**Reconciliation report for 2009-005_DraftISPM_ISPM8_Revision_2019-06-28.docx (2009-005_DraftISPM_ISPM8_Revision_2019-06-28.docx)**

## Summary

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| **Title** | 2019 Second consultation: Draft Revision of ISPM 8: Determination of pest status in an area (2009-005) (Id 595) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 4:23 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
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| Japan | In Progress | Reviewer | | 17 | 27 9 2019 11:26 午前 |

**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**S** (Status) - A = Accepted, C = Closed, O = Open, W = Withdrawn, M = Merged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 | S | Author Comment |
|---|---|---|---|---|---|
| Background | | | | | |
| 45 | Pest records and other information are used to determine the presence or absence of a pest in an area (i.e. an officially defined country, part of a country or all or parts of several countries). ~~National plant protection organizations~~ NPPO of importing and exporting countries need information concerning the status of pests for pest risk analysis, the establishment of and compliance with phytosanitary regulations, the establishment and maintenance of pest free areas, areas of low pest prevalence, pest free places of production and pest free production sites, and other activities. | P | *Category : EDITORIAL*<br>**(86) Japan (30 8 2019 8:29 午前)**<br>Editorial | O | |
| 2. Information Used to Determine Pest Status | | | | | |
| 71 | Highly reliable and current sources should be used to determine pest status. However, when such sources are not available, lower reliability sources may be used. This may increase uncertainty but can also help to identify information gaps which can be addressed through surveillance (see ISPM 6) and pest diagnostics. The NPPO may need consultation and exchange of information with other NPPOs to fill information gaps. | P | *Category : SUBSTANTIVE*<br>**(209) Japan (25 9 2019 3:13 午後)**<br>Refer to the comment on paragraph 138. Add the text according to the deletion of section 3.3. | O | |
| 3. Describing Pest Status in an Area | | | | | |
| 86 | Determination of pest status in an area requires evidence and expert judgement on the current ~~distribution~~ situation of a pest in an area. This judgement should be based on a synthesis of available information from various sources, including current and historical pest records, where available. | P | *Category : SUBSTANTIVE*<br>**(82) Japan (30 8 2019 8:16 午前)**<br>The word “distribution” should be replaced with “situation”.<br>According to ISPM 5, "determination of pest status" means “to determine presence or absence of a pest”, and “to determine the distribution of a pest”. Therefore, "determination of pest status" needs to cover both situations.<br><br>Pest status (ISPM5) : “Presence or absence, at the present time, of a pest in an area, | O | |

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| | | | including where appropriate its distribution, as officially determined using expert judgement on the basis of current and historical pest records and other information". | | |
| 3.1 Presence | | | | | |
| 96 | The pest is present in a local area, a part or parts of the ~~area~~ area* in accordance with Supplement 1 (Guidelines on the interpretation and application of the concepts of "official control" and "not widely distributed") to ISPM 5 (*Glossary of phytosanitary terms*).<br><br>*Specify the area in which the pest is present where possible. | P | *Category : SUBSTANTIVE*<br>**(87) Japan (30 8 2019 8:35 午前)**<br>After the first consultation, "local area" was added in para 98 because of clarifying that the term "area" covers "local area". In line with this revision. "local area" should be also added in para 96 because the targeted area of both statuses "Present: not widely distributed and not under official control" and "Present: not widely distributed and under official control" is not different.<br><br>Add an asterisk "*" after "the area" and the annotation like the present ISPM8. In case a pest is present partially or locally in an area, it is important to specify which area the pest is present in. As the text of the annotation, we propose a revised text "Specify the area in which the pest is present where possible". | O | |
| 98 | The pest is present in a local area, part or parts of the ~~area~~area*, and subject to "official control" in accordance with Supplement 1 (Guidelines on the interpretation and application of the concepts of "official control" and "not widely distributed") to ISPM 5 (*Glossary of phytosanitary terms*). The purpose of the official control should be stated alongside the pest status determination.<br><br>*Specify the area in which the pest is present where possible. | P | *Category : SUBSTANTIVE*<br>**(88) Japan (30 8 2019 8:36 午前)**<br>Add an asterisk "*" after "the area" and the annotation like the present ISPM8. In case a pest is present partially or locally in an area, it is important to specify which area the pest is present in. As the text of the annotation, we propose a revised text "Specify the area in which the pest is present where possible". | O | |
| 105 | Present: ~~transient~~transient (conditions are not suitable for establishment)<br><br>Present: transient (phytosanitary measures have been applied) | P | *Category : SUBSTANTIVE*<br>**(211) Japan (25 9 2019 3:22 午後)**<br>Refer to paragraph 106 | O | |
| 106 | ~~Evidence supports~~ The pest is transiently present in the ~~conclusion that~~ area and the pest is not expected to establish because evidence supports that conditions (e.g. hosts, climate, other seasons) are evaluated as not to be suitable for establishment ~~(see~~ (e.g. section 2.2.2 of ISPM ~~5) or~~ 11). | P | *Category : SUBSTANTIVE*<br>**(89) Japan (30 8 2019 8:37 午前)**<br>As the status "Present: transient" has covered broad situations, it should be divided into "Present: transient (conditions are not suitable for establishment)" and "Present: transient (phytosanitary measures | O | |

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| | The pest is transiently present in the area and the pest is not expected to establish because appropriate phytosanitary measures have been applied (e.g. during outbreaks in a pest free area). | | have been applied) .<br><br>The former status can be given under natural factors (e.g. hosts, climate, other seasons).<br>On the other hand, the latter status can be given under a human factor, i.e. phytosanitary measures. Therefore both statuses should not be dealt with together. And by separating the status, the pest status of the target area can be indicated in more detail.<br><br>Whether conditions are not suitable for establishment can be referred to the elements of "section 2.2.2 of ISPM 11", not ISPM5. | | |
| 3.2 Absence | | | | | |
| 119 | Surveillance supports the conclusion that the pest is absent and has not been recorded (see ISPM 6 (*Surveillance*~~)) or evidence supports the conclusion that the pest cannot establish~~)). | P | *Category : SUBSTANTIVE*<br>**(90) Japan (30 8 2019 8:39 午前)**<br>Delete the latter part of the description of this status, i.e. "or evidence supports the conclusion that the pest cannot establish" for the following reasons:<br>First, evidence that supports the conclusion can be generally got through general surveillance and specific surveillance. Therefore, there may be no other evidences than "surveillance" that lead to the status "Absent: pest not recorded".<br>Second, the event "the pest cannot establish" does not become an factor to judge the status "Absent: pest not recorded", it is one of factors for other statuses "Absent: pest no longer present" and "Present: transient". Because the "establishment" is the event after "entry" in the process of pest introduction. So whether the pest cannot establish can be judged after "entry", which means that the pest was present in the past (Absent: pest no longer present) or the pest is present now (Present: transient). | O | |
| 136 | ~~Similarly, detection~~ Detection of a pest in an area, shown by surveillance not to represent a population (e.g. detection of an individual specimen), does not affect the pest status in the area. | P | *Category : EDITORIAL*<br>**(91) Japan (30 8 2019 8:42 午前)**<br>"Similarly" is not necessary in this text. | O | |
| 3.3 Unable to determine pest status | | | | | |
| 137 | ~~**3.3 Unable to determine pest status**~~ | P | *Category : SUBSTANTIVE*<br>**(210) Japan (25 9 2019 3:14 午後)**<br>Refer to paragraph 138. | O | |
| 138 | ~~There may be insufficient information available from surveillance or other sources~~ | P | *Category : SUBSTANTIVE* | O | |

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| | ~~for the NPPO to determine the pest status. This could include cases, for example, where pest records indicate the presence of a pest, but the taxonomic nomenclature is ambiguous or the identification or diagnostic methods are outdated. In such cases, surveillance may be necessary to meet obligations under the IPPC. This information can be provided to other NPPOs upon request.~~ | | **(92) Japan (30 8 2019 8:43 午前)**<br>Section 3.3 “Unable to determine pest status" is not a category of a status and it is just a guidance to deal with when NPPOs face the situation “Unable to determine pest status". However, as it is placed parallelly with the present category of section 3.1 and the absent category of section 3.2, Section 3.3 is likely to be confused as the 3rd category.<br><br>Additionally, the contents in section 3.3 have been almost covered in section 2 “Information Used to Determine Pest Status”. For example, The information of 1st sentence of para 138 is included in para 72. The examples of the 2nd sentence of para 138 are included in para 74 and 75. The 3rd sentence of para 138 is included in para 71.<br><br>However, the information of the last sentence of para 138 is not covered in the Section 2, so the relevant text should be added to the section 2 such as “The NPPO may need consultation and exchange of information with other NPPOs to fill information gaps” in line with the requirements of Section 2. | | |
| APPENDIX 1: Reliability of information sources | | | | | |
| 159 | - implementation of ~~quality management systems~~ documented porcedures | P | *Category : TECHNICAL*<br>**(95) Japan (30 8 2019 8:48 午前)**<br>According to paragraph No.100 and No.101 of SC7 report, Quality management system (QMS), quality manuals and Standard operating procedures (SOP) in the draft ISPM for 1st member consultation were replaced as "documented procedures". | O | |
| 161 | ~~-~~ | P | *Category : EDITORIAL*<br>**(281) Japan (30 9 2019 12:44 午後)** | O | |
| 191 | Only one or a few original research papers; any original research paper found does not describe methodology ***or*** methodology used is not widely accepted; ~~published in low impact-factor journals.~~ | P | *Category : SUBSTANTIVE*<br>**(96) Japan (30 8 2019 8:51 午前)**<br>"Low impact-factor journals" should be deleted. "Impact factor" as a requirement for "High reliability" in the 1st draft has been modified to "highly regarded peer reviewed journals relevant to the subject matter" after the 1st country consultation. | O | |
| 193 | ~~**Low**~~ | P | *Category : EDITORIAL*<br>**(280) Japan (30 9 2019 12:43 午後)** | O | |
| 194 | ~~No peer-reviewed literature available.~~ | P | *Category : SUBSTANTIVE* | O | |

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| | | | **(98) Japan (30 8 2019 11:46 午前)**<br>This could be included in "[207]Other published expert sources that are not peer-reviewed" as the literatures are not peer-reviewed. | | |
| 229 | Contracting parties, regional plant protection organizations and other relevant organizations are invited to comment on whether the appendix should remain in this ISPM or whether it would be better to place it in implementation material. | C | *Category : SUBSTANTIVE*<br>**(94) Japan (30 8 2019 8:46 午前)**<br>The table "Reliability of information sources" should remain as Appendix because information in the table is useful for NPPOs to decide pest status. | O | |

**Reconciliation report for 2014-002_DraftISPM_AuthorizationEntities_2019-06-26.docx (2014-002_DraftISPM_AuthorizationEntities_2019-06-26.docx)**

## Summary

| | |
|---|---|
| **Title** | 2019 Second consultation: Draft ISPM: Authorization of entities to perform phytosanitary actions (2014-002) (Id 596) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 12:59 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | In Progress | Reviewer | | 17 | 27 9 2019 4:51 午前 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| DRAFT ISPM: Requirements for national plant protection organizations if authorizing entities to perform phytosanitary actions (2014-002) | | | | | |
| 1 | **DRAFT ISPM: ~~REQUIREMENTS FOR NATIONAL PLANT PROTECTION ORGANIZATIONS IF AUTHORIZING~~ AUTHORIZATION OF ENTITIES TO PERFORM PHYTOSANITARY ACTIONS (2014-002)** | P | *Category : SUBSTANTIVE*<br>**(175) Japan (29 8 2019 3:50 午後)**<br>The title should be brought back to the original title during 1st consultation.<br>The title has been modified in light of the concerns raised from several countries during the 1st consultation that NPPOs can decide whether or not they authorize entities and there is no obligation for NPPOs to do so. However, the current title is too explanatory for a title and the above concerns have been already addressed by revising the main texts. | O | |
| Scope | | | | | |
| 33 | In accordance with Article V.2(a) of the IPPC, this standard does not cover the issuance of phytosanitary ~~certificates~~certificates and NPPO core activities such as development and establishment of phytosanitary measures. | P | *Category : SUBSTANTIVE*<br>**(176) Japan (29 8 2019 4:00 午後)**<br>The text “NPPO core activities such as development and establishment of phytosanitary measures” in paragraph 49 should be described in “Scope” to highlight the extent of the area or subject of the ISPM.<br><br>The activities that are not under the scope of this ISPM based on Article V.2 (a) of the IPPC is not only "the issuance of | O | |

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| | | | phytosanitary certificates" but also "NPPO core activities such as development and establishment of phytosanitary measures".<br><br>Article V.2(a) of the IPPC provides that inspection and other related activities leading to issuance of phytosanitary certificates can be carried out under the authority of the official national plant protection organization, which means that activities (e.g. development and establishment of phytosanitary measures) cannot be subject to “authorization for phytosanitary actions” because these activities are not other related activities leading to the issuance of phytosanitary certificate. | | |
| IMPACTS ON BIODIVERSITY AND THE ENVIRONMENT | | | | | |
| 44 | ~~Prevention~~ Phytosanitary actions to protect of the introduction and spread of quarantine pests is beneficial to biodiversity ~~through~~ because of leading to the protection of plant health and the decrease in the use of treatments having a negative environmental ~~impact~~impact within a territory. This standard contributes to the protection of biodiversity and the environment by fostering confidence to perform specific phytosanitary actions.. | P | *Category : TECHNICAL*<br>**(443) Japan (25 9 2019 2:52 午後)**<br>To more clarify the explanation about the benefits between the requirement of the ISPM (i.e. phytosanitary action and authorization for phytosanitary action) and biodiversity & environment..<br><br>The logic of the description of the draft text may be opposite.<br><br>Add the reason why the standard contributes to BIODIVERSITY AND THE ENVIRONMENT because of not enough information here. | O | |
| Requirements | | | | | |
| 46 | Article V.2(a) of the IPPC provides for the possibility for NPPOs to authorize entities to perform specific phytosanitary actions. However, there is no obligation for NPPOs to ~~do so~~authorize entities for these actions. | P | *Category : EDITORIAL*<br>**(178) Japan (29 8 2019 4:07 午後)**<br>to be more explicit | O | |
| 1. Basic Understanding of Authorization | | | | | |
| 48 | Authorization may be used by NPPOs to recognize entities to perform specific phytosanitary actions.- Examples of phytosanitary actions that an NPPO may authorize an entity to perform include monitoring, sampling, inspection, testing, surveillance, treatment, post-entry quarantine and destruction. When an NPPO decides to authorize entities, it has sole responsibility for deciding which entity is | P | *Category : TECHNICAL*<br>**(185) Japan (30 8 2019 3:13 午前)**<br>Move from 3rd sentence in paragraph No 49 to here.<br>It is thought that the ISPM readers can understand better if the examples are | O | |

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| | authorized and for which specific phytosanitary actions. | | described in the former paragraph rather than the latter one | | |
| 48 | Authorization may be used by NPPOs to recognize entities to perform specific phytosanitary actions and to audit authorized entities or supervise phytosanitary actions. When an NPPO decides to authorize entities, it has sole responsibility for deciding which entity is authorized and for which specific phytosanitary actions. | P | *Category : SUBSTANTIVE*<br>**(180) Japan (29 8 2019 4:16 午後)**<br>In this ISPM, authorization of entities covers "authorizing entities to audit or supervise", but the concept appears for the first time in "4.2.1 Roles and responsibilities of entities authorized to audit or supervise". It is better to add the explanation in "1. Basic Understanding of Authorization" to increase better understanding of overview of authorization. | O | |
| 49 | With the authorization, the phytosanitary action is performed by the entity but the responsibility remains with the NPPO. Authorization may be given only to carry out phytosanitary actions to implement phytosanitary measures that are decided by the NPPO. ~~Examples of phytosanitary actions that an NPPO may authorize an entity to perform include monitoring, sampling, inspection, testing, surveillance, treatment, post-entry quarantine and destruction.~~ Individuals assisting personnel of the NPPO in the presence and direct oversight of the NPPO need not be authorized. Authorization for phytosanitary actions does not include NPPO core activities such as issuance of phytosanitary certificates or development and establishment of phytosanitary measures because these are not phytosanitary actions. The NPPO should have sufficient staff with the necessary expertise to carry out oversight of authorized entities. | P | *Category : SUBSTANTIVE*<br>**(181) Japan (29 8 2019 4:18 午後)**<br>Move to after 1st sentence in paragraph No 48.<br>Refer to the reason in paragraph 48. | O | |
| 4.1 Roles and responsibilities of the NPPO | | | | | |
| 90 | to train NPPO personnel and, if needed, authorized entities personnel and ensure that their skills and competencies are maintained at an adequate level to consistently implement the authorization programme | P | *Category : EDITORIAL*<br>**(186) Japan (30 8 2019 3:32 午前)**<br>to make it more clear | O | |
| 93 | to implement processes for addressing identified nonconformities, including determining the corrective actions and requiring the authorized entity to take the actions, and, where appropriate, suspending or revoking authorization, which may include regulatory enforcement | P | *Category : SUBSTANTIVE*<br>**(190) Japan (30 8 2019 5:14 午前)**<br>Requiring entities to take corrective actions for addressing nonconformities is described in Para140 "6. Types of Nonconformity", but it should be included in "4.1 Roles and responsibilities of the NPPO" and "4.2.1 Roles and responsibilities of entities authorized to audit or supervise" rather than in "6. Types of Nonconformity". To delete para 140, accordingly. | O | |
| 4.2 Roles and responsibilities of the entity | | | | | |

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| 116 | to maintain and provide ~~quality management system~~ documents (including records of its activities) according to documented procedures to the NPPO as required | P | *Category : SUBSTANTIVE*<br>**(444) Japan (25 9 2019 2:55 午後)**<br>The word "quality management system" has a different meaning, i.e. "documented procedures", so delete “quality management system”.<br>The requirements for “documented procedures” are described in paragraph 102-111. The entities need to maintain and provide quality documents according to the requriments of the documented procedures. | O | |
| 4.2.1 | Roles and responsibilities of entities authorized to audit or supervise | | | | |
| 121 | ~~The roles and responsibilities of an~~ An entity that audits other authorized entities or supervises phytosanitary actions should meet the requirements in section 4.2. The roles and responsibilities of the entity should also include the following: | P | *Category : SUBSTANTIVE*<br>**(189) Japan (30 8 2019 5:12 午前)**<br>To specify that an entity authorized to audit or supervise should meet the requirements in section 4.2 ”Roles and responsibilities of the entity” as well as the requirements in section 4.2.1 “Roles and responsibilities of entities authorized to audit or supervise”. | O | |
| 122 | to develop and carry out an action plan or ~~procedures~~ procedures, including determining the corrective actions and requiring the authorized entity to take the actions, for dealing with nonconformities that compromise the integrity of and trust in the programme, including notification of these to the authorizing NPPO | P | *Category : SUBSTANTIVE*<br>**(191) Japan (30 8 2019 5:15 午前)**<br>Requiring entities to take corrective actions for addressing nonconformities is described in Para140 “6. Types of Nonconformity”, but it should be included in “4.1 Roles and responsibilities of the NPPO” and “4.2.1 Roles and responsibilities of entities authorized to audit or supervise” rather than in “6. Types of Nonconformity”. To delete para 140, accordingly. | O | |
| 5.1 | Audits to authorize an entity | | | | |
| 129 | ~~If~~ Before an NPPO decides ~~to consider~~ the authorization of an entity, the NPPO (or its authorized entity) should first carry out an initial evaluation of the entity’s documented procedures. | P | *Category : TECHNICAL*<br>**(193) Japan (30 8 2019 5:21 午前)**<br>An initial evaluation should be carried out before an NPPO decides the authoritzation of an entity. | O | |
| 132 | The decision about whether to grant authorization rests solely with the NPPO. The NPPO should normally grant authorization, if the ~~system~~ audit conducted by the NPPO (or its authorized entity) demonstrates that the NPPO’s requirements for authorization of entities have been met. | P | *Category : TECHNICAL*<br>**(194) Japan (30 8 2019 5:53 午前)**<br>To avoid confusion. The processes of the audits which are described in this section and "the system audit" are the same. | O | |
| 5.2 | Audits to maintain authorization | | | | |
| 134 | The NPPO should determine the minimum frequency of the audits to maintain | P | *Category : TECHNICAL*<br>**(196) Japan (30 8 2019 5:59 午前)** | O | |

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| | authorization, based on the scope of the phytosanitary actions and the associated level of pest risk and complexity, the performance of the ~~authorized~~ entity to be audited and the nonconformities identified, and the results of previous audits. | | To avoid confusion about “its authorized entity” in the section 5.1 and “the authorized entity” in this section because two types of entities are different. | | |
| 134 | The NPPO (or its authorized entity) should ~~determine~~ conduct audits to maintain authorization by the minimum frequency of the audits ~~to maintain authorization~~determined by the NPPO, based on the scope of the phytosanitary actions and the associated level of pest risk and complexity, the performance of the authorized entity and the nonconformities identified, and the results of previous audits. | P | *Category : TECHNICAL*<br>**(195) Japan (30 8 2019 5:57 午前)**<br>Even though this section needs to provide inforamtion about "Audits to maintain authorization", no information about this point.<br>So add information about "Audits to maintain authorization" that the NPPOs as well as entities authorized to audit (i.e. its authorized entity) can conduct audits to maintain authorization.<br>Additonally, as only NPPOs can decide the minimum frequency of the audits, "determined by the NPPO" is added. | O | |
| 6. Types of Nonconformity | | | | | |
| 140 | ~~If a nonconformity is identified, the NPPO (or the entity authorized to audit or supervise) should require the authorized entity to take corrective action.~~ | P | *Category : SUBSTANTIVE*<br>**(192) Japan (30 8 2019 5:16 午前)**<br>Requiring entities to take corrective actions for addressing nonconformities is described in Para140 “6. Types of Nonconformity”, but it should be included in “4.1 Roles and responsibilities of the NPPO” and “4.2.1 Roles and responsibilities of entities authorized to audit or supervise” rather than in “6. Types of Nonconformity”. To delete para 140, accordingly. | O | |

**Reconciliation report for 2014-006_DraftISPM_ModifiedAtmosphere_2019-06-26.docx (2014-006_DraftISPM_ModifiedAtmosphere_2019-06-26.docx)**

## Summary

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|---|---|
| **Title** | 2019 Second consultation- Draft ISPM: Requirements for the use of modified atmosphere treatments (2014-006) (Id 598) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 1:03 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | Completed | Reviewer | | 15 | 30 9 2019 12:38 午後 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| Scope | | | | | |
| 39 | This standard does not provide details on specific modified atmosphere treatments, such as specific schedules for specific regulated pests on specific commodities, and does not include use of modified atmosphere for non-phytosanitary purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmosphere.<br><br>Controlled atmosphere treatment is a type of modified atmosphere treatment and is covered by this standard. | P | *Category : TECHNICAL*<br>**(55) Japan (28 8 2019 1:15 午後)**<br>The description in paragraph 49 “Controlled atmosphere treatment is a type of modified atmosphere treatment and is covered by this standard” should be described in “Scope” because it is applied within every situation in this ISPM.<br>In addition, “Controlled atmosphere treatment is a type of modified atmosphere treatment” should be left in Background as relevant information in the context of the previous sentences, and “and is covered by this standard” can be deleted. | O | |
| BACKGROUND | | | | | |
| 48 | This standard provides generic requirements for the application of modified atmosphere treatments as phytosanitary measures, specifically those adopted under ISPM 28 (*Phytosanitary treatments for regulated pests*). The purpose of this standard is to enhance harmonization of such measures within and between different ~~countries in different~~ countries. | P | *Category : EDITORIAL*<br>**(57) Japan (28 8 2019 1:18 午後)**<br>Editorial revision | O | |
| 49 | Modified atmosphere treatments involve altering gas concentrations in ambient air, which is achieved by increasing the carbon dioxide ($CO_2$) content (hypercarbia) or reducing the oxygen ($O_2$) content (hypoxia or anoxia) of the treatment | P | *Category : TECHNICAL*<br>**(179) Japan (25 9 2019 2:10 午後)**<br>The description in para 49 “Controlled atmosphere treatment is a type of modified | O | |

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| | environment, or both, to create an atmosphere lethal to target pests. Controlled atmosphere treatment is a type of modified atmosphere ~~treatment and is covered by this standard~~treatment. | | atmosphere treatment and is covered by this standard." should be included in "Scope" of this standard. Accordingly the description "and is covered by this standard" in para 49 should be deleted to avoid duplication. | | |
| IMPACTS ON BIODIVERSITY AND THE ENVIRONMENT | | | | | |
| 52 | Modified atmosphere treatments may be used to prevent the introduction and spread of regulated pests and hence may be beneficial to biodiversity. The use of modified atmosphere treatments as an alternative to methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions, which deplete ~~ozone~~the ozone layer. While an atmosphere with a high $CO_2$ or a low $O_2$ concentration may be harmful, in this application there are negligible environmental impacts. | P | *Category : TECHNICAL*<br>**(59) Japan (28 8 2019 1:23 午後)**<br>Metyl bromide depletes the ozon layer. | O | |
| 52 | Modified atmosphere treatments may be used to prevent the introduction and spread of regulated pests and hence may be beneficial to biodiversity. The use of modified atmosphere treatments as an alternative to methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions, which deplete ozone. While an atmosphere with a high $CO_2$ or a low $O_2$ concentration may be harmful, in this application there are negligible environmental ~~impacts~~impacts because it is changed in only enclosures. | P | *Category : TECHNICAL*<br>**(58) Japan (28 8 2019 1:19 午後)**<br>Add more explanation to complement the information in this sentence. | O | |
| 2. Treatment Application | | | | | |
| 57 | Modified atmosphere treatments are undertaken by either treatment providers or the NPPO in ~~a~~ the country in which the treatment ~~facility~~is conducted or initiated.. Modified atmosphere treatments may be applied before export, during transport, or at the point of entry under suitable conditions of confinement. | P | *Category : TECHNICAL*<br>**(60) Japan (28 8 2019 1:30 午後)**<br>"in a treatment facility" is not appropriate. In this ISPM, a place or site in which a treatment is conducted is "in an enclosure" (paragraph No69) and MAT is also conducted during transport.<br><br>[69]Modified atmosphere treatments are conducted in an enclosure. | O | |
| 2.1 Treatment parameters | | | | | |
| 69 | Modified atmosphere treatments are conducted in an ~~enclosure~~enclosure (e.g. vacuum chamber, freight container, warehouse, cargo ship hold, packaging). The lethal condition of the atmosphere should be achieved and maintained throughout the enclosure for a specified length of time as required by the treatment schedule. | P | *Category : TECHNICAL*<br>**(61) Japan (28 8 2019 1:32 午後)**<br>Move the examples of enclosures from paragraph 76 to here.<br>It is easier for ISPM readers that the example is placed in former paragraph rather than in latter one.<br>Add "packaging"(e.g.oxygen absorbing film) | O | |

| | | | | | |
|---|---|---|---|---|---|
| | | | (see para74). | | |
| 3. Enclosures Used for Modified Atmosphere Treatments | | | | | |
| 76 | Enclosures ~~(e.g. vacuum chambers, freight containers, warehouses, cargo ship holds)~~ should be designed and constructed to maintain the parameters of the treatment. Features of specifically designed and constructed enclosures, both fixed and portable, include: | P | *Category : TECHNICAL*<br>**(62) Japan (28 8 2019 1:33 午後)**<br>Move the examples of enclosures from here to paragraph 69.<br>It is easier for ISPM readers that examples place in former paragraph rather than in latter one. | O | |
| 85 | Modified atmosphere treatments that rely on the introduction of inert gases to reduce $O_2$ levels and hence achieve anoxic conditions may use non-gas-tight enclosures or use enclosures that are not specifically designed for modified atmosphere treatments. When using enclosures that are not specifically designed for modified atmosphere treatment use, particular attention should be paid to the pressure required to maintain the treatment parameters as specified in the treatment schedule. Additionally, when a large quantity of articles (e.g. grain in bulk) is treated with high $CO_2$ concentration in an enclosure, large-scale gas absorption into articles may cause negative pressure which leads to damage the enclosure. A specifically designed enclosure (e.g. gas-tight silo and warehouse equipped with pressure relief valves) can be used to avoid the damage. | P | *Category : TECHNICAL*<br>**(193) Japan (26 9 2019 11:07 午前)**<br>Add example of using specifically designed enclosures are required. | O | |
| 4.1 Measuring gas concentrations | | | | | |
| 92 | The equipment used to measure gas concentrations within the enclosure should have an adequate accuracy (e.g. ±5% of the gas concentrations to be achieved throughout the treatment). | P | *Category : TECHNICAL*<br>**(65) Japan (28 8 2019 1:45 午後)**<br>Clarify where gas should be measured. | O | |
| 4.2 Measuring and mapping temperature | | | | | |
| 93 | **4.2 ~~Measuring and mapping~~Measuring temperature** | P | *Category : SUBSTANTIVE*<br>**(75) Japan (29 8 2019 3:22 午後)**<br>Delete “and mapping” Refer to paragrph 94 and 95. | O | |
| 94 | The temperature of the commodity and the atmosphere within the enclosure should be measured to ensure that the required temperature is achieved.<br>Temperature mapping of the enclosure ~~should~~ may be ~~performed~~ necessary to identify temperature variation under normal operating conditions (e.g. loads and packaging) to determine the best locations for placing temperature sensors. | P | *Category : TECHNICAL*<br>**(180) Japan (25 9 2019 2:17 午後)**<br>Temperature mapping is not always required for modified atmosphere treatments because atmospheric gas concentration is the highest priority parameter. Similarly, temperature mapping is not required for fumigation treatment of ISPM 43 even though temperature is one of the parameters. | O | |
| 95 | ~~The temperature of the commodity and the atmosphere within the enclosure should be measured to ensure that the required temperature is achieved.~~ | P | *Category : TECHNICAL*<br>**(76) Japan (29 8 2019 3:36 午後)**<br>Move paragraph 95 to before paragraph 94. | O | |

| | | | | | |
|---|---|---|---|---|---|
| 5.1 Authorization of treatment providers | | | | | |
| 100 | ~~Treatment providers should be authorized by the~~ The NPPO ~~in~~ of the country in which the phytosanitary treatment is conducted or ~~initiated~~initiated (the latter when treatment take place during transport) is responsible for the authorization of treatment provider. This authorization normally includes approval of both treatment facilities and treatment providers. The NPPO should set requirements for treatment provider authorization, including training of personnel, treatment procedures, adequate equipment and storage conditions. Specific procedures appropriate for each facility, provider and commodity treatment should also be approved by the NPPO. | P | *Category : SUBSTANTIVE*<br>**(69) Japan (28 8 2019 2:17 午後)**<br>To revise the text in line with ISPM43 "Requirements for the use of fumigation as phytosanitary measure" because NPPO does not necessarily authorize treatment provider. | O | |
| 6.2 Record keeping | | | | | |
| 140 | any observed deviation from the treatment schedule and, where appropriate, subsequent actions taken.<br><br>Equipment calibration records should be also kept by the treatment provider for at least one year. | P | *Category : SUBSTANTIVE*<br>**(70) Japan (28 8 2019 2:30 午後)**<br>Calibration records should be kept by the treatment provider for at least one year in the same way of ISPM42 and ISPM43. | O | |

**Reconciliation report for 2017-022A_DraftPT_CT_C_capitata_stonefruit_2019-05-08_en.docx (2017-022A_DraftPT_CT_C_capitata_stonefruit_2019-05-08_en.docx)**

## Summary

| | |
|---|---|
| **Title** | 2019 First Consultation: Draft PT Cold treatment for Ceratitis capitata on Prunus avium, Prunus domestica and Prunus persica (Id 597) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 1:07 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | In Progress | Reviewer | | 1 | 30 8 2019 4:01 午前 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| Treatment schedule | | | | | |
| 40 | For both schedules, the fruit must reach the treatment temperature before treatment exposure time commences. The fruit core temperature should be monitored and recorded, and the temperature should not exceed the stated level throughout the duration of the treatment. | P | *Category : SUBSTANTIVE*<br>**(14) Japan (28 8 2019 12:55 午後)**<br>As defined in section 4.2 of ISPM 42, the fruit core temperature should be monitored during cold treatment, so add “core” to clarify the monitoring point.<br>In TPs of cold treatment that have been adopted so far, “core” is not defined in their requirements. However, in TPs of vapor heat treatment (PT 21, 30-32), “core” is defined in their requirements as defined in ISPM 42 (Section 4.2.3).<br>Therefore, TPs of cold treatment that have been adopted so far need to be revised where necessary. | O | |

**Reconciliation report for 2017-022B_DraftPT_CT_B_tryoni_stonefruit_2019-05-09_en.docx (2017-022B_DraftPT_CT_B_tryoni_stonefruit_2019-05-09_en.docx)**

## Summary

| | |
|---|---|
| **Title** | 2019 First Consultation: Draft PT Cold treatment for Bactrocera tryoni on Prunus avium, Prunus domestica and Prunus persica (Id 599) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 1:14 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | In Progress | Reviewer | | 1 | 26 9 2019 3:03 午後 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| Treatment schedule | | | | | |
| 40 | For both schedules, the fruit must reach the treatment temperature before treatment exposure time commences. The fruit core temperature should be monitored and recorded, and the temperature should not exceed the stated level throughout the duration of the treatment. | P | *Category : SUBSTANTIVE*<br>**(10) Japan (28 8 2019 12:50 午後)**<br>As defined in section 4.2 of ISPM 42, the fruit core temperature should be monitored during cold treatment, so add “core” to clarify the monitoring point.<br>In TPs of cold treatment that have been adopted so far, “core” is not defined in their requirements. However, in TPs of vapor heat treatment (PT 21, 30-32), “core” is defined in their requirements as defined in ISPM 42 (Section 4.2.3).<br>Therefore, TPs of cold treatment that have been adopted so far need to be revised where necessary. | O | |

**Reconciliation report for 2017-023A_DraftPT_CT_C_capitata_grape_2019-05-10_en.docx (2017-023A_DraftPT_CT_C_capitata_grape_2019-05-10_en.docx)**

## Summary

| | |
|---|---|
| **Title** | 2019 First Consultation Draft PT: Cold treatment for Ceratitis capitata on Vitis vinifera (2017-023A) (Id 590) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 12:14 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | In Progress | Reviewer | | 1 | 4 9 2019 7:05 午前 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| Treatment schedule | | | | | |
| 39 | For all three schedules, the fruit must reach the treatment temperature before treatment exposure time commences. The fruit core temperature should be monitored and recorded, and the temperature should not exceed the stated level throughout the duration of the treatment. | P | *Category : SUBSTANTIVE*<br>**(16) Japan (28 8 2019 12:48 午後)**<br>As defined in section 4.2 of ISPM 42, the fruit core temperature should be monitored during cold treatment, so add “core” to clarify the monitoring point.<br>In TPs of cold treatment that have been adopted so far, “core” is not defined in their requirements. However, in TPs of vapor heat treatment (PT 21, 30-32), “core” is defined in their requirements as defined in ISPM 42 (Section 4.2.3).<br>Therefore, TPs of cold treatment that have been adopted so far need to be revised where necessary. | O | |

**Reconciliation report for 2017-023B_DraftPT_CT_B_tryoni_grape_2019-05-10_en.docx (2017-023B_DraftPT_CT_B_tryoni_grape_2019-05-10_en.docx)**

## Summary

| | |
|---|---|
| **Title** | 2019 First Consultation: Draft PT Cold treatment for Bactrocera tryoni on Vitis vinifera (2017-023B) (Id 600) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 1:50 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | In Progress | Reviewer | | 1 | 4 9 2019 4:16 午前 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| Treatment schedule | | | | | |
| 35 | For both schedules, the fruit must reach the treatment temperature before treatment exposure time commences. The fruit core temperature should be monitored and recorded, and the temperature should not exceed the stated level throughout the duration of the treatment. | P | *Category : SUBSTANTIVE*<br>**(10) Japan (28 8 2019 12:52 午後)**<br>As defined in section 4.2 of ISPM 42, the fruit core temperature should be monitored during cold treatment, so add “core” to clarify the monitoring point.<br>In TPs of cold treatment that have been adopted so far, “core” is not defined in their requirements. However, in TPs of vapor heat treatment (PT 21, 30-32), “core” is defined in their requirements as defined in ISPM 42 (Section 4.2.3).<br>Therefore, TPs of cold treatment that have been adopted so far need to be revised where necessary. | O | |

**Reconciliation report for 2017-025_Draft_PT_Ir_Bactrocera_tau_2019-03-21_en.docx (2017-025_Draft_PT_Ir_Bactrocera_tau_2019-03-21_en.docx)**

## Summary

| | |
|---|---|
| **Title** | 2019 First Consultation: Draft PT Irradiation treatment for Bactrocera tau (2017-025) (Id 601) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 1:58 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | In Progress | Reviewer | | 1 | 4 9 2019 5:07 午前 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| 23 | This treatment describes the irradiation of fruits and vegetables at 72 Gy or 85 Gy minimum absorbed dose to prevent the emergence of adults of *Bactrocera tau* at the stated efficacy.[1]. | P | *Category : EDITORIAL*<br>**(17) Japan (28 8 2019 1:01 午後)**<br>Add minimum absorbed dose as well as other PTs. | O | |

**Reconciliation report for 2008-009_Striga_2019-05-31.docx (2008-009_Striga_2019-05-31.docx)**

## Summary

| | |
|---|---|
| **Title** | 2019 First Consultation Draft annex to ISPM 27: Diagnostic protocol for Striga spp. (2008-009) (Id 592) |
| **Description** | |
| **End Date** | 30 9 2019 11:45 午後 |
| **Review Status** | In Progress (Due: 30 9 2019 11:45 午後; Started: 1 7 2019 12:11 午後) |

## Participants

| Name | Status | Role | Summary | Comments | Last Activity |
|---|---|---|---|---|---|
| Japan | In Progress | Reviewer | | 20 | 29 9 2019 8:10 午前 |

**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 | S | Author Comment |
|---|---|---|---|---|---|
| 1. Pest Information | | | | | |
| 50 | The genus *Striga* Lour. (witchweeds) comprises approximately 42 species of obligate root parasitic plants (Mohamed *et al*., 2001). *Striga* is mainly distributed in tropical and subtropical regions, and some species are major pests of agricultural crops in these regions. Crops parasitized by *Striga* exhibit reduced growth, with substantial yield ~~losses in severe cases of up to 85%~~losses, depending on the level of resistance and tolerance of the specific host genotype (Rodenburg *et al*., 2005). Symptoms of parasitism include yield suppression or reduction, stunted growth, and a drought-like appearance of the leaves. | P | *Category : SUBSTANTIVE*<br>**(58) Japan (28 8 2019 10:30 午前)**<br>Delete "in severe cases of up to 85%".<br><br>There are various ways of taking data on yield losses (e.g. sample size of fields are different case by case), so the figures vary depending on the situation. The specific figure may induce misleading, which should be avoided.<br>Actually, various figures are described even when looking at the cited reference, i.e. Rodenburg et al.(2005).<br><br>(For reference)<br>Yield losses due to Striga infection of cereals in West Africa average 24% (10–31%), but in areas of heavy infestation losses reach 90–100% in some years.(Mohamed et al., 2001) | O | |
| 51 | ~~The greatest damage to crops is caused by three species: *Striga* ~~*Striga asiatica*~~, *S. gesnerioides* and *S. hermonthica* (Mohamed *et al*., 2001). *S. asiatica*~~ and *S. hermonthica* are among the most economically damaging weeds in the world. In Africa, these two pests attack grain crops and cereals, including *Zea mays* (maize), *Pennisetum* spp. (pearl millet), *Eleusine coracana* (finger millet), *Panicum* spp., *Eragostis tef* (teff) and *Sorghum bicolor* (sorghum), with some impacts on | P | *Category : SUBSTANTIVE*<br>**(80) Japan (29 8 2019 3:01 午後)**<br>Mohamed et al.(2001) indicated economical damages caused by Striga asiatica and S. hermonthica were bigger among Striga species and this information is already covered in the 2nd sentence. The greatest damage by S. gesnerioides is not justified in | O | |

| | | | | | |
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| | *Saccharum* spp. (sugarcane) and *Oryza sativa* (dryland rice), and can reduce the crop yield value by USD 7 billion every year (Ejeta, 2007; Csurhes *et al.*, 2016). *S. gesnerioides* is the only *Striga* species that attacks a dicotyledon host and usually infects Fabaceae, especially *Vigna unguiculata* (cowpea), Convolvulaceae, Euphorbiaceae and *Nicotiana tabacum* (tobacco, Solanaceae). | | this reference.<br>As there is no common criteria to clarify the size of "impact" and "damage", "the greatest damage to crops" may induce misleading. | | |
| 51 | The greatest damage to crops is caused by three species: *Striga asiatica*, *S. gesnerioides* and *S. hermonthica* (Mohamed *et al.*, 2001). *S. asiatica* and *S. hermonthica* are among the most economically damaging weeds in the world. In Africa, these two pests attack grain crops and cereals, including *Zea mays* (maize), *Pennisetum* spp. (pearl millet), *Eleusine coracana* (finger millet), *Panicum* spp., *Eragostis tef* (teff) and *Sorghum bicolor* (sorghum), with some impacts on *Saccharum* spp. (sugarcane) and *Oryza sativa* (dryland rice), and can reduce the crop yield value by USD 7 billion every year (Ejeta, 2007; Csurhes *et al.*, 2016). *S. gesnerioides* is the only *Striga* species that attacks a dicotyledon host and usually infects Fabaceae, especially *Vigna unguiculata* (cowpea), Convolvulaceae, Euphorbiaceae and *Nicotiana tabacum* (tobacco, Solanaceae).<br>For the above reasons, the information for diagnosis of these only three species, Striga asiatica, *S. gesnerioides* and *S. hermonthica* are provided. Other species with importance in a limited geographical range include:<br><br>・*Striga angustifolia* (Don) Saldanha (1963)<br><br>・*Striga aspera* (Willd.) Benth. (1836)<br><br>・*Striga densiflora* (Benth.) Benth. (1863) | P | *Category : SUBSTANTIVE*<br>**(64) Japan (28 8 2019 11:09 午前)**<br>As described in this DP the 3 species covered by this DP, i.e. Striga asiatica, S. gesnerioides and S. hermonthica, among over 40 Stringa species, are economically important and are distributed in many parts of the world. However there are some other Stringa species which some countries and regions regulate as quarantine pests (EPPO Global Database, IPP), even though their distributed areas are limited comparing to these 3 species (CABI/CPC). We would like to propose that other Stinga species which member countries regulate as quarantine pests should be added as examples. The additional sentences are proposed in line with an expression from DP 18 "Anguina spp.". | O | |
| 51 | The greatest damage to crops is caused by three species: *Striga asiatica*, *S. gesnerioides* and *S. hermonthica* (Mohamed *et al.*, 2001). *S. asiatica* and *S. hermonthica* are among the most economically damaging weeds in the world. In Africa, these two pests attack grain crops and cereals, including *Zea mays* (maize), *Pennisetum* spp. (pearl millet), *Eleusine coracana* (finger millet), *Panicum* spp., *Eragostis tef* (teff) and *Sorghum bicolor* (sorghum), with some impacts on *Saccharum* spp. (sugarcane) and *Oryza sativa* (dryland rice), and can reduce the crop yield value by USD 7 billion every year (Ejeta, 2007; Csurhes *et al.*, 2016). *S. gesnerioides* is the ~~only~~ important *Striga* species that attacks ~~a~~ dicotyledon ~~host~~ plants as main hosts and usually infects Fabaceae, especially *Vigna unguiculata* (cowpea), Convolvulaceae, Euphorbiaceae and *Nicotiana tabacum* (tobacco, | P | *Category : SUBSTANTIVE*<br>**(63) Japan (28 8 2019 11:08 午前)**<br>There are reports that other species (e.g. Striga densiflora) than S. gesnerioides attacks dicotyledon plants even though they are not main hosts.<br><br>(For reference)<br>According to CPC/CABI(2019), “Wild hosts are mostly members of the Poaceae but also include some Cyperaceae and dicots. Kumar and Solomon (1941) record 24 hosts species. Their 18 newly observed hosts included Andropogon, Digitaria, Dactyloctenium, Euchlaena, Lophopogon, | O | |

| | | | | | |
|---|---|---|---|---|---|
| | Solanaceae). | | Paspalum, Setaria, Tragus and Tripogon species as well as species of Commelina, Cyperus, Desmodium, Glossocardia, Indigofera and Iseilema." | | |
| 51 | The greatest damage to crops is caused by three species: *Striga asiatica*, *S. gesnerioides* and *S. hermonthica* (Mohamed *et al.*, 2001). *S. asiatica* and *S. hermonthica* are among the most economically damaging weeds in many parts of the world. In Africa, these two pests attack grain crops and cereals, including *Zea mays* (maize), *Pennisetum* spp. (pearl millet), *Eleusine coracana* (finger millet), *Panicum* spp., *Eragostis tef* (teff) and *Sorghum bicolor* (sorghum), with some impacts on *Saccharum* spp. (sugarcane) and *Oryza sativa* (dryland rice), and can reduce the crop yield value by USD 7 billion every year (Ejeta, 2007; Csurhes *et al.*, 2016). *S. gesnerioides* is the only *Striga* species that attacks a dicotyledon host and usually infects Fabaceae, especially *Vigna unguiculata* (cowpea), Convolvulaceae, Euphorbiaceae and *Nicotiana tabacum* (tobacco, Solanaceae). | P | *Category : SUBSTANTIVE*<br>**(59) Japan (28 8 2019 10:37 午前)**<br>Add " many parts of".<br>Both species are not distributed all over the world. | O | |
| 51 | The greatest damage to crops is caused by three species: *Striga asiatica*, *S. gesnerioides* and *S. hermonthica* (Mohamed *et al.*, 2001). *S. asiatica* and *S. hermonthica* are among the most economically damaging weeds in the world. In Africa, these two pests attack grain crops and cereals, including *Zea mays* (maize), *Pennisetum* spp. (pearl millet), *Eleusine coracana* (finger millet), *Panicum* spp., *Eragostis tef* (teff) and *Sorghum bicolor* (sorghum), with some impacts on *Saccharum* spp. (sugarcane) and *Oryza sativa* (dryland rice), and can reduce the crop yield value ~~by USD 7 billion~~ every year (Ejeta, 2007; Csurhes *et al.*, 2016). *S. gesnerioides* is the only *Striga* species that attacks a dicotyledon host and usually infects Fabaceae, especially *Vigna unguiculata* (cowpea), Convolvulaceae, Euphorbiaceae and *Nicotiana tabacum* (tobacco, Solanaceae). | P | *Category : SUBSTANTIVE*<br>**(61) Japan (28 8 2019 10:41 午前)**<br>Delete "by USD 7 billion every year".<br><br>There are various ways of taking data on yield losses (e.g. sample size of fields are different case by case), so the figures varies depending on the situation. The specific figure may induce misleading. | O | |
| 51 | The greatest damage to crops is caused by three species: *Striga asiatica*, *S. gesnerioides* and *S. hermonthica* (Mohamed *et al.*, 2001). *S. asiatica* and *S. hermonthica* are among the most economically damaging weeds in the world. In Africa, these two ~~pests~~ species attack grain crops and cereals, including *Zea mays* (maize), *Pennisetum* spp. (pearl millet), *Eleusine coracana* (finger millet), *Panicum* spp., *Eragostis tef* (teff) and *Sorghum bicolor* (sorghum), with some impacts on *Saccharum* spp. (sugarcane) and *Oryza sativa* (dryland rice), and can reduce the crop yield value by USD 7 billion every year (Ejeta, 2007; Csurhes *et al.*, 2016). *S. gesnerioides* is the only *Striga* species that attacks a dicotyledon host and usually infects Fabaceae, especially *Vigna unguiculata* (cowpea), Convolvulaceae, Euphorbiaceae and *Nicotiana tabacum* (tobacco, Solanaceae). | P | *Category : EDITORIAL*<br>**(60) Japan (28 8 2019 10:39 午前)**<br>editorial revision | O | |
| 55 | ~~Unlike~~ Genus Orobanche in the same family (*Orobanchaceae*) is worldwide | P | *Category : SUBSTANTIVE*<br>**(65) Japan (28 8 2019 11:11 午前)** | O | |

| | | | | | |
|---|---|---|---|---|---|
| | known as another economically damaging parasitic weed. However, unlike *Striga*, plants of the related genus *Orobanche* lack chlorophyll and are fleshy with scale-like leaves and smaller flowers that are never red or pink. *Striga* is entirely Old World and tropical whereas *Orobanche* is more widespread and is present in both temperate and semitropical regions (Joel *et al*., 2007). | | Although Striga and Orobanche species parasitize different hosts in different parts of the world, the reason why information about Orobanche is described here is not clear. | | |
| 3.1 Sampling and sample submission | | | | | |
| 80 | The samples taken from ~~imported consigments should be~~ consignments are inspected and if necessary submitted to ~~a~~ the laboratory for ~~inspection~~further diagnostic analysis. | P | *Category : TECHNICAL*<br>**(67) Japan (28 8 2019 11:22 午前)**<br>Not all countries take the same process described in the text (i.e. submitted samples to a laboratory for inspection). Therefore, the text should be revised according to inspection purpose and the method of inspection that can actually be taken. | O | |
| 80 | This section does not cover plants and plant debris because seeds are mainly introduced into countries through contaminated consignments.<br>The samples taken from imported consigments should be submitted to a laboratory for inspection. | P | *Category : SUBSTANTIVE*<br>**(66) Japan (28 8 2019 11:18 午前)**<br>The content of “3. Detection” section covers only seeds but there is no explanation why only seeds are targeted in the section. A pathway of Striga plants into countries through imported/exported consignments is mainly seed of Striga rather than plants and debris. | O | |
| 81 | When surveys are carried out to detect *Striga* in fields, there are several detection methods, such as visual examination of the symptoms of Striga infestation on cultivated crops and the presence of Striga plants above ground in fields, and diagnostic analysis of soil seed banks. When soil seed banks are ~~usually sampled. Soil~~ analysed, soil samples are collected and submitted to the laboratory for further diagnostic analysis. | P | *Category : SUBSTANTIVE*<br>**(68) Japan (28 8 2019 11:27 午前)**<br>The method of survey is not only analyzing soil seed banks but also included visual examination of the symptoms of Striga infestation on cultivated crops and the presence of Striga plants above ground in fields. The survey methods related to this DP, i.e. “visual examination of Striga plants above ground in fields” and “analyzing soil seed banks” may be better to be added as examples.<br><br>(For reference)<br>Parkinson VO, 1989. A survey of infestation of crops by Striga spp. in Benin, Nigeria and Togo. Proceedings of the Nova Scotian Institute of Science, 39(1):1-9<br>Atsbha Gebreslasie, Taye Tessema, Ibrahim Hamza and Demeke Nigussie, 2016. Abundance and distribution of Striga (Striga hermonthica (Del.) Benth.) infestation in selected sorghum (Sorghum bicolour L. | O | |

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| | | | Moench) growing areas of Tigray Region, Ethiopia. African Journal of Agricultural Research, 11(45), 4674-4682 | | |
| 3.1.1 | Sampling procedures | | | | |
| 82 | **3.1.1 Sampling ~~procedures~~procedures from consignments** | P | *Category : SUBSTANTIVE*<br>**(69) Japan (28 8 2019 11:28 午前)**<br>Information in this sub-section is just for sampling procedures from imported/exported consignments not for sampling procedures for field survey | O | |
| 3.1.2 | Sub-sampling of the working sample for inspection | | | | |
| 84 | **~~3.1.2 Sub-sampling of the working sample for inspection~~** | P | *Category : SUBSTANTIVE*<br>**(70) Japan (28 8 2019 11:28 午前)**<br>Paragraph 84 - 86 are the prcess of sampling under the International Seed Testing Association (ISTA). International Seed Testing Rules Table 2A (ISTA, 2018)describes the sample size to inspect all sampled seeds (e.g. germination, disease, moisture) comprehensively. The rule does not apply for detection of Striga seeds contamination from imported consignments of seeds or grains.<br>The sample size for inspection of Striga seeds from consignments should be decided in accordance with ISPM31. | O | |
| 85 | ~~Samples submitted to a laboratory should be drawn from a composite sample, which is a mixture of primary samples. The sample size recommended by the International Seed Testing Association is 25 000 seeds or a maximum of 1 kg sample (ISTA, 2018). The weight of 25 000 seeds can be referenced from International Seed Testing Rule Table 2A (ISTA, 2018), or determined by the laboratory with a thousand seed weight test. For example, the weight of 25 000 seeds will be 1 kg for *Z. mays*, *O. sativa* and *Hordeum vulgare* and 20 g for *Panicum* spp. (millet, ISTA (2018), Table 2A). Immediately after sampling, submitted samples should be packed and sealed in an appropriate bag or container protected from contamination or leaking, with clear labels on seed lot, crop species and associated information to allow sample traceability. When a small package is less than 25 000 seeds, an appropriate bag sampling procedure should be performed after determining how many bags are equivalent to 25 000 seeds. When the whole lot is less than 25 000 seeds, the whole lot should be examined without sub-sampling procedures.~~ | P | *Category : SUBSTANTIVE*<br>**(72) Japan (28 8 2019 11:52 午前)**<br>Paragraph 84 - 86 are the prcess of sampling under the International Seed Testing Association (ISTA). International Seed Testing Rules Table 2A (ISTA, 2018)describes the sample size to inspect all sampled seeds (e.g. germination, disease, moisture) comprehensively. The rule does not apply for detection of Striga seeds contamination from imported consignments of seeds or grains.<br>The sample size for inspection of Striga seeds from consignments should be decided in accordance with ISPM31. | O | |
| 86 | ~~When receiving a submitted sample, the laboratory should analyse a minimum of~~ | P | *Category : SUBSTANTIVE* | O | |

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| | ~~25 000 seeds of the commodity, which may or may not constitute the whole submitted sample. If the submitted sample is more than the minimum sample weight, the sample weight should be reduced to the minimum quantity using a mechanical sample divider (e.g. a rotary or soil divider) or by a hand-halving method. The sample should be rejected when its weight is significantly less than the minimum sample weight.~~ | | **(74) Japan (28 8 2019 12:04 午後)**<br>Paragraph 84 - 86 are the prcess of sampling under the International Seed Testing Association (ISTA). International Seed Testing Rules Table 2A (ISTA, 2018)describes the sample size to inspect all sampled seeds (e.g. germination, disease, moisture) comprehensively. The rule does not apply for detection of Striga seeds contamination from imported consignments of seeds or grains.<br>The sample size for inspection of Striga seeds from consignments should be decided in accordance with ISPM31. | | |
| 4.2 Identification of seeds of Striga species | | | | | |
| 98 | Seed identification of *Striga* species is based on seed size, shape, surface texture and colour. The capsules of *Striga* are loculicidal, containing a large number of seeds in various shapes, including elliptic, ovate, rectangular, D-shaped, trigonous, rhombic, or ~~irregular (Figure 1)~~irregular. However, capsules are usually broken, damaged or removed in most contaminated commodities during their processing. *Striga* seeds (Figure 1) are dust-like particles, 0.2–0.6 mm long and 0.1–0.3 mm wide; their surface has twisted and longitudinally linear ridges; they are translucent; and seed colour varies from light brown to dark brown, from orange to golden brown, and from grey to light black, glistening under high-magnification microscopy (e.g. 20× to 40× magnification). The embryo is linear, and a sparse endosperm is present. | P | *Category : EDITORIAL*<br>**(75) Japan (28 8 2019 12:06 午後)**<br>Move “(Figure 1)” after “Striga seeds” in 3rd sentence.<br>The information of morphological features of Striga to compare the features of Orobanche in Figure 2 is better in 3rd sentence than in 2nd sentence. | O | |
| 99 | Other dust-like seeds are those of the genera *Orobanche* ~~(Figure 2)~~, *Phelipanche* and *Alectra*, which are a similar size but have a regularly reticulated surface. Seeds of *Alectra* are truncate at the apex. In general, the seed surface of ~~*Orobanche*~~ *Orobanche* (Figure 2) and *Phelipanche* is deeply honeycombed and lacks the spiral, ornamented ridges (i.e. twisted and longitudinally linear ridges) of *Striga* (Musselman and Parker, 1981b). Using a microscope, these seeds can be distinguished from *Striga*. Pictures of seeds of *S. asiatica*, *S. gesnerioides* and *S. hermonthica* are shown in Figures 1A to 1E and seed characteristics are summarized in Table 1. | P | *Category : SUBSTANTIVE*<br>**(76) Japan (28 8 2019 12:12 午後)**<br>Move “(Figure 2)” after “surface of Orobanche” in 3rd sentence.<br>The information of morphological features of Orobanche to compare the features of Striga in Figure 1 is better in 3rd sentence than in 1st sentence.<br><br>The expression of morphological features of Striga seeds here is different from the expression of 4th sentence in the previous paragraph [98]. Therefore, in order to complement information about the morphological features of Striga seeds here, add words "twisted and longitudinally linear ridges" which are described in 4th sentence in paragraph 98. | O | |

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| 99 | Other dust-like seeds are those of the genera *Orobanche* (Figure 2), *Phelipanche* and *Alectra*, which are a similar size but have a regularly reticulated surface. Seeds of *Alectra* are truncate at the apex. In general, the seed surface of *Orobanche* and *Phelipanche* is deeply honeycombed and lacks the spiral, ornamented ridges of *Striga* (Musselman and Parker, 1981b). Using a microscope, these seeds can be distinguished from *Striga*. Pictures of seeds of *S. asiatica*, *S. gesnerioides* and *S. hermonthica* are shown in Figures 1A to 1E and seed characteristics are summarized in Table 1. | C | *Category : TECHNICAL*<br>**(77) Japan (28 8 2019 12:14 午後)**<br>It might be better to add photographs that show morphological features of Alectra if any. | O | |
| 4.2.1 Capsule morphology of important species of Striga | | | | | |
| 127 | Capsule morphology is important in separating major groups of *Striga* species. The number of ribs in the calyx and their width and ornamentation can be helpful in determining taxa. See Figure 3 and Ramaiah *et al*. (1983) for images of seed capsules. | C | *Category : SUBSTANTIVE*<br>**(78) Japan (28 8 2019 12:26 午後)**<br>It might be better to add a picture to see whole seed capsule because Figure 3 shows only part of seed capsule. | O | |
| 4.3.3 Striga hermonthica | | | | | |
| 170 | *S. hermonthica* can be confused with *S. aspera*, which is a widespread species in sub-Saharan Africa that differs by the position of the bend in the ~~corolla~~corolla (Figure 5). The bend is at the ~~level of the calyx~~ mid-calyx in S. aspera (Figure 5A) ~~*S. hermonthica*~~ and the ~~mid-calyx~~ level of the calyx in S. hermonthica (Figure 5B)~~*S. aspera*~~. Overall, *S. aspera* has smaller corollas, stems and leaves and is a more delicate ~~plant (Figure 5)~~plant. | P | *Category : EDITORIAL*<br>**(79) Japan (28 8 2019 12:34 午後)**<br>There are no description about Figure 5A and 5B. | O | |