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**INTERNATIONAL STANDARDS FOR
PHYTOSANITARY MEASURES**

***REQUIREMENTS FOR THE ESTABLISHMENT OF PEST
FREE PLACES OF PRODUCTION AND PEST FREE
PRODUCTION SITES***



Secretariat of the International Plant Protection Convention
Food and Agriculture Organization
of the United Nations
Rome, 1999

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Endorsement

International standards for phytosanitary measures are prepared by the Secretariat of the International Plant Protection Convention as part of the United Nations Food and Agriculture Organization's global programme of policy and technical assistance in plant quarantine. This programme makes available to FAO Members and other interested parties these standards, guidelines and recommendations to achieve international harmonization of phytosanitary measures, with the aim to facilitate trade and avoid the use of unjustifiable measures as barriers to trade.

This standard was endorsed by the Interim Commission on Phytosanitary Measures in October 1999.

Jacques Diouf
Director-General
Food and Agriculture Organization of the United Nations

Review and amendment

International standards for phytosanitary measures are subject to periodic review and amendment. The next review date for this standard is 2004, or such other date as may be agreed upon by the Commission on Phytosanitary Measures.

Standards will be updated and republished as necessary. Standard holders should ensure that the current edition of this standard is being used.

Distribution

International standards for phytosanitary measures are distributed by the Secretariat of the International Plant Protection Convention to all FAO Members, plus the Executive/Technical Secretariats of the Regional Plant Protection Organizations:

- Asia and Pacific Plant Protection Commission
- Caribbean Plant Protection Commission
- Comité Regional de Sanidad Vegetal para el Cono Sur
- Comunidad Andina
- European and Mediterranean Plant Protection Organization
- Inter-African Phytosanitary Council
- North American Plant Protection Organization
- Organismo Internacional Regional de Sanidad Agropecuaria
- Pacific Plant Protection Organization.

INTRODUCTION

SCOPE

This standard describes the requirements for the establishment and use of pest free places of production and pest free production sites as risk management options for meeting phytosanitary requirements for the import of plants, plant products and other regulated articles.

REFERENCES

- Glossary of phytosanitary terms*, 1999. ISPM Pub. No. 5, FAO, Rome.
Guidelines for pest risk analysis, 1996. ISPM Pub. No. 2, FAO, Rome.
Guidelines for surveillance, 1998. ISPM Pub. No. 6, FAO, Rome.
International Plant Protection Convention, 1992. FAO, Rome.
New Revised Text of the International Plant Protection Convention, 1997. FAO, Rome.
Principles of plant quarantine as related to international trade, 1995. ISPM Pub. 1, FAO, Rome.
Requirements for the establishment of pest free areas, 1996. ISPM Pub. No. 4, FAO, Rome.
Determination of Pest Status in an Area, 1998. ISPM Pub. No. 8, FAO, Rome.

DEFINITIONS AND ABBREVIATIONS

Buffer zone	An area in which a specific pest does not occur or occurs at a low level and is officially controlled, that either encloses or is adjacent to an infested area, an infested place of production, a pest free area, a pest free place of production or a pest free production site, and in which phytosanitary measures are taken to prevent spread of the pest.
Delimiting survey	A survey conducted to establish the boundaries of an area considered to be infested by or free from a pest.
Detection survey	A survey conducted in an area to determine if pests are present.
Field	A plot of land with defined boundaries within a place of production on which a commodity is grown.
Free from (of a consignment, field or place of production)	Without pests (or a specific pest) in numbers or quantities that can be detected by the application of phytosanitary procedures.
Introduction	Entry of a pest resulting in its establishment.
Monitoring survey	An ongoing survey to verify the characteristics of a pest population.
National Plant Protection (NPPO)	Official service established by a government to Organization discharge the functions specified by the International Plant Protection Convention.

Pest	Any species, strain or biotype of plant, animal, or pathogenic agent, injurious to plants or plant products.
Pest free area	An area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained.
Pest free place of production	Place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period.
Pest free production site	A defined portion of a place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period, and that is managed as a separate unit in the same way as a pest free place of production.
Phytosanitary certification	Use of phytosanitary procedures leading to the issue of a phytosanitary certificate.
Phytosanitary measure	Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of pests.
Place of production	Any premises or collection of fields operated as a single production or farming unit. This may include production sites, which are separately managed for phytosanitary purposes.
Regulated article	Any plant, plant product, storage place, packaging, conveyance, container, soil and any other organism, object or material capable of harbouring or spreading pests, deemed to require phytosanitary measures, particularly where international transportation is involved.
Survey	An official procedure conducted over a defined period of time to determine the characteristics of a pest population or to determine which species occur in an area.

OUTLINE OF REQUIREMENTS

This standard uses the concept of “pest freedom” to allow exporting countries to provide assurance to importing countries that plants, plant products and other regulated articles are free from a specific pest or pests and meet the phytosanitary requirements of the importing country when imported from a pest free place of production. In circumstances where a defined portion of a place of production is managed as a separate unit and can be maintained pest free, it may be regarded as a pest free production site. The use of pest free places of production or pest free production sites is dependent on the use of criteria concerning the biology of the pest, the characteristics of the place of production, the operational capabilities of the producer, and the requirements and responsibilities of the National Plant Protection Organization (NPPO).

Requirements for the establishment and maintenance of a pest free place of production or a pest free production site as a phytosanitary measure by the NPPO, include:

- systems to establish pest freedom
- systems to maintain pest freedom
- verification that pest freedom has been attained or maintained
- product identity, consignment integrity and phytosanitary security.

Where necessary, a pest free place of production or a pest free production site also includes the establishment and maintenance of an appropriate buffer zone.

Administrative activities required to support a pest free place of production or pest free production site involve documentation of the system and the maintenance of adequate records concerning the measures taken. Review and audit procedures undertaken by the NPPO are essential to support assurance of pest freedom and for system appraisal. Bilateral agreements or arrangements may also be needed.

1. CONCEPT OF A PEST FREE PLACE OF PRODUCTION OR PEST FREE PRODUCTION SITE

1.1 Application of a Pest Free Place of Production and Pest Free Production Site

A “pest free place of production” is a: “place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period”. It provides a means for an exporting country, if so required by an importing country, to ensure that consignments of plants, plant products or other regulated articles produced on, and/or moved from, the place of production are free from the pest concerned, because it has been shown to be absent from that place over a relevant period of time. Pest freedom is established by surveys and/or growing season inspections and maintained as necessary by other systems to prevent the entry of the pest into the place of production. The operations are supported by appropriate documentation.

Depending on the pest concerned, local circumstances and the acceptable level of risk for the importing country, an adequate level of security may be achieved by different intensities of measures, ranging from a simple growing-season inspection in the year of export to a complex system of surveys and supporting procedures maintained over several years.

The concept of a pest free place of production can be applied to any premises or collection of fields operated as a single production unit. The producer applies the required measures to the entire place of production.

Where a defined portion of a place of production can be managed as a separate unit within a place of production, it may be possible to maintain that site pest free. In such circumstances, the place of production is considered to contain a pest free production site.

Where the biology of the pest is such that it is likely to enter the place of production or production site from adjacent areas, it is necessary to define a buffer zone around the place of production or production site within which appropriate phytosanitary measures are applied. The extent of the buffer zone and the nature of the phytosanitary measures will depend on the biology of the pest and the intrinsic characteristics of the place of production or production site.

1.2 Distinction between a Pest Free Place of Production or a Pest Free Production Site and a Pest Free Area

The concept of the pest free place of production is distinct from that of the pest free area (see ISPM No. 4: *Requirements for the establishment of pest free areas*). The pest free area has the same objective as the pest free place of production but is implemented in a different way. Every distinction between a pest free place of production and a pest free area applies equally to a pest free production site.

A pest free area is much larger than a place of production, includes many places of production and may extend to a whole country or parts of several countries. A pest free area may be isolated by a natural barrier or an appropriate usually large buffer zone. A pest free place of production may be situated in an area where the pest concerned is prevalent and is isolated, if at all, by creating a buffer zone in its immediate vicinity. A pest free area is generally maintained over many years without interruption, whereas the status of a pest free place of production may be maintained for only one or a few growing seasons. A pest free area is managed as a whole, by the NPPO of the exporting country. A pest free place of production is managed individually by the producer, under the supervision and responsibility of the NPPO. If the pest is found in a pest free area, the status of the whole area is called into question. If it is found in a pest free place of production, that place loses its status but other places of production in the area operating the same system are not directly affected. These distinctions may not always apply in particular cases. A place of production lying in a pest free area may satisfy, by that fact, the requirements for a pest free place of production, although the importing country may require verification.

The choice of a pest free place of production or pest free area as a management option will depend on the actual distribution of the pest concerned in the exporting country, on the characteristics of the pest and on administrative considerations. Both systems can offer adequate phytosanitary security: the main security of the pest free area lies in the common application of measures to an area covering many places of production; the main security of the pest free place of production arises from the fact that management procedures, surveys and inspections are applied specifically and intensively to it.

2. GENERAL REQUIREMENTS

2.1 Critical Factors for Pest Free Places of Production or Pest Free Production Sites

The possibility of ensuring that a place of production or a production site is pest free depends on:

- characteristics of the pest
- characteristics of the place of production and production site
- operational capabilities of the producer
- requirements and responsibilities of the NPPO.

2.1.1 Characteristics of the pest

A place of production or a production site can be declared free from a given pest to an adequate degree of security if the characteristics of the pest are suitable for this. Suitable characteristics may include the following:

- the natural spread of the pest (or its vectors, if appropriate) is slow and over short distances
- the possibilities for artificial spread of the pest are limited
- the pest has a limited host range
- the pest has a relatively low probability of survival from previous seasons
- the pest has a moderate or low rate of reproduction

- sufficiently sensitive methods for detection of the pest are available, either by visual inspection or by tests applied in the field or in the laboratory, at the appropriate season
- as far as possible, factors in the biology of the pest (e.g. latency) and in the management of the place of production do not interfere with detection.

The availability of effective and practical measures for control and management of the pest is also an advantage in establishing and maintaining a pest free place of production or pest free production site.

2.1.2 Characteristics of the place of production or production site

The basic definition of a “place of production” should be satisfied (i.e. operated as a single production or farming unit). Depending on the pest concerned and local circumstances, a place of production and production site as well as the buffer zone, as appropriate, may also require some of the following additional characteristics:

- location at a sufficient distance from possible sources of pest infestation, with appropriate isolation (advantage being taken of physical features that can act as barriers to pest movement)
- clear delimitation, with officially recognized boundaries
- access to the buffer zone (if appropriate)
- absence, in the place of production or production site of hosts of the pest other than those meeting the conditions for export
- absence in the buffer zone (if appropriate) of hosts of the pest or adequate control of the pest on these hosts.

2.1.3 Operational capabilities of the producer

The producer should have defined management, technical and operational capabilities which are considered by the NPPO to be adequate to prevent the pest from entering the place of production or production site, and to maintain pest freedom by the application of appropriate phytosanitary measures. The producer or NPPO should also have the ability to apply appropriate phytosanitary measures in the buffer zone if necessary.

2.1.4 Requirements and responsibilities of the NPPO

The NPPO should define the particular requirements which a producer must meet in order that its declaration of a pest free place of production or pest free production site gives the required level of phytosanitary security. The NPPO is responsible for the surveys, inspections and other systems that verify pest freedom. For any given pest and host, the management systems required are generally widely known and can be used in any country. Where appropriate, the NPPO may provide training in these management systems. The NPPO should check the regulations of the importing country and/or bilaterally establish conditions to ensure that compliance can be achieved.

2.2 Establishment and Maintenance of Pest Free Places of Production or Pest Free Production Sites

There are four main components the NPPO should consider in establishing and maintaining pest free places of production or pest free production sites. These are:

- systems to establish pest freedom
- systems to maintain pest freedom
- verification that pest freedom has been attained or maintained
- product identity, consignment integrity and phytosanitary security.

2.2.1 Systems to establish pest freedom

The NPPO should normally specify a set of conditions to be met by the producer, enabling the place of production or production site to be subsequently declared pest free. These requirements will concern the characteristics of the place of production or production site (and the buffer zone, if appropriate) and the operational capabilities of the producer. Formal agreements may be required between the producers (or their organizations) and the NPPO to ensure that specific measures are taken.

In some cases, the NPPO may require that pest freedom should be verified by official surveys for one or more years before the year in which consignments are certified for export. The methods used to verify freedom in this way may be the same as, or different from, those used for verifying freedom in the year of export (see section 2.2.3). In other cases, the NPPO may only require that pest freedom be verified in the year of production. In any case, the objective of the NPPO and the producers will generally be to maintain the pest free status of a place of production or production site continuously over a period of years. Specific provisions should be made for the withdrawal of pest free status if the pest is detected in the pest free place of production or pest free production site or a buffer zone meant to be pest free, and for the eventual re-establishment and verification of pest free status, including investigation into the cause and consideration of the measures to prevent future failure.

In the case where pest free production sites are established, delimiting surveys may be used to determine their extent.

2.2.2 Systems to maintain pest freedom

The NPPO should generally require that specific measures be applied to the place of production or production site (and buffer zone, if appropriate) before and/or during the growing season, and is responsible for general supervision of the place of production or production site to ensure that these requirements are met. Their aim is to prevent the introduction of the pest into the place of production or production site, or to destroy previously undetected infestations. These measures may include:

- preventive measures (e.g. pest free propagating material, elimination of other hosts)
- exclusion measures (e.g. physical barriers, screens, controls on equipment, machinery, plants, soil and growing media)

- pest control measures (e.g. cultural methods, treatments, and resistant cultivars).

The producer should be required to:

- notify the NPPO of any suspected or actual occurrences of the pest
- maintain relevant records of cultural and pest control procedures for the time period designated by the NPPO.

2.2.3 Verification that pest freedom has been attained or maintained

The verification of pest free status is done by NPPO personnel or by persons duly authorized by the NPPO, who undertake the specific surveys to assess the pest free status of the place of production or production site (and the buffer zone, if required). These most often take the form of field inspections (also known as growing-season inspections), but may also include other detection methods (sampling followed by laboratory testing, trapping, soil tests, etc.).

Pest free status may be verified by a stated number or frequency of inspections or tests (e.g. three inspections at monthly intervals). The inspections or other procedures may concern a single growing season, or may be required over several seasons. Inspection or testing of the harvested commodity may be required at the place of production or production site. Pest freedom over a number of years may also be required and the growing of host plants on the site in previous years may be prohibited.

Verification procedures should be based on a design, which should relate to the division of the place of production into individual plots, and may, according to the pest and its symptoms, be conducted by overall estimation or by taking samples. The prevalence of the pest in the area surrounding the pest free place of production or pest free production site may influence the intensity of the survey required.

2.2.4 Product identity, consignment integrity and phytosanitary security

Verification measures may be needed to maintain the identity of the product (labelling to ensure traceability to the pest free place of production) and the integrity of the consignment. The phytosanitary security of the product should be maintained after harvest.

2.3 Buffer Zone Requirements

In appropriate cases, the establishment and maintenance of a pest free place of production or pest free production site include procedures related to the buffer zone associated with the place of production or production site.

The extent of the buffer zone should be determined by the NPPO, on the basis of the distance over which the pest is likely to spread naturally during the course of the growing season. Monitoring surveys should be conducted at adequate frequency over one or more growing seasons. The action to be taken, if the pest is detected in the buffer zone, will depend on the requirements of the NPPO. The pest free status of the place of production or production site may be withdrawn or appropriate control measures may be required in the buffer zone. In any case, access for surveys or control

measures should be verified in advance. If appropriate, adequate procedures may be established to support the assurance that pest freedom is maintained (local reporting/notification and publicity, local regulation, control/elimination of detected pests).

3. DOCUMENTATION AND REVIEW

The measures taken in establishing and maintaining a pest free place of production or pest free production site, including those taken in the buffer zone, if appropriate, should be adequately documented and periodically reviewed. The NPPO should institute procedures for on-site audit, review and systems' appraisal.

3.1 General Records

Documentation should be available, as appropriate, on the administrative system applied by the NPPO for the establishment of pest free places of production or pest free production sites in general, and in relation to the particular pest(s) concerned. This includes details of the surveillance systems used (including inspection, survey and monitoring), of the procedures for reaction to pest presence, and of the procedures to ensure product identity, consignment integrity and phytosanitary security.

Documentation should also be available, as appropriate, on the specific actions taken at a place of production or a production site and any associated buffer zone in relation to the approval of pest free status for a particular growing season, including the results of surveys and the pest management records (e.g. types and dates of phytosanitary treatments, use of resistant cultivars).

The procedures for withdrawal and reinstatement of pest free status should be documented.

When complex measures are needed to establish and maintain a pest free place of production or pest free production site, because the pest concerned requires a high degree of phytosanitary security, an operational plan may be needed. Where appropriate, such a plan would be based on bilateral agreements or arrangements listing specific details required in the operation of the system including the role and responsibilities of the producer and trader(s) involved.

3.2 Additional Declaration on Phytosanitary Certificates

The issuance of a phytosanitary certificate for a consignment by the NPPO confirms that the requirements for a pest free place of production or a pest free production site have been fulfilled. The importing country may require an appropriate additional declaration on the phytosanitary certificate to this effect.

3.3 Provision of Information

The NPPO of the exporting country should, on request, make available to the NPPO of the importing country the rationale for establishment and maintenance of pest free places of production or pest free production sites. Where bilateral arrangements or agreements so provide, the NPPO of the exporting country should expeditiously provide information concerning establishment or withdrawal of pest free places of production or pest free production sites to the NPPO of the importing country.

For further information on international standards, guidelines and recommendations concerning phytosanitary measures, and the complete list of current publications, please contact the:

Secretariat of the International Plant Protection Convention

By mail: IPPC Secretariat
 Plant Protection Service
 Food and Agriculture Organization of the United Nations (FAO)
 Viale delle Terme di Caracalla
 00100 Rome, Italy

Fax: + (39) (06) 57056347

Email: ippc@fao.org

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