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REPORT

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**Virtual Meeting
5 May 2021**

IPPC Secretariat

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1. Opening of the Meeting

1.1 Welcome

- [1] The Standard Setting Specialist Ms Aoife CASSIN, from the International Plant Protection Convention (IPPC) Secretariat (hereafter referred to as the “IPPC Secretariat”), welcomed the participants to this focused virtual meeting of the Technical Panel on Diagnostic Protocols (TPDP) to revise and recommend the draft DP *Striga* spp. (2008-009) to send to the Standards Committee (SC) for adoption.
- [2] The IPPC Secretariat noted that the draft went for first consultation in 2019 and has since been revised by the drafting group, the IPPC Secretariat, referee and the discipline leads. They paid a special thanks to Ms Colette JACONO for her work on the draft as the new discipline lead.

2. Meeting arrangements

2.1 Selection of the Chairperson

- [3] Mr Norman BARR (U.S. Animal and Plant Health Inspection Service) was selected as Chairperson.

2.2 Selection of the Rapporteur

- [4] Ms Yazmin RIVERA (U.S. Animal and Plant Health Inspection Service) was selected as Rapporteur.

2.3 Adoption of the agenda

- [5] The TPDP adopted the agenda (Appendix 1).

3. Administrative matters

- [6] The IPPC Secretariat reminded participants of Zoom meeting guidelines and to update their contact information if necessary, as it is reflected in the TPDP membership list¹ on the International Phytosanitary Portal (IPP – www.ippc.int). The participants list is presented in Appendix 2.

4. Recommendations to the SC for adoption

4.1 Revision and approval of *Striga* spp. (2008-009)

- [7] The draft diagnostic protocol (DP) for *Striga* spp. (2008-009) is in the [TPDP](#) work programme with priority 1². The drafting group was formed in 2014 and the initial draft was presented to the TPDP for review in February 2018³. It was sent for expert consultation in November 2018 and after some more reviews and edits, the SC approved the draft for consultation in 2019⁴.
- [8] Ms Colette JACONO, the new discipline lead, presented the background document draft DP *Striga* spp. (2008-009) which is the same document that was presented to the TPDP via eForum in April 2021, ahead of the virtual meeting. She noted there were many well-presented and useful country comments relating to the sampling procedure which could not be properly addressed by the lead author, discipline lead or the drafting group. Therefore, there are some significant comments to be considered by TPDP.

Section 2. Taxonomic Information

- [9] Ms Jacono noted that an entire nomenclature has been deleted, not as a result of country comments but because of the name, a subspecies designation, being poorly accepted by reference sources and as result

¹ TPDP membership list: <https://www.ippc.int/en/publications/81560/>

² List of topics for IPPC standards: <https://www.ippc.int/en/core-activities/standards-setting/list-topics-ipcc-standards/list>

³ 2018-02 TPDP meeting report: <https://www.ippc.int/en/publications/85736/>

⁴ 2019-07_Draft DP for *Striga* spp. for consultation: <https://www.ippc.int/en/publications/88462/> and Compiled Comments: <https://www.ippc.int/en/publications/88463/>

of the editor, lead author and co-author not being able to find the original publication, which is of a questionable date. The TPDP agreed the text should be removed.

Section 3. Detection

- [10] Ms Jacono highlighted that this section has been heavily edited at the request of many country comments to simplify the processes. Some lower level headings have been removed or renumbered.

Section 3.1 Sampling procedures

- [11] There were many requests from the country comments to simplify the sampling procedure. As suggested, paragraphs 81 and 82 have been deleted and the text from 3.1.1 (paragraph 83) has been edited and is the new 3.1 Sampling procedures text.
- [12] An appendix was added to the draft protocol that offers a list of species of grain and seeds that should be considered for *Striga* sampling. It was stressed that this list is not exhaustive and that this information was compiled by the lead author and discipline lead as a personal citation, hence this information is not readily available in literature, however, a very important and useful information to be provided to give guidance for countries to help the sampling procedures.
- [13] One TPDP member queried if the information included was needed as an appendix, noting that then it would be an appendix inside an annex to ISPM 27 which is not common practice for IPPC DPs. The IPPC Secretariat explained that there is no procedures preventing this, although acknowledged that this not a common practice.
- [14] The TPDP felt that the list is very useful and that this information would help the diagnosis as in most cases it may not be possible to sample everything. They agreed on the need to stress in the protocol that this is not an exhaustive list and that the information in the tables be moved under the “Pest information” section instead of adding it as an appendix.
- [15] The IPPC Secretariat reminded the members that the current Table 1 and Table 2 will need to be re-numbered to Table 3 and Table 4 when including the new tables under “Pest information”.

Section 3.2 Subsampling of the working sample for analysis

- [16] Ms Jacono explained that many country comments requested more clarity and a simplification of the text on the guidance for sampling. She noted that the text in the section was reduced by the co-author and the references to ISTA, 2018 have been removed as the co-author mentioned that the ISTA rules are revised every year and so they are now indirectly referenced.
- [17] The discipline lead also explained that paragraph 86 of the draft protocol has been deleted in line with country comments against the use of mechanical or rotary dividers due to the propensity for contamination. However, she considers the TPDP still need to address a country comment that the sample size for inspection of *Striga* seeds from consignments should be decided in accordance with ISPM 31 (*Methodologies for sampling of consignments*)⁵ and defined as one of the accepted sampling methods.
- [18] One TPDP member commented that the text should not only mention sampling for germination etc. but also for quality purposes. They also commented that mentioning the number of seeds is not relevant in the draft DP and that a reference protocol could be mentioned instead of it, considering the seed hosts.
- [19] The IPPC Secretariat reminded the TPDP that the DP is focused on the sampling in consignments and that ISTA protocols are not published and peer-reviewed. She noted that this is something the TPDP will need to consider.

⁵ ISPM 31 (*Methodologies for sampling of consignments*): <https://www.ippc.int/en/publications/588/>

- [20] Another member asked about the focus of sampling and the Discipline lead responded that it was for contamination. The member replied that in this case the DP should have more generic guidance on sampling in this section and referring to ISPM 31 while also reviewing the adopted DP 19 *Sorghum halepense*. Other TPDP members agreed.
- [21] The TPDP also noted that the sampling is not only for weeds, but it would also be done for other pests. They also discussed and recommended for the SC to consider with the Implementation Committee (IC) on providing more guidance on seed sampling. The TPDP Steward also stressed that this should be brought to the IC's attention.
- [22] **Section 3.3 Detection method for seeds of *Striga* species**
- [23] The discipline lead remained unsatisfied with the lack of recognition of brush contamination in this section. She noted that once the brush is contaminated with *Striga*, it is impossible to clean.
- [24] The TPDP agreed to amend to text clarify that a "single-use brush" should be used.

Section 3.3.1 Washing and filtration

- [25] The Discipline lead updated the group that the IPPC Secretariat, on request of the co-author and discipline lead, reached out to EPPO Secretariat in relation to a comment received during the consultation period about a water filtration system being used in Israel. A response was received from the expert in Israel shortly before the TPDP meeting and Ms Jacono updated the group that the method is not published however, she does not think this is a reason to exclude it from the protocol.
- [26] The IPPC Secretariat reminded the members that if this is a routine method used then its inclusion could be consider without needing a reference.
- [27] The TPDP agreed to re-phrasing the text and keeping the mention of the filtration method as an action that could be performed.

Section 4.1 Identification method

- [28] The Discipline lead notified the TPDP members that she felt the authors chose not to incorporate many useful comments for this section. As an example, unnecessary information remains to be removed such as the sentence on the pathways of contamination by *Striga*. There was a suggestion to remove the sentence from here as it should be in the Pest Information section. The TPDP agreed.
- [29] Regarding the last sentence on using molecular techniques, the TPDP were not aware of any molecular methods for identification of *Striga* species and therefore agreed to delete this new sentence and replace it with an explanation why molecular methods are not used.
- [30] The Discipline lead highlighted the focus of the DP should remain the detection and identification of seed. She suggested to add text impressing that species can be distinguished by seed morphology and to describe how to differentiate *Striga* seeds from other seeds with great economic potential, for example *orobanche* and *alecra* seeds. The text in Section 4.2 has been updated for a better distinction between the three *Striga* spp. The original table 1 (now table 3) has been moved down after the sub-sections on the seed morphology of the three *Striga* spp.

Section 4.2 Identification of seeds of *Striga* species

- [31] The Discipline lead mentioned that a number of country comments asked for a picture to be added of the capsule but there is no available reasonable images of capsules available and a photograph would need to be acquired.
- [32] For information she pointed out that some reorganization of the text was done to avoid overlap of the same information in sections 4.2 and 4.3. The original 4.2.1 was deleted and a general sentence was

added to the end of the paragraph in Section 4.3: “Where capsules are intact, differences in capsule size can also be used for identification: see Table 2.” The TPDP agreed this was a good approach.

- [33] The IPPC Secretariat noted that when the draft DP is finalized and the tables are renumbered, this last sentence should read “...: see Table 4”.

Section 4.2.2 Seed morphology of *Striga gesnerioides*

- [34] The Discipline lead highlighted a country comment that requested updating the seed size from 0.25 mm to 0.33 mm. The Discipline lead pointed out that size variation is innate to seeds and that within a species size should always be depicted as a range. A single size is not realistic and the range should be retained. This relates to paragraphs 130 and 134 as well as the length column given in Table 1.
- [35] The TPDP agreed, a range should be added and to go back to the DP authors to try retrieve this information. If the range cannot be retrieved from authors, they agreed this information on the length should be removed from the protocol.

Table 1

- [36] The Discipline lead noted that Table 1 has moved to the end of Section 4.2 and asked the TPDP to consider a country comment to include an index key for species identification. She interjected that that seeds typically have a small number of diagnostic characters, which often tend toward the qualitative, precluding the use of keys. She suggests incorporation of links to the USDA supported webpage: FNW Disseminules for additional images, comparative images, and descriptive elements⁶. The TPDP agreed and the links were added under each of the figures in Section 9 Figures 1 and 2.

Section 9 Figures

- [37] In relation to the Figures, the Discipline lead highlighted the original image A and C of *Striga* sp. have been deleted in Figure 1 as there are many other species of *Striga* and this document is specific to only three. The image size of the remaining images has been increased (equivalent to size of Fig. 2 A and B), as requested during consultation.
- [38] The TPDP was asked to consider a country comment to delete Figure 2 as the protocol only describes *Striga*, not *Orobanche* however, the discipline lead felt Figure 2 should be kept and a section could be added for seed of similar taxa, if necessary or that the link to FNWD-*Striga* be provided. The TPDP agreed.
- [39] Lastly, the TPDP were asked to consider the country comment, requesting for the addition of SEM images of the remaining two species. The discipline lead agrees it would be useful to have but the lead author responded that SEM images of the other species was discussed at an earlier stage and is not available. In addition, SEM is not accessible to all labs, meaning that illustrations should serve the needs of all types of users, whatever their access to technologies. The TPDP agreed.
- [40] The TPDP:
- (1) *thanked* Ms Colette JACONO, the lead author and the drafting group for the updates done in the draft
 - (2) *agreed* for the discipline lead to revise the draft DP based on TPDP comments at this meeting, and provide a final version to the IPPC Secretariat by 24 May 2021
 - (3) *approved* the draft DP *Striga* spp. be presented to the SC to be adopted on behalf of the CPM

7. Any Other Business

- [41] There was no other business.

⁶ USDA supported webpage: <http://idtools.org/id/fnw/factsheet.php?name=14725>

8. Close of the Meeting

[42] The Chairperson closed the meeting and thanked the participants for their active participation.

[43] A list of action items are presented in Appendix 3 of this report

Appendix 1: Agenda**2021 VIRTUAL MEETING OF THE
TECHNICAL PANEL ON DIAGNOSTIC PROTOCOLS (TPDP)****5 May 2021****AGENDA**

Agenda Item	Document No.	Presenter
1. Opening of the Meeting		
1.1 Welcome by the IPPC Secretariat	--	CASSIN/MOREIRA
2. Meeting Arrangements		
2.1 Selection of Chairperson	--	CASSIN
2.2 Selection of the Rapporteur	--	Chairperson
2.3 Adoption of the Agenda	01_TPDP_Tel_2021_May	Chairperson
3. Administrative Matters		
3.1 Participants / membership	TPDP membership list	MANGILI
3.2 Connections to Zoom and virtual meetings	Short guideline for participants	
4. Recommendation to the SC for adoption		
4.1 Revision and approval of <i>Striga</i> spp. (2008-009) - Background paper - Compiled comments	2008-009 (presented in the TPDP eForum)	JACONO / YIN
5. Any other business	-	Chairperson
6. Closing of the meeting - Recommendations to SC or IPPC Secretariat	-	CASSIN/ Chairperson

Appendix 2: Participants list**2021 VIRTUAL MEETING OF THE
TECHNICAL PANEL ON DIAGNOSTIC PROTOCOLS (TPDP)****5 MAY 2021
PARTICIPANTS LIST**

A check (✓) in column 1 indicates confirmed attendance at the meeting by the time this paper was posted.

	Participant role	Name, mailing, address, telephone	Email address	Term begins	Term ends
✓	Steward	Mr Álvaro SEPÚLVEDA LUQUE Servicio Agrícola y Ganadero División de Protección Agrícola y Forestal Av. Presidente Bulnes 140, 4 th floor, Santiago, CHILE Tel: + 56-2 234 5120	alvaro.sepulveda@sag.gob.cl		
✓	Bacteriology	Mr Robert TAYLOR Plant Health & Environment Laboratory New Zealand Ministry for Primary Industries 231 Morrin Road St Johns PO Box 2095 Auckland 1140 New Zealand Tel: (+64) 9 909 3548 Fax: (+64) 9 909 5739	Robert.Taylor@mpi.govt.nz	May 2011	2021 (2 nd term)
	Botany	Ms Liping YIN Plant Quarantine Laboratory Animal and Plant Inspection and Quarantine Technology Center Shanghai Entry-Exit Inspection and Quarantine Bureau 1208 Minsheng Road Shanghai, 200135 China Tel: (+86) 21 6854 0577 Fax: (+86) 21 6854 6481	yinlp@shciq.gov.cn ; yinlp2013@hotmail.com	April 2008	2023 (3 rd term)
✓	Botany	Ms Colette C. JACONO USA / USDA-APHIS-PPQ National Identification Services National Taxonomist - Botany Address: 10300 Baltimore Ave., BARC- W Bldg 12, Rm 10., Beltsville MD 20705-2350 USA Tel. (+1) 240 428 9658	Colette.Jacono@usda.gov	October 2020	2025 (1 st term)

	Participant role	Name, mailing, address, telephone	Email address	Term begins	Term ends
✓	Entomology	Mr Norman B. BARR Assistant Director Mission Laboratory 22675 N. Moorefield Rd. Moore Air Base Bldg. S-6414 Edinburg, TX 78541 USA Tel. (+1) 956 205 7658 Fax: (+1) 956 205 7680	Norman.B.Barr@aphis.usda.gov	July 2012	2022 (2 nd term)
✓	Entomology	Ms Juliet GOLDSMITH Plant Health Specialist Caribbean Agricultural Health and Food Safety Agency (CAHFSA) Letitia Vriesdelaan 10 Paramaribo Suriname Tel: (+597) 422 546 Mobile: (+597) 725 2922	julietgoldsmith@gmail.com	November 2014	2024 (2 nd term)
	Nematology	Ms G�eraldine ANTHOINE Directrice adjointe / Deputy head Chef d'unit� coordination de la r�f�rence / Head of unit "coordination of reference activities" 7 rue Jean Dixm�ras 49044 ANGERS cedex 01 France Tel: (33) 241207431 Fax: (33) 240207430	geraldine.anthoine@anses.fr	April 2009	2024 (3 rd term)
	Virology, and backup for bacteriology	Mr Brendan RODONI Biosciences Research Division AgriBio Centre Ring Road La Trobe University Bundoora 3083 Australia Tel: (+61) 3 9032 7319 Fax: (+61) 3 9800 3521	brendan.rodoni@ecodev.vic.gov.au	July 2012	2022 (2 nd term)
✓	Virology	Ms Vessela Assenova MAVRODIEVA Assistant Laboratory Director, USDA APHIS, PPQ, Beltsville, MD, USA Tel: (+1) 301-313-9208	vessela.a.mavrodieva@usda.gov	March 2020	2025 (1 st term)
	Mycology	Ms Julie PATTEMORE Assistant Director: Plant Pathology, Department of Agriculture, Water and the Environment, Melbourne, Australia Tel: (+61) 3 83186957	julie.pattemore@awe.gov.au	March 2020	2025 (1 st term)
✓	Mycology	Ms Yazmin RIVERA Molecular Biologist, USDA APHIS, PPQ, Beltsville, MD, USA Tel: (+1) 301-313-9273	Yazmin.Rivera@usda.gov ;	March 2020	2025 (1 st term)

	Participant role	Name, mailing, address, telephone	Email address	Term begins	Term ends
✓	IPPC Secretariat Lead	Ms Adriana MOREIRA Standards Officer / Deputy Assistant to Unit Leader IPPC Secretariat / FAO Viale delle Terme di Caracalla 00153 Rome, Italy	Adriana.Moreira@fao.org ;		
✓	IPPC Secretariat Support	Ms Aoife CASSIN Standard Setting Specialist IPPC Secretariat / FAO Viale delle Terme di Caracalla 00153 Rome, Italy	Aoife.Cassin@fao.org		
✓	IPPC Secretariat Support	Ms Erika MANGILI ANDRE Standard Setting Specialist IPPC Secretariat / FAO Viale delle Terme di Caracalla 00153 Rome, Italy	Erika.MangiliAndre@fao.org		

Appendix 3: Action points arising from the May 2021 TPDP meeting**ACTION POINTS ARISING FROM THIS MEETING**

(by agenda item)

	Action	Agenda Item	Responsible	Deadline
1.	The TPDP agreed for the discipline lead to revise the draft DP based on TPDP comments at this meeting, and provide a final version to the IPPC Secretariat	4.1	Colette Jacono	24 May 2021
2.	The TPDP agreed that the draft for <i>Striga</i> spp. be presented to the SC for adoption	4.1	IPPC Secretariat	31 May 2021