TPDP can provide more scientific evidence to support the original text. Please see our notification at the link below (page 12 Sub-clause no.308). <a href="https://www.doa.go.th/ard/wp-content/uploads/2019/10/G_SPS_N_THA_151_ENG-no6.pdf">https://www.doa.go.th/ard/wp-content/uploads/2019/10/G_SPS_N_THA_151_ENG-no6.pdf</a>
55	<del><i>M. mali</i> shares geographical areas is widely distributed in Japan and hosts with five species has also been reported in Europe, the Republic of Korea, and the United States is limited, but its potential for spread remains a concern.</del> <i>M. mali</i> shares geographical areas and hosts with five species of <i>Meloidogyne</i> for which it could be confused on the basis of its morphology: <i>M. ardenensis</i> in Europe (on <i>Quercus robur</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. camelliae</i> in Japan and Thailand (on <i>Solanum lycopersicum</i> (Subbotin, Palomares-Rius and Castillo, 2021)), <i>M. paramali</i> in Japan (on <i>Acer palmatum</i> (Gu <i>et al.</i> , 2023)), <i>M. suginamiensis</i> in Japan (on <i>Acer</i> sp., <i>Morus</i> sp., <i>Prunus</i> sp., <i>Ulmus</i> sp. (Toida and Yaegashi, 1984; Brown, Dalmaso and Trudgill, 1993; Subbotin, Palomares-	P	Category : EDITORIAL <b>(14) Colombia (15 Aug 2024 5:44 PM)</b> Suggest rephrasing for clarity.

	Rius and Castillo, 2021)) and <i>M. vitis</i> in Japan (on <i>Vitis vinifera</i> (Yang <i>et al.</i> , 2021)).		
59	<b>Taxonomic position:</b> Nematoda, <del>Tylenchida</del> <u>Rhabditida</u> Chitwood (1933), <u>Meloidogynidae</u> Tylenchina Thorne (1949), <u>Tylenchomorpha</u> De Ley & Blaxter (2002), <u>Tylenchoidea</u> Örley (1880), <u>Hoplolaimidae</u> (Filipjev (1934), <u>Meloidogyninae</u> Skarbilovich 1959	P	Category : EDITORIAL <b>(74) United States of America (27 Aug 2024 4:12 PM)</b>
63	<i>M. mali</i> induces galls up to 0.5 cm in diameter on young roots (Figure 1); however, on older <del>roots-roots</del> , these galls become larger (1–2 cm in diameter; Figure 2). These large galls are typical for <i>M. mali</i> (see also the original description of <i>M. mali</i> in Itoh, Ohshima and Ichinohe (1969) and Palmisano and Ambrogioni (2000)).	P	Category : EDITORIAL <b>(273) Kuwait (24 Sep 2024 7:33 AM)</b>
63	<del><i>M. Meloidogyne</i></del> <i>mali</i> induces galls up to 0.5 cm in diameter on young roots (Figure 1); however, on older roots these galls become larger (1–2 cm in diameter; Figure 2). These large galls are typical for <i>M. mali</i> (see also the original description of <i>M. mali</i> in Itoh, Ohshima and Ichinohe (1969) and Palmisano and Ambrogioni (2000)).	P	Category : EDITORIAL <b>(138) Japan (17 Sep 2024 12:28 PM)</b>
64	Above-ground symptoms in trees are only visible when the trees become heavily infested. Then, they will show <u>yellowing</u> , early leaf fall and reduced growth. <del>In the Kingdom</del> <u>Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2).</u> <u>In the Netherlands</u> , several cases have been reported of heavily infested elms being uprooted during (or following) storms (EPPO, 2017, 2018).	P	Category : EDITORIAL <b>(312) European Union (26 Sep 2024 11:29 AM)</b> First sentence of paragraph 67 (in section 3.2 (Extraction)), which rather belongs to section 3.1 (Hosts and symptoms).
64	Above-ground symptoms in trees are only visible when the trees become heavily infested. Then, they will show <u>yellowing</u> , early leaf fall and reduced growth. <del>In the Kingdom</del> <u>Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2).</u> <u>In the Netherlands</u> , several cases have been reported of heavily infested elms being uprooted during (or following) storms (EPPO, 2017, 2018).	P	Category : EDITORIAL <b>(220) EPPO (17 Sep 2024 4:24 PM)</b> First sentence of paragraph 67 (in section 3.2 (Extraction)), which rather belongs to section 3.1 (Hosts and symptoms).
64	<del>Above-ground</del> <del>Asymptoms in trees are only visible when the trees become heavily infested</del> . Then, they will show early leaf fall and reduced growth. In the Kingdom of the Netherlands, several cases have been reported of heavily infested elms being uprooted during (or following) storms (EPPO, 2017, 2018).	P	Category : SUBSTANTIVE <b>(58) South Africa (20 Aug 2024 11:42 AM)</b> Proposal for deletion of "Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2)."
64	<del>Above-ground</del> <u>The above-ground</u> symptoms in trees are only visible when the trees become heavily infested. Then, they will show early leaf fall and reduced growth. In the Kingdom of the Netherlands, several cases have been reported of heavily infested elms being uprooted during (or following) storms (EPPO, 2017, 2018).	P	Category : SUBSTANTIVE <b>(2) Lesotho (8 Aug 2024 11:54 AM)</b> Affected trees will exhibit early leaf fall and reduced growth. In the Netherlands, there have been several reported cases of heavily infested elms being uprooted during or after storms (EPPO, 2017, 2018).
65	The principal hosts of <i>M. mali</i> are <i>Malus</i> spp. <del>(ornamental</del> <u>(<i>Malus domestica</i> and</u>	P	Category : TECHNICAL

	<a href="#">ornamental</a> apple species), <i>Ulmus</i> spp. (elms) and <i>Morus</i> spp. (mulberry). It has also been recorded parasitizing a wide range of other plants, including trees, shrubs and herbaceous plants, such as <i>Acer</i> spp. <a href="#">palmatum</a> . (Japanese maple), <i>Apium graveolens</i> (celery), <i>Arctium lappa</i> (greater burdock), <i>Castanea crenata</i> (Japanese chestnut), <i>Cucumis sativus</i> (cucumber) and <i>Euonymus fortunei</i> (wintercreeper) and <i>Lagerstroemia indica</i> (Indian crape myrtle) (EPPO, 2017, n.d.(b)).		<b>(313) European Union (26 Sep 2024 11:34 AM)</b> 1) See paragraph 52.  2) More precise (see the EPPO PRA, 2017).  Additional comment: If Japanese maple is in brackets as common name then it's also better to specify the <i>Acer</i> species, or another option is <i>Acer</i> spp (e.g. Japanese maple) as several more <i>Acer</i> 's are hosts
65	The principal hosts of <i>M. mali</i> are <i>Malus</i> spp. ( <del>ornamental</del> ( <i>Malus domestica</i> and <a href="#">ornamental</a> apple species), <i>Ulmus</i> spp. (elms) and <i>Morus</i> spp. (mulberry). It has also been recorded parasitizing a wide range of other plants, including trees, shrubs and herbaceous plants, such as <i>Acer</i> <a href="#">palmatum</a> spp. (Japanese maple), <i>Apium graveolens</i> (celery), <i>Arctium lappa</i> (greater burdock), <i>Castanea crenata</i> (Japanese chestnut), <i>Cucumis sativus</i> (cucumber) and <i>Euonymus fortunei</i> (wintercreeper) and <i>Lagerstroemia indica</i> (Indian crape myrtle) (EPPO, 2017, n.d.(b)).	P	<b>Category : TECHNICAL</b> <b>(221) EPPO (17 Sep 2024 4:24 PM)</b> 1) See paragraph 52.  2) More precise (see the EPPO PRA, 2017).  Additional comment: If Japanese maple is in brackets as common name then it's also better to specify the <i>Acer</i> species, or another option is <i>Acer</i> spp (e.g. Japanese maple) as several more <i>Acer</i> 's are hosts
65	The principal hosts of <i>M. mali</i> are <i>Malus</i> spp. (ornamental apple species), <i>Ulmus</i> spp. (elms) and <i>Morus</i> spp. (mulberry). It has also been recorded parasitizing a wide range of other plants, including trees, shrubs and herbaceous plants, such as <i>Acer</i> spp. (Japanese maple), <i>Apium graveolens</i> (celery), <i>Arctium lappa</i> (greater burdock), <i>Castanea crenata</i> (Japanese chestnut), <i>Cucumis sativus</i> ( <del>cucumber</del> ) and <a href="#">(cucumber)</a> , <i>Euonymus fortunei</i> (wintercreeper) and <i>Lagerstroemia indica</i> (Indian crape myrtle) (EPPO, 2017, n.d.(b)).	P	<b>Category : EDITORIAL</b> <b>(139) Japan (17 Sep 2024 12:29 PM)</b>
65	The principal hosts of <i>M. mali</i> are <i>Malus</i> spp. (ornamental apple species), <i>Ulmus</i> spp. (elms) and <i>Morus</i> spp. (mulberry). It has also been recorded parasitizing <a href="#">on</a> a wide range of other plants, including trees, shrubs and herbaceous plants, such as <i>Acer</i> spp. (Japanese maple), <i>Apium graveolens</i> (celery), <i>Arctium lappa</i> (greater burdock), <i>Castanea crenata</i> (Japanese chestnut), <i>Cucumis sativus</i> (cucumber) and <i>Euonymus fortunei</i> (wintercreeper) and <i>Lagerstroemia indica</i> (Indian crape myrtle) (EPPO, 2017, n.d.(b)).	P	<b>Category : EDITORIAL</b> <b>(108) New Zealand (11 Sep 2024 12:40 AM)</b>
66	<b>3.2 Extraction</b>	C	<b>Category : TECHNICAL</b> <b>(59) South Africa (20 Aug 2024 11:44 AM)</b> The sieving and sugar centrifugation method can also be used for extraction from soil (Marais et al., 2017).
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered),	P	<b>Category : SUBSTANTIVE</b> <b>(361) China (29 Sep 2024 3:01 AM)</b> Mature or immature swollen females, males and J2 second juveniles (J2) are not always present in the galls at the same time. And the males and J2 are not always present in plant issues or soil at the same time.

	<p>soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females <del>can</del><u>may</u> be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles <del>can</del><u>may</u> be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).</p>	
67	<p><del>Above ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).</del><u>Soil sample sizes depend on what is sampled and the accuracy that is preferred. Often the laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all types of samples a modified Baermann funnel method (e.g. a Whitehead tray) can be used for nematode extraction (EPPO, 2013). Root galls, if present,</u></p>	<p>P <i>Category : TECHNICAL</i>  <b>(314) European Union (26 Sep 2024 11:44 AM)</b>  1) "types" in plural.  2) Unecessary comma.</p> <p>In EPPO 2013 also mentioned that efficacy of Bearmann funnel method is less compared to other methods.  Better not make a remark on this? Could other extraction methods be cited refering to their efficacy?</p> <p>Regarding the sentence: "These galls may have associated egg masses" : Egg masses are associated with the swollen females in the galls, not with the galls itself. Therefore it is suggested to be omitted. Suggestion to move this sentence to section 3.1 (Hosts and symptoms) where it belongs. Please see the associated comment on paragraph 64.</p> <p>What is the reference for the described soil sample size? Although this is not described in EPPO 2013, it is supported her to give an indication of the sample size in this DP.</p> <p>Although we think more host plants should be used, our suggestion: minimum of 5 host plants.</p>

	<p><a href="#">can be analysed using a dissecting microscope. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution (preferably on ice) in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).</a></p>		
67	<p>Above-ground symptoms of heavily infested plants include stunting and yellowing, while <del>below-ground</del> <u>below-ground</u> typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all <del>type-types</del> of samples, a modified Baermann funnel method (e.g. a Whitehead <del>tray</del> <u>tray</u>) can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine <del>paint-brush</del> <u>paintbrush</u> to a 0.9% NaCl solution <del>in-order</del> to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).</p>	P	<p>Category : EDITORIAL (274) Kuwait (24 Sep 2024 7:37 AM)</p>
67	<p>Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and <del>J2 juveniles-J2s</del> recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and <del>J2 juveniles-J2s</del> can be obtained. Mature females can be isolated from the roots by</p>	P	<p>Category : EDITORIAL (140) Japan (17 Sep 2024 12:31 PM)</p>

	dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and <del>third- (J3)-third-stage juveniles (J3s)</del> and <del>fourth- (J4)-stage juveniles- fourth-stage juveniles (J4s)</del> ) and eggs (Araya <del>and Caswell-Chenet al.</del> , 1993). Males and <del>J2 juveniles-J2s</del> can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
67	<p><u>Soil sample sizes depend on what is sampled and the accuracy that is preferred. Often the laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all types of samples a modified Baermann funnel method (e.g. a Whitehead tray) can be used for nematode extraction (EPPO, 2013). Root galls, if present, can be analysed using a dissecting microscope. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution (preferably on ice) in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)). Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated</u></p>	P	<p><i>Category : TECHNICAL</i>  <b>(222) EPPO (17 Sep 2024 4:24 PM)</b>  1) "types" in plural.  2) Unecessary comma.</p> <p>In EPPO 2013 also mentioned that efficacy of Bearmann funnel method is less compared to other methods.  Better not make a remark on this? Could other extraction methods be cited refering to their efficacy?</p> <p>Regarding the sentence: "These galls may have associated egg masses" : Egg masses are associated with the swollen females in the galls, not with the galls itself. Therefore it is suggested to be omitted.  Suggestion to move this sentence to section 3.1 (Hosts and symptoms) where it belongs. Please see the associated comment on paragraph 64.</p> <p>What is the reference for the described soil sample size? Although this is not described in EPPO 2013, it is supported her to give an indication of the sample size in this DP.</p> <p>Although we think more host plants should be used, our suggestion: minimum of 5 host plants.</p>

	from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated <u>with</u> egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be <u>obtainedfound</u> . Mature females can be isolated from the roots by dissecting the root <u>gall</u> tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush <u>into</u> a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be <u>obtained-extracted</u> from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).	P	Category : EDITORIAL <b>(111) New Zealand (11 Sep 2024 12:47 AM)</b>
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen	C	Category : TECHNICAL <b>(110) New Zealand (11 Sep 2024 12:42 AM)</b> To improve readability suggest creating a separate section for 'sampling'

	females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).	C	<p>Category : <i>TECHNICAL</i></p> <p><b>(109) New Zealand (11 Sep 2024 12:41 AM)</b></p> <p>This sentence fits better under 3.1 hosts and symptoms</p>
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If	P	<p>Category : <i>EDITORIAL</i></p> <p><b>(75) United States of America (27 Aug 2024 4:16 PM)</b></p> <p>Beeter wording</p>

	galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution <del>in order</del> to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
67	Above-ground symptoms of heavily infested plants include <del>stunting-stunting</del> , <del>yellowing</del> and <del>yellowingdeath</del> , while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).	P	Category : <i>SUBSTANTIVE</i> <b>(72) Guinea-Bissau (20 Aug 2024 6:30 PM)</b>
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of <del>plant parasitic nematodes</del> nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root	P	Category : <i>TECHNICAL</i> <b>(60) South Africa (20 Aug 2024 11:45 AM)</b> Proposal to add "plant-parasitic".

	galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles <del>can</del> <u>may</u> be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).	P	<p>Category : <i>SUBSTANTIVE</i></p> <p><b>(37) China (16 Aug 2024 1:47 AM)</b></p> <p>And the males and J2 are not always present in plant issues or soil at the same time.</p>
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be	P	<p>Category : <i>SUBSTANTIVE</i></p> <p><b>(36) China (16 Aug 2024 1:46 AM)</b></p> <p>Mature or unmature swollen females, males and J2 second juveniles (J2) are not always present in the galls at the same time.</p>

	used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females <del>can</del> <u>may</u> be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
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67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil ( <del>ggggggg</del> <u>Sampling should be done using soil traps and root sampling</u> ) or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered),	P	<i>Category : TECHNICAL</i> <b>(32) CA (15 Aug 2024 11:38 PM)</b> Cambio revisado por Colombia en 15 ago. 2024 18:49

	<p>soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). <u>Soil samples collected from the rhizosphere of infested plants should be processed using detailed nematode extraction methods such as the Baermann funnel technique, which utilizes a funnel filled with water to extract nematodes from the soil, or centrifugal flotation, where samples are mixed with a flotation solution and centrifuged to separate nematodes.</u> Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).</p>		
67	<p>Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil (<u>ld be done using uuuuuuuuuu and root sampling</u>) or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). <u>Soil samples collected from the rhizosphere of infested plants should be processed using detailed nematode extraction methods such as the Baermann funnel technique, which utilizes a funnel filled with water to extract nematodes from the soil, or centrifugal flotation, where samples are mixed with a flotation solution and centrifuged to separate nematodes.</u> Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap</p>	P	<p>Category : <i>EDITORIAL</i>  <b>(30) CA (15 Aug 2024 11:34 PM)</b>  Cambio revisado por Colombia en 15 ago. 2024 18:49</p>

	water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil ( <u>Sampling should be done using soil traps and root sampling</u> ) or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). <u>Soil samples collected from the rhizosphere of infested plants should be processed using detailed nematode extraction methods such as the Baermann funnel technique, which utilizes a funnel filled with water to extract nematodes from the soil, or centrifugal flotation, where samples are mixed with a flotation solution and centrifuged to separate nematodes.</u> Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).	P	<p><i>Category : TECHNICAL</i>  <b>(17) Colombia (15 Aug 2024 6:49 PM)</b>  It is suggested to detail the recommended sampling methods.</p> <p>Provide more detailed methods for nematode extraction to enhance replicability.</p>
67	Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g., a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed	P	<p><i>Category : EDITORIAL</i>  <b>(15) Colombia (15 Aug 2024 5:46 PM)</b>  Correct punctuation for better readability.</p>

	using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).		
67	<del>The above-ground</del> Above-ground symptoms of heavily infested plants include stunting and yellowing, while below ground typical root galls are found (Figure 1 and Figure 2). Laboratory analysis is performed from a sample of 0.5–1 kg soil or growing media mixed with the roots from 3–5 host plants. To detect the presence of nematodes, it is necessary to extract nematodes from roots (all life stages possibly recovered), soil or growing media (only motile males and J2 juveniles recovered). For all type of samples a modified Baermann funnel method (e.g. a Whitehead tray), can be used for nematode extraction (EPPO, 2013). Root galls, if present, are analysed using a dissecting microscope. These galls may have associated egg masses. If galls with egg masses are observed, mature swollen females, males and J2 juveniles can be obtained. Mature females can be isolated from the roots by dissecting the root tissue under a dissecting microscope with transmitted light. They should be transferred using a pipette, fine forceps (or tweezers) or a fine paint brush to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water. Alternatively, enzymatic digestion of roots with cellulase and pectinase can be used for the recovery of sedentary stages (females and third- (J3) and fourth- (J4) stage juveniles) and eggs (Araya and Caswell-Chen, 1993). Males and J2 juveniles can be obtained from plant tissues or soil by suitable extraction techniques (see, for example, EPPO (2013)).	P	Category : EDITORIAL <b>(3) Lesotho (8 Aug 2024 11:58 AM)</b> The fifth like should read as For all type(s)
68	<del>Specimens suspected of belonging to the genus <i>Meloidogyne</i> may be distinguished based on their morphology. Second stage juveniles of <i>M. mali</i> (and other <i>Meloidogyne</i> spp.) are relatively small in length and differ from other plant-parasitic nematodes by having a delicate stylet with distinct basal knobs, the lip region being slightly set off from the body, and the metacarpus and plates being relatively large, distinct and oval shaped. The tail is typically conoid and slim, with a prominent hyaline region. The body of adult males is vermiform and much longer</del>	P	Category : EDITORIAL <b>(316) European Union (26 Sep 2024 11:48 AM)</b> Suggestion to move this paragraph to section 4 (Identification) where it belongs.

	than the J2 juveniles, with a sclerotized cephalic framework set off from the body, a large and distinct stylet and a pair of spicules near to the terminus.		
68	<del>Specimens suspected of belonging to the genus <i>Meloidogyne</i> may be distinguished based on their morphology. Second-stage juveniles of <i>M. mali</i> (and other <i>Meloidogyne</i> spp.) are relatively small in length and differ from other plant-parasitic nematodes by having a delicate stylet with distinct basal knobs, the lip region being slightly set off from the body, and the metacarpus and plates being relatively large, distinct and oval-shaped. The tail is typically conoid and slim, with a prominent hyaline region. The body of adult males is vermiform and much longer than the J2 juveniles, with a sclerotized cephalic framework set off from the body, a large and distinct stylet and a pair of spicules near to the terminus.</del>	P	Category : EDITORIAL <b>(223) EPPO (17 Sep 2024 4:24 PM)</b> Suggestion to move this paragraph to section 4 (Identification) where it belongs.
68	Specimens suspected of belonging to the genus <i>Meloidogyne</i> may be distinguished based on their morphology. Second-stage juveniles of <i>M. mali</i> (and other <i>Meloidogyne</i> spp.) are relatively small in length and differ from other plant-parasitic nematodes by having a delicate stylet with distinct basal knobs, the lip region being slightly set off from the body, and the metacarpus and plates being relatively large, distinct and oval-shaped. The tail is typically conoid and slim, with a prominent hyaline region. The body of adult males is vermiform and much longer than the <del>J2 juveniles</del> <u>J2s</u> , with a sclerotized cephalic framework set off from the body, a large and distinct stylet and a pair of spicules near to the terminus.	P	Category : EDITORIAL <b>(141) Japan (17 Sep 2024 12:33 PM)</b>
68	Specimens suspected of belonging to the genus <i>Meloidogyne</i> may be distinguished based on their morphology. Second-stage juveniles of <i>M. mali</i> (and other <i>Meloidogyne</i> spp.) are relatively small in length and differ from other plant-parasitic nematodes by having a delicate stylet with distinct basal knobs, the lip region being slightly set off from the body, and the metacarpus and plates being relatively large, distinct and oval-shaped. The tail is typically conoid and slim, with a prominent hyaline region. The body of adult males is vermiform and much longer than the J2 juveniles, with a sclerotized cephalic framework set off from the body, a large and distinct stylet and a pair of spicules near to the terminus.	C	Category : SUBSTANTIVE <b>(112) New Zealand (11 Sep 2024 12:51 AM)</b> suggest moving this para to section 4 'Identification' for better flow of text
68	Specimens suspected of belonging to the genus <i>Meloidogyne</i> may be distinguished based on their morphology. Second-stage juveniles of <i>M. mali</i> (and other <i>Meloidogyne</i> spp.) are relatively small in length and differ from other plant-parasitic nematodes by having a delicate stylet with distinct basal knobs, the lip region being slightly set off from the body, and the metacarpus and plates being relatively large, distinct and oval-shaped. The tail is typically conoid and slim, with a prominent hyaline region. The body of adult males is vermiform and much longer than the J2 juveniles, with a sclerotized cephalic framework set off from the body,	C	Category : EDITORIAL <b>(4) Lesotho (8 Aug 2024 12:00 PM)</b> Even the last line a pair of spicules near the terminus not to

	a large and distinct stylet and a pair of spicules near to the terminus.		
70	<i>M. mali</i> can be identified solely based on morphology; however, a combination of morphological, biochemical and molecular methods <b>would</b> further support diagnosis.	C	<p><b>Category : SUBSTANTIVE</b>  <b>(318) European Union (26 Sep 2024 11:56 AM)</b>  The use of "would" in this paragraph 70 is not consistent with the "should" used in the last sentence of paragraph 82.</p> <p>The wording from the EPPO standard is "As the morphological characters of <i>M. mali</i> are similar to those of other <i>Meloidogyne</i> species, identification to species level should be based on a combination of morphological/morphometric characters and isozyme electrophoresis or sequencing/DNA barcoding."</p> <p>As the EPPO "should" was modified to "would", it seems that the intention of the draft IPPC DP is a recommendation rather than an obligation. In this case, perhaps "would" could be replaced with "is recommended to". Otherwise "should" should be used in paragraph 70 as in paragraph 82.</p> <p>Please see the associated comment on paragraph 82.</p>
70	<p><u>Specimens suspected of belonging to the genus <i>Meloidogyne</i> may be distinguished based on their morphology. Second-stage juveniles of <i>M. mali</i> (and other <i>Meloidogyne</i> spp.) are relatively small in length and differ from other plant-parasitic nematodes by having a delicate stylet with distinct basal knobs, the lip region being slightly set off from the body, and the metacarpus and plates being relatively large, distinct and oval-shaped. The tail is typically conoid, with a prominent hyaline region. The body of adult males is vermiform and much longer than the J2 juveniles, with a sclerotized cephalic framework set off from the body, a large and distinct stylet and a pair of spicules near to the terminus.</u></p> <p><i>M. mali</i> can be identified solely based on morphology; however, a combination of morphological, biochemical and molecular methods would further support diagnosis.</p>	P	<p><b>Category : TECHNICAL</b>  <b>(317) European Union (26 Sep 2024 11:54 AM)</b>  Suggestion to move this paragraph to section 4 (Identification) where it belongs.</p> <p>Please define the term "relatively small" by providing a range</p> <p>Slim is not common terminology in Nematology, We suggest to leave it out of the text.</p> <p>The sentence on stylet ... oval-shaped, can refer to many plant parasitic nematodes, which all share these characteristics. It is not a real characteristic difference.</p>
70	<del><i>M. mali</i> can be identified solely based on morphology; however, it is very difficult to identify <i>M. mali</i> solely based on morphological methods; A combination of morphological, biochemical morphological methods and biochemical or molecular biology methods is required for identification to species level. would further support diagnosis.</del>	P	<p><b>Category : TECHNICAL</b>  <b>(270) Japan (18 Sep 2024 8:14 AM)</b>  It is difficult to accurately identify root-knot nematode species, including <i>M. mali</i>, based on morphological characteristics alone. If there are any literature or information on simple molecular biology methods that do not require sequencing, such information should be added here.</p>
70	<u>Specimens suspected of belonging to the genus <i>Meloidogyne</i> may be distinguished based on their morphology. Second-stage juveniles of <i>M. mali</i> (and other <i>Meloidogyne</i> spp.) are relatively small in length and differ from other plant-parasitic nematodes by having a delicate stylet with distinct basal knobs, the lip region being slightly set off from the body, and the metacarpus and plates being relatively large, distinct and oval-shaped. The tail is typically conoid, with a</u>	P	<p><b>Category : TECHNICAL</b>  <b>(225) EPPO (17 Sep 2024 4:24 PM)</b>  Suggestion to move this paragraph to section 4 (Identification) where it belongs.</p> <p>Please define the term "relatively small" by providing a range</p> <p>Slim is not common terminology in Nematology, I suggest to leave it out of the text.</p> <p>The sentence on stylet ... oval-shaped, can refer to many plant</p>

	<p><u>prominent hyaline region. The body of adult males is vermiform and much longer than the J2 juveniles, with a sclerotized cephalic framework set off from the body, a large and distinct stylet and a pair of spicules near to the terminus.</u></p> <p><i>M. mali</i> can be identified solely based on morphology; however, a combination of morphological, biochemical and molecular methods would further support diagnosis.</p>		<p>parasitic nematodes, which all share these characteristics. It is not a real characteristic difference.</p>
70	<p><i>M. mali</i> can be identified solely based on morphology; however, a combination of morphological, biochemical and molecular methods <b>would</b> further support diagnosis.</p>	C	<p><b>Category : SUBSTANTIVE</b>  <b>(224) EPPO (17 Sep 2024 4:24 PM)</b>  The use of "would" in this paragraph 70 is not consistent with the "should" used in the last sentence of paragraph 82.</p> <p>The wording from the EPPO standard is "As the morphological characters of <i>M. mali</i> are similar to those of other <i>Meloidogyne</i> species, identification to species level should be based on a combination of morphological/morphometric characters and isozyme electrophoresis or sequencing/DNA barcoding."</p> <p>As the EPPO "should" was modified to "would", it seems that the intention of the draft IPPC DP is a recommendation rather than an obligation. In this case, perhaps "would" could be replaced with "is recommended to". Otherwise "should" should be used in paragraph 70 as in paragraph 82.</p> <p>Please see the associated comment on paragraph 82.</p>
70	<p><b><i>M. mali</i> can be identified solely based on morphology</b>; however, a combination of morphological, biochemical and molecular methods would further support diagnosis.</p>	C	<p><b>Category : TECHNICAL</b>  <b>(113) New Zealand (11 Sep 2024 12:52 AM)</b>  Suggest adding a reference for morphological description.</p>
70	<p><u>Morphological identification should be based on detailed characteristics of the perineal pattern of adult females, including the shape and structure of the cuticle, and the morphology of second-stage juveniles (J2s), with specific attention to the stylet length, tail shape, and hyaline tail terminus.</u></p> <p><i>M. mali</i> can be identified solely based on morphology; however, a combination of morphological, biochemical and molecular methods would further support diagnosis.</p>	P	<p><b>Category : TECHNICAL</b>  <b>(18) Colombia (15 Aug 2024 6:51 PM)</b>  Clarify morphological identification details to ensure precise identification.</p>
71	<p><b>4.1 1. Preparation of material</b></p>	P	<p><b>Category : EDITORIAL</b>  <b>(76) United States of America (27 Aug 2024 4:17 PM)</b>  formatting</p>
72	<p>As with other species of plant-parasitic nematodes, morphological observation should be carried out on as many adult and juvenile specimens as possible, with a recommended minimum of at least <del>one female and ten-five</del> J2 juveniles to confirm</p>	P	<p><b>Category : TECHNICAL</b>  <b>(38) China (16 Aug 2024 1:49 AM)</b>  It's very hard to get enough individuals sometimes, much harder to get the females in many samples. It is recommended to change to "five J2</p>

	diagnosis. There are numerous published methods for fixing and processing nematode specimens for study, summarized in Manzanilla-López and Marbán-Mendoza (2012). Processing of nematodes in anhydrous glycerol is recommended, as important taxonomic features can be obscured if specimens are not cleared sufficiently.		juveniles". For only morphological diagnosis, one female and ten J2 without typical characteristics may not give enough information, While two or three J2 with typical characteristics may be enough to confirm diagnosis.
72	As with other species of plant-parasitic nematodes, morphological observation should be carried out on as many adult and juvenile specimens as possible, with a recommended minimum of at least <del>one female and ten five</del> J2 juveniles to confirm diagnosis. There are numerous published methods for fixing and processing nematode specimens for study, summarized in Manzanilla-López and Marbán-Mendoza (2012). Processing of nematodes in anhydrous glycerol is recommended, as important taxonomic features can be obscured if specimens are not cleared sufficiently.	P	<i>Category : TECHNICAL</i> <b>(362) China (29 Sep 2024 3:02 AM)</b> It's very hard to get enough individuals sometimes, much harder to get the females in many samples. It is recommended to change to "five J2 juveniles".
72	As with other species of plant-parasitic nematodes, morphological observation should be carried out on as many adult and juvenile specimens as possible, with a recommended minimum of at least one female and ten J2 juveniles to confirm <u>a</u> diagnosis. There are numerous published methods for fixing and processing nematode specimens for study, summarized in Manzanilla-López and Marbán-Mendoza (2012). Processing of nematodes in anhydrous glycerol is recommended, as important taxonomic features can be obscured if specimens are not cleared sufficiently.	P	<i>Category : EDITORIAL</i> <b>(275) Kuwait (24 Sep 2024 7:37 AM)</b>
72	As with other species of plant-parasitic nematodes, morphological observation should be carried out on as many adult and juvenile specimens as possible, with a recommended minimum of at least one female and ten <del>J2 juveniles J2s</del> to confirm diagnosis. There are numerous published methods for fixing and processing nematode specimens for study, summarized in Manzanilla-López <del>and Marbán-Mendoza</del> (2012). Processing of nematodes in anhydrous glycerol is recommended, as important taxonomic features can be obscured if specimens are not cleared sufficiently.	P	<i>Category : EDITORIAL</i> <b>(143) Japan (17 Sep 2024 12:34 PM)</b>
72	As with other species of plant-parasitic nematodes, morphological observation should be carried out on as many adult and juvenile specimens as possible, with a recommended minimum of at least one female <u>one egg mass</u> and ten J2 juveniles to confirm diagnosis. There are numerous published methods for fixing and processing nematode specimens for study, summarized in Manzanilla-López and Marbán-Mendoza (2012). Processing of nematodes in anhydrous glycerol is recommended, as important taxonomic features can be obscured if specimens are not cleared sufficiently.	P	<i>Category : SUBSTANTIVE</i> <b>(89) Mexico (6 Sep 2024 12:23 AM)</b> It is suggested that an egg mass be included: At least one female, one egg mass and 10 J2

76	<p>A small drop of water is placed on a glass slide or cavity slide (enough to fill the well in the case of the latter). Nematode specimens are transferred to the water and the slide <u>is</u> placed on a hotplate set at 65 °C. It is vital that the heating is only just sufficient to kill the nematodes, as prolonged heating will result in distortion and deterioration of the specimens. In practice, 5–10 seconds on a hotplate will be sufficient time for most specimens. A small drop of single-strength triethanolamine and formalin (TAF) fixative (7 mL formalin (40% formaldehyde), 2 mL triethanolamine, 91 mL distilled water) or another appropriate fixative is placed in the <u>centre-center</u> of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support a coverslip and seal it to the slide) is positioned around the drop. The nematode specimens are transferred from the first glass slide or cavity slide to the TAF fixative. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematodes in the <u>centre-center</u> and a complete ring of wax to seal the slide. Should the seal be broken, or the nematodes become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered nematodes remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.</p>	P	<p>Category : EDITORIAL (277) Kuwait (24 Sep 2024 7:39 AM)</p>
76	<p>A small drop of water is placed on a glass slide or cavity slide (enough to fill the well in the case of the latter). Nematode specimens are transferred to the water and the slide <u>is</u> placed on a hotplate set at 65 °C. It is vital that the heating is only just sufficient to kill the nematodes, as prolonged heating will result in distortion and deterioration of the specimens. In practice, 5–10 seconds on a hotplate will be sufficient time for most specimens. A small drop of single-strength triethanolamine and formalin (TAF) fixative (7 mL formalin (40% formaldehyde), 2 mL triethanolamine, 91 mL distilled water) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support a coverslip and seal it to the slide) is positioned around the drop. The nematode specimens are transferred from the first glass slide or cavity slide to the TAF fixative. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematodes in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the nematodes become embedded in the wax, the slide can be reheated, the coverslip removed,</p>	P	<p>Category : EDITORIAL (276) Kuwait (24 Sep 2024 7:39 AM)</p>

	and the recovered nematodes remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.		
76	A small drop of water is placed on a glass slide or cavity slide (enough to fill the well in the case of the latter). Nematode specimens are transferred to the water and the slide placed on a hotplate set at 65 °C. It is vital that the heating is only just sufficient to kill the nematodes, as prolonged heating will result in distortion and deterioration of the specimens. In practice, 5–10 seconds on a hotplate will be sufficient time for most specimens. A small drop of single-strength triethanolamine and formalin (TAF) fixative (7 mL formalin (40% formaldehyde), 2 mL triethanolamine, 91 mL distilled water) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support a coverslip and seal it to the slide) is positioned around the drop. The nematode specimens are transferred from the first glass slide or cavity slide to the TAF fixative. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematodes in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the nematodes become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered nematodes remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.	C	<p>Category : <i>TECHNICAL</i></p> <p><b>(114) New Zealand (11 Sep 2024 12:55 AM)</b></p> <p>0.9 NaCl could also be used?</p>
76	A small drop of water is placed on a glass slide or cavity slide (enough to fill the well in the case of the latter). Nematode specimens are transferred to the water and the slide placed on a hotplate set at 65 °C. It is vital that the heating is only just sufficient to kill the nematodes, as prolonged heating will result in distortion and deterioration of the specimens. In practice, 5–10 seconds on a hotplate will be sufficient time for most specimens. A small drop of single-strength triethanolamine and formalin (TAF) fixative (7 mL formalin (40% formaldehyde), 2 mL triethanolamine, 91 mL distilled water) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support a coverslip and seal it to the slide) is positioned around the drop. The nematode specimens are transferred from the first glass slide or cavity slide to the TAF fixative. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematodes in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the nematodes	C	<p>Category : <i>SUBSTANTIVE</i></p> <p><b>(90) Mexico (6 Sep 2024 12:25 AM)</b></p> <p>An alternative mounting method consists of: placing filiform specimens (J2 or males) in TAF, heating the fixative with nematodes for 5-10 seconds, re-fishing and placing the specimens on a small portion of 1.5% water-agar and placing a coverslip. If air bubbles form, place the preparation in a humid chamber for 30-60 minutes. The 1.5% water-agar medium offers support and the advantage that the specimens can be placed in a "C" shape and maintain this arrangement when the coverslip is placed, which facilitates a complete morphometric analysis.</p>

	become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered nematodes remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.		
76	A small drop of water is placed on a glass slide or cavity slide (enough to fill the well in the case of the latter). Nematode specimens are transferred to the water and the slide placed on a hotplate set at 65 °C. It is vital that the heating is only just sufficient to kill the nematodes, as prolonged heating will result in distortion and deterioration of the specimens. In practice, 5–10 seconds on a hotplate will be sufficient time for most specimens. A small drop of single-strength triethanolamine and formalin (TAF) fixative (7 mL formalin (40% formaldehyde), 2 mL triethanolamine, 91 mL distilled water) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support a coverslip and seal it to the slide) is positioned around the drop. The nematode specimens are transferred from the first glass slide or cavity slide to the TAF fixative. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematodes in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the nematodes become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered nematodes remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing <del>compound</del> <u>compound such as Glyceel.</u>	P	Category : TECHNICAL <b>(78) United States of America (27 Aug 2024 4:20 PM)</b> clarification
76	A small drop of water is placed on a glass slide or cavity slide (enough to fill the well in the case of the latter). Nematode specimens are transferred to the water and the slide placed on a hotplate set at 65 °C. It is vital that the heating is only just sufficient to kill the nematodes, as prolonged heating will result in distortion and deterioration of the specimens. In practice, 5–10 seconds on a hotplate will be sufficient time for most specimens. A small drop of single-strength triethanolamine and formalin (TAF) fixative (7 mL formalin (40% formaldehyde), 2 mL triethanolamine, 91 mL distilled water) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support a coverslip and seal it to the slide) is positioned around the drop. The nematode specimens are transferred from the first glass slide or cavity slide to the TAF fixative. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There	P	Category : TECHNICAL <b>(19) Colombia (15 Aug 2024 6:52 PM)</b> It is suggested to specify the recommended temperature for specimen preservation.

	should be a clear area of TAF fixative containing the nematodes in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the nematodes become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered nematodes remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound. <u>Specimens should be preserved appropriately at a temperature of -20°C or lower.</u>		
77	<del>Alternatively, nematodes may be immobilized by exposing a suspension of specimens to a low temperature (2–8 °C) until the suspension has also reached that temperature. A temporary water-mounted slide can then be prepared for identification.</del>	P	<i>Category : TECHNICAL</i> <b>(363) China (29 Sep 2024 3:05 AM)</b> This procedure is not necessary.
77	<del>Alternatively, nematodes may be immobilized by exposing a suspension of specimens to a low temperature (2–8 °C) until the suspension has also reached that temperature.</del> A temporary water-mounted slide can then be prepared for identification.	P	<i>Category : EDITORIAL</i> <b>(115) New Zealand (11 Sep 2024 12:56 AM)</b> to make the sentence more concise and improve readability
77	Alternatively, nematodes may be immobilized by exposing a suspension of specimens to a low temperature (2–8 °C) until the suspension has also reached that temperature. A temporary water-mounted slide can then be prepared for identification. <u>The nematodes can also be temporarily mounted in 3% formaldehyde solution on a slide.</u>	P	<i>Category : TECHNICAL</i> <b>(80) United States of America (27 Aug 2024 4:23 PM)</b> additional method
77	Alternatively, nematodes may be immobilized by exposing a suspension of specimens to a low temperature (2–8 °C) until the suspension has also reached that temperature. A temporary water-mounted slide can then be prepared for identification.	C	<i>Category : TECHNICAL</i> <b>(79) United States of America (27 Aug 2024 4:22 PM)</b> The nematodes can also be temporarily mounted in 3% formaldehyde solution on a slide.
77	<del>Alternatively, nematodes may be immobilized by exposing a suspension of specimens to a low temperature (2–8 °C) until the suspension has also reached that temperature. A temporary water-mounted slide can then be prepared for identification.</del>	P	<i>Category : TECHNICAL</i> <b>(39) China (16 Aug 2024 1:52 AM)</b> This procedure is not necessary.
77	Alternatively, nematodes may be immobilized by exposing a suspension of specimens to a low temperature (2–8 °C) until the suspension has also reached that temperature. A temporary water-mounted slide can then be prepared for identification. <u>As isolated nematodes will deteriorate in water it is recommended to preserve them in an appropriate medium such as ethanol or glycerol.</u>	P	<i>Category : TECHNICAL</i> <b>(20) Colombia (15 Aug 2024 6:53 PM)</b> It is suggested to specify the type of preservation medium recommended for specimens.
79	The following method is adapted and summarized from Jepson (1987). Dissection is performed using water to allow <del>to the</del> use of dissected portions for molecular diagnosis, if required (i.e. if only a single female specimen has been recovered).	P	<i>Category : EDITORIAL</i> <b>(278) Kuwait (24 Sep 2024 7:41 AM)</b>

	The dissection and mounting of a nematode female's perineal pattern <del>is-are</del> easier when specimens have been previously fixed, stained, <del>and</del> dissected in a drop of glycerol or transferred to a 0.9% NaCl solution <del>in-order</del> to avoid possible osmotic disruption in tap water.		
79	The following method is adapted and summarized from Jepson (1987). Dissection is performed using water to allow to use dissected portions <u>of nematode</u> for molecular diagnosis, if required (i.e. if only a single female specimen has been recovered). The dissection and mounting of a nematode female's perineal pattern is easier when specimens have been previously fixed, stained, dissected in a drop of glycerol or transferred to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water.	P	<i>Category : EDITORIAL</i> <b>(116) New Zealand (11 Sep 2024 12:58 AM)</b> to be more precise
79	The following method is adapted and summarized from Jepson (1987). <u>Dissection is performed using water to allow to use dissected portions for molecular diagnosis, if required (i.e. if only a single female specimen has been recovered).</u> The dissection and mounting of a nematode female's perineal pattern is easier when specimens have been previously fixed, stained, dissected in a drop of glycerol or transferred to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water.	C	<i>Category : SUBSTANTIVE</i> <b>(91) Mexico (6 Sep 2024 12:26 AM)</b> It is suggested that the neck be mounted together with the perineal pattern and consider an egg mass for molecular analysis.
79	The following method is adapted and summarized from Jepson (1987). Dissection is performed <u>using-in</u> water to allow to use dissected portions for molecular diagnosis, if required (i.e. if only a single female specimen has been recovered). The dissection and mounting of a nematode female's perineal pattern is easier when specimens have been previously fixed, stained, dissected in a drop of glycerol or transferred to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water.	P	<i>Category : TECHNICAL</i> <b>(61) South Africa (20 Aug 2024 11:48 AM)</b> Proposal to delete the word : "using" and replace it with : "in"
79	The following method is adapted and summarized from Jepson (1987). Dissection is performed using water to allow to use <u>of</u> dissected portions for molecular diagnosis, if required (i.e. if only a single female specimen has been recovered). The dissection and mounting of a nematode female's perineal pattern is easier when specimens have been previously fixed, stained, dissected in a drop of glycerol or transferred to a 0.9% NaCl solution in order to avoid possible osmotic disruption in tap water.	P	<i>Category : EDITORIAL</i> <b>(5) Lesotho (8 Aug 2024 12:25 PM)</b> It was just an editorial comment
80	<u>A drop of lactic acid solution (40%) is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the</u>	P	<i>Category : TECHNICAL</i> <b>(364) China (29 Sep 2024 3:08 AM)</b> In practice, the body contents can be easily removed in a lactic acid solution, and all parts of the female can be effectively preserved in the anhydrous glycerol.

<p>perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound. A small drop of water is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the</p>	
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	<del>specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.</del>		
80	A small drop of water is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is <del>located</del> located, and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for <a href="#">a</a> molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative is placed in the <del>centre</del> center of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that <del>it is its</del> dorsal side <del>is up</del> and under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the <del>centre</del> center and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.	P	Category : EDITORIAL (279) Kuwait (24 Sep 2024 7:43 AM)
80	A small drop of water is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of	C	Category : SUBSTANTIVE (94) Mexico (6 Sep 2024 12:32 AM) The use of dehydrated glycerin is suggested as a permanent mounting medium for perineal patterns.

	paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.		
80	A small drop of water is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). <b>The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide.</b> A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.	C	<i>Category : SUBSTANTIVE</i> <b>(93) Mexico (6 Sep 2024 12:31 AM)</b> The use of lactic acid 45% is suggested to clean the perineal pattern.
80	A small drop of water is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The <del>dorsal</del> perineal	P	<i>Category : SUBSTANTIVE</i> <b>(92) Mexico (6 Sep 2024 12:28 AM)</b> Better wording

	<p>pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.</p>		
80	<p>A small drop of water is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative <a href="#">such as lactophenol</a> is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and</p>	P	<p>Category : EDITORIAL (81) United States of America (27 Aug 2024 4:25 PM)</p>

	the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.		
80	<p><u>A drop of lactic acid solution (40%) is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single-strength TAF fixative (composition as above) or another appropriate fixative is placed in the centre of a dust-free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound. A small drop of water is placed on a glass slide or cavity slide, enough to fill the well. A female nematode specimen is transferred to the water. The dorsal perineal pattern is located and the tip of a sterile hypodermic needle is used to puncture the mid-body of the female to release turgor pressure. The nematode female is cut in half transversely at the mid-body, ensuring that the perineal pattern is undamaged (the anterior region can be placed into a suitable microtube for molecular analysis if desired or mounted along with the posterior for morphological assessment). The body contents adhered to the</u></p>	P	<p><i>Category : TECHNICAL</i>  <b>(40) China (16 Aug 2024 1:55 AM)</b>  In practice, the body contents can be easily removed in a lactic acid solution, and all parts of the female can be effectively preserved in the anhydrous glycerol.</p>

	<p>perineal pattern are removed, and the edges of the perineal pattern are trimmed until the tissue lays flat on the slide. A small drop of single strength TAF fixative (composition as above) or another appropriate fixative is placed in the centre of a dust free glass slide, and an appropriate amount of paraffin wax shavings or a paraffin wax ring (sufficient to help support the coverslip and seal it to the slide) is positioned around the drop. The perineal pattern (and anterior region if desired) is transferred from the glass slide or cavity slide to the TAF fixative and positioned so that it is dorsal side up under the surface of the fixative drop. A clean coverslip is placed upon the wax and the slide is heated until the wax has just melted; gently tapping the slide may remove air that may be lodged under the coverslip. There should be a clear area of TAF fixative containing the nematode tissue in the centre and a complete ring of wax to seal the slide. Should the seal be broken, or the specimens become embedded in the wax, the slide can be reheated, the coverslip removed, and the recovered tissue remounted on a new slide. The coverslip is sealed with a ring of clear nail varnish or another sealing compound.</p>	
81	<p><b>4.2 Identification using morphological characteristics</b></p>	<p>C <i>Category : SUBSTANTIVE</i>  <b>(378) Australia (30 Sep 2024 1:00 PM)</b>  A primary purpose of a diagnostic protocol is to provide sufficient information to accurately identify the target organism. Subbotin et al. (2021, page 63) noted that biochemical and molecular diagnostic “techniques provide more rapid, reliable and cheaper identification of RKN than morphological approaches”. However, in the case of <i>M. mali</i>, it can be identified based solely on morphology, with diagnostic confirmation from biochemical and molecular methods. Therefore, the draft protocol (DRAFT ANNEX TO ISPM 27: <i>Meloidogyne mali</i>) would do well to provide further detail for the morphological identification process, easing the diagnosticians task and minimizing the risk of incorrect identification.</p> <p>The draft protocol directs diagnosticians to two reference books for morphological identification: Jepson (1987) and Subbotin et al. (2021). Both books utilise polytomous keys, which can be challenging to employ due to their use of overlapping morphometric criteria, potentially leading to ambiguous results. To enhance the accuracy and usability of the identification process, there is an option to develop an abbreviated dichotomous key that simplifies the identification of <i>M. mali</i>. This key should guide users through a series of couplets that lead to a final decision point where <i>M. mali</i> is unequivocally identified.</p> <p>For example, the key could include couplets that contain one lead that directs users to a subsequent step (i.e., couplet) and a second lead that indicates 'not <i>Meloidogyne mali</i>' for non-relevant nematodes. Early couplets should effectively exclude all nematodes that do not belong to the family Meloidogynidae or genus <i>Meloidogyne</i>. For instance, early</p>

			<p>couplets could be something like the following, albeit more refined:</p> <p>1a. Stylet present... 2.  1b. Stylet absent... not <i>M. mali</i>.  2a. Mouth with tylenchid stylet (i.e., with knobbed base), pharynx with metacarpus (valvate median oesophageal bulb)... 3.  2b. Mouth with dorylaimid stylet (i.e., without knobbed base, may be flanged), pharynx cylindrical or bottle-shaped, without metacarpus... not <i>M. mali</i>.  3a. Oesophagus distinct... 4.  3b. Oesophagus degenerate... not <i>M. mali</i>.  4a. Cuticle not heavily annulated... 5.  4b. Cuticle heavily annulated... not <i>M. mali</i>.  5a. Head with internal cephalic sclerotisation... 6.  5b. Head without internal cephalic sclerotisation... not <i>M. mali</i>.  6a. Female body swollen... 7.  6b. Female body not swollen... not <i>M. mali</i>.  7a. Female pear-shaped... 8.  7b. Females more elongate... not <i>M. mali</i>.  8a. Vulva terminal... 9.  8b. Vulva mid-body... not <i>M. mali</i>.  9a. Mature female body white, not forming a cyst, not containing eggs... (<i>Meloidogyne</i>) 10.  9b. Mature female body forming a brown, chitinous cyst packed with eggs... not <i>M. mali</i>.  10a. etc., etc. (through to <i>M. mali</i> at final couplet)</p> <p>Such a dichotomous key could be developed with help from books containing relevant keys, such as Siddiqi (2000), Mai and Mullin (1996), etc. to get to the genus <i>Meloidogyne</i>. To exclude all other species within <i>Meloidogyne</i>, it would be helpful to use the morphological and morphometric characteristics outlined in Jepson (1987) and Subbotin et al. (2021), with additional input from Hewlett and Tarjan (1983), Ghaderi and Karssen (2020), etc.</p>
82	Differential interference contrast is recommended for observing and identifying specimens mounted (in fixative) on microscope slides. A complete key has been published on the genus <i>Meloidogyne</i> by Jepson (1987) and updated by Subbotin, Palomares-Rius and Castillo (2021). This protocol presents the main morphological and morphometric characteristics to assist with discrimination between similar species, but, as noted above, identification to species level <del>should</del> <u>could</u> be confirmed by molecular or biochemical methods (EPPO, 2018).	P	<p><i>Category : TECHNICAL</i>  <b>(320) European Union (26 Sep 2024 12:02 PM)</b>  In paragraph 4 it is stated that "<i>M. mali</i> can be identified solely based on morphology; however, a combination of morphological, biochemical and molecular methods would further support diagnosis"</p>
82	Differential interference contrast is recommended for observing and identifying specimens mounted (in fixative) on microscope slides. A complete key has been published on the genus <i>Meloidogyne</i> by Jepson (1987) and updated by Subbotin, Palomares-Rius and Castillo (2021). This protocol presents the main morphological and morphometric characteristics to assist with <u>the</u> discrimination between similar	P	<p><i>Category : EDITORIAL</i>  <b>(280) Kuwait (24 Sep 2024 7:44 AM)</b></p>

	species, but, as noted above, <u>the</u> identification to species level should be confirmed by molecular or biochemical methods (EPPO, 2018).		
82	Differential interference contrast is recommended for observing and identifying specimens mounted (in fixative) on microscope slides. A complete key has been published on the genus <i>Meloidogyne</i> by Jepson (1987) and updated by <del>Subbotin</del> , <u>Subbotin et al.</u> Palomares-Rius and Castillo (2021). This protocol presents the main morphological and morphometric characteristics to assist with discrimination between similar species, but, as noted above, identification to species level should be confirmed by molecular or biochemical methods (EPPO, 2018).	P	Category : EDITORIAL <b>(144) Japan (17 Sep 2024 12:35 PM)</b>
82	Differential interference contrast is recommended for observing and identifying specimens mounted (in fixative) on microscope slides. A complete key has been published on the genus <i>Meloidogyne</i> by Jepson (1987) and updated by Subbotin, Palomares-Rius and Castillo (2021). This protocol presents the main morphological and morphometric characteristics to assist with discrimination between similar species, but, as noted above, identification to species level <del>should</del> could be confirmed by molecular or biochemical methods (EPPO, 2018).	P	Category : TECHNICAL <b>(226) EPPO (17 Sep 2024 4:24 PM)</b> In paragraph 4 it is stated that "M. mali can be identified solely based on morphology; however, a combination of morphological, biochemical and molecular methods would further support diagnosis"
82	Differential interference contrast is recommended for observing and identifying specimens mounted (in fixative) on microscope slides. A complete key has been published on the genus <i>Meloidogyne</i> by Jepson (1987) and updated by Subbotin, Palomares-Rius and Castillo (2021). This protocol presents the main morphological and morphometric characteristics to assist with discrimination between similar species, but, as noted above, identification to species level <del>should</del> may be confirmed by molecular or biochemical methods (EPPO, 2018).	P	Category : TECHNICAL <b>(118) New Zealand (11 Sep 2024 1:01 AM)</b> this contradicts the statement in para 70. Minimum requirements are for morphological ID
82	Differential interference contrast <u>microscope</u> is recommended for observing and identifying specimens mounted (in fixative) on microscope slides. A complete key has been published on the genus <i>Meloidogyne</i> by Jepson (1987) and updated by Subbotin, Palomares-Rius and Castillo (2021). This protocol presents the main morphological and morphometric characteristics to assist with discrimination between similar species, but, as noted above, identification to species level should be confirmed by molecular or biochemical methods (EPPO, 2018).	P	Category : EDITORIAL <b>(117) New Zealand (11 Sep 2024 12:59 AM)</b> Editorial: to be more specific
82	<u>At least one adult female and ten second-stage juveniles (J2s) should be observed to confirm the diagnosis. If fewer specimens are collected, proceed with the available specimens and note the limitation in the diagnostic report.</u>  Differential interference contrast is recommended for observing and identifying specimens mounted (in fixative) on microscope slides. A complete key has been published on the genus <i>Meloidogyne</i> by Jepson (1987) and updated by Subbotin,	P	Category : TECHNICAL <b>(21) Colombia (15 Aug 2024 6:56 PM)</b> Provide instructions on what to do if fewer than the recommended specimens are collected.

	Palomares-Rius and Castillo (2021). This protocol presents the main morphological and morphometric characteristics to assist with discrimination between similar species, but, as noted above, identification to species level should be confirmed by molecular or biochemical methods (EPPO, 2018).		
84	Sedentary females are annulated, pearly white and globular to pear-shaped, 400–1300 µm long and 300–700 µm wide. The stylet is dorsally curved, 10–25 µm long, with rounded to ovoid stylet knobs set off to sloping posteriorly. The <u>excretory pore located usually between the stylet knobs and the metacorporeal level.</u> The males are vermiform, annulated, slightly tapering anteriorly, bluntly rounded posteriorly, 700–2000 µm long and 25–45 µm wide. The stylet is 13–30 µm long, with stylet knobs that are variable in shape. The <u>tail is very short, bluntly rounded and without bursa.</u> The J2 juveniles are vermiform, annulated, tapering at both ends, 250–700 µm long and 12–18 µm wide, with the tail length 15–100 µm and the hyaline tail part 5–30 µm in length, <u>irregular in outling</u> . Both males and J2 juveniles have lateral fields with four incisures (EPPO, 2018).	P	<i>Category : TECHNICAL</i> <b>(365) China (29 Sep 2024 3:12 AM)</b> These morphological characteristics are the diagnostic features of the genus <i>Meloidogyne</i> .
84	Sedentary females are annulated, pearly white and globular to pear-shaped, 400–1300 µm long and 300–700 µm wide. The stylet is dorsally curved, 10–25 µm long, with rounded to ovoid stylet knobs set off to sloping posteriorly. The males are vermiform, annulated, slightly tapering anteriorly, bluntly rounded posteriorly, 700–2000 µm long and 25–45 µm wide. The stylet is 13–30 µm long, with stylet knobs that are variable in shape. The <u>J2 juveniles-J2s</u> are vermiform, annulated, tapering at both ends, 250–700 µm long and 12–18 µm wide, with the tail length 15–100 µm and the hyaline tail part 5–30 µm in length. Both males and <u>J2 juveniles-J2s</u> have lateral fields with four incisures (EPPO, 2018).	P	<i>Category : EDITORIAL</i> <b>(145) Japan (17 Sep 2024 12:36 PM)</b>
84	Sedentary females <u>of <i>Meloidogyne</i> species</u> are annulated, pearly white and globular to pear-shaped, 400–1300 µm long and 300–700 µm wide. The stylet is dorsally curved, 10–25 µm long, with rounded to ovoid stylet knobs set off to sloping posteriorly. The males are vermiform, annulated, slightly tapering anteriorly, bluntly rounded posteriorly, 700–2000 µm long and 25–45 µm wide. The stylet is 13–30 µm long, with stylet knobs that are variable in shape. The J2 juveniles are vermiform, annulated, tapering at both ends, 250–700 µm long and 12–18 µm wide, with the tail length 15–100 µm and the hyaline tail part 5–30 µm in length. Both males and J2 juveniles have lateral fields with four incisures (EPPO, 2018).	P	<i>Category : EDITORIAL</i> <b>(119) New Zealand (11 Sep 2024 1:01 AM)</b>
84	Sedentary females are annulated, pearly white and globular to pear-shaped, 400–1300 µm long and 300–700 µm wide. The stylet is dorsally curved, 10–25 µm long, with rounded to ovoid stylet knobs set off to sloping posteriorly. The males are vermiform, annulated, slightly tapering anteriorly, bluntly rounded posteriorly, 700–2000 µm long and 25–45 µm wide. The stylet is 13–30 µm long, with stylet knobs that are variable in shape. The J2 juveniles are vermiform, annulated, tapering at both ends, 250–700 µm long and 12–18 µm wide, with the tail length 15–100 µm and the hyaline tail part 5–30 µm in length. Both males and J2 juveniles have lateral fields with four incisures (EPPO, 2018).	P	<i>Category : TECHNICAL</i> <b>(48) China (16 Aug 2024 10:16 AM)</b> These morphological characteristics are the diagnostic features of the genus <i>Meloidogyne</i> .

	<u>excretory pore located usually between the stylet knobs and the metacorporeal level.</u> The males are vermiform, annulated, slightly tapering anteriorly, bluntly rounded posteriorly, 700–2000 µm long and 25–45 µm wide. The stylet is 13–30 µm long, with stylet knobs that are variable in shape. The <u>tail is very short, bluntly rounded and without bursa.</u> The J2 juveniles are vermiform, annulated, tapering at both ends, 250–700 µm long and 12–18 µm wide, with the tail length 15–100 µm and the hyaline tail part 5–30 µm in length, <u>irregular in outling</u> . Both males and J2 juveniles have lateral fields with four incisures (EPPO, 2018).		
86	The following descriptions have been amended from Itoh, Ohshima and Ichinohe (1969), Palmisano and Ambrogioni (2000), Gu, Fang and Liu (2020) and Ahmed <i>et al.</i> (2013) (cited in EPPO, 2018).	C	Category : EDITORIAL <b>(321) European Union (26 Sep 2024 12:07 PM)</b> Citations to be ordered chronologically?
86	The following descriptions have been amended from <del>Itoh, Ohshima and Ichinohe</del> <u>Itoh <i>et al.</i></u> (1969), Palmisano and Ambrogioni (2000), <del>Gu, Gu <i>et al.</i></del> <u>Fang and Liu</u> (2020) and Ahmed <i>et al.</i> (2013) (cited in EPPO, 2018).	P	Category : EDITORIAL <b>(146) Japan (17 Sep 2024 12:37 PM)</b>
86	The following descriptions have been amended from Itoh, Ohshima and Ichinohe (1969), Palmisano and Ambrogioni (2000), <del>Gu, Fang and Liu</del> <u>Ahmed</u> (2020) and <del>Ahmed <i>et al.</i></del> (2013) <u>and Gu, Fang and Liu (2020)</u> (cited in EPPO, 2018).	P	Category : EDITORIAL <b>(227) EPPO (17 Sep 2024 4:24 PM)</b> To be put in the chronological order?
88	Characteristics of the stylet and the perineal pattern are particularly useful for identification. The stylet, composed of a dorsally curved cone, straight shaft and stylet knobs, ranges in length between <b>11</b> and 17 µm and has rounded to pear-shaped knobs, usually slightly posteriorly sloping. The perineal pattern has an oval shape, with a low, rounded to square-shaped dorsal arch; phasmids are distinct, and the lateral field is indistinct or marked by breaks or folds in the striae (Figure 3, Figure 4 and Figure 5) (EPPO, 2018).	C	Category : EDITORIAL <b>(322) European Union (26 Sep 2024 12:08 PM)</b> "13-17" according to paragraph 106 in Table 1.
88	Characteristics of the stylet and the perineal pattern are particularly useful for identification. The stylet, composed of a dorsally curved cone, straight shaft and stylet knobs, ranges in length between <b>11</b> and 17 µm and has rounded to pear-shaped knobs, usually slightly posteriorly sloping. The perineal pattern has an oval shape, with a low, rounded to square-shaped dorsal arch; phasmids are distinct, and the lateral field is indistinct or marked by breaks or folds in the striae (Figure 3, Figure 4 and Figure 5) (EPPO, 2018).	C	Category : TECHNICAL <b>(228) EPPO (17 Sep 2024 4:24 PM)</b> "13-17" according to paragraph 106 in Table 1.
88	Characteristics of the stylet and the perineal pattern are particularly useful for identification. The stylet, composed of a dorsally curved cone, straight shaft and stylet knobs, ranges in length between 11 and 17 µm and has rounded to pear-shaped knobs, usually slightly posteriorly sloping. The perineal pattern has an oval shape, with a low, rounded to square-shaped dorsal arch; phasmids are distinct, and	C	Category : TECHNICAL <b>(6) COSAVE (15 Aug 2024 12:36 AM)</b> The stylet in Figure 3 (K) does not seem to match this description. Here it is mentioned that "The stylet, composed of a dorsally curved cone, straight shaft and stylet knobs, ranges in length between 11 and 17 µm and has rounded to pear-shaped knobs, usually slightly posteriorly sloping". However, the stylet in Figure 3 (K) is somewhat

	the lateral field is indistinct or marked by breaks or folds in the striae (Figure 3, Figure 4 and Figure 5) (EPPO, 2018).		strange as it seems to has anchor-shaped knobs, not rounded and they do not angle downwards, their tips point upwards. Thus, the stylet does not appear to correspond to the species. Therefore, we suggest to verify the correspondence between the text and the figure. It is noted that in the paper "A Root-Knot Nematode, <i>Meloidogyne mali</i> n. sp. On Apple-Tree from Japan", the female stylet is described as "stylet curved dorsally, with well-developed knobs that tend to slope either backwards or forwards"
90	The head shape and the stylet morphology are the most useful characters for identification. The straight stylet has rounded, posteriorly sloping knobs. The head is weakly offset and the head cap is low and slightly narrower than the postlabial region. No postlabial <del>incisures-annulus</del> are present. The distance from the stylet knobs to the dorsal gland orifice is relatively long: 6–13 µm (Figure 5 and Figure 6) (EPPO, 2018).	P	<i>Category : SUBSTANTIVE</i> <b>(366) China (29 Sep 2024 3:29 AM)</b> Common description.
90	The head shape and the stylet morphology are the most useful characters for identification. The straight stylet has rounded, posteriorly sloping knobs. The head is weakly offset and the head cap is low and slightly narrower than the postlabial region. No <del>postlabial-post-labial</del> incisures are present. The distance from the stylet knobs to the dorsal gland orifice is relatively long: 6–13 µm (Figure 5 and Figure 6) (EPPO, 2018).	P	<i>Category : EDITORIAL</i> <b>(229) EPPO (17 Sep 2024 4:24 PM)</b>
90	The head shape and the stylet morphology are the most useful characters for identification. The straight stylet has rounded, posteriorly sloping knobs. The head is weakly offset and the head cap is low and slightly narrower than the postlabial region. No postlabial <del>incisures-annulus</del> are present. The distance from the stylet knobs to the dorsal gland orifice is relatively long: 6–13 µm (Figure 5 and Figure 6) (EPPO, 2018).	P	<i>Category : SUBSTANTIVE</i> <b>(42) China (16 Aug 2024 2:03 AM)</b> Common description
92	Body length is reported to typically range from 390 to 450 µm (but with certain populations reported to have a range of 362–507 µm (Gu, Fang and Liu, 2020)). This species has a short tail (23–39 µm) and short hyaline tail part (4–12 µm). The stylet knobs are small and rounded and slope slightly posteriorly. The hemizonid is positioned posterior to the excretory pore in contrast to the condition in males. The tail is conical and usually <del>ends in a</del> finely <u>rounded or slightly pointed tip</u> <del>terminus</del> . The hyaline tail part is clearly delimited anteriorly with a few cuticular constrictions typically present (Figure 3 and Figure 7) (EPPO, 2018).	P	<i>Category : SUBSTANTIVE</i> <b>(374) Korea, Republic of (30 Sep 2024 6:42 AM)</b> The general shape of the tail tip of <i>M. mali</i> J2 is not completely pointed and has been described as irregular, rounded and unstraited (Itoh, Ohshima, and Ichinohe, 1969) or finely rounded or slightly pointed (Gu, Fang and Liu, 2020).
92	Body length is reported to typically range from 390 to 450 µm (but with certain populations reported to have a range of 362–507 µm (Gu, Fang and Liu, 2020)). This species has a short tail (23–39 µm) and short hyaline tail part (4–12 µm). The stylet knobs are small and rounded and slope slightly posteriorly. The hemizonid is positioned posterior to the excretory pore in contrast to the condition in males. The	C	<i>Category : TECHNICAL</i> <b>(323) European Union (26 Sep 2024 12:17 PM)</b> Please provide a reference for the tail length: in EPPO 2018, a J2 tail is mentioned as 30-34 µm  additional comment: In Itoh et al 1969 also 30-34, and that's the referred source beneath the Table.

	tail is conical and usually ends in a finely pointed tip. The hyaline tail part is clearly delimited anteriorly with a few cuticular constrictions typically present (Figure 3 and Figure 7) (EPPO, 2018).		Checked also Ahmed et al 2013, also not this 23-39 range
92	Body length is reported to typically range from 390 to 450 µm (but with certain populations reported to have a range of 362–507 µm ( <del>Gu, (Gu et al</del> Fang and Liu, 2020)). This species has a short tail (23–39 µm) and short hyaline tail part (4–12 µm). The stylet knobs are small and rounded and slope slightly posteriorly. The hemizonid is positioned posterior to the excretory pore in contrast to the condition in males. The tail is conical and usually ends in a finely pointed tip. The hyaline tail part is clearly delimited anteriorly with a few cuticular constrictions typically present (Figure 3 and Figure 7) (EPPO, 2018).	P	Category : EDITORIAL <b>(292) Japan (24 Sep 2024 11:35 AM)</b>
92	Body length is reported to typically range from 390 to 450 µm (but <del>with</del> certain populations <del>were</del> reported to have a range of 362–507 µm (Gu, Fang and Liu, 2020)). This species has a short tail (23–39 µm) and <del>a</del> short hyaline tail part (4–12 µm). The stylet knobs are small and rounded and slope slightly posteriorly. The hemizonid is positioned posterior to the excretory pore in contrast to the condition in males. The tail is conical and usually ends in a finely pointed tip. The hyaline tail part is clearly delimited anteriorly with a few cuticular constrictions typically present (Figure 3 and Figure 7) (EPPO, 2018).	P	Category : EDITORIAL <b>(281) Kuwait (24 Sep 2024 7:46 AM)</b>
92	Body length is reported to typically range from 390 to 450 µm (but with certain populations reported to have a range of 362–507 µm (Gu, Fang and Liu, 2020)). This species has a short tail (23–39 µm) and short hyaline tail part (4–12 µm). The stylet knobs are small and rounded and slope slightly posteriorly. The hemizonid is positioned posterior to the excretory pore in contrast to the condition in males. The tail is conical and usually ends in a finely pointed tip. The hyaline tail part is clearly delimited anteriorly with a few cuticular constrictions typically present (Figure 3 and Figure 7) (EPPO, 2018).	C	Category : TECHNICAL <b>(230) EPPO (17 Sep 2024 4:24 PM)</b> Please provide a reference for the tail length: in EPPO 2018, a J2 tail is mentioned as 30-34 µm  additional comment: In Itoh et al 1969 also 30-34, and that's the referred source beneath the Table. Checked also Ahmed et al 2013, also not this 23-39 range
92	Body length is reported to typically range from 390 to 450 µm (but with certain populations reported to have a range of 362–507 µm (Gu, Fang and Liu, 2020)). This species has a short tail (23–39 µm) and short hyaline tail part ( <del>4–12</del> <u>5–13</u> µm). The stylet knobs are small and rounded and slope slightly posteriorly. The hemizonid is positioned posterior to the excretory pore in contrast to the condition in males. The tail is conical and usually ends in a finely pointed tip. The hyaline tail part is clearly delimited anteriorly with a few cuticular constrictions typically present (Figure 3 and Figure 7) (EPPO, 2018).	P	Category : TECHNICAL <b>(82) United States of America (27 Aug 2024 4:44 PM)</b> proposed correction

93	<i>Differential diagnosis of morphologically similar species</i>	C	<p><b>Category : TECHNICAL</b>  <b>(379) Australia (30 Sep 2024 1:02 PM)</b></p> <p>The draft protocol, after directing diagnosticians to use published polytomous keys for identifying <i>Meloidogyne</i> species, focuses on comparing <i>Meloidogyne mali</i> with five other species: <i>M. ardenensis</i>, <i>M. camelliae</i>, <i>M. paramali</i>, <i>M. suginamiensis</i>, and <i>M. vitis</i>. While the original descriptions of <i>M. suginamiensis</i>, <i>M. vitis</i>, and <i>M. paramali</i> indicate that these species are closely related to <i>M. mali</i>, the morphological similarities of <i>M. ardenensis</i> and <i>M. camelliae</i> to <i>M. mali</i> are less well-defined.</p> <p>For example, according to Jepson (1987) and Subbotin et al. (2021), <i>M. mali</i> is classified in J2 group 2, female group 4, male group 7, morphology and host group exigua (parasitizing tree hosts), and molecular clade group VIII. In contrast:</p> <ul style="list-style-type: none"> <li>• <i>M. ardenensis</i> is classified in J2 group 4, female group 6, male group 7, morphology and host group exigua (parasitizing Oleaceae), and molecular clade group V.</li> <li>• <i>M. camelliae</i> is classified in J2 group 5, female group 1, male group 1, morphology and host group exigua (parasitizing Camellia spp.), and molecular clade group X.</li> </ul> <p>Other <i>Meloidogyne</i> species in the 'exigua' group with overlapping host ranges could also be considered in the focus group for comparison with <i>Meloidogyne mali</i>. For instance:</p> <ul style="list-style-type: none"> <li>• <i>M. querciana</i> has been recorded on tree hosts such as <i>Castanea</i> (chestnuts) and <i>Quercus</i> (oaks).</li> <li>• <i>M. platani</i> is known to infect <i>Citrullus</i> (melons) and <i>Solanum lycopersicum</i> (tomato).</li> <li>• <i>M. enterolobii</i> shares many host species with <i>M. mali</i>, including <i>Brassica</i> (cabbages), <i>Capsicum annuum</i> (pepper), <i>Cucumis sativus</i> (cucumber), <i>Cucurbita</i> (pumpkins), <i>Daucus carota</i> (carrot), <i>Ficus carica</i> (common fig), <i>Glycine max</i> (soybean), <i>Lagerstroemia indica</i> (crape myrtle), <i>Morus</i> (mulberries), <i>Prunus</i> (cherries), <i>Solanum lycopersicum</i> (tomato), <i>Solanum melongena</i> (eggplant), <i>Trifolium</i> (clovers), and <i>Ulmus</i> (elms).</li> <li>• <i>M. ovalis</i> is found on <i>Acer</i> (maples) and <i>Ulmus</i> (elms).</li> <li>• <i>M. carolinensis</i> has been recorded on <i>Brassica</i> (cabbages) and <i>Daucus carota</i> (carrot).</li> </ul>
93	<i>Differential diagnosis of morphologically similar species</i>	C	<p><b>Category : TECHNICAL</b>  <b>(41) China (16 Aug 2024 2:02 AM)</b></p> <p>A key to the similar species is also provided in this section. The key is helpful for species identification.</p>
94	<i>M. mali</i> is morphologically close to five other species of <i>Meloidogyne</i> that share some hosts and areas of distribution (section 1): <i>M. ardenensis</i> , <i>M. camelliae</i> , <i>M. paramali</i> , <i>M. suginamiensis</i> and <i>M. vitis</i> . It differs from these species by having a finely pointed tail terminus in J2 juveniles (Figure 7), while the tail tips are broadly rounded in <i>M. ardenensis</i> , <i>M. camelliae</i> and <i>M. suginamiensis</i> (Figure 7-8), the tail in of <i>M. paramali</i> J2 juveniles has a finely rounded to broadly pointed	P	<p><b>Category : EDITORIAL</b>  <b>(324) European Union (26 Sep 2024 12:23 PM)</b></p> <p>what is meant by section 1?</p>

	(never sharply pointed) terminus and a shorter hyaline region, and the tail <del>in of</del> <i>M. vitis</i> J2 juveniles is longer with a variable terminus (Figure 8) (EPPO, 2018; Yang <i>et al.</i> , 2021; Gu <i>et al.</i> , 2023). In addition, J2 juveniles of <i>M. camelliae</i> have a longer body length and an anterior position of the hemizonid in relation to the excretory pore.		
94	<del>M. Meloidogyne</del> <i>mali</i> is morphologically close to five other species of <i>Meloidogyne</i> that share some hosts and areas of distribution (section 1): <i>M. ardenensis</i> , <i>M. camelliae</i> , <i>M. paramali</i> , <i>M. suginamiensis</i> and <i>M. vitis</i> . It differs from these species by having a finely pointed tail terminus in <del>J2 juveniles</del> <i>J2s</i> (Figure 3, Figure 7 and Figure 8), while the tail tips are broadly rounded in <i>M. ardenensis</i> , <i>M. camelliae</i> and <i>M. suginamiensis</i> (Figure 7), the tail in <i>M. paramali</i> <del>J2 juveniles</del> <i>J2s</i> has a finely rounded to broadly pointed (never sharply pointed) terminus and a shorter hyaline region, and the tail in <i>M. vitis</i> <del>J2 juveniles-J2s</del> is longer with a variable terminus (Figure 8) (EPPO, 2018; Yang <i>et al.</i> , 2021; Gu <i>et al.</i> , 2023). In addition, <del>J2 juveniles-J2s</del> of <i>M. camelliae</i> have a longer body length and an anterior position of the hemizonid in relation to the excretory pore.	P	Category : EDITORIAL (148) Japan (17 Sep 2024 12:48 PM)
94	<i>M. mali</i> is morphologically close to five other species of <i>Meloidogyne</i> that share some hosts and areas of distribution (section 1): <i>M. ardenensis</i> , <i>M. camelliae</i> , <i>M. paramali</i> , <i>M. suginamiensis</i> and <i>M. vitis</i> . It differs from these species by having a finely pointed tail terminus in <del>J2 juveniles</del> <i>juveniles</i> (Figure 7), while the tail tips are broadly rounded in <i>M. ardenensis</i> , <i>M. camelliae</i> and <i>M. suginamiensis</i> (Figure 7-8), the tail <del>in of</del> <i>M. paramali</i> J2 juveniles has a finely rounded to broadly pointed (never sharply pointed) terminus and a shorter hyaline region, and the tail <del>in of</del> <i>M. vitis</i> J2 juveniles is longer with a variable terminus (Figure 8) (EPPO, 2018; Yang <i>et al.</i> , 2021; Gu <i>et al.</i> , 2023). In addition, J2 juveniles of <i>M. camelliae</i> have a longer body length and an anterior position of the hemizonid in relation to the excretory pore.	P	Category : EDITORIAL (232) EPPO (17 Sep 2024 4:24 PM)
94	<i>M. mali</i> is morphologically close to five other species of <i>Meloidogyne</i> that share some hosts and areas of distribution (section 1): <i>M. ardenensis</i> , <i>M. camelliae</i> , <i>M. paramali</i> , <i>M. suginamiensis</i> and <i>M. vitis</i> . It differs from these species by having a finely pointed tail terminus in J2 juveniles, while the tail tips are broadly rounded in <i>M. ardenensis</i> , <i>M. camelliae</i> and <i>M. suginamiensis</i> (Figure 7), the tail in <i>M. paramali</i> J2 juveniles has a finely rounded to broadly pointed (never sharply pointed) terminus and a shorter hyaline region, and the tail in <i>M. vitis</i> J2 juveniles is longer with a variable terminus (Figure 8) (EPPO, 2018; Yang <i>et al.</i> , 2021; Gu <i>et al.</i> , 2023). In addition, J2 juveniles of <i>M. camelliae</i> have a longer body	C	Category : EDITORIAL (231) EPPO (17 Sep 2024 4:24 PM) what is meant by section 1?

	length and an anterior position of the hemizonid in relation to the excretory pore.		
94	<i>M. mali</i> is morphologically close to five other species of <i>Meloidogyne</i> that share some hosts and areas of distribution (section 1): <i>M. ardenensis</i> , <i>M. camelliae</i> , <i>M. paramali</i> , <i>M. suginamiensis</i> and <i>M. vitis</i> . <del><i>M. mali</i></del> differs from these species by having a finely pointed tail terminus in J2 juveniles, while the tail tips are broadly rounded in <i>M. ardenensis</i> , <i>M. camelliae</i> and <i>M. suginamiensis</i> (Figure 7 ), the tail in <i>M. paramali</i> J2 juveniles has a finely rounded to broadly pointed (never sharply pointed) terminus and a shorter hyaline region, and the tail in <i>M. vitis</i> J2 juveniles is longer with a variable terminus (Figure 8) (EPPO, 2018; Yang <i>et al.</i> , 2021; Gu <i>et al.</i> , 2023). In addition, J2 juveniles of <i>M. camelliae</i> have a longer body length and an anterior position of the hemizonid in relation to the excretory pore.	P	Category : EDITORIAL <b>(120) New Zealand (11 Sep 2024 1:03 AM)</b>
95	The star-shaped perineal pattern of <i>M. camelliae</i> allows an easy separation from <i>M. mali</i> , <i>M. ardenensis</i> , <i>M. paramali</i> , <i>M. suginamiensis</i> and <i>M. vitis</i> (Figure 9). The female perineal pattern of <i>M. vitis</i> differs from <i>M. mali</i> in that there is typically a moderately high dorsal arch, and there are no lateral lines in the lateral field (Figure 9) (Yang <i>et al.</i> , 2021). <del><i>M. paramali</i> has a similar perineal pattern to <i>M. mali</i> and can be distinguished from the latter by the distinct lateral fields (Figure 9) (Gu <i>et al.</i>, 2023).</del>	P	Category : TECHNICAL <b>(149) Japan (17 Sep 2024 12:49 PM)</b> Regarding the perineal pattern of <i>M. mali</i> , Itoh et al. (1969) states that "Lateral fields clearly marked with single or double incisures." On the other hand, Gu et al. (2023) states about <i>M. paramali</i> , "Perineal patterns were oval or irregular, with distinct lateral lines." These references indicate that both species have distinct lateral lines, so the description in para 95 " <i>M. paramali</i> can be distinguished from <i>M. mali</i> by having distinct lateral bands." is incorrect.
96	Some of the morphological and morphometric characters that can be used to differentiate the <del>females</del> <b>females (Figure 9)</b> , males (Figure <del>10</del> <b>9</b> ) and <b>J2 juveniles J2s (Figure 8)</b> of <i>M. mali</i> , <i>M. ardenensis</i> , <i>M. camelliae</i> , <i>M. paramali</i> , <i>M. suginamiensis</i> and <i>M. vitis</i> are summarized in Table 1.	P	Category : EDITORIAL <b>(150) Japan (17 Sep 2024 12:51 PM)</b>
98	<b>Character</b>	C	Category : SUBSTANTIVE <b>(376) Korea, Republic of (30 Sep 2024 7:01 AM)</b> Korea propose to add two morphological and morphometric characters ("♀ Distance from anterior end to excretory pore", "J2 Style length") to distinguish the five species similar to <i>M. mali</i> .
106	13–17 (15)	C	Category : TECHNICAL <b>(325) European Union (26 Sep 2024 12:29 PM)</b> In paragraph 88, this range is given as "11-17" . please verify
106	<b>13</b> –17 (15)	C	Category : TECHNICAL <b>(233) EPPO (17 Sep 2024 4:24 PM)</b> "11-17" according to paragraph 88.
148	<del>23–39</del> <b>30–34</b> (31)	P	Category : EDITORIAL <b>(151) Japan (17 Sep 2024 12:52 PM)</b>
155	4–12 (8)	C	Category : TECHNICAL <b>(152) Japan (17 Sep 2024 12:54 PM)</b> The scientific evidence for the measurement of J2 hyaline tail part is unclear. The reference Itoh et al. (1969) does not include any measurement

			values of the J2 hyaline tail part. If the data was quoted from another source, this should be stated.
156	10–13 (12)	C	<i>Category : TECHNICAL</i> <b>(153) Japan (17 Sep 2024 12:55 PM)</b> The scientific evidence for the J2 hyaline tail part measurement is unclear. The reference de A. Santos (1968) does not include any measurement values of the J2 hyaline tail part. If the data was quoted from another source, this should be stated.
159	3–5 (4)	C	<i>Category : EDITORIAL</i> <b>(154) Japan (17 Sep 2024 12:56 PM)</b> The scientific evidence for mean length of the J2 hyaline tail part is unclear. The reference Toida and Yaegashi (1984) does not show mean length of the J2 hyaline tail part. If the data was quoted from another source, this should be stated.
169	<a href="#">Finely</a> Pointed (Figure 3, Figure 7 & Figure 8)	P	<i>Category : TECHNICAL</i> <b>(326) European Union (26 Sep 2024 12:37 PM)</b> For consistency with paragraphs 92 and 94.
169	<del>Pointed</del> <a href="#">Finely pointed</a> (Figure 3, Figure 7 & Figure 8)	P	<i>Category : TECHNICAL</i> <b>(234) EPPO (17 Sep 2024 4:24 PM)</b> For consistency with paragraphs 92 and 94.
176	* Length of dorsal gland orifice to base of stylet.  † Partly after Jepson (1987).  ‡ Hemizonid position in relation to the excretory pore.	P	<i>Category : EDITORIAL</i> <b>(327) European Union (26 Sep 2024 12:40 PM)</b> New paragraphs for better clarity.
176	* Length of dorsal gland orifice to base of stylet.  † Partly after Jepson (1987).  ‡ Hemizonid position in relation to the excretory pore.	P	<i>Category : EDITORIAL</i> <b>(235) EPPO (17 Sep 2024 4:24 PM)</b> New paragraphs for better clarity.
178	Jepson, S.B. 1987. <i>Identification of root-knot nematodes (Meloidogyne species)</i> . Farnham Royal, UK, Commonwealth Agricultural Bureaux. 265 pp.	C	<i>Category : EDITORIAL</i> <b>(236) EPPO (17 Sep 2024 4:24 PM)</b> It seems a bit strange to have some bibliography here. According to the status box of draft annex to ISPM 46, it seems that these references could be moved to the References section (section 8), following change in FAO style that permits this.
180	<i>M. mali</i> : Itoh, Y., Ohshima, Y. & Ichinohe, M. 1969. A root-knot nematode, <i>Meloidogyne mali</i> n. sp. on apple-tree from Japan (Tylenchida: Heteroderidae). <i>Applied Entomology and Zoology</i> , <b>44</b> (4): 194–202. <a href="https://doi.org/10.1303/aez.4.194">https://doi.org/10.1303/aez.4.194</a>	P	<i>Category : EDITORIAL</i> <b>(155) Japan (17 Sep 2024 12:57 PM)</b>
181	<i>M. ardenensis</i> : de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967), <b>13</b> (4): 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	P	<i>Category : EDITORIAL</i> <b>(156) Japan (17 Sep 2024 12:59 PM)</b> This literature should be added to 8. References.
181	<i>M. ardenensis</i> : de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967), 13: 593–	C	<i>Category : EDITORIAL</i> <b>(328) European Union (26 Sep 2024 12:42 PM)</b>

	598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>		Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
181	<i>M. ardenensis</i> : de <a href="#">A. Santos, M.S.N. 1968</a> , <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967), 13: 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	C	<i>Category : EDITORIAL</i> <b>(237) EPPO (17 Sep 2024 4:24 PM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
182	<i>M. camelliae</i> : Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: <del>Meloidogynidae</del> <i>Meloidogynidae</i> ), with SEM and host-range observations. <i>Journal of Nematology</i> , <del>11</del> <b>11</b> (2): 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	P	<i>Category : EDITORIAL</i> <b>(157) Japan (17 Sep 2024 1:00 PM)</b> This literature should be added to 8. References.
182	<i>M. camelliae</i> : <a href="#">Golden, A.M. 1979</a> . Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , 11: 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	C	<i>Category : EDITORIAL</i> <b>(329) European Union (26 Sep 2024 12:48 PM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
182	<i>M. camelliae</i> : <a href="#">Golden, A.M. 1979</a> . Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , 11: 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	C	<i>Category : EDITORIAL</i> <b>(238) EPPO (17 Sep 2024 4:24 PM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
184	<i>M. suginamiensis</i> : Toida, Y. & Yaegashi, T. 1984. Description of <i>Meloidogyne suginamiensis</i> n. sp. (Nematoda: Meloidogynidae) from mulberry in Japan. <i>Japanese Journal of Nematology</i> , <del>14</del> <b>21</b> : 49–57.	P	<i>Category : EDITORIAL</i> <b>(158) Japan (17 Sep 2024 1:01 PM)</b>
187	This section provides information regarding molecular methods that enable the identification of <i>M. mali</i> from isolated nematodes at any life stage. <del><i>M. mali</i> can be identified solely on the basis of molecular or biochemical methods.</del> <i>M. mali</i> cannot be identified solely on the basis of molecular or biochemical methods.	P	<i>Category : SUBSTANTIVE</i> <b>(367) China (29 Sep 2024 3:37 AM)</b> In molecular or biochemical methods, several single J2s or females are already detected, though they were not check with morphological characters, it is suggested that “ <i>M. mali</i> can be identified solely on the basis of molecular or biochemical methods”.
187	This section provides information regarding molecular methods that enable the identification of <i>M. mali</i> from isolated nematodes at any life stage. <i>M. mali</i> cannot be identified solely on <del>the basis of</del> molecular or biochemical methods.	P	<i>Category : EDITORIAL</i> <b>(282) Kuwait (24 Sep 2024 7:48 AM)</b>
187	This section provides information regarding molecular methods that enable the identification of <i>M. mali</i> from isolated nematodes at any life stage. <del><i>Meloidogyne M. mali</i></del> cannot be identified solely on the basis of molecular or biochemical methods.	P	<i>Category : EDITORIAL</i> <b>(159) Japan (17 Sep 2024 1:03 PM)</b>
187	This section provides information regarding molecular methods that enable the identification of <i>M. mali</i> <del>from isolated nematodes</del> at any life <del>stages</del> <i>stages</i> . <i>M. mali</i> cannot be identified solely on the basis of molecular or biochemical methods.	P	<i>Category : EDITORIAL</i> <b>(121) New Zealand (11 Sep 2024 1:04 AM)</b> to make sentence more concise
188	Several <del>molecular</del> methods are available for the identification of <i>M. mali</i> . The molecular <del>methods</del> <i>method</i> described hereafter <del>are those is</del> recommended at the time of drafting of this protocol. Other methods may be available. Extraction of DNA is the first step for any molecular method (section 4.3.1). DNA barcoding	P	<i>Category : EDITORIAL</i> <b>(330) European Union (26 Sep 2024 12:52 PM)</b>

	(section 4.3.2) is recommended to <del>identify-differentiate</del> <i>M. mali</i> from other species with which it may be confused, including <i>M. paramali</i> .		
188	<del>Several molecular methods are available for the identification of <i>M. mali</i>.</del> Several methods are available for the identification of <i>M. mali</i> . The molecular <del>methods-method</del> described hereafter are those recommended at the time of drafting of this protocol. Other methods may be available. Extraction of DNA is the first step for any molecular method (section 4.3.1). DNA barcoding (section 4.3.2) is recommended to <del>identify-differentiate</del> <i>M. mali</i> from other species with which it may be confused, including <i>M. paramali</i> .	P	Category : EDITORIAL (239) EPPO (17 Sep 2024 4:24 PM) Adjust also sentence; is recommended instead of are recommended.
190	<b>4.3.1 DNA extraction</b>	C	Category : TECHNICAL (331) European Union (26 Sep 2024 12:54 PM) Suggestion to include a method using lysisbuffer, such as Holterman et al 2006
190	<b>4.3.1 DNA extraction</b>	C	Category : TECHNICAL (240) EPPO (17 Sep 2024 4:24 PM) Suggestion to include a method using lysisbuffer, such as Holterman et al 2006
190	<b>4.3.1 DNA extraction</b>	C	Category : TECHNICAL (7) COSAVE (15 Aug 2024 12:37 AM) What about DNA quality and concentration? Is there a minimal DNA concentration required for the barcoding? Regarding the extraction procedure with just 3-5 individuals, is it enough to get good DNA concentration with the listed methods?
191	<b>Method 1</b> (Gu <i>et al.</i> , 2021). Extraction should be performed on 3–5 individual nematodes. A single nematode is placed into a 200 µL polymerase chain reaction (PCR) microtube that has been preprepared to contain 8 µL ddH <sub>2</sub> O and 1 µL 10× PCR buffer (Mg <sup>2+</sup> -free). The PCR microtube containing the nematode specimen is placed in an ultra-low-temperature refrigerator (–70 °C) for a minimum of 20 min. After this, the PCR microtube is heated at 85 °C for 2 min, then 1 µL proteinase K (1 mg/mL) is added and the tube is heated at 56 °C for 15 min, followed by heating at 95 °C for 10 min. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	C	Category : TECHNICAL (332) European Union (26 Sep 2024 12:58 PM) Adding proteinase K in a PCR tube at 85 °C, may seriously affect the integrity of the enzyme and therefore decrease the DNA yield. Please provide information on whether it has it been tested/observed/validated before, or used in one or several labs with many experience with <i>M. mali</i> ? Please verify, as the optimal temperature for proteinase K is 65°C and not 56°C
191	<b>Method 1</b> (Gu <i>et al.</i> , 2021). Extraction should be performed on 3–5 individual nematodes. A single nematode is placed into a 200 µL polymerase chain reaction (PCR) microtube that has been preprepared to contain 8 µL ddH <sub>2</sub> O and 1 µL 10× PCR buffer (Mg <sup>2+</sup> -free). The PCR microtube containing the nematode specimen is placed in an ultra-low-temperature refrigerator (–70 °C) for a minimum of 20 min. After this, the PCR microtube is heated at 85 °C for 2 min, then 1 µL proteinase K (1 mg/mL) is added and the tube is heated at 56 °C for 15 min, followed by heating at 95 °C for 10 min. The DNA obtained is ready for direct PCR amplification or	C	Category : TECHNICAL (241) EPPO (17 Sep 2024 4:24 PM) Adding proteinase K in a PCR tube at 85 °C, may seriously affect the integrity of the enzyme and therefore decrease the DNA yield. Please provide information on whether it has it been tested/observed/validated before, or used in one or several labs with many experience with <i>M. mali</i> ? Please verify, as the optimal temperaure for proteinase K is 65°C and not 56°C

	can be stored at –20 °C until required.		
191	<b>Method 1</b> (Gu <i>et al.</i> , 2021). <del>Extraction</del> <u>DNA extraction</u> should be performed on 3–5 individual nematodes. A single nematode is placed into a 200 µL polymerase chain reaction (PCR) <del>microtubemicrotube</del> <u>microtube that has been preprepared to contain containing</u> 8 µL ddH <sub>2</sub> O and 1 µL 10× PCR buffer (Mg <sup>2+</sup> -free). <del>The PCR microtube containing the nematode specimen</del> <u>This content</u> is placed in an ultra-low-temperature refrigerator (–70 °C) for a minimum of 20 min. After this, the PCR microtube is heated at 85 °C for 2 min, then 1 µL proteinase K (1 mg/mL) is added and the tube is heated at 56 °C for 15 min, followed by heating at 95 °C for 10 min. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	P	<i>Category : EDITORIAL</i> <b>(122) New Zealand (11 Sep 2024 1:08 AM)</b> to make sentence more concise
191	<b>Method 1</b> (Gu <i>et al.</i> , 2021). Extraction should be performed on 3–5 individual <del>nematodes</del> <u>nematodes under nuclease-free conditions</u> . A single nematode is placed into a 200 µL polymerase chain reaction (PCR) microtube that has been preprepared to contain 8 µL ddH <sub>2</sub> O and 1 µL 10× PCR buffer (Mg <sup>2+</sup> -free). The PCR microtube containing the nematode specimen is placed in an ultra-low-temperature refrigerator (–70 °C) for a minimum of 20 min. After this, the PCR microtube is heated at 85 °C for 2 min, then 1 µL proteinase K (1 mg/mL) is added and the tube is heated at 56 °C for 15 min, followed by heating at 95 °C for 10 min. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	P	<i>Category : TECHNICAL</i> <b>(23) Colombia (15 Aug 2024 6:59 PM)</b> The description of Method 1 for DNA extraction mentions the use of ddH <sub>2</sub> O and PCR buffer but does not specify the importance of nuclease-free conditions to avoid DNA degradation.
192	<b>Method 2</b> (Heydari & Pedram, 2020). Extraction should be performed on 3–5 individual nematodes. A 15 µL drop of TE buffer (10 mM Tris-Cl; 0.5 mM ethylenediaminetetraacetic acid (EDTA); pH 9.0) is placed on a clean slide. A single nematode is placed in the drop of buffer and either directly squashed with the tip of a suction pipette or cut into pieces with a sterile hypodermic needle. This solution is then pipetted into a 200 µL PCR tube. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	C	<i>Category : TECHNICAL</i> <b>(333) European Union (26 Sep 2024 12:59 PM)</b> Please provide information on whether this method has been validated, as the method of squashing a single nematode may give highly variable results in DNA yield.
192	<b>Method 2</b> (Heydari & Pedram, 2020). Extraction should be performed on 3–5 individual nematodes. A 15 µL drop of TE buffer (10 mM Tris-Cl; 0.5 mM ethylenediaminetetraacetic acid (EDTA); pH 9.0) is placed on a clean slide. A single nematode is placed in the drop of buffer and either directly squashed with the tip of a suction pipette or cut into pieces with a sterile hypodermic needle. This solution is then pipetted into a 200 µL PCR tube. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	C	<i>Category : TECHNICAL</i> <b>(242) EPPO (17 Sep 2024 4:24 PM)</b> Please provide information on whether this method has been validated, as the method of squashing a single nematode may give highly variable results in DNA yield.
192	<b>Method 2</b> (Heydari & Pedram, 2020). <del>Extraction</del> <u>DNA extraction</u> should be	P	<i>Category : EDITORIAL</i> <b>(123) New Zealand (11 Sep 2024 1:09 AM)</b>

	performed on 3–5 individual nematodes. A <del>15 µL</del> drop of <u>15 µL</u> TE buffer (10 mM Tris-Cl; 0.5 mM ethylenediaminetetraacetic acid (EDTA); pH 9.0) is placed on a clean slide. A single nematode is placed in the drop of buffer and either directly squashed with the tip of a suction pipette or cut into pieces with a sterile hypodermic needle. This solution is then pipetted into a 200 µL PCR tube. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.		
192	<b>Method 2</b> (Heydari & Pedram, 2020). Extraction should be performed on 3–5 individual nematodes. A 15 µL drop of TE buffer (10 mM Tris-Cl; 0.5 mM ethylenediaminetetraacetic acid (EDTA); pH 9.0) is placed on a clean slide. A single nematode is placed in the drop of buffer and either directly squashed with the tip of a suction pipette or cut into pieces with a sterile hypodermic needle, <u>ensuring no contamination occurs</u> . This solution is then pipetted into a 200 µL PCR tube. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	P	<i>Category : TECHNICAL</i> <b>(25) Colombia (15 Aug 2024 7:02 PM)</b> Method 2 describes the squashing or cutting of nematodes in a TE buffer drop but lacks specific mention of the importance of avoiding contamination during this process.
192	<b>Method 2</b> (Heydari & Pedram, 2020). Extraction should be performed on 3–5 individual nematodes. A 15 µL drop of TE buffer (10 mM Tris-Cl; 0.5 <del>mM</del> <u>ethylenediaminetetraacetic</u> <del>Methylenediaminetetraacetic</del> acid (EDTA); pH 9.0) is placed on a clean slide. A single nematode is placed in the drop of buffer and either directly squashed with the tip of a suction pipette or cut into pieces with a sterile hypodermic needle. This solution is then pipetted into a 200 µL PCR tube. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	P	<i>Category : EDITORIAL</i> <b>(24) Colombia (15 Aug 2024 7:01 PM)</b> correct the spacing of words
192	<b>Method 2</b> (Heydari & Pedram, 2020). Extraction should be performed on 3–5 individual nematodes. A 15 µL drop of TE buffer (10 mM Tris-Cl; 0.5 mM ethylenediaminetetraacetic acid (EDTA); pH 9.0) is placed on a clean slide. A single nematode is placed in the drop of buffer and either directly squashed with the tip of a suction pipette or cut into pieces with a sterile hypodermic needle. This solution is then pipetted into a 200 µL PCR tube. The DNA obtained is ready for direct PCR amplification or can be stored at –20 °C until required.	C	<i>Category : TECHNICAL</i> <b>(8) COSAVE (15 Aug 2024 12:38 AM)</b> In this case, we should say that the sample is not solely DNA. Maybe we could say that this is a “nematode sample” or “nematode material”.
193	<b>Other methods.</b> Methods 1 and 2 may be adjusted to the standards of individual laboratories, provided that they are adequately validated. Commercial kits, such as the DNeasy Blood and Tissue Kit (QIAGEN), the QIAamp DNA Micro Kit (QIAGEN) or the Nematode DNA extraction kit (ClearDetections), may also be used: such kits should be used according to the manufacturer’s instructions or may be adapted following in-house validation. <sup>1</sup>	P	<i>Category : TECHNICAL</i> <b>(22) Colombia (15 Aug 2024 6:57 PM)</b> It is important to mention the importance of sample purity and the potential for contamination during DNA extraction, which can affect results.  Add details on sample preparation to avoid cross contamination.

	<u>Emphasize the importance of sample purity and the risk of contamination during DNA extraction, as this can impact results. Ensure samples are processed individually to avoid cross-contamination, and clean equipment thoroughly between samples.</u>		
195	<b>4.3.2 DNA barcoding</b>	C	Category : <i>SUBSTANTIVE</i> <b>(62) South Africa (20 Aug 2024 11:58 AM)</b> Proposal for including the sequences of the primers to be used for the different regions in the form of a table.
195	<b>4.3.2 DNA barcoding</b>	C	Category : <i>TECHNICAL</i> <b>(9) COSAVE (15 Aug 2024 12:39 AM)</b> This barcoding mentioned is mainly based on DNA sequencing. Maybe we should consider to make it clear in the document that the amplification of the different regions must be followed by sequencing of the PCR products.
196	Ribosomal (r)RNA-based molecular barcoding remains a powerful tool for <i>M. mali</i> delimitation ( <del>Gu, (Gu et al.</del> Fang and Liu, 2020). Several genomic regions have been directly sequenced from isolated nematodes for the purpose of species identification of <i>M. mali</i> and differentiation of different <i>Meloidogyne</i> species (EPPO, 2016). These regions include the 18S small subunit (SSU), internal transcribed spacers (ITS), the 28S large subunit (LSU) of ribosomal DNA, and the cytochrome c oxidase I (COI) mitochondrial DNA region (Holterman <i>et al.</i> , 2009; Ahmed <i>et al.</i> , 2013). In <i>M. mali</i> , COI sequences are more homogeneous than rRNA sequences; COI gene sequencing is also the most efficient method for DNA barcoding. A single gene can be used for DNA barcoding, but several genes used together give a more reliable identification. The targeted region is amplified by PCR and the amplicons are sequenced either directly or after they are cloned. A protocol for DNA barcoding based on COI, SSU and LSU is described in Appendix 5 of EPPO (2016) and can be used to support the identification of <i>M. mali</i> .	P	Category : <i>EDITORIAL</i> <b>(161) Japan (17 Sep 2024 1:04 PM)</b>
196	Ribosomal ( <del>r</del> )RNA-based-ribonucleic acid (rRNA)-based molecular barcoding remains a powerful tool for <i>M. mali</i> delimitation (Gu, Fang and Liu, 2020). Several genomic <del>regions</del> <u>regions/genes</u> have been directly sequenced from <del>isolated</del> nematodes for <del>the purpose of</del> species identification of <i>M. mali</i> and differentiation of different <i>Meloidogyne</i> species (EPPO, 2016). These regions include the 18S small subunit (SSU), internal transcribed spacers (ITS), the 28S large subunit ( <del>LSU</del> ) of ribosomal DNA(LSU), and the cytochrome c oxidase I (COI) mitochondrial DNA region (Holterman <i>et al.</i> , 2009; Ahmed <i>et al.</i> , 2013). In <i>M. mali</i> , COI sequences are more homogeneous than rRNA sequences; COI gene	P	Category : <i>EDITORIAL</i> <b>(124) New Zealand (11 Sep 2024 1:13 AM)</b>

	sequencing is also the most efficient method for DNA barcoding. A single gene can be used for DNA barcoding, but several genes used together give a more reliable identification. The targeted region is amplified by <u>using appropriate PCR primers</u> and the amplicons are sequenced either directly or <u>after they are cloned indirectly (cloned)</u> . A protocol for DNA barcoding based on COI, SSU and LSU is described in Appendix 5 of EPPO (2016) and can be used to support the identification of <i>M. mali</i> .		
197	Reference to reliable, curated databases for DNA sequencing, such as EPPO-Q-bank ( <a href="https://qbank.eppo.int/nematodes/">https://qbank.eppo.int/nematodes/</a> ), should be made (Bonants, Edema and Robert, 2013; EPPO, 2018). Other sources of reference sequences may be used, such as GenBank ( <a href="https://www.ncbi.nlm.nih.gov/genbank/">https://www.ncbi.nlm.nih.gov/genbank/</a> : sequence MT406757 for the LSU barcode of <i>M. mali</i> ).	P	Category : EDITORIAL (162) Japan (17 Sep 2024 1:05 PM)
198	Sequence data can then be analysed using the Basic Local Alignment Search Tool (BLAST) available at the National Center for Biotechnology Information (NCBI) ( <a href="http://www.ncbi.nlm.nih.gov">www.ncbi.nlm.nih.gov</a> ) and compared with <i>Meloidogyne</i> sequences available in the NCBI database.	C	Category : TECHNICAL (10) COSAVE (15 Aug 2024 12:40 AM) Should we add also COI region? As we see in EPPO (2016), and is further mentioned (204), that is more important and relevant than rRNA genes.
199	For the SSU, ITS or LSU, the following criteria apply:	C	Category : TECHNICAL (26) Colombia (15 Aug 2024 7:07 PM) It is suggested to include more information about the suggested genes, such as expected size in base pairs, for <i>M. mali</i> and photograph documenting the results of agarose gel amplifications for the suggested markers.
200	<b>18S SSU <u>generegion</u></b> . If the sample's pairwise sequence divergence compared with known <i>M. mali</i> sequences is less than 2% but more than 2% compared with all other species, it is identified as <i>M. mali</i> .	P	Category : TECHNICAL (125) New Zealand (11 Sep 2024 1:14 AM) Region is the correct term
201	<b>Internal transcribed spacer gene</b> . If the sample's pairwise sequence divergence compared with known <i>M. mali</i> sequences is less than <u>5%-7%</u> but more than <u>5%-7%</u> compared with all other species, it is identified as <i>M. mali</i> .	P	Category : SUBSTANTIVE (369) China (29 Sep 2024 4:07 AM) Due to the high intraspecific variation in the ITS sequences of <i>M. mal</i> , a 7% divergence rate is more reasonable after re-verification of the literature.
201	<b>Internal transcribed spacer <u>generegion</u></b> . If the sample's pairwise sequence divergence compared with known <i>M. mali</i> sequences is less than 5% but more than 5% compared with all other species, it is identified as <i>M. mali</i> .	P	Category : TECHNICAL (126) New Zealand (11 Sep 2024 1:14 AM)
201	<b>Internal transcribed spacer gene</b> . If the sample's pairwise sequence divergence compared with known <i>M. mali</i> sequences is less than <u>5%-7%</u> but more than <u>5%-7%</u> compared with all other species, it is identified as <i>M. mali</i> .	P	Category : TECHNICAL (44) China (16 Aug 2024 2:08 AM) Due to the high intraspecific variation in the ITS sequences of <i>M. mal</i> , a 7% divergence rate is more reasonable after re-verification of the literature.
202	<b>28S LSU <u>generegion</u></b> . If the sample's pairwise sequence divergence compared with known <i>M. mali</i> sequences is less than 5% but more than 5% compared with all	P	Category : TECHNICAL (127) New Zealand (11 Sep 2024 1:14 AM)

	other species, it is identified as <i>M. mali</i> .		
204	<del>Compared with rRNA, COI sequences in <i>M. mali</i> are more homogeneous. If the sample's COI pairwise sequence divergence compared with known <i>M. mali</i> sequences is less than 1% but more than 1% compared with all other species, it is identified as <i>M. mali</i>.</del> Em comparação com o rRNA, as sequências COI em <i>M. mali</i> são mais homogêneas. Se a divergência de sequência par a par COI da amostra em comparação com <u>sequências <i>M. mali</i> conhecidas</u> for inferior a 1%, mas superior a 1% em comparação com todas as outras espécies, ela é identificada como <i>M. mali</i> .	P	Category : EDITORIAL (69) Guinea-Bissau (20 Aug 2024 5:10 PM) Os controlos bem como controlos adicionais
205	<del>Controls for barcoding</del> Controles para código de barras	P	Category : EDITORIAL (70) Guinea-Bissau (20 Aug 2024 5:35 PM) Controlos
206	For the test result to be considered reliable, appropriate <del>controls—controls</del> , which will depend on the type of method used for the test and the level of certainty <del>required—required</del> , should be considered for each series of nucleic acid isolations and amplifications of the target pest or target nucleic acid.	P	Category : EDITORIAL (283) Kuwait (24 Sep 2024 7:49 AM)
206	<del>For the test result to be considered reliable</del> Para que o resultado do ensaio seja considerado fiável, <del>appropriate controls devem ser considerados</del> <u>adequados</u> – <del>which will depend on the type of method used for the test and the level of certainty required</del> que dependerão do tipo de método utilizado para o ensaio e do nível de certeza exigido – <del>should be considered for each series of nucleic acid isolations and amplifications of the target pest or target nucleic acid</del> para cada série de isolamentos e amplificações de ácidos nucleicos da praga ou do ácido nucleico alvo.	P	Category : EDITORIAL (71) Guinea-Bissau (20 Aug 2024 5:52 PM) Sem comentaruis
207	The minimum controls are described below, as well as additional controls that may be used for barcoding.	C	Category : SUBSTANTIVE (334) European Union (26 Sep 2024 1:04 PM) Not sure it is clear what are the minimum controls and the additional controls in paragraphs 208 to 210.
207	The minimum controls are described below, as well as additional controls that may be used for barcoding.	C	Category : SUBSTANTIVE (243) EPPO (17 Sep 2024 4:24 PM) Not sure it is clear what are the minimum controls and the additional controls in paragraphs 208 to 210.
208	<b>Positive nucleic acid control.</b> This control is used to monitor the efficiency of PCR amplification. Preprepared (stored) nucleic acid, whole genomic DNA or a synthetic control (e.g. cloned PCR product) may be used.	C	Category : SUBSTANTIVE (368) China (29 Sep 2024 4:06 AM) In practice, not all laboratories are able to acquire a positive control. Additionally, the length of amplicons is not always solely connected with the target nematode.
208	<b>Positive nucleic acid control.</b> This control <b>is</b> used to monitor the efficiency of PCR amplification. Preprepared (stored) nucleic acid, whole genomic DNA or a synthetic control (e.g. cloned PCR product) may be used.	C	Category : SUBSTANTIVE (336) European Union (26 Sep 2024 2:15 PM) Does this mean it is a minimum control? (Please see comment on paragraph 207). Should "is" be replaced with "should be"?
208	<b>Positive nucleic acid control.</b> This control <b>is</b> used to monitor the efficiency of	C	Category : SUBSTANTIVE (244) EPPO (17 Sep 2024 4:24 PM)

	PCR amplification. Preprepared (stored) nucleic acid, whole genomic DNA or a synthetic control (e.g. cloned PCR product) may be used.		Does this mean it is a minimum control? (Please see comment on paragraph 207). Should "is" be replaced with "should be"?
208	<b>Positive nucleic acid control.</b> This control is used to monitor the efficiency of PCR amplification. Preprepared (stored) <u>M. mali</u> nucleic acid, whole genomic DNA or a synthetic control <u>of a target region</u> (e.g. cloned PCR product) may be used.	P	<i>Category : EDITORIAL</i> <b>(128) New Zealand (11 Sep 2024 1:15 AM)</b>
208	<b>Positive nucleic acid control.</b> This control is used to monitor the efficiency of PCR amplification. Preprepared (stored) nucleic acid, whole genomic DNA or a synthetic control (e.g. cloned PCR product) may be used.	C	<i>Category : SUBSTANTIVE</i> <b>(43) China (16 Aug 2024 2:08 AM)</b> Is this method recommended or obligation? In practice, not all laboratories are able to acquire a positive control. Additionally, the length of amplicons is not always solely connected with the target nematode.
209	<b>Negative amplification control (no template control).</b> This control <u>is necessary</u> for conventional and real-time PCR to rule out false positives resulting from contamination during preparation of the reaction mixture. PCR-grade water that was used to prepare the reaction mixture is added at the amplification stage.	C	<i>Category : SUBSTANTIVE</i> <b>(337) European Union (26 Sep 2024 2:17 PM)</b> Does this mean it is a minimum control? (please see comment on paragraph 207). Should "is necessary" be replaced with "should be used"?
209	<b>Negative amplification control (no template control).</b> This control <u>is necessary</u> for conventional and real-time PCR to rule out false positives resulting from contamination during preparation of the reaction mixture. PCR-grade water that was used to prepare the reaction mixture is added at the amplification stage.	C	<i>Category : SUBSTANTIVE</i> <b>(245) EPPO (17 Sep 2024 4:24 PM)</b> Does this mean it is a minimum control? (please see comment on paragraph 207). Should "is necessary" be replaced with "should be used"?
209	<b>Negative amplification control (no template control).</b> This control is necessary for conventional and real-time PCR to rule out false positives resulting from contamination during preparation of the <u>PCR</u> reaction mixture. PCR-grade water that was used to prepare the reaction mixture is added at the amplification stage.	P	<i>Category : EDITORIAL</i> <b>(129) New Zealand (11 Sep 2024 1:16 AM)</b>
210	<b>Negative extraction control.</b> This control <u>is</u> used to monitor contamination during nucleic acid extraction. Extraction buffer can be used as a negative extraction control. It is recommended that multiple controls be included when large numbers of positive samples are processed.	C	<i>Category : SUBSTANTIVE</i> <b>(339) European Union (26 Sep 2024 2:19 PM)</b> Does this mean it is a minimum control (please see comment on paragraph 207). Should "is" be replaced with "should be"?
210	<b>Negative extraction control.</b> This control is used to monitor contamination during nucleic acid extraction. Extraction buffer <u>can</u> be used as a negative extraction control. It is recommended that multiple controls be included when large numbers of positive samples are processed.	C	<i>Category : SUBSTANTIVE</i> <b>(338) European Union (26 Sep 2024 2:18 PM)</b> Should "can" be replaced with "may"?
210	<b>Negative extraction control.</b> This control is used to monitor contamination during nucleic acid extraction. <u>Extraction-An extraction</u> buffer can be used as a negative extraction control. It is recommended that multiple controls <u>should</u> be included when large numbers of positive samples are processed.	P	<i>Category : EDITORIAL</i> <b>(284) Kuwait (24 Sep 2024 7:51 AM)</b>
210	<b>Negative extraction control.</b> This control is used to monitor contamination during nucleic acid extraction. Extraction buffer <u>can</u> be used as a negative extraction	C	<i>Category : SUBSTANTIVE</i> <b>(247) EPPO (17 Sep 2024 4:24 PM)</b> Should "can" be replaced with "may"?

	control. It is recommended that multiple controls be included when large numbers of positive samples are processed.		
210	<b>Negative extraction control.</b> This control <b>is</b> used to monitor contamination during nucleic acid extraction. Extraction buffer can be used as a negative extraction control. It is recommended that multiple controls be included when large numbers of positive samples are processed.	C	<i>Category : SUBSTANTIVE</i> <b>(246) EPPO (17 Sep 2024 4:24 PM)</b> Does this mean it is a minimum control (please see comment on paragraph 207). Should "is" be replaced with "should be"?
210	<b>Negative extraction control.</b> This control is used to monitor contamination during nucleic acid extraction. Extraction buffer can be used as a negative extraction control. It is recommended that multiple controls be included when large numbers of positive samples are processed.	C	<i>Category : TECHNICAL</i> <b>(11) COSAVE (15 Aug 2024 12:41 AM)</b> If we obtain a negative result in the sample, how do we know that the reaction works well or it's just that we don't have a "PCRable" sample or a good DNA quality? Maybe we should consider to add a DNA verification step (quality/concentration). Just thoughts.
216	Isozymes are very useful for the identification of root-knot nematodes and are therefore usually included in the descriptions of new <i>Meloidogyne</i> species. In particular, the isozymes esterase (EST; EC 3.1.1.1) and malate dehydrogenase (MDH; EC 1.1.1.37) are commonly used for the identification of young egg-laying <i>Meloidogyne</i> females. This life stage is used because it has the highest protein content. The advantages of the isozyme electrophoresis method are that it is relatively simple, cheap and fast (within four hours, a complete run can be performed, including preparation and staining). It can also detect species mixtures easily when individual females are used. For most described <i>Meloidogyne</i> species, the isozymes patterns are available (see <del>Subbotin, Subbotin et al.</del> Palomares-Rius and Castillo, 2021). The disadvantage of this method is the need for young egg-laying females; this stage is not always available. It can be overcome by first culturing a particular <i>Meloidogyne</i> species, but this is time-consuming (taking 6 to 12 weeks).	P	<i>Category : EDITORIAL</i> <b>(163) Japan (17 Sep 2024 1:06 PM)</b>
216	Isozymes are very useful for the identification of root-knot nematodes and are therefore usually included in the descriptions of new <i>Meloidogyne</i> species. In particular, the isozymes esterase (EST; EC 3.1.1.1) and malate dehydrogenase (MDH; EC 1.1.1.37) are commonly used for the identification of young egg-laying <i>Meloidogyne</i> females. <b>This life stage is used because it has the highest protein content.</b> The advantages of the isozyme electrophoresis method are that it is relatively simple, cheap and fast (within four hours, a complete run can be performed, including preparation and staining). It can also detect species mixtures easily when individual females are used. For most described <i>Meloidogyne</i> species, the isozymes patterns are available (see Subbotin, Palomares-Rius and Castillo, 2021). The disadvantage of this method is the need for young egg-laying females; this stage is not always available. It can be overcome by first culturing a	C	<i>Category : TECHNICAL</i> <b>(130) New Zealand (11 Sep 2024 1:17 AM)</b> reference is needed for this statement

	particular <i>Meloidogyne</i> species, but this is time-consuming (taking 6 to 12 weeks).		
217	The recommended method is from Esbenshade and Triantaphyllou (1985). This is a native polyacrylamide thin-slab gel electrophoresis method in a discontinuous buffer system. Several useful polyacrylamide electrophoresis systems are available, including systems with prefabricated gels and <a href="#">mini-gel-mini-gel</a> tanks. Note that the PhastSystem, a partly automated micro gel electrophoresis apparatus, is no longer available (Karssen <i>et al.</i> , 1995).	P	Category : EDITORIAL (285) Kuwait (24 Sep 2024 7:51 AM)
218	For staining gels, it is recommended that one gel <a href="#">should</a> be stained for EST activity and another for MDH, with staining solutions prepared according to Table 2. Staining solutions are added to each gel and the gel then incubated at 37 °C in the dark. The total staining times for EST and MDH are 60 min and 5 min, respectively.	P	Category : EDITORIAL (286) Kuwait (24 Sep 2024 7:52 AM)
219	The species-specific phenotype of <i>Meloidogyne javanica</i> , with relative mobility (Rm) values of 1.0, 1.25 and 1.4 (Figure 11), should be used as a standard control in each gel. The EST and MDH isozyme pattern for <i>M. mali</i> can be compared with the isozyme data of Carneiro <i>et al.</i> (2000), Esbenshade and Triantaphyllou (1985) and Subbotin, Palomares-Rius and Castillo (2021). <i>M. mali</i> has a weak single EST band, the VS1 type, as in Figure 11A (see Esbenshade and Triantaphyllou (1985) for the isozyme notations or types)), while the MDH- <a href="#">HN1-1</a> type (Figure 11B) is most common. <a href="#">N1a-H1a</a> and <a href="#">N3H3</a> types have also been observed within <i>M. mali</i> (Ahmed <i>et al.</i> , 2013; Figure 11B, lanes 10 and 11, respectively). Some variation in isozyme types is common in sexually reproducing organisms.	P	Category : EDITORIAL (341) European Union (26 Sep 2024 2:28 PM)
219	The species-specific phenotype of <i>Meloidogyne javanica</i> , with relative mobility (Rm) values of 1.0, 1.25 and 1.4 (Figure 11), should be used as a standard control in each gel. The EST and MDH isozyme pattern for <i>M. mali</i> can be compared with the isozyme data of Carneiro <i>et al.</i> (2000), Esbenshade and Triantaphyllou (1985) and Subbotin, Palomares-Rius and Castillo (2021). <i>M. mali</i> has a weak single EST band, the VS1 type, as in Figure 11A (see Esbenshade and Triantaphyllou (1985) for the isozyme notations or types)), while the MDH N1 type (Figure 11B) is most common. N1a and N3 types have also been observed within <i>M. mali</i> (Ahmed <i>et al.</i> , 2013; Figure 11B, lanes 10 and 11, respectively). Some variation in isozyme types is common in sexually reproducing organisms.	C	Category : TECHNICAL (340) European Union (26 Sep 2024 2:23 PM) And what about lane 12 which looks like lanes 10 and 11? (Please see Figure 11B).  Better to clarify the banding types here or in figure 11 H1 = lanes 1-5, 8,9 H1a = lanes 10 and 12 H3 = lane 11
219	The species-specific phenotype of <i>Meloidogyne javanica</i> , with relative mobility (Rm) values of 1.0, 1.25 and 1.4 (Figure 11), should be used as a standard control in each gel. The EST and MDH isozyme pattern for <i>M. mali</i> can be compared with the isozyme data of Carneiro <i>et al.</i> (2000), Esbenshade and Triantaphyllou (1985)	P	Category : EDITORIAL (287) Kuwait (24 Sep 2024 7:52 AM)

	and Subbotin, Palomares-Rius and Castillo (2021). <i>M. mali</i> has a weak single EST band, the VS1 type, as in Figure 11A (see Esbenshade and Triantaphyllou (1985) for the isozyme notations or <del>types</del> types), while the MDH N1 type (Figure 11B) is most common. N1a and N3 types have also been observed within <i>M. mali</i> (Ahmed <i>et al.</i> , 2013; Figure 11B, lanes 10 and 11, respectively). Some variation in isozyme types is common in sexually reproducing organisms.		
219	The species-specific phenotype of <i>Meloidogyne javanica</i> , with relative mobility (Rm) values of 1.0, 1.25 and 1.4 (Figure 11), should be used as a standard control in each gel. The EST and MDH isozyme pattern for <i>M. mali</i> can be compared with the isozyme data of Carneiro <i>et al.</i> (2000), Esbenshade and Triantaphyllou (1985) and <del>Subbotin</del> Subbotin <i>et al.</i> , (2021). <del>Meloidogyne Palomares-Rius and Castillo (2021).</del> <i>M. mali</i> has a weak single EST band, the VS1 type, as in Figure 11A (see Esbenshade and Triantaphyllou (1985) for the isozyme notations or types)), while the MDH N1 type (Figure 11B) is most common. N1a and N3 types have also been observed within <i>M. mali</i> (Ahmed <i>et al.</i> , 2013; Figure 11B, lanes 10 and 11, respectively). Some variation in isozyme types is common in sexually reproducing organisms.	P	Category : EDITORIAL (164) Japan (17 Sep 2024 1:09 PM)
219	The species-specific phenotype of <i>Meloidogyne javanica</i> , with relative mobility (Rm) values of 1.0, 1.25 and 1.4 (Figure 11), should be used as a standard control in each gel. The EST and MDH isozyme pattern for <i>M. mali</i> can be compared with the isozyme data of Carneiro <i>et al.</i> (2000), Esbenshade and Triantaphyllou (1985) and Subbotin, Palomares-Rius and Castillo (2021). <i>M. mali</i> has a weak single EST band, the VS1 type, as in Figure 11A (see Esbenshade and Triantaphyllou (1985) for the isozyme notations or types)), while the MDH N1 type (Figure 11B) is most common. N1a and N3 types have also been observed within <i>M. mali</i> (Ahmed <i>et al.</i> , 2013; Figure 11B, lanes 10 and 11, respectively). Some variation in isozyme types is common in sexually reproducing organisms.	C	Category : TECHNICAL (249) EPPO (17 Sep 2024 4:24 PM) And what about lane 12 which looks like lanes 10 and 11? (Please see Figure 11B).  Better to clarify the banding types or here or in figure 11 H1 = lanes 1-5, 8,9 H1a = lanes 10 and 12 H3 = lane 11
219	The species-specific phenotype of <i>Meloidogyne javanica</i> , with relative mobility (Rm) values of 1.0, 1.25 and 1.4 (Figure 11), should be used as a standard control in each gel. The EST and MDH isozyme pattern for <i>M. mali</i> can be compared with the isozyme data of Carneiro <i>et al.</i> (2000), Esbenshade and Triantaphyllou (1985) and Subbotin, Palomares-Rius and Castillo (2021). <i>M. mali</i> has a weak single EST band, the VS1 type, as in Figure 11A (see Esbenshade and Triantaphyllou (1985) for the isozyme notations or types)), while the MDH <del>HNI-1</del> type (Figure 11B) is most common. <del>N1a-H1a</del> and <del>N3H3</del> types have also been observed within <i>M. mali</i> (Ahmed <i>et al.</i> , 2013; Figure 11B, lanes 10 and 11, respectively). Some variation in isozyme types is common in sexually reproducing organisms.	P	Category : EDITORIAL (248) EPPO (17 Sep 2024 4:24 PM)

219	The species-specific phenotype of <i>Meloidogyne javanica</i> , with relative mobility (Rm) values of 1.0, 1.25 and 1.4 (Figure 11), should be used as a standard control in each gel. The EST and MDH isozyme pattern for <i>M. mali</i> can be compared with the isozyme data of Carneiro <i>et al.</i> (2000), Esbenshade and Triantaphyllou (1985) and Subbotin, Palomares-Rius and Castillo (2021). <i>M. mali</i> has a weak single EST band, the VS1 type, as in Figure 11A (see Esbenshade and Triantaphyllou (1985) for the isozyme notations or types)), while the MDH N1 type (Figure 11B) is most common. N1a and N3 types have also been observed within <i>M. mali</i> (Ahmed <i>et al.</i> , 2013; Figure 11B, lanes 10 and 11, respectively). Some variation in isozyme types is common in sexually reproducing organisms.	C	Category : TECHNICAL (27) Colombia (15 Aug 2024 7:09 PM) Provide recommendations on the interpretation of enzyme profiles to differentiate <i>M. mali</i> from other species
246	<b>5. Records</b>	C	Category : TECHNICAL (28) Colombia (15 Aug 2024 7:09 PM) It is suggested to include a flowchart for the diagnostic process for better visualization.
247	Records and evidence should be retained as described in section 2.5 of ISPM 27 ( <i>Diagnostic protocols for regulated pests</i> ). In cases where other contracting parties may be affected by the results of the diagnosis, in particular in cases of non-compliance (ISPM 13 ( <i>Guidelines for the notification of non-compliance and emergency action</i> )) and where <i>M. mali</i> is found in an area for the first time, records and evidence (including preserved biological material or permanent slides) should be kept for at least one year in a manner that ensures traceability. As isolated nematodes will deteriorate in water, as many specimens as possible should be preserved in an appropriate medium for future examination. For morphological evidence, critical features as outlined in the diagnostic keys should be drawn, photographed or filmed on video while fresh material is available, and relevant measurements should be included. For molecular analysis, DNA should also be preserved. DNA extracts and PCR amplification products should be kept at -20 °C. For biochemical analysis, pictures of gels should be kept.	P	Category : EDITORIAL (288) Kuwait (24 Sep 2024 7:53 AM)
251	<a href="#">The Netherlands Food and Consumer Product Safety Authority, Netherlands Institute for Vectors, Invasive plants and Plant Health (NVWA-NIVIP), Geertjesweg 15, 6706 EA Wageningen, Kingdom of the Netherlands (Gerrit Karssen)</a> <del>National Plant Protection Organization (NPPO), Geertjesweg 15, 6706 EA Wageningen, Kingdom of the Netherlands (Gerrit Karssen; email: g.karssen@nvwa.nl).</del>	P	Category : EDITORIAL (342) European Union (26 Sep 2024 2:35 PM)
251	<a href="#">The Netherlands Food and Consumer Product Safety Authority, Netherlands Institute for Vectors, Invasive plants and Plant Health (NVWA-NIVIP)</a> <del>National Plant Protection Organization (NPPO), Geertjesweg 15, 6706 EA Wageningen,</del>	P	Category : EDITORIAL (250) EPPO (17 Sep 2024 4:24 PM)


	Kingdom of the Netherlands (Gerrit Karssen; email: g.karssen@nvwa.nl).		
258	The first draft of this protocol was written by Jianfeng Gu (Ningbo Inspection and Quarantine Science Technology Academy/Ningbo Customs Technology Center, China (see preceding section)), Gerrit Karssen ( <del>NPPO(NVWA-NIVIP, Kingdom of the The</del> Netherlands (see preceding section)), Thomas Prior (Fera Science Ltd., United Kingdom of Great Britain and Northern Ireland (see preceding section)), Fengcheng Sun (Canadian Food Inspection Agency, Canada (see preceding section)) and Trinh Thi Thu Thuy (MARD, Viet Nam (see preceding section)). The following experts provided comments that improved the quality of the protocol: Evelyn van Heese ( <del>Netherlands Institute for Vectors(NVWA-NIVIP, Invasive plants and Plant health (NIVIP), Kingdom of the The</del> Netherlands), <del>Daniel Apolonio</del> Silva de Oliveira ( <del>Netherlands Food and Consumer Product Safety Authority (NVWA-NIVIP, The Netherlands</del> NVWA), <del>Kingdom of the Netherlands</del> ) and Yiwu Fang (Technical Center of Ningbo Customs, China).	P	Category : EDITORIAL <b>(343) European Union (26 Sep 2024 2:43 PM)</b>
258	The first draft of this protocol was written by Jianfeng Gu (Ningbo Inspection and Quarantine Science Technology Academy/Ningbo Customs Technology Center, China (see preceding section)), Gerrit Karssen ( <del>NPPO(NVWA-NIVIP, Kingdom of the The</del> Netherlands (see preceding section)), Thomas Prior (Fera Science Ltd., United Kingdom of Great Britain and Northern Ireland (see preceding section)), Fengcheng Sun (Canadian Food Inspection Agency, Canada (see preceding section)) and Trinh Thi Thu Thuy (MARD, Viet Nam (see preceding section)). The following experts provided comments that improved the quality of the protocol: Evelyn van Heese ( <del>Netherlands Institute for Vectors(NVWA-NIVIP, Invasive plants and Plant health (NIVIP), Kingdom of the</del> Netherlands), <del>Daniel Apolonio</del> Silva de Oliveira ( <del>Netherlands Food and Consumer Product Safety Authority (NVWA-NIVIP, the Netherlands)(Netherlands Food and Consumer Product Safety Authority (Yiwu Fang (Technical Center of Ningbo Customs, China). NVWA), Kingdom of the Netherlands) and Yiwu Fang (Technical Center of Ningbo Customs, China).</del>	P	Category : EDITORIAL <b>(251) EPPO (17 Sep 2024 4:24 PM)</b>
262	<b>Araya, M. &amp; Caswell-Chen, E.P.</b> 1993. Enzymatic digestion of roots for the recovery of root-knot nematode developmental stages. <i>Journal of Nematology</i> , <del>25</del> <b>25</b> (4): 590–595. <a href="https://journals.flvc.org/jon/article/view/66547">https://journals.flvc.org/jon/article/view/66547</a>	P	Category : EDITORIAL <b>(165) Japan (17 Sep 2024 1:10 PM)</b>
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275	<b>Gu, J.F., Fang, Y. &amp; Liu, L.</b> 2020. Morphological and molecular analysis of a <i>Meloidogyne mali</i> population with high intragenomic rRNA polymorphism. <i>Journal of Nematology</i> , <b>52</b> : e2020-105. <a href="https://doi.org/10.21307/jofnem-2020-105">https://doi.org/10.21307/jofnem-2020-105</a>	C	Category : EDITORIAL <b>(252) EPPO (17 Sep 2024 4:24 PM)</b> The page numbers are missing.
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276	<b>Gu, J., Fang, Y., Ma, X., Shao, B. &amp; Zhuo, K.</b> 2023. <i>Meloidogyne paramali</i> n. sp. (Nematoda: Meloidogyninae) and first report of <i>M. marylandi</i> in maple and yacca tree from Japan. <i>Journal of Nematology</i> , <b>55(1)</b> . <a href="https://doi.org/10.2478/jofnem-2022-0036">https://doi.org/10.2478/jofnem-2022-0036</a>	C	Category : EDITORIAL <b>(346) European Union (26 Sep 2024 2:49 PM)</b> Typo: Paragraph alignment to be fixed.
276	<b>Gu, J., Fang, Y., Ma, X., Shao, B. &amp; Zhuo, K.</b> 2023. <i>Meloidogyne paramali</i> n. sp. (Nematoda: Meloidogyninae) and first report of <i>M. marylandi</i> in maple and yacca tree from Japan. <i>Journal of Nematology</i> , <b>55(1)</b> . <a href="https://doi.org/10.2478/jofnem-2022-0036">https://doi.org/10.2478/jofnem-2022-0036</a>	C	Category : EDITORIAL <b>(345) European Union (26 Sep 2024 2:46 PM)</b> The page numbers are missing.
276	<b>Gu, J., Fang, Y., Ma, X., Shao, B. &amp; Zhuo, K.</b> 2023. <i>Meloidogyne paramali</i> n. sp. (Nematoda: Meloidogyninae) and first report of <i>M. marylandi</i> in maple and yacca tree from Japan. <i>Journal of Nematology</i> ,	C	Category : EDITORIAL <b>(254) EPPO (17 Sep 2024 4:24 PM)</b> The page numbers are missing.




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276	<b>Gu, J., Fang, Y., Ma, X., Shao, B. &amp; Zhuo, K.</b> 2023. <i>Meloidogyne paramali</i> n. sp. (Nematoda: Meloidogyninae) and first report of <i>M. marylandi</i> in maple and yacca tree from Japan. <i>Journal of Nematology</i> , 55(1). <a href="https://doi.org/10.2478/jofnem-2022-0036">https://doi.org/10.2478/jofnem-2022-0036</a>	C	Category : EDITORIAL (253) EPPO (17 Sep 2024 4:24 PM) Typo: Paragraph alignment to be fixed.
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295	<b>9. Figures</b>	C	Category : EDITORIAL (370) China (29 Sep 2024 4:07 AM) These figs. are indistinct.
298	Source: <del>National Plant Protection Organization</del> NVWA-NIVIP, <del>Kingdom of the The</del> Netherlands.	P	Category : EDITORIAL (347) European Union (26 Sep 2024 5:12 PM)
298	Source: <del>National Plant Protection Organization</del> NVWA-NIVIP, <del>Kingdom of the</del> Netherlands.	P	Category : EDITORIAL (255) EPPO (17 Sep 2024 4:24 PM)
301	Source: Bas Steenks, <del>Kingdom of the The</del> Netherlands.	P	Category : EDITORIAL (348) European Union (26 Sep 2024 5:12 PM)
301	Source: Bas Steenks, <del>Kingdom of the The</del> Netherlands.	P	Category : EDITORIAL (256) EPPO (17 Sep 2024 4:24 PM)
304	<b>Figure 3.</b> <i>Meloidogyne mali</i> . (A)–(H) Second-stage (J2) juveniles: (A) body; (B) and (C) anterior region (lateral and dorsal, respectively); (D) metacarpus region; (E) lateral field; and (F–H) tails (lateral). (I–M) Females: (I), (J) and (L) anterior region; (K) stylet; and (M) body shape.	C	Category : TECHNICAL (185) Japan (17 Sep 2024 1:30 PM) The resolution of the image in Figure 3 should be increased because the image is blurred.
304	<b>Figure 3.</b> <i>Meloidogyne mali</i> . <del>(A)–(H)</del> (A–H) Second-stage <del>(J2) juveniles</del> juveniles (J2s): (A) body; (B) and (C) anterior region (lateral and <del>dorsal</del> dorsoventral, respectively); (D) metacarpus region; (E) lateral field; and (F–H) tails (lateral). (I–M) Females: (I), (J) and (L) anterior region; (K) stylet; and (M) body shape.	P	Category : EDITORIAL (186) Japan (17 Sep 2024 1:31 PM)
304	<b>Figure 3.</b> <i>Meloidogyne mali</i> . (A)–(H) Second-stage (J2) juveniles: (A) body; (B) and (C) anterior region (lateral and dorsal, respectively); (D) metacarpus region; (E) lateral field; and	C	Category : EDITORIAL (45) China (16 Aug 2024 2:10 AM)

	(F–H) tails (lateral). (I–M) Females: (I), (J) and (L) anterior region; (K) stylet; and (M) body shape.		Those figs. are indistinct. Please make these FIGs clear and distinct.
305	Source: Itoh, Y., Ohshima, Y. & Ichinohe, M. 1969. A root-knot nematode, <i>Meloidogyne mali</i> n. sp. on apple-tree from Japan (Tylenchida: Heteroderidae). <i>Applied Entomology and Zoology</i> , 44(4): 194–202. <a href="https://doi.org/10.1303/aez.4.194">https://doi.org/10.1303/aez.4.194</a>	P	Category : EDITORIAL (187) Japan (17 Sep 2024 1:31 PM)
311	Figure 5. Light photomicrographs-Lighmicroscopic photographs of <i>Meloidogyne mali</i> male and female perineal patterns: (A) and (B) male anterior; (C) posterior region of male; (D) lateral field of male; and (E–H) perineal patterns of females.	P	Category : EDITORIAL (349) European Union (26 Sep 2024 5:13 PM)
313	Source: Jiangfeng Gu, China.	C	Category : TECHNICAL (83) United States of America (27 Aug 2024 4:46 PM) (citation needed, a source for the figures if there is any)
316	Figure 6. <i>Meloidogyne mali</i> males: (A) and (B) anterior region (lateral and dorsoventral, respectively); (C) <del>region of metacarpus</del> metacarpus region; (D) lateral field; (E–G) tail regions (lateral, ventral, lateral, respectively); and (H) body.	P	Category : EDITORIAL (189) Japan (17 Sep 2024 1:33 PM) For consistency with paragraph 304
316	Figure 6. <i>Meloidogyne mali</i> males: (A) and (B) anterior region (lateral and dorsoventral, respectively); (C) region of metacarpus; (D) lateral field; (E–G) tail regions (lateral, ventral, lateral, respectively); and (H) body.	C	Category : TECHNICAL (188) Japan (17 Sep 2024 1:32 PM) The resolution of the image in Figure 6 should be increased because the image is blurred.
317	Source: Itoh, Y., Ohshima, Y. & Ichinohe, M. 1969. A root-knot nematode, <i>Meloidogyne mali</i> n. sp. on apple-tree from Japan (Tylenchida: Heteroderidae). <i>Applied Entomology and Zoology</i> , 44(4): 194–202. <a href="https://doi.org/10.1303/aez.4.194">https://doi.org/10.1303/aez.4.194</a>	P	Category : EDITORIAL (190) Japan (17 Sep 2024 1:33 PM)
319	Figure 7. Light photomicrographs-Lightmicroscopic photographs of <i>Meloidogyne mali</i> second-stage juveniles: (A) habitus following heat relaxation; (B–D) anterior region; (E) metacarpus region; and (F–M) tail region.	P	Category : EDITORIAL (257) EPPO (17 Sep 2024 4:24 PM)
321	Source: Jianfeng Gu, China.	C	Category : TECHNICAL (84) United States of America (27 Aug 2024 4:47 PM) (citation needed, a source for the figures if there is any)
324	Figure 8. Second-stage juvenile tails of <i>Meloidogyne mali</i> , <i>Meloidogyne ardenensis</i> , <i>Meloidogyne camelliae</i> , <i>Meloidogyne suginamiensis</i> , <i>Meloidogyne paramali</i> , <del><i>Meloidogyne suginamiensis</i></del> and <i>Meloidogyne vitis</i> .	P	Category : EDITORIAL (350) European Union (26 Sep 2024 5:17 PM)
324	Figure 8. Second-stage juvenile tails of <i>Meloidogyne mali</i> , <del><i>Meloidogyne M. ardenensis</i></del> , <del><i>Meloidogyne M. camelliae</i></del> , <del><i>Meloidogyne paramali M. suginamiensis</i></del> , <del><i>Meloidogyne suginamiensis M. paramali</i></del> and <del><i>Meloidogyne M. vitis</i></del> .	P	Category : TECHNICAL (310) Japan (26 Sep 2024 4:44 AM) Corrected order of names to correspond to Figure 8.
324	Figure 8. Second-stage juvenile tails of <i>Meloidogyne mali</i> , <i>Meloidogyne ardenensis</i> , <i>Meloidogyne camelliae</i> , <i>Meloidogyne paramalisuginamiensis</i> , <i>Meloidogyne paramali</i> , <del><i>Meloidogyne suginamiensis</i></del> and <i>Meloidogyne vitis</i> .	P	Category : EDITORIAL (258) EPPO (17 Sep 2024 4:24 PM)
327	(1) Itoh, Y., Ohshima, Y. & Ichinohe, M. 1969. A root-knot nematode, <i>Meloidogyne mali</i> n. sp. on apple-tree from Japan (Tylenchida: Heteroderidae). <i>Applied Entomology and Zoology</i> , 44(4): 194–202. <a href="https://doi.org/10.1303/aez.4.194">https://doi.org/10.1303/aez.4.194</a>	P	Category : EDITORIAL (191) Japan (17 Sep 2024 1:34 PM)
328	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967) 13: 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	C	Category : EDITORIAL (351) European Union (27 Sep 2024 10:54 AM) Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
328	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967) 13: 593–	C	Category : EDITORIAL (259) EPPO (17 Sep 2024 4:24 PM)

	598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>		Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
328	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967) <del>43</del> <b>13</b> (4): 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	P	Category : EDITORIAL <b>(192) Japan (17 Sep 2024 1:34 PM)</b>
329	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , 11: 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	C	Category : EDITORIAL <b>(352) European Union (27 Sep 2024 10:55 AM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
329	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , 11: 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	C	Category : EDITORIAL <b>(260) EPPO (17 Sep 2024 4:24 PM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
329	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , <del>11</del> <b>11</b> (2): 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	P	Category : EDITORIAL <b>(193) Japan (17 Sep 2024 1:34 PM)</b>
334		C	Category : TECHNICAL <b>(195) Japan (17 Sep 2024 1:38 PM)</b> The figure of <i>M. mali</i> in Figure 9 should be replaced by the figure of Itoh et al. (1969), the original description of <i>M. mali</i> . The figure of <i>M. mali</i> in Figure 9 is not from the original description of <i>M. mali</i> in Itoh et al. (1969), which is the source of the citation, but from the original description of <i>M. ulmi</i> in Palmisano and Ambrogioni (2000). If not replaced, the description in the cited reference in [338] should be corrected.
335	<b>Figure 9.</b> Perineal patterns of <i>Meloidogyne mali</i> , <i>Meloidogyne ardensis</i> , <i>Meloidogyne camelliae</i> , <i>Meloidogyne suginamiensis</i> , <i>Meloidogyne paramali</i> , <del><i>Meloidogyne suginamiensis</i></del> and <i>Meloidogyne vitis</i> .	P	Category : EDITORIAL <b>(353) European Union (27 Sep 2024 10:58 AM)</b>
335	<b>Figure 9.</b> Perineal patterns of <i>Meloidogyne mali</i> , <del><i>Meloidogyne M. ardensis</i></del> , <del><i>Meloidogyne M. camelliae</i></del> , <del><i>Meloidogyne paramali</i></del> <i>M. suginamiensis</i> , <i>M. paramali</i> , <del><i>Meloidogyne suginamiensis</i></del> and <del><i>Meloidogyne M. vitis</i></del> .	P	Category : TECHNICAL <b>(194) Japan (17 Sep 2024 1:37 PM)</b> Corrected order of names to correspond to Figure 9.
335	<b>Figure 9.</b> Perineal patterns of <i>Meloidogyne mali</i> , <i>Meloidogyne ardensis</i> , <i>Meloidogyne camelliae</i> , <i>Meloidogyne paramali</i> , <i>Meloidogyne suginamiensis</i> , <i>Meloidogyne paramali</i> , <del><i>Meloidogyne suginamiensis</i></del> and <i>Meloidogyne vitis</i> .	P	Category : EDITORIAL <b>(261) EPPO (17 Sep 2024 4:24 PM)</b>
336	Note: Drawings 1, 2, <del>4 and 4</del> , 5 <del>and 6</del> are not to the same scale as photo 3.	P	Category : EDITORIAL <b>(262) EPPO (17 Sep 2024 4:24 PM)</b> ? What about drawing 6?
336	Note: Drawings 1, 2, 4 and 5 are not to the same scale as photo 3.	C	Category : TECHNICAL <b>(196) Japan (17 Sep 2024 1:38 PM)</b> The scale of image 6 in Figure 9. is not stated.
338	(1) Itoh, Y., Ohshima, Y. & Ichinohe, M. 1969. A root-knot nematode, <i>Meloidogyne mali</i> n. sp. on apple-tree from Japan (Tylenchida: Heteroderidae). <i>Applied Entomology and Zoology</i> , <del>44</del> <b>4</b> (4): 194–202. <a href="https://doi.org/10.1303/aez.4.194">https://doi.org/10.1303/aez.4.194</a>	P	Category : EDITORIAL <b>(197) Japan (17 Sep 2024 1:39 PM)</b>
339	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new	C	Category : EDITORIAL

	British species of root-knot nematode. <i>Nematologica</i> (1967) 13: 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>		<b>(354) European Union (27 Sep 2024 10:58 AM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
339	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967) 13: 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	C	Category : EDITORIAL <b>(263) EPPO (17 Sep 2024 4:24 PM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
339	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967) <del>43</del> <b>13</b> (4): 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	P	Category : EDITORIAL <b>(198) Japan (17 Sep 2024 1:39 PM)</b>
340	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , 11: 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	C	Category : EDITORIAL <b>(355) European Union (27 Sep 2024 11:00 AM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
340	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , 11: 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	C	Category : EDITORIAL <b>(264) EPPO (17 Sep 2024 4:24 PM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
340	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) <del>Meloidogynidae</del> , with SEM and host-range observations. <i>Journal of Nematology</i> , <del>44</del> <b>11</b> (2): 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	P	Category : EDITORIAL <b>(199) Japan (17 Sep 2024 1:40 PM)</b>
341	(4) Toida, Y. & Yaegashi, T. 1984. Description of <i>Meloidogyne suginamiensis</i> n. sp. (Nematoda: Meloidogynidae) from mulberry in Japan. <i>Japanese Journal of Nematology</i> , <del>12</del> <b>14</b> : 49–57.	P	Category : EDITORIAL <b>(200) Japan (17 Sep 2024 1:41 PM)</b>
347	<b>Figure 10.</b> Male head regions of <i>Meloidogyne mali</i> , <i>Meloidogyne ardenensis</i> , <i>Meloidogyne camelliae</i> , <i>Meloidogyne paramalisuginamiensis</i> , <i>Meloidogyne paramali</i> and <i>Meloidogyne vitis</i> , <del><i>Meloidogyne suginamiensis</i> and <i>Meloidogyne vitis</i>.</del>	P	Category : EDITORIAL <b>(265) EPPO (17 Sep 2024 4:24 PM)</b>
347	<b>Figure 10.</b> Male head regions of <i>Meloidogyne mali</i> , <del><i>Meloidogyne-M. ardenensis</i>, <i>Meloidogyne-M. camelliae</i>, <i>Meloidogyne paramali</i>, <i>Meloidogyne suginamiensis</i>-<i>M. suginamiensis</i>, <i>M. paramali</i> and <i>Meloidogyne-M. vitis</i>.</del>	P	Category : TECHNICAL <b>(201) Japan (17 Sep 2024 1:43 PM)</b> Corrected order of names to correspond to Figure 10.
350	(1) Itoh, Y., Ohshima, Y. & Ichinohe, M. 1969. A root-knot nematode, <i>Meloidogyne mali</i> n. sp. on apple-tree from Japan (Tylenchida: Heteroderidae). <i>Applied Entomology and Zoology</i> , <del>44</del> <b>4</b> (4): 194–202. <a href="https://doi.org/10.1303/aez.4.194">https://doi.org/10.1303/aez.4.194</a>	P	Category : EDITORIAL <b>(204) Japan (17 Sep 2024 1:44 PM)</b>
351	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967) 13: 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	C	Category : EDITORIAL <b>(266) EPPO (17 Sep 2024 4:24 PM)</b> Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
351	(2) de A. Santos, M.S.N. 1968. <i>Meloidogyne ardenensis</i> n. sp. (Nematoda: Heteroderidae), a new British species of root-knot nematode. <i>Nematologica</i> (1967) <del>43</del> <b>13</b> (4): 593–598. <a href="https://doi.org/10.1163/187529267X00418">https://doi.org/10.1163/187529267X00418</a>	P	Category : EDITORIAL <b>(205) Japan (17 Sep 2024 1:44 PM)</b>
352	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: Meloidogynidae) with SEM and host-range observations. <i>Journal of Nematology</i> , 11: 175–	C	Category : EDITORIAL <b>(267) EPPO (17 Sep 2024 4:24 PM)</b>

	<a href="https://journals.flvc.org/jon/article/view/65150">189. https://journals.flvc.org/jon/article/view/65150</a>		Not listed in section 8 (References) because not mentioned in the core text of the standard but only in the legends of Table 1 and Figures 8 to 10.
352	(3) Golden, A.M. 1979. Description of <i>Meloidogyne camelliae</i> n. sp. and <i>M. querciana</i> n. sp. (Nematoda: <del>Meloidogynidae</del> - <i>Meloidogynidae</i> ), with SEM and host-range observations. <i>Journal of Nematology</i> , <del>11</del> <b>11</b> (2): 175–189. <a href="https://journals.flvc.org/jon/article/view/65150">https://journals.flvc.org/jon/article/view/65150</a>	P	Category : EDITORIAL <b>(206) Japan (17 Sep 2024 1:45 PM)</b>
353	(4) Toida, Y. & Yaegashi, T. 1984. Description of <i>Meloidogyne suginamiensis</i> n. sp. (Nematoda: Meloidogynidae) from mulberry in Japan. <i>Japanese Journal of Nematology</i> , <del>12</del> <b>14</b> : 49–57.	P	Category : EDITORIAL <b>(207) Japan (17 Sep 2024 1:45 PM)</b>
357		C	Category : TECHNICAL <b>(356) European Union (27 Sep 2024 11:02 AM)</b> For lanes 10-11 and lane 12 of Figure 11B, please see the comment made on paragraph 219.
357		C	Category : TECHNICAL <b>(268) EPPO (17 Sep 2024 4:24 PM)</b> For lanes 10-11 and lane 12 of Figure 11B, please see the comment made on paragraph 219.
357		C	Category : EDITORIAL <b>(202) Japan (17 Sep 2024 1:44 PM)</b> Adjust the position of the images so that they are aligned vertically.
358	<b>Figure 11.</b> Esterase (A) and malate dehydrogenase (B) isozyme profiles of <i>Meloidogyne mali</i> (1–5 and 8–12) and the reference <i>Meloidogyne javanica</i> (6 and 7).	C	Category : EDITORIAL <b>(203) Japan (17 Sep 2024 1:44 PM)</b> Adjust the position of the images so that they are aligned vertically.
358	<b>Figure 11.</b> Esterase (A) and malate dehydrogenase (B) isozyme profiles of <i>Meloidogyne mali</i> (1–5 and 8–12) and the reference <i>Meloidogyne javanica</i> (6 and 7).	C	Category : EDITORIAL <b>(46) China (16 Aug 2024 2:12 AM)</b> Make two pictures in same size. Looks not such regular.