

## National regulatory control systems Systèmes de lutte nationaux réglementaires

# Generic elements for contingency plans

### Specific scope

This standard describes the essential generic elements for an emergency response for a pest outbreak or a suspected pest outbreak.

### Specific approval and amendment

First approved in 2009–09.

## Introduction

This standard can be used by NPPOs to develop a generic contingency plan to address outbreaks of pests which are likely to cause a major impact. It can also be used to develop a pest-specific contingency plan for the eradication of a pest from an area, in particular for those pests which have a high potential for introduction and for which an eradication plan is deemed necessary (as recommended by ISPM No. 9 *Guidelines for eradication*, section 1.2, IPPC, 1998). EPPO standards in series PM 9 (*National Regulatory Control Systems*) provide guidance for official control of several pests, which facilitates the development of pest-specific contingency plans for these pests.

## Purpose of a contingency plan

Contingency plans aim to ensure a rapid and effective response to an outbreak of a pest which has been assessed as likely to cause a major economic and/or environmental impact. They can help the organization involved in the eradication of an outbreak to be prepared, especially when several parties need to cooperate. Adjustment of existing contingency plans following the evaluation of eradication campaigns enables the response to an outbreak to be improved.

## Essential elements of a contingency plan

- (1) Background information on the pest (for pest-specific plans only);
- (2) Initiation of a contingency plan;
- (3) Official actions on presumptive diagnosis;
- (4) Official actions to eradicate the pest after final confirmation;
- (5) Review of measures in cases of prolonged official action;
- (6) Determining completion of statutory action;

- (7) Command structure;
- (8) Stakeholder consultation;
- (9) Internal communication and documentation;
- (10) External communication;
- (11) Testing and training of personnel;
- (12) Evaluation and revision of contingency plan.

### 1. Background information on the pest

A pest-specific contingency plan should include a section which provides important summary information on the pest and its biology and in particular on its introduction, detection and spread together with references to sources of further information:

- symptoms and hosts
- detection methods
- main pathways for entry and further spread
- recommendations of how the risk of entry, establishment and spread can be reduced
- quarantine status (listed by EPPO or in national legislation)
- references and web-links where further information can be found (Pest Risk Analysis documents, data sheet, distribution map, diagnostic protocol if available, EPPO Standard on National Regulatory Control System if available, illustrations). Such information can be retrieved from the EPPO website (<http://www.eppo.org>).

This section should be written so that it can be easily and clearly understood by growers, traders and NPPO officials because it will act as a valuable source of information, especially during the early stages of an outbreak.

### 2. Initiation of a contingency plan

The NPPO should have an effective surveillance and inspection programme in place to minimise the risk of pest outbreaks and to

facilitate the early detection of pests. The preparation of a contingency plan helps ensure that an action plan is ready when an outbreak is suspected or confirmed. The contingency plan is activated when:

- a major pest is detected as a result of general surveillance or specific surveys or reported to the NPPO by a member of the public or industry. Official samples should have been taken and diagnosis carried out immediately
- the pest is detected by an importing country and exported plants or plant products originating from the area covered by the contingency plan are suspected to be the potential source of the pest.

It is important that the contingency plan is activated promptly and that there is a clear command structure in place (see point 7).

The contingency plan should describe the information to be gathered at the affected site in the early stages of an outbreak such as:

- likely origin of the pest and, if a consignment of plant and plant product is suspected to be at the origin of the outbreak, details such as other points of destination
- geographical location and ownership of the affected site including any abiotic factors that may influence the outbreak e.g. public access, presence of watercourses, etc.
- hosts infested at the site (species, variety, development stage, etc.)
- when and how the pest was detected and identified (including photographs of symptoms)
- level of pest incidence and where appropriate, life stages present
- extent and impact of damage (including part of host affected)
- recent import or movement of host plants or host plant products into and out of the affected site
- movement of people, products, equipment and vehicles, where appropriate
- relevant treatments applied to host plants that may affect development of symptoms or detection and diagnosis of the pathogen
- relevant cultural practices (e.g. grown indoor/outdoor, irrigation, cropping history, etc.)
- history of the pest on the site, place of production or in the area.

The contingency plan should also describe the procedure for the dispatch of the samples to a laboratory and details of the test method together with the diagnostic criteria that will lead to presumptive diagnosis.

### 3. Official actions based on presumptive diagnosis

In the case of a pest-specific contingency plan, the test(s) required for a positive confirmation should be given and, if available, reference to the EPPO Diagnostic Protocol (series PM 7) or other published test should be made. The diagnosis should be rigorous enough to withstand scientific or legal challenge. Confirmed identification may take some time, depending on the organism involved, and on the basis of presumptive diagnosis precaution-

ary measures should be implemented as soon as possible. The contingency plan should describe the official actions that can be taken at this stage, e.g.:

- restrictions on movement of material and equipment to and from the place of production
- tracing forward and backward to identify suspect material located at suppliers, propagators and wholesalers, including any clonally-related or potentially contaminated stocks, where appropriate
- precautionary measures to prevent further spread of the pest
- notification of other countries which may have received related material as appropriate.

For specific pests it may be appropriate to initiate official actions outlined in section 4 on the basis of a presumptive diagnosis.

### 4. Official actions to eradicate the pest after final confirmation

When identification of the pest has been confirmed official actions should be taken to contain and to eradicate it. These could include:

- investigation to determine the extent and source of outbreak and to assess the risk of spread
- delimitation of the infested areas
- demarcation of contaminated facilities and equipment
- demarcation of infested or and probably infested<sup>1</sup> plant material
- containment measures to prevent further spread such as setting up buffer zone(s)
- testing of clonally-related or contact-related stocks
- methods of disposal of infested or probably infested plants or plant parts, solid waste or liquid waste
- cleansing and/or disinfection of machinery, storage facilities and other equipment
- eradication measures for a specified period following an outbreak in the infested area such as cropping restrictions, measures regarding machinery and equipment, additional control measures on movement and additional surveys and use of plant protection products
- monitoring of effectiveness of measures.

Dealing with a major outbreak, increases the demands for staff and resources. The contingency plan should therefore include plans of how to scale-up the response at short notice, especially actions in the early stages of an emergency when a rapid response is essential. In particular a contingency plan should describe how the testing capacity can be scaled up at short notice in order to be able to support the official actions. This may include involving other laboratories which could diagnose the samples collected by the NPPO under the supervision of the official diagnostic laboratory. It is also important to ensure that sufficient personnel are available to carry out the sampling programme, which may involve contract arrangements with other units or organizations. For some outbreaks, contractors may even

<sup>1</sup>no positive test result, but a strong presumption that infestation is possible.

need to be employed to apply plant protection products utilising specialist machinery.

### 5. Review of measures in cases of prolonged official action

If continuing official action is required within the delimited area over a prolonged period, a review of eradication and containment measures should be regularly undertaken to determine the success and cost-effectiveness of measures in the longer term. This review will involve consultation with stakeholders and should include:

- evaluation of the effectiveness of current measures
- evaluation of the economic impact and cost-effectiveness of continuing existing measures
- consideration of further measures to strengthen containment and eradication actions
- consideration of statutory obligations and impact on import and export procedures
- consideration of alternative approaches, including pursuing measures to contain the pest rather than eradication or even the cessation of statutory action.

In circumstances where it is considered that the pest can not be eradicated or contained and official action is no longer considered appropriate, stakeholders should be consulted and a timetable and mechanism agreed for the removal of official measures and for the dissemination of pest management information as appropriate.

### 6. Determining completion of official action

The period of pest freedom required to confirm eradication will depend on the biology of the pest concerned and the level of infestation found. It will also take into account the reliability of the evidence which can be influenced by characteristics of:

- inspection and detection methods
- intensity of monitoring program
- ease of detection
- characteristics of the surveillance area.

Eradication success will be determined by confirmation of an agreed period of freedom from the pest. This may be for at least two generations of the pest or two complete crop cycles, or a suitable time period without relevant hosts and will be determined on a case-by-case basis. The lifecycle and epidemiology of the pest may result in long-term crop restrictions being placed on the infested area to prevent re-infestation. Monitoring activities will also be undertaken as appropriate to confirm absence of the pest.

### 7. Command structure

A contingency plan requires that roles and responsibilities of those who implement the plan are clearly defined. This organizational structure should identify roles and responsibilities at three levels:

- strategic (responsibility for policy and decision-making regarding pest control)

- tactical (transfer the policy into practical instructions)
- operational (implementation of instructions e.g. responsibility for carrying out inspections, surveys, implementation of enforcement action and for pest diagnosis).

Immediately following activation of the contingency plan the command structure should be established; this may be a separate command structure or may employ existing structures. An emergency management team will be established to deal in particular with the tactical and operational aspects of the contingency plan.

This team will be responsible for:

- evaluation of the threat posed by the outbreak
- managing the investigation to determine the extent of the outbreak and the possibilities for, and likely costs of, containment and eradication
- managing the containment and eradication programme
- mobilizing and administering the resources to implement the containment and eradication programme
- facilitating and authorising the operators in the programme to carry out the official actions
- liaising with other agencies if appropriate, regarding public health aspects, disposal of contaminated materials, environmental issues e.g. local authorities, police, enforcement agency
- nominating a spokesperson responsible for internal and external communication and official notifications.

The emergency management team may include a scientific advisor to:

- evaluate the pest and the threat it poses
- liaise with the diagnostic department(s) regarding laboratory test results
- obtain plant protection product approvals for emergency applications
- advise on safe disposal of contaminated material
- advise on measures regarding cleansing and disinfection.

Contact details for all staff that may need to be involved in the emergency response, including external agencies, should be listed in the contingency plan.

Often a separate advisory group is established to involve stakeholders at different stages of the eradication in progress and to advice the emergency management team on the eradication operation.

### 8. Stakeholder consultation

It is strongly recommended that stakeholders should be involved in the preparation of a contingency plan. In particular the involvement of industry groups in the preparation of a contingency plan promotes awareness of pest threats, encouraging vigilance together with good quarantine and hygiene practices. It also helps ensure that they are engaged and fully aware of what will happen if an outbreak occurs.

The contingency plan should list stakeholders which should be contacted in case the contingency plan is activated. Once an outbreak occurs they may be invited to a meeting to discuss measures and any implications of the outbreak and they should be kept informed of developments. By establishing an advisory

group, the emergency management team would be able to interact on a more regular basis with stakeholders on progress of the eradication programme and to enlist their input or views. An advisory group would also facilitate effective consultation with the stakeholders in cases where prolonged action is necessary.

### 9. Internal communication and documentation

The appointed spokesperson has a key role to play in ensuring that the communication within the NPPO, from activation of the contingency plan until the anticipated eradication is officially confirmed, is effective. Those at the political and strategic level with responsibility in relation to the outbreak should be briefed regularly. This should include the nature of the outbreak, the ongoing results of the investigation and the extent of the outbreak, the evaluation of the threat posed by the pest, the likely and actual costs of the eradication, the impact on industry and environment and, once completed, the results of the eradication programme.

It is essential that events, actions and outcomes are recorded accurately. Within the NPPO this is primarily achieved through maintaining accurate records, often making use of a computerised database. A complete record of inspections and official actions in the event of an outbreak should be kept.

### 10. External communication

In order to increase awareness among important stakeholders with the aim to prevent the entry, establishment or spread of the pest, a publicity plan should be prepared by the NPPO covering aspects such as the biology of the pest and how to minimize the risk of introduction. Suitable publicity material (such as leaflets, posters, information on the NPPO website) could be developed and made available to stakeholders. Where appropriate, the contingency plan should be published on the NPPO website.

In addition publicity will be needed in the event of an outbreak to highlight the measures being taken and ways to prevent further entry and spread of the pest. Possible means of communication include press reports, a helpdesk, a website, etc.

The appointed spokesperson of the emergency management team will be responsible for the external communication including communication with the press. He or she will be responsible for briefing statements and press releases, media contacts, notifying and informing industry, liaising with all interested external parties and official notifications.

A confidentiality policy should be established. Except where necessary to protect the public interest, details of the identity of growers, nurseries, garden centres or any other sites where infestation has been confirmed should not be disclosed. It is usually acceptable to indicate the general geographical location of an outbreak, provided it does not enable the exact location of the outbreak to be identified.

### 11. Testing and training of personnel

Testing the contingency plan and the preparedness of the official service could be done by simulating an outbreak of the pest in order to check the responsiveness of staff, the availability of equipment and the adequacy of the plan itself. It may also identify particular staff training needs.

### 12. Evaluation and revision of contingency plan

Following the conclusion of official action (or simulation of such action), a review should be undertaken to assess the effectiveness of the action taken and need for the contingency plan to be amended or for additional measures to prevent further outbreaks. This could involve holding meetings with the affected grower(s), industry bodies and other interested parties to obtain their feedback on the eradication programme. For major outbreaks this could involve a formal review involving a questionnaire to all stakeholders and the production of a final report of the eradication programme for public disclosure. Where necessary the contingency plan should be revised in line with the agreed recommendations.

## Reference

IPPC (1998) Guidelines for pest eradication programmes. FAO, Rome (IT).