



**NAPPO**

North American Plant Protection Organization

Organización Norteamericana de Protección a las Plantas

**MEXICO - USA - CANADA**

## **NAPPO Regional Standards for Phytosanitary Measures (RSPM)**

### **RSPM 20**

### **Establishment, Maintenance and Verification of Areas of Low Pest Prevalence for Insects**

North American Plant Protection Organization (NAPPO)

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17 October 2011

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## Review


NAPPO Standards for Phytosanitary Measures are subject to periodic review and amendment. The next review date for this NAPPO standard is 2016. A review of any NAPPO Standard may be initiated at any time upon the request of a NAPPO member country.

## Endorsement

This Standard was approved by the North American Plant Protection Organization (NAPPO) Executive Committee on October 17, 2011.

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## Implementation

See the attached Implementation plans for implementation dates in each NAPPO country.

## Amendment Record

Amendments to this Standard will be dated and filed with the NAPPO Secretariat. The most recent version will be posted on the NAPPO website at: [www.nappo.org/stds\\_e.htm](http://www.nappo.org/stds_e.htm)

## Distribution

This standard is distributed by the Secretariat of the NAPPO within NAPPO, including Sustaining Associate Members and Industry Advisory Groups, to the FAO IPPC Secretariat, and to the Administrative Heads of the Regional Plant Protection Organizations (RPPOs).

## Introduction

### Scope

This standard provides the guidelines to establish, maintain and verify areas of low pest prevalence (ALPP) for insects. The target pest(s) for this standard can include any group of insects that are considered to be regulated pests.

### References

- ISPM 4. 1996. *Requirements for the establishment of pest free areas*. Rome. IPPC, FAO.
- ISPM 5. (Updated annually). *Glossary of Phytosanitary Terms*. Rome. IPPC, FAO.
- ISPM 6. 1997. *Guidelines for Surveillance*. Rome. IPPC, FAO.
- ISPM 8. 1998. *Determination of pest status in an area*. Rome. IPPC, FAO.
- ISPM 10. 1999. *Requirements for the establishment of pest free places of production and pest free production sites*. Rome. IPPC, FAO.
- ISPM 13. 2001. *Guidelines for the notification of non-compliance and emergency action*. Rome. IPPC, FAO.
- ISPM 17. 2002. *Pest reporting*. Rome. IPPC, FAO.
- ISPM 21. 2004. *Pest risk analysis for regulated non-quarantine pests*. Rome. IPPC, FAO.
- ISPM 22. 2005. *Requirements for the establishment of areas of low pest prevalence*. Rome. IPPC, FAO.
- ISPM 30. 2008. *Establishment of areas of low pest prevalence for fruit flies*. Rome. IPPC, FAO
- RSPM 5. (Updated annually). *NAPPO Glossary of Phytosanitary Terms*, Ottawa, NAPPO.
- RSPM 19. 2011. *Bilateral Workplans*. NAPPO.

### Definitions, Abbreviations and Acronyms

Definitions of phytosanitary terms used in this standard can be found in RSPM 5 and in ISPM 5.

### Outline of Requirements

This standard provides procedures for the establishment, maintenance, and verification of areas of low pest prevalence (ALPP) for insects. The standard outlines phytosanitary measures for maintaining the population at low levels, monitoring the target pest, and planning and implementing corrective actions. The criteria for suspension, termination, and reinstatement of the ALPP are included. A bilateral workplan will typically be required to elaborate on the issues described in this standard.

## **Background**

ISPM 5 defines an ALPP as, “An area, whether all of a country, part of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest occurs at low levels and which is subject to effective surveillance, control or eradication measures.” As outlined in ISPM 22: 2005, an established and maintained ALPP may be used to facilitate domestic movement of commodities from areas where the target pest(s) is present, or for exports, and to reduce or limit pest spread in the area.

It could also be utilized alone, or as part of a systems approach, according to the commodity and the pest(s) in question (ISPM 30: 2008).

Low pest prevalence may be applied to large geographic areas, smaller places of production such as a block of contiguous orchards, and individual production sites. This is feasible provided that compliance with the established population threshold is achieved and maintained (further detail is in Appendix 1). ALPP should be isolated by a natural barrier or protected with buffer zones where continuous effective phytosanitary actions may be applied. The dimensions of the protected area and the intensity of the phytosanitary procedures will depend on the biology of the pest and the inherent characteristics of the production area.

An ALPP may be established for tropical, sub-tropical or temperate zone pests across a broad range of environmental and host conditions. Bilateral Workplans using concepts described in this standard take into account the variability in insect pest risk which may be influenced by factors such as: reproductive potential, host range, host distribution, environmental influences on pest establishment, spread and reproduction, and characteristics of damage caused by immature life stages that have an impact on pest detection.

In areas where prevalence of the insect pest is naturally at a low level because of climatic, geographical or other reasons (e.g. natural enemies, availability of suitable hosts, host seasonality), the target insect population may already be below the specified level of low pest prevalence without applying any control measures. In such cases, surveillance should be undertaken over an appropriate length of time to validate the low prevalence status and this status may be recognized in accordance with the examples listed in section 3.1.1 of ISPM 8: 1998. If, however, the insect pest is detected above the specified level of low pest prevalence (e.g. because of extraordinary climatic conditions) corrective actions should be applied, according to the NPPO (ISPM 30: 2008).

## **General Requirements**

Prior to designating ALPP, the NPPO should ensure that the area meets the requirements of this standard and the relevant International Standards for Phytosanitary Measures (ISPM 22: 2005, ISPM 30: 2008).

Where this standard addresses issues related to establishment of threshold levels, attention should be paid to the ISPM 21: 2004 on pest risk analysis for regulated non-quarantine pests. Parameters used to determine the level of prevalence are defined by the NPPO.

## **Specific Requirements**

### **1. Establishment of an ALPP**

An area of low pest prevalence can occur naturally as a result of abiotic and biotic factors that reduce or limit insect populations through all or part of the year. An ALPP can also be achieved through the application of phytosanitary procedures aimed at control of the target pest(s). These procedures should include suppression and containment. Requirements such as field, packinghouse and conveyance controls will vary depending on the commodity, target pest(s), and intended market.

The key elements to consider in determining the feasibility of establishing an ALPP include:

- The biology of the target pest(s).
- Available technology and technical expertise required to establish and maintain an ALPP.
- Geographic, operational, and economic factors.
- Legislation and regulations required for the NPPO to carry on all activities necessary to establish and maintain the ALPP.
- Cooperation from growers and ability of relevant government authorities to participate in maintaining the ALPP.
- Public outreach programs.

The NPPO of the country seeking recognition of an ALPP should document the following geographic, surveillance, and other technical information. Annex 1 should be used.

#### **1.1 Geographic description**

- 1.1.1 Describe the proposed ALPP, with supporting maps or Global Positioning System (GPS) coordinates demonstrating boundaries of the area, roads, places of production, location of host plants in proximity to commercial production areas, and isolation of the area by a natural barrier (Appendix 2).
- 1.1.2 In the absence of an isolating natural barrier, describe, with supporting maps and documentation, the buffer zone adjacent to the ALPP.

#### **1.2 Surveillance activities**

As mentioned in ISPM 30: 2008 surveillance protocols (e.g., trapping) in the ALPP are dependent upon the biology of the target pest(s) and the assessed level of risk of entry for the target pest(s) and other quarantine pests. The duration of surveillance should extend beyond the activity period of the target pest(s). The pre-season and post-season surveillance periods and the frequency of activities are dependent upon the target species and the prevailing climatic conditions. These parameters should be detailed in the bilateral workplan.

- 1.2.1. Document and maintain survey data to demonstrate that populations of the target pest(s) do not exceed threshold levels in commercial, non-commercial, or wild hosts in the proposed ALPP. The survey data should be relevant to the life cycle of the target pest(s).
- 1.2.1.1. Produce technical reports of target pest detections, phytosanitary procedures applied, and results of the survey activities for at least the last year. The frequency of reporting will be according to the survey protocol used. It is preferable that data be provided for as long as possible prior to the recognition of the ALPP.
- 1.2.2. Surveys should be conducted under protocols specific for the target pest(s).
- 1.2.2.1. The NPPO should establish a quality control program for the survey to verify and document that all protocols are met. For key elements of the quality control program see Annex 1.

### **1.3 Control measures**

- 1.3.1 Apply control measures to reduce the target pest(s) populations below threshold levels in commercial, non-commercial, or wild hosts in the proposed ALPP. The control measures should be relevant to the biology and life cycle of the target pest(s).
- 1.3.1.1 Document control measures used to reduce the target pest(s) populations below threshold levels in commercial, non-commercial, or wild hosts in the proposed ALPP. It is preferable that documentation be provided for as long as possible prior to the recognition of the ALPP.
- 1.3.1.2 The NPPO should establish a monitoring program to assure that the control measures are properly applied.

## **2. Maintenance of an ALPP**

ALPP is maintained by the continued application of phytosanitary procedures directed at the target pest(s). The status of the area is confirmed by monitoring surveys in the low prevalence area and buffer zone during specific periods of time and at a level of sensitivity that will detect target pests, if present.

### **2.1 Surveillance activities**

To maintain an ALPP, surveillance activities indicated in section 1.2 of this standard should be followed.

### **2.2 Control measures**

To maintain an ALPP, control measures indicated in section 1.3 of this standard should be followed

## **3. Verification of an ALPP**

The NPPO of the country where the ALPP is established should verify that the requirements to maintain the ALPP continue to be met. In addition to the surveillance activities, control measures, and movement controls detailed in this standard, field inspections and sampling of host commodities in the ALPP should be carried out. ALPP status may be verified by a stated number or frequency of inspections as delineated in the bilateral workplan. The absence of target pests on host commodities moved out of the ALPP can also contribute to verification that the

ALPP is being maintained. The NPPO of the importing country may have additional requirements as specified in ISPM 22: 2005.

#### **4. Change in the Status of an ALPP**

The detection of the target pest(s) that exceeds the threshold level within the ALPP should result in the implementation of the corrective actions as specified in Section 5 of this standard and immediate notification of importing countries. The main cause for a change in the status of the ALPP is confirmation of a reproducing population of the target pest(s) above the threshold level in the ALPP. This should result in immediate suspension of the ALPP status. ALPP status may be terminated if appropriate corrective actions are not taken in response to the detection of a target pest(s) above the threshold level. Examples of possible reasons for changes in the status of the ALPP are given in Appendix 3.

The NPPO should take appropriate corrective actions to delimit, contain, control and / or eradicate target pest(s) or other quarantine pests detected in the ALPP according to the bilateral workplan. A population level higher than the accepted threshold should result in increased levels of phytosanitary actions. Suspension of ALPP status will remain in effect until it is demonstrated that populations are below the specified threshold. If the threshold level of the target pest(s) is exceeded in a limited area that can be identified and isolated, then the ALPP may be redefined to exclude that area.

Failure of the NPPO to take appropriate corrective actions will result in termination of the ALPP status.

Relevant importing NPPOs should be notified without undue delay of changes in the ALPP status (further information on pest reporting requirements is provided in ISPM 17: 2002).

#### **5. Corrective Actions**

The objective of corrective actions is to ensure that the suppression of the target insect population is below the specified level for low pest prevalence as soon as possible. The corrective actions should be prepared taking into account the biology of the target insect species, the geography of the ALPP, climatic conditions, phenology, and host abundance and distribution within the area.

The NPPO should have a documented plan of corrective actions to be implemented if the target pest(s) exceeds the threshold level in the ALPP. The corrective actions should include a delimiting survey (trapping and host commodity sampling), as well as increased regulatory and other control measures. The corrective actions should be initiated within 48 hours of confirmation that the threshold level has been exceeded in the ALPP or detection of target pest(s) during inspection of host products. The importing country should be notified immediately upon initiation of the corrective actions. Failure to implement corrective actions will result in the termination of ALPP status. For additional information on corrective actions see Annex 1.



## **6. Reinstatement of the Status of an ALPP**

An investigation should be initiated to determine the cause of the ALPP failure that led to implementation of the corrective actions. The goal is to prevent recurrence by application of corrective actions and additional safeguards.

Implementation of required phytosanitary procedures that achieve verifiable suppression of the target pest(s) population below the specified threshold is the basis for reinstatement of the ALPP status. The period of negative surveillance results prior to reinstatement will vary according to the biology of the target pest(s) and should be delineated in the bilateral workplan.

## **7. Capacity of the NPPO**

The NPPO must have the necessary legal authority, administrative infrastructure, qualified personnel, and material resources to comply with the provisions of this standard.

## **8. Documentation**

Documentation supporting ALPP status (at all phases: establishment, maintenance, verification and reinstatement) should be made immediately available to the importing country upon request.

## **9. Bilateral Workplans**

The requirements of this standard and other NAPPO and IPPC standards should be met when developing a bilateral workplan (RSPM 19: 2011) for recognition of an ALPP as a basis for export. It is recommended that the exporting country involve the importing country in the early stages of the process in order to ensure that importing country requirements are met. Transportation, phytosanitary integrity of consignments, financial responsibilities, roles and responsibilities of the NPPOs and producers, among other issues, should also be addressed in the bilateral workplans.

## **Annex 1: Elements to be considered for establishment, maintenance and verification of an ALPP**

The following is a list of elements to be evaluated in order to determine if an ALPP meets the conditions of this standard:

1. Geographic description of the proposed ALPP
  - detailed maps
  - places of production
  - location of commercial and non-commercial hosts
  - natural barriers
  - urban areas
  - buffer zone
  - size
  - location of regulatory control checkpoints (if applicable)
2. Determination of the survey protocol
  - type of survey
  - trapping
    - trap type
    - traps location
    - bait or lure type
    - density of traps
    - trap servicing intervals
  - visual survey
  - host or commodity sampling
    - amount of sampling for diagnostic or inspection purposes
    - plant part to be tested or inspected
  - method for verification of target pest(s) identity
  - survey time period
  - reporting of survey results
3. Quality control protocols for surveillance
  - visual survey training
  - verification of trap and lure efficacy
  - placement and recovery of marked target pests
  - regular reviews of survey documentation
  - audits of trap placement and servicing
  - confirmation of identifier and/or surveyor competency
4. Control measures which are appropriate to target pest(s) and hosts
  - action thresholds
  - chemical
  - biocontrol agents
  - mechanical control
  - agronomic practices

- documentation of measures employed
- verification of application of control measures

#### 5. Movement controls

- identification of pathways
- establishment of inspection program
  - sampling rates and records
  - identification of intercepted specimens
  - verification of documents
  - confirmation that required treatments occurred
  - documentation of any other phytosanitary procedures

#### 6. Corrective Actions

Some of the following information is taken from ISPM 30 with modifications made specific to this standard.

The elements required for implementation of corrective actions include:

- declaration of suspension of ALPP of status, where appropriate
- legal framework under which the corrective actions can be applied
- time scales for the initial response and follow-up activities
- delimiting survey (trapping and fruit sampling) and application of the suppression actions
- capability to accurately identify pest
- availability of sufficient operational resources
- effective communication within the NPPO and with the NPPO(s) of the relevant importing country(ies), including provision of contact details of all parties involved
- a detailed map and definition of the suspension area
- revision and rectification of operational procedures, or
- range of control measures available e.g. pesticides.

## **Appendix 1: Area of low pest prevalence**

- An area temporarily subject to population suppression (to reach the threshold and establish low prevalence), whose final objective is eradication.
- A permanent low prevalence area acting as a buffer zone to protect a Pest Free Area (PFA).
- A place of production within a PFA that is under corrective actions or which has lost its status.
- A production area where products are exported subject to additional control measures, e.g., systems approach.
- A production area within an infested area in a country where products are intended to be moved to another ALPP in that country, supporting sustainable crop production

A systems approach that includes an area of low pest prevalence can be used by exporting countries to certify that consignments of plants, plant products and other regulated articles produced in and/or moved from that area are free from the target pest(s) and meet the requirements of the importing country. The application of the concept of an area of low pest prevalence will depend on the biology of the pest, the characteristics of the place of production, the operational capabilities of the producer and responsibilities of the National Plant Protection Organization (NPPO).

Components of the systems approach include an area of low pest prevalence, trapping, host plants sampling, control measures, and/or post-harvest treatments. The system must be sufficient to mitigate the risk of live pest movement to a level acceptable for the importing country, to be equivalent, in some cases, to that of pest free areas.

### **Distinction between a Pest Free Area and an Area of Low Pest Prevalence**

The main difference between an ALPP and a PFA is that the presence of the pest below a specified population level is accepted in an ALPP, whereas the pest must be totally absent from the PFA. The choice of an ALPP or PFA as a risk management option will depend on the characteristics of the pests, distribution of the pests in the exporting country, and overall feasibility of the program. Both options can offer adequate protection. The main security of the PFA lies in the application of common phytosanitary measures to an area covering many places of production. The main security of the ALPP is that specific phytosanitary measures are applied more intensively. Possible impacts of an ALPP in comparison to PFA may include increases in host sampling, the number of traps relative to regular detection level, and control measures.

## **Benefits of Areas of Low Pest Prevalence**

- Remove need for postharvest treatment when infestation levels remain below the threshold.
- Use of non-toxic control measures in the field, e.g., sterile insect technique.
- Facilitate market access for areas that were previously excluded.
- Less restrictive movement controls.
  - Movement of commodities from one ALPP to another ALPP.
  - Movement of commodities from an ALPP to a PFA.
  - Movement of commodities from an ALPP through a PFA.
  - Movement of commodities from an ALPP through an ALPP.

## **Determination of the specified threshold of low pest prevalence**

Specified levels of low pest prevalence will depend on the level of risk associated with the target insect species–host–area interaction. These levels should be established by the NPPO of the country where the ALPP is located and with sufficient precision to allow assessment of whether surveillance data and protocols are adequate to determine that pest prevalence is below these levels.

Individual NPPOs may draw on a variety of different factors when determining exactly what an appropriate level of pest prevalence should be for a given ALPP. Some commonly considered factors include the following:

- threshold stipulated by trading partners in order for trade to proceed
- threshold in use by other NPPOs for the same or similar insect species, hosts and agro-ecological conditions (including experience and historical/previous data gained from the operation of other ALPPs as to what levels are required to be maintained to achieve pest free fruits).

This appendix was adopted by the NAPPO Executive Committee on October 17, 2011  
 This appendix is for reference purposes only and is not a prescriptive part of the standard.

## Appendix 2: Description of the ALPP

The following information may be necessary for each place of production to be included in the ALPP. The completed tables will be supported by a written description of each area and maps that clearly indicate both the total area, the production areas, and buffer zones.

### A. TOTAL AREA DESCRIPTION

**Table 1: Description of the total area**

Areas	Size (km <sup>2</sup> or mi <sup>2</sup> )	Production area	Urban and suburban areas	Non-host area
Total ALPP				
Production areas				
Buffer zones				

Map 1: Regional map that includes the ALPP (production and buffer area).

### B. PRODUCTION AREA DESCRIPTION

**Table 2: Description of the places of production**

Place of Production	Size (km <sup>2</sup> or mi <sup>2</sup> )	Characteristics and location
1		
2		
3		
4		
ETC		

Map 2: Treatment area map that includes the production and buffer areas with the trapping grids and delimiting production zone and control zone.

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### **Appendix 3: Examples of causes for changes to the ALPP**

- Populations of the target pest(s) within the ALPP exceed the accepted threshold.
- An outbreak or establishment of other quarantine pests within the ALPP.
- Deficiencies in the application of procedures (e.g. trapping or pest control measures)
- Repeated failure of regulatory procedures.
- Incomplete or inadequate documentation that jeopardizes the integrity of the ALPP.
- Failure of the exporting country's NPPO to take appropriate corrective actions in response to the detection of the target pest(s) or other quarantine pests.
- Detection of an immature life stage of a target pest(s) or other quarantine pests at any time during inspection of the host product prior to export or at the time of arrival at the importing country.
- Detection of regulated non-quarantine pest(s) above the tolerance level established by the importing country for the commodity.
- Redefined to exclude a certain area, if the specified pest level of a pest is exceeded in a limited area that can be identified and isolated.