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***[1]***DRAFT ANNEX TO ISPM 23: Field inspection (2021-018)

***[2]*Status box**

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| ***[3]***This is not an official part of the standard and it will be modified by the IPPC Secretariat after adoption. |
| ***[4]*Date of this document** | ***[5]***2024-05-16 |
| ***[6]*Document category** | ***[7]***Draft annex to ISPM 23 |
| ***[8]*Current document stage** | ***[9]****To* first consultation |
| ***[10]*Major stages** | ***[11]***2022-04 CPM-16 added topic *Field inspection (including growing season inspection) (Annex to ISPM 23: Guidelines for inspection)* (2021-018) with priority 2.***[12]***2022-11 Standards Committee (SC) approved Specification 74 (*Field inspection*).***[13]***2023-10 Expert working group drafted the annex.***[14]***2024-05 SC revised and approved for first consultation. |
| ***[15]*Steward history** | ***[16]***2022-04 Masahiro SAI (JP, Lead Steward)***[17]***2022-05 Mariangela CIAMPITTI (IT, Assistant Steward) |
| ***[18]*Notes** | ***[19]***This section will remain on the drafts going for consultation but will be deleted before adoption.***[20]***2022-11 SC removed reference to growing season from the title of the specification***[21]***2023-11 Edited***[22]***2024-05 Edited |

***[23]***This annex was adopted by the [XXX] Session of the Commission on Phytosanitary Measures in [XXX 20XX].

***[24]***The annex is a prescriptive part of the standard.

***[25]***ANNEX 1: Field inspection

1. ***[26]***Concept of field inspection

***[27]***Field inspection is the inspection of plants in fields (including plants in open fields, in nurseries, under protected cultivation and in controlled environments). Field inspection is a phytosanitary measure applied to detect regulated pests, or signs or symptoms of regulated pests, and to verify conformity with phytosanitary requirements.

***[28]***For the purposes of this annex, the term “field inspection” applies to the inspection of plants during the growing period or dormant stage. The term “pest” may refer to a single species or multiple species.

***[29]***Field inspection may be required as a phytosanitary measure with the aim of reducing, directly or indirectly, the pest risk associated with the international movement of plants. However, it should be required only if technically justified according to a pest risk analysis or a comparable examination and evaluation of available scientific information. Field inspection may also be used in voluntary export-inspection programmes in exporting countries and in certification programmes for the production of plants for planting for export.

1. ***[30]***Scope

***[31]***This annex describes inspections in the field in relation to plants being produced for international trade. It provides requirements for field inspection conducted by, or on behalf of, a national plant protection organization (NPPO) as a stand-alone phytosanitary measure, as one component of a systems approach, or in combination with another measure or measures, to verify conformity with phytosanitary requirements. The annex outlines assumptions involved in the application of field inspection as well as the requirements for the field-inspection process and the associated documentation.

1. ***[32]***Difference between field inspection and specific surveillance

***[33]***The objectives of field inspection and specific surveillance differ. Field inspection is applied to detect regulated pests, or signs or symptoms of regulated pests, on or in the plants, and to verify conformity with phytosanitary requirements. Specific surveillance, on the other hand, is an official process to determine the presence or absence of pests in an area (by detection survey), to establish the boundaries of an area considered to be infested by or free from a pest (by delimiting survey), or to verify the characteristics of a pest population in an area (by monitoring survey).

1. ***[34]***Assumptions involved in the application of field inspection

***[35]***In addition to section 1.2 of the core text of this standard, the use of field inspection to detect the presence of pests or to determine or verify pest incidence in a field is based on the following assumptions:

* ***[36]***Pests of concern may be present on or in the plants, and the pests are visually detectable at the appropriate time (in terms of their presence, signs or symptoms).
* ***[37]***Field inspection can be operationally more practical or effective than inspection of consignments (e.g. rootstocks, seeds).
* ***[38]***If a pest is detected on or in the plants, the commodity for international trade derived from those plants may be infested.
1. ***[39]***Other considerations for field inspection

***[40]***While some factors from section 1.5 of the core text of this standard are applicable to field inspection, the following may also be considered when making decisions on the use of field inspection as a phytosanitary measure:

* ***[41]***pest status;
* ***[42]***pest prevalence;
* ***[43]***pest biology;
* ***[44]***phenological stage of plants;
* ***[45]***inspection method, including timing and frequency;
* ***[46]***field size and configuration;
* ***[47]***difficulty of pest detection on a specific plant;
* ***[48]***other biotic factors (e.g. other pests, natural enemies) and abiotic factors (e.g. climate);
* ***[49]***cultural practices and control measures; and
* ***[50]***the specific objectives of the field inspection.

***[51]***6. Specific requirements for field inspection

***[52]***The specific requirements for field inspection relate to the following components of the field-inspection process:

* ***[53]***examination of relevant documents (section 6.1 of this annex);
* ***[54]***verification of identity of the field and plants (section 6.2 of this annex); and
* ***[55]***visual examination for pests and conformity with other phytosanitary requirements (section 6.3 of this annex).

***[56]***Certain aspects of field inspection may differ depending on whether the phytosanitary requirements specify a tolerance level for regulated non-quarantine pests.

***[57]***6.1 Examination of relevant documents

***[58]***Officially acceptable documents should be examined to ensure that they are:

* ***[59]***complete;
* ***[60]***consistent;
* ***[61]***accurate; and
* ***[62]***valid and not fraudulent.

***[63]***Examples of documents that may be associated with field inspection include the following:

* ***[64]***field maps, site plans, field-identity documents;
* ***[65]***producer records;
* ***[66]***documents confirming registration of the field;
* ***[67]***previous inspection reports;
* ***[68]***previous test reports;
* ***[69]***treatment documents or certificates;
* ***[70]***certificates of origin of plants and plant material;
* ***[71]***certification-programme documentation (e.g. from certification programme for seed potatoes), import permits;
* ***[72]***commercial invoices; and
* ***[73]***records that ensure traceability (e.g. the necessary information to allow trace-back of plants).

***[74]***6.2 Verification of identity of the field and plants

***[75]***The identity of the field and of the plants that are subject to inspection (e.g. location of field; species, varieties and cultivars, phenological stage of plants) should be verified to ensure that they match the identity provided in the corresponding documents.

***[76]***6.3 Visual examination for pests and conformity with other phytosanitary requirements

***[77]***6.3.1 Detection of pests

***[78]***To determine whether the pest targeted by the inspection is present, or whether it exceeds a specified tolerance level, an inspection method should be selected that meets the following requirements.

***[79]***The method, including the intensity of inspection, should allow the target pest to be detected with the desired confidence level. The ability of the method to do this will depend on practical and statistical considerations, such as the probability of detecting the pest, the growing conditions, and the number of plants or size of the field.

***[80]***The method should take into account the specific objectives of the field inspection; the pest’s biology, signs or symptoms, and likely distribution pattern in the field; and the suitability of conditions for detection.

***[81]***The method should be based on transparent technical and operational criteria, and it should be applied consistently.

***[82]***6.3.2 Verification of conformity with phytosanitary requirements

***[83]***Field inspection may be conducted to verify conformity with phytosanitary requirements other than those addressed by pest detection, such as:

* ***[84]***growing medium and substrate requirements for the plants;
* ***[85]***required growth stage of the plants;
* ***[86]***requirements in the vicinity of the field (e.g. absence of alternative hosts);
* ***[87]***conditions in the vicinity of the field (e.g. pest-management practices, the distance between the field boundary and the location of the growing plants);
* ***[88]***specific production conditions; or
* ***[89]***sanitation and hygiene requirements.

***[90]***7. Planning a field inspection

***[91]***7.1 The field-inspection process

***[92]***The field-inspection process should include consideration of the specific objectives of the field inspection, the circumstances when field inspection may be used and field-inspection methods.

***[93]***7.2 Specific objectives of field inspection

***[94]***The specific objectives of the field inspection should be considered at the outset of the field-inspection process. Examples of specific objectives include, but are not limited to, the following:

* ***[95]***to meet the phytosanitary import requirements of an importing country;
* ***[96]***to manage the pest risk of a regulated pest that is difficult to detect during inspection of consignments;
* ***[97]***to provide greater effectiveness compared with inspection of consignments (e.g. for high-value plant material such as seeds or plants for planting);
* ***[98]***to verify that plants in a field are free from the target pest or to verify that infestation of plants in a field by the target pest has not exceeded a specified tolerance level; or
* ***[99]***to contribute to a systems approach (ISPM 14 (*The use of integrated measures in a systems approach for pest risk management*)) or to support establishment and maintenance of a pest free place of production or production site (ISPM 10 (*Requirements for the establishment of pest free places of production and pest free production sites*)).

***[100]***7.3 Circumstances when field inspection may be used

***[101]***The field-inspection process should take into account the circumstances under which field inspection may be technically justified.

***[102]***Field inspection may be carried out when it is:

* ***[103]***selected as a pest risk management option to detect the target pest and inform decisions on pest risk management;
* ***[104]***applied for plants at the appropriate time for observation of signs or symptoms of the target pests;
* ***[105]***conducted in combination with a test to confirm the suspected presence of the target pest in cases where symptoms of the pest are unreliable; or
* ***[106]***conducted in the vicinity of the field (if the vicinity needs to be inspected), based on the likely the distribution of the target pest and its capacity to spread.

***[107]***In some circumstances, equivalent measures, such as sampling and laboratory testing, may be more suitable than field inspection to provide assurance that plants are free from the target pest, or visual examination of plants in the field may not be sufficient to confirm presence or absence of the pest. Examples of such circumstances include the following:

* ***[108]***the pest is known to exhibit latency;
* ***[109]***infested plants can be asymptomatic;
* ***[110]***the phenological stage of the plants is not appropriate for pest detection (e.g. young plants);
* ***[111]***suspicious signs or symptoms cannot be immediately identified; and
* ***[112]***the life stage of the pest at the time of inspection is difficult to detect.

***[113]***When selecting the timing and frequency of field inspection, the characteristics of the target pest and the plants should be taken into account:

* ***[114]***The field inspection should be timed to coincide with a life stage of the pest that is suitable for detection.
* ***[115]***The field inspection should be timed to coincide with the optimum time for the plants to show signs or symptoms, which varies between pest and plant species.
* ***[116]***Field inspection may be conducted periodically, depending on pest biology.

***[117]***7.4 Field-inspection methods

***[118]***When selecting the method for a field inspection, section 5 and section 6.3.1 of this annex and the phytosanitary import requirements of the importing country should be taken into account. The field-inspection method should be designed to detect the target regulated pest. The method should be reviewed as necessary to take account of experience gained and new technical developments. The method may include one or more of the following:

* ***[119]***a general visual assessment of the relevant part of a field to check the physical condition of the plants, looking first for anomalies within the crop and then for any noticeable, poorly growing plants or those with more obvious symptoms, such as abnormal growth, differences in colour, a paler colour, or with types of patches of a different colour (if no such plants are apparent, then a representative number of plants should be examined);
* ***[120]***inspection of the entire field, the entire field and (where appropriate) land in its vicinity, or a part of the field, depending on phytosanitary requirements, using an inspection pattern appropriate for the plants being inspected and the target pest;
* ***[121]***an inspection pattern that ensures that relevant parts of the field are adequately and proportionally represented in the plants inspected within the field;
* ***[122]***inspection of individual plants or plant parts that may show signs or symptoms, and any other parts, if necessary; and
* ***[123]***sampling of selected plants for pest detection and identification as appropriate, because in some cases, pests or signs or symptoms of pests that have been detected may require identification or testing in a laboratory or by a specialist.

***[124]***The method should include ways of ensuring the integrity, traceability and security of samples.

1. ***[125]***Field inspection outcome

***[126]***The result of the field inspection may contribute to the decision about whether the plants meet phytosanitary requirements.

***[127]***If the target pest is detected or conformity with phytosanitary requirements is not verified, further actions should be taken. These actions may be determined by the nature of the findings, considering the pest or other objectives, and the circumstances.

1. ***[128]***Documentation

***[129]***National plant protection organizations should develop official documentation for conducting field inspections and managing or accessing inspection records and outcomes. Documentation is essential for promoting consistency, improving the interpretation and reliability of results, and facilitating the audit and verification of field-inspection activities.

***[130]***The NPPO, or entities authorized to conduct field inspection on behalf of the NPPO, should retain all records about each field inspection for as long as is needed to allow trace-back from a non-compliant consignment or to facilitate the later review of results if necessary. Such records should be made available for audit by the NPPO, or entities authorized to conduct audits on behalf of the NPPO, and to the NPPO of an importing country on request.

1. ***[131]***Responsibilities of national plant protection organizations

***[132]***The responsibilities of NPPOs that conduct field inspection, or authorize entities to do this on their behalf, should include the following:

* ***[133]***train personnel to ensure that their skills and expertise are maintained at an adequate level to plan and conduct field inspections effectively and consistently;
* ***[134]***ensure that inspectors can fulfil the requirements described in section 1.4 of the core text of this standard;
* ***[135]***ensure that inspectors have the right of access and the practical possibility to conduct inspections in fields and in the vicinity of fields;
* ***[136]***review and evaluate field-inspection processes as needed; and
* ***[137]***determine the roles and responsibilities of producers with regard to field inspections.

***[138]***Potential implementation issues

***[139]***This section is not part of the standard. The Standards Committee in May 2016 requested the Secretariat to gather information on any potential implementation issues related to this draft. Please provide details and proposals on how to address these potential implementation issues.