



COMMISSION ON PHYTOSANITARY MEASURES

TWENTIETH SESSION

PLAIN LANGUAGE VERSION OF ISPM 26

AGENDA ITEM 6.1

(Prepared by New Zealand)

1. Purpose

This paper informs the Commission on Phytosanitary Measures (CPM20) about a fully plain language version of ISPM 26 (*Establishment and maintenance of pest free areas for tephritid fruit flies*) developed during the revision of the standard in response to comments received during second country consultation. This paper also presents ‘lessons-learned’ during the drafting of the fully plain language version.

2. Background

During the 2025 consultation on the draft revision of ISPM 26, two regions requested that the standard be rewritten in clearer, simpler language. In response to these comments, the steward and a professional plain language specialist developed two versions: a moderately plain language version aligned with the current IPPC Style Guide, and a fully plain language version (Attachment 1).

The moderately plain language version of ISPM 26 ([CPM 2026/10_01](#)) is proposed for adoption by CPM-2026. The fully plain language version does not conform to the current IPPC formatting and drafting norms but was provided to the Standards Committee (SC) as a case study for how plain language could be integrated into future ISPM development.

3. Observations from the plain -language drafting exercise of ISPM 26

The fully plain language version of the draft revision of ISPM 26 illustrates what an ISPM could look like if plain language principles were applied. It is not a replacement for the official draft text of ISPM 26, but a tool for comparison and methodological learning.

The drafting exercise highlighted several systematic issues with the older and revised ISPM, including that complicated language can obscure logic gaps, inconsistencies, or unachievable instructions; repetition becomes clearer when technical jargon is removed; definitions and scientific explanations become easier to assess when written plainly; and collaboration between subject matter experts and language specialists is essential (Attachment 2).

The fully plain language version required approximately 50 hours of work by a professional plain language specialist, in addition to steward review.

4. Comparing the two drafts of ISPM 26

The SC at its meeting in November 2025 decided that the SC7 Working Group, in May 2026, will compare the fully plain language version with the officially revised draft of ISPM 26 (recommended for adoption at CPM-20) and make recommendations to the SC on the application of plain language principles in future ISPMs.

The SC also agreed to include an item on the agenda of the SC May 2026 meeting for SC input to the SC-7 discussion on plain language.

A structured comparison of the two versions of ISPM 26 is expected to highlight where:

- plain language improves accuracy and usability;
- less complex wording risks losing technical precision;
- sentence and document structure affect readability; and
- plain language drafting could help avoid logical inconsistencies and ambiguities.

5. Next Steps

Contracting parties are encouraged to compare the two versions of ISPM 26, the moderately plain language version proposed for adoption at CPM-20 and the fully plain language version, and provide feedback to their SC representatives ahead of the SC's May 2026 meeting. This input will support the SC in refining its strategic position on the use of plain language principles in ISPM development and in considering whether to pilot plain language drafting for selected ISPMs.

7. Attachments

Attachment 1: Plain language version of ISPM 26 (from steward's notes).

Attachment 2: Lessons learned from the plain language drafting process.

ATTACHMENT 1: Plain language example

When reading this plain language example of ISPM 26 the SC should think about:

- a) Are most of the sentences easy to understand on first read?
- b) Would it be easy for other people at your NPPO to read or understand?
- c) Is the version easier to translate than the current version?
- d) Is the structure of "Obligations, Requirements, Supplementary guidance", clear and logical?
- e) Does the standard offer the right level of flexibility and structure?
- f) Would a standard like this make trade negotiations easier or harder?

Pest-free areas for tephritid fruit flies**1 Introduction*****1.1 What is in this standard***

This standard contains the obligations national plant protection organizations have to each other when importing and exporting from areas that are free of economically damaging fruit flies (Tephritidae). It contains the requirements that exporting countries must follow to gain international acceptance of their pest-free areas. It also explains how national plant protection organizations can set up and maintain these areas.

1.2 Who should use this standard

You should use this standard if you have a fruit fly in your country that is not present in a country you want to export to and you have decided that a pest-free area is the right phytosanitary measure for your country. This standard is also suitable for countries that are not exporting but would like to set up a pest-free area to protect their own crops from fruit flies. You do not need to use this standard if you have decided that other options, such as treating the goods you are exporting, are better for your country than creating a pest-free area.

If the area you are exporting from is naturally free of the fruit fly and is able to stay naturally free, then you do not need to use this standard.

If the area is naturally free of the fruit fly but it is possible for the fruit fly to enter and establish a population, then you should use this standard. In this situation, you will still need to actively maintain the area's pest freedom.

1.3 Fruit flies and pest-free areas

Tephritid fruit flies are very serious pests for many countries because of their ability to damage crops. The guidance in this standard has been written to help countries target fruit flies in the economically important species of the order Diptera, family Tephritidae, such as the genera *Anastrepha*, *Bactrocera*, *Carpomya* (synonym *Myiopardalis*), *Ceratitis*, *Dacus*, *Euleia*, *Rhagoletis*, *Strauzia* and *Zeugodacus*.

A pest-free area is a phytosanitary measure that countries can use to protect plant resources and facilitate safe trade. When correctly implemented, a pest-free area is enough to manage the risk of the pest without other measures.

There are different ways for areas to be free of fruit flies. Some areas are naturally free from fruit flies and may stay naturally free due to physical barriers, unsuitable climate or the absence of hosts. Areas like this do not need official maintenance to stay pest free, and the fruit fly's pest status in these areas will be "absent", but the area itself is not an official pest-free area and does not need to be.

Some areas are naturally free from fruit flies but would be able to support a breeding population if fruit flies entered the area. Other areas may not be naturally free from fruit flies but may have achieved freedom through an eradication programme (see ISPM 9: *Guidelines for Pest Eradication Programmes*). Some areas may be naturally free from fruit flies but able to support temporary populations, for example, during warm months. All of these areas need help to maintain their freedom. Areas that have their pest freedom officially maintained are classed as “pest-free areas”.

A pest-free area can target one fruit fly or several fruit flies. The fruit flies could be in the same genus or from different genera.

Sterile fruit flies that have been created using a sterile insect technique are not pests and can be released or found in pest-free areas without changing the area’s pest-free status.

1.4 More help

This standard refers to other international standards for phytosanitary measures (ISPMs). You can read these other standards on the International Phytosanitary Portal (IPP): <https://www.ippc.int/core-activities/standards-setting/ispms>.

The International Phytosanitary Portal also has more guides and training materials that could help you set up a pest-free area for fruit flies: <https://www.ippc.int/en/about/core-activities/capacity-development/guides-and-training-materials/>.

This guide might be particularly useful, *Guide for establishing and maintaining pest free areas – Understanding the principal requirements for pest free areas, pest free places of production, pest free production sites and areas of low pest prevalence*: <https://www.ippc.int/en/publications/90620/>.

1.5 Definitions

In this standard, we use “you” to mean the national plant protection organization of an exporting country.

See ISPM 5: *Glossary of Phytosanitary Terms* for definitions of phytosanitary terms.

2 Obligations

Importing countries should not require pest-free areas or other measures if a fruit fly is absent from an area that will stay naturally free of the fruit fly.

Importing countries should accept pest-free areas as a phytosanitary measure that is enough to manage the risk of the target fruit fly on its own. Importing countries should not require exporting countries to use other measures in addition to pest-free areas.

Exporting countries should give importing countries the evidence that they need to confirm that the area is pest free and that the pest freedom is being officially maintained (such as providing data or records or allowing representatives to visit the area in person).

3 Requirements

1. For an area to qualify as an fruit fly pest-free area:
 - a. there must be no evidence of a breeding population (established or not) of the target fruit fly, and
 - b. the pest freedom must be officially maintained.
2. You must assume you have a breeding population if you find:
 - a. an egg or larva of the target fruit fly in the area;

- b. a female with eggs in the area;
 - c. a certain number of adults (see section 3.2.5 “3.2.5 Criteria for declaring the fruit fly absent from the **area**” in the supplement for advice on the number of adults); or
 - d. an egg, larva or adult fruit fly in consignments from the area, regardless of any other stops the consignment may have along the way.
- 3. You must pause or cancel the area’s pest-free status if:
 - a. there is evidence of a breeding population, or
 - b. you find a problem with the maintenance of the pest freedom.
- 4. You must notify affected countries of any changes to the area’s status. This includes:
 - a. pausing the pest-free status,
 - b. cancelling the pest-free status,
 - c. renewing the pest-free status.

Supplement: How to set up pest-free areas for fruit flies and keep them pest free

1 Before you start

The only things you *must* do when you have a pest-free area for fruit flies are the items mentioned in the requirements. The rest of this standard contains helpful guidelines for setting up pest-free areas for fruit flies. You can follow these guidelines or not. It is up to you and your organization. At each point in this process, you should think about whether the advice here is suitable for your country’s circumstances and about whether you need to adapt it so that it works better for you or the country you are exporting to. ISPM 4 also has more general advice about setting up and maintaining pest-free areas. It is a good idea to read ISPM 4 as well as this standard.

The guidelines outline the planning work you need to do before you set up the area, how to make the area officially pest free, how to maintain the pest freedom, what is involved in planning for unwanted events, and how to change the pest-free status if you later have any problems.

Preventing regulated fruit flies from being introduced to new places and spreading can help to protect biodiversity and the environment, but measures and phytosanitary procedures also have impacts on biodiversity and the environment. When setting up and maintaining your pest-free areas, think about the impacts your measures and procedures will have and try to minimize the impacts when you can.

2 Deciding to create a pest-free area

When deciding whether to create a pest-free area for a fruit fly, you should consider whether the area and the fruit fly you are targeting are suitable for this phytosanitary measure. The geography of the area, its climate, the plants and fruit flies in areas nearby can all affect whether the area itself is suitable.

Geography

Natural barriers like mountains, oceans, or deserts can help isolate the area and prevent fruit flies from entering. Flat, open areas may be harder to protect.

Climate

Fruit flies thrive in warm, humid environments. If the climate is not suitable for the fruit fly species you are targeting or is unsuitable at certain times of year, it may be easier to keep it out.

Plants

Plants and fruits grown in the area, and in nearby regions, can attract fruit flies. If the area has few host plants, it may be easier to maintain the area's pest freedom.

The characteristics of the fruit fly itself as well as its behaviour in the specific conditions of your area can make it easier or harder to target a particular fruit fly with this measure. You should also consider the resources you will need for your pest-free area programme and whether a pest-free area programme is going to be cost-effective.

Below are a few tips that will help a pest-free area programme succeed.

2.1 Give your programme enough resources

You need to have enough funding and the right resources to set up the area AND to maintain it. This includes having enough traps, having enough people with the right skills, such as people who are trained to take fruit samples or collect specimens of the fruit fly or report on data, and having access to laboratories that can identify specimens. If you need to control the movement of goods into the pest-free area, you will need the people to operate this aspect of the programme as well. When planning for unwanted events, such as finding the target fruit fly in your pest-free area, take into account the funding and people you will need to carry out your plans.

Think about quality assurance and how you will assure your trading partners that your pest-free area is working well. Think about the resources you will need to do quality assurance.

2.2 Communicate with the public about their involvement

Pest-free areas can restrict people's activities and be inconvenient for them, so it is important that your pest-free area programme has the support of the public, particularly the local community. Your programme will not succeed without it. This includes the support of people who live and work nearby, individuals who travel to or through the area, and parties with direct or indirect interests. All these people are participants in your programme. This is particularly so in areas where the risk of introducing the target fruit fly is higher.

A good communication campaign can help win this public support. You may want to run public-awareness campaigns throughout your programme using different media (e.g. printed materials, newspapers, radio, television, social media, internet). For example, at the start of your programme, you could run a campaign on the importance of establishing the pest-free area. Later, you could run a campaign on the importance of keeping the area free from fruit flies and of keeping potentially infested fruit and plants out of the area. People will be more willing to comply with measures that restrict their activities if they understand the benefits of the pest-free area as well as the impacts of the pests.

2.3 Document your procedures and keep records

Document all the measures and phytosanitary procedures you use to set up your pest-free area, as well as the measures and procedures you will use to maintain it. You should also make plans for unwanted events, problems and system failures. Document what you will do if you find a breeding population, and the corrective actions you will take when there are failures.

If possible, use a technical writer or process writer to write the procedures. The procedures should contain the steps people need to follow to complete the tasks, and the steps should be written in the order that people would normally do them. They should have enough detail that when people follow the procedures, they can achieve the result you are expecting.

Keep records of surveys, detections and incursions for at least 24 months. You may want to keep them for longer if the fruit fly you are targeting has a long life cycle or if this will help you or your trading partner.

2.4 Review your programme regularly

Once you have set up your pest-free area, you should review it regularly to make sure it is still working well and is still in line with the procedures you have written down. This includes all aspects of the programme: trapping, fruit sampling, movement controls, communication with other parties, such as your trading partners and the public, and so on.

Fix any problems you find in your review. If parts of the programme do not comply with your procedures, update either the programme or the procedures. Check for new information about the fruit fly and its pathways, and make any changes you need to as a result of new information.

Review and update your contingency plans regularly as well.

You may want to authorize another entity to do some of these activities for you. If you do, read ISPM 45 (*Requirements for National Plant Protection Organizations if Authorizing Entities to Perform Phytosanitary Actions*) for advice on authorizing other entities.

3 Creating a pest-free area

3.1 Planning the fruit fly pest-free area

Before you set up the pest-free area:

- Make sure you have the legal authority to set up the area and keep it pest free. You might need specific legal authority to control the movement of fruit fly host material into the area, do surveillance, inspect goods or host material, or go onto private property.
- Use maps or coordinates to document the area you want to make pest free. Mark the boundaries, natural barriers, locations where goods, people or vehicles enter the area, host area locations, and the buffer zone. You might also want written descriptions.
- Describe the biology and ecology of the fruit fly you are targeting. Determine its distribution within the area, as well as its distribution around it.
- List the plants in the area that could host the target fruit fly. These plants could be commercial or non-commercial species.
- Describe ways the fruit fly could enter the area (e.g. people moving items that could contain the fruit fly, such as fruit or flowers from host plants; fruit flies travelling naturally).
- Describe the annual climatic conditions in the proposed area (e.g. rainfall, relative humidity, temperature, prevailing wind speed and direction) and how these conditions could affect the fruit fly's ability to establish a population or spread.
- Record any other relevant information.

3.2 Setting up the fruit fly pest-free area

3.2.1 Surveying the area you plan to make pest free

General surveillance may be enough if there is no evidence that the target fruit fly has ever been introduced into the area. General surveillance is when members of the public, including agricultural workers and scientists, report to you if they find the fruit fly.

If you do not know whether the target fruit fly is in the area, you should actively survey the area to confirm that the fruit fly is absent. Annex 1 of this standard explains how to survey for fruit flies. There is also more information in ISPM 6: *Surveillance*. If a species does not respond to attractants, you can cut open samples of fruit to determine whether it is present in the area or absent from it. If the species responds to attractants, you can use traps. If you are using traps, you could still take fruit samples to support your trapping programme, particularly if trapping is less effective (e.g. if the fruit fly only responds to attractants a little bit).

There are several things to think about when deciding how long you will survey the area before concluding that the target fruit fly is not in the area.

Biology of the fruit fly

Different species behave differently. Some reproduce quickly or spread easily, while others are more limited. If the species is hard to detect or has a long lifecycle, you may need to survey for longer to be confident that it is not present.

Climate in the area

Climate affects fruit fly activity. In warmer seasons, fruit flies are more active and easier to detect. If the climate varies a lot, you may need to survey during different seasons to fully understand the fruit fly's activity.

Availability of host material (e.g. fruit, flowers, stems and leaves)

Fruit flies need host plants to survive. If hosts are only available seasonally, you might only need to survey during those times.

Sensitivity of the survey method

Some survey methods, like trapping networks, are better at detecting fruit flies than others. If your method is less sensitive, you may need to survey for longer before you can conclude that the fruit fly is absent.

For information on fruit fly traps, lures and baits, read *Trapping Guideline for Area-wide Fruit Fly Programmes*: https://www.ippc.int/static/media/uploads/resources/trapping_guideline_for_area-wide_fruit_fly_programmes.pdf. This guide is a very useful resource for anyone who wants to set up a fruit fly trapping network.

3.2.2 Controlling what goes into the area you plan to make pest free

You will need to control what goes into the area to keep out fruit fly eggs or larvae that may be on or inside fruit, flowers, plants or other items. Use the work you did previously (see section 3.1

Planning the fruit fly pest-free area"). The controls you put in place will depend on the pathways you identified and the risk of the fruit fly. You will probably need to:

- regulate the target fruit fly species;
- regulate goods and items that could contain the target fruit fly;
- decide whether and how people can move those goods into the area;
- set other measures to control how people move the goods you have regulated.

If you want to make your entire country a pest-free area, you may also need to set phytosanitary import requirements.

You may also need to:

- inspect regulated goods;
- examine documents; and
- take action in cases of non-compliance, such as rejecting goods that have arrived at the border of your country or the area, treating the goods, or destroying them.

3.2.3 Setting up a buffer zone

If the area you want to make pest free is not isolated enough to prevent the target fruit fly entering the area naturally, you might need a buffer zone. This is an area where you will maintain the population of the target fruit fly at or below a specified level. Use scientific analysis to decide on the size of your

buffer zone, as well as a population level that makes the most sense for your area, the fruit fly you are targeting and the confidence you and your trading partners need. Over time, you may need to adjust this level depending on how successful your programme is. Use surveys to confirm the population level in the buffer zone.

When deciding on the boundaries of your buffer zone, think about factors that will affect your programme, which factors you can control, and which ones you cannot:

- how far and how fast the target fruit fly can travel;
- the population density of the fruit fly in surrounding areas;
- fruit or flowers in the area that could attract fruit flies;
- the impact the local climate will have on the fruit fly's ability to travel;
- whether the geography of the area is suitable for the monitoring system you want to use (e.g. traps)
- how good your traps or survey tools are at finding the target fruit fly;
- pest control strategies that are available to you;
- ways that humans could spread the fruit fly.

Document the boundaries of the buffer zone using maps or coordinates.

3.2.4 Other information you might need

This is not a complete list of information that might be useful to you when setting up your pest-free area, but you may want to have:

Historical records of fruit fly surveys and fruit fly detections

These records show whether fruit flies have been found in the area before, how often, and how recently. This will help you assess the risk and decide how confident you can be that the area is truly free of the target fruit fly.

Results of phytosanitary actions taken after detections

It is good to know what actions were taken in the past (e.g. trapping, spraying, quarantine) and how effective they were. This can help you understand how well the area can be protected if fruit flies are detected again and can help you plan for detections in the future.

List of other economically important fruit flies in the area

Even if you are only targeting one fruit fly species, other fruit flies in the area or buffer zones could affect trade or complicate surveillance. It is good to be aware of them so you can design better monitoring and avoid confusion in survey results.

3.2.5 Criteria for declaring the fruit fly absent from the area

For the fruit fly to qualify as absent from the area, there should be no evidence (collected for a sufficient period to provide confidence) of a breeding population (established or not) of the target fruit fly. The length of "a sufficient period to provide confidence" is up to you, but the result should be that you are sure that fruit flies are not reproducing in your area. To achieve this, you should monitor the area carefully and consistently, using reliable methods.

If you find an immature life stage of the target fruit fly or a female with eggs, you should assume there is a breeding population. Fertile adults can also be evidence of a breeding population, but this depends on the number of fertile adults. You can decide on the number of adults that you will take as evidence of a breeding population, but this number must still be based on scientific evidence. To determine this number, think about:

- how good your traps are at detecting the target fruit fly;

- how far away from each other the fruit flies have been found;
- how frequently you are finding the fruit flies;
- the local climate and season;
- how far the pest-free area is from areas where the fruit fly is present.

You could also use other methods, such as modelling, to help determine a number you will treat as a breeding population.

If there has been a sterile insect technique programme in the area, you may find marked sterile fruit flies in your surveillance. These fruit flies cannot breed, and do not affect the fruit-fly-free status of the area.

3.2.6 Designating the area as an official pest-free area

When you have determined that the target fruit fly is absent from the area in accordance with ISPM 8 (including when it has been eradicated in accordance with ISPM 9) and you have a maintenance programme in place, you can designate the area as an official pest-free area.

4 Keeping the area free of fruit flies

You need a maintenance programme to ensure the area stays free of fruit flies. This programme should be risk-based. Among other things, the programme should have:

- the legal authority to control the movement of items that could contain fruit flies;
- surveillance for fruit flies and collection of data that will help you manage the pest-free area, including a way for people to report pest detections; and
- a plan for taking corrective actions when there are problems, including plans for suspending the area's pest-free status if you need to and later reinstating it in accordance with ISPM 4.

4.1 Continuing to control what goes into the area

You need to continue controlling whether and how people move items that could contain fruit flies into the area. See the earlier section “

3.2.2 Controlling what goes into the area you plan to make pest free”.

4.2 Surveilling the pest-free area

Your pest-free area needs ongoing active surveillance to find any fruit flies that enter the area. A good programme for active surveillance will help you find fruit flies quickly before they have a chance to establish a large breeding population. There are two methods that are most commonly used for fruit fly surveillance: trapping and sampling. There is an excellent guide for trapping on the IPPC website:

https://www.ippc.int/static/media/uploads/resources/trapping_guideline_for_area-wide_fruit_fly_programmes.pdf. This guide is comprehensive and tells you everything you need to know to set up a trapping network for fruit flies.

The rest of this section explains how to take samples of fruit, flowers or other produce that could contain fruit flies.

4.2.1 Sampling produce

Sampling involves taking a certain amount of produce from a production area and cutting open the fruit or flowers to check for fruit flies, larvae or eggs. It can be used on its own or in combination with trapping and other surveillance. Use sampling if:

- there are no traps that are suitable for your circumstances (the fruit fly you are targeting and the conditions of your pest-free area);
- you know that trapping alone is not going to give you enough information to know conclusively whether fruit flies are in the area or not;
- you need to do a small-scale delimiting survey in an incursion area.

4.2.2 Sample size and places to sample from

When choosing your sample size and the areas you will focus on, think about:

- the level of statistical confidence you need,
- the availability of hosts in the survey area,
- areas that are at high risk of having infested fruit, such as:
 - backyards and gardens,
 - abandoned places of production,
 - places that collect waste that includes material from host plants,
 - fruit markets,
 - places that pack, store, process and treat host fruit or flowers,
 - sites with a high concentration of cultivated or wild hosts,
 - locations where people enter the pest-free area.

4.2.3 Cutting open the samples

You need someone who can identify fruit fly adults, larvae or eggs. If this person is taking samples, they can cut open the samples immediately to check for fruit flies.

If you do not have someone available who knows how to check for fruit flies, you can store the samples for the expert to identify later. Store the samples in a way that any fruit flies, larvae or eggs that could be in them will stay alive. If the insects are dead, it may be very hard or impossible for someone to identify them. Label the samples so that samples do not get mixed up with each other. Record information about the samples, such as:

- date and location of sample collection;
- condition of the sample (fresh or decayed);
- name and contact details of person collecting the sample.

If you find fruit flies in a sample, an accurate label will make it easier for you to find out where the fruit flies came from so that you can eradicate them if you need to.

If you need to transport the samples to the place where your expert will open them and identify the insects, transport the samples securely so that any fruit flies do not escape and infest new areas. Make sure that the place where the expert is opening the samples is also a secure place that the fruit flies cannot escape from.

4.2.4 Identifying specimens

See ISPM 27 (*Diagnostic protocols for regulated pests*) for diagnostic protocols to help identify *Anastrepha*, *Ceratitis* and *Bactrocera dorsalis* fruit flies.

4.2.5 Writing procedures for sampling

Detailed procedures can make it easier for the people collecting the samples to target the right plants and the right fruit. This can make sampling more efficient and better at detecting breeding populations.

When you are working with your technical writer or process writer on the procedures, talk about all the things that someone taking the samples of fruit or flowers will need to know. This can include:

- the target fruit fly's preferred hosts:
 - the fruit fly's preferred stage of maturity or ripeness,
 - signs and symptoms of infestation in the preferred hosts;
- symptoms of fruit fly damage (e.g. fallen fruit, fruit rejected at packing facilities);
- how to select samples; and
- the number of samples to take.

4.3 Planning for unwanted events

Plan for unwanted events. Decide what you will do if you find the target fruit fly in your pest-free area, what you will do if someone finds the target fruit fly in host material from that area, and what you will do if you discover that your procedures are not enough to keep the area free from fruit flies. Your plan should cover:

- when you will pause the pest-free status and whether you will pause the status of the whole area or only part of the area;
- how you will notify domestic stakeholders as well as importing countries that you have paused the pest-free status of all or part of the area (in accordance with ISPM 17: *Pest Reporting*);
- what actions you will take in response to a fruit fly incursion in your pest-free area;
- what actions you will take in response to interceptions of the fruit fly in consignments originating from the pest-free area.

The real strength of your plan is in the actions you plan to take in response to incursions or interceptions. The more planning you put into this, the better prepared you will be to act if something goes wrong. The next section covers actions you could take in these situations as well as how to pause, renew or cancel the area's pest-free status.

5 When things go wrong

Despite best efforts, at some point, you may find problems with the way you have set up your pest-free area, or with your maintenance or procedures. You may even find the target fruit fly in the area. You need to know what you will do if this happens before it happens.

5.1 Taking action during an incursion

Assume that you have a breeding population if anyone finds:

- an immature life stage of the target fruit fly in the area;
- a female with eggs in the area;
- a certain number of adults (not including sterile males) (see section 3.2.5 "Criteria for declaring the fruit fly absent from the area" earlier in this standard for advice on the number of adults);
or
- any life stage of the fruit fly in consignments originating from the area.

If the target fruit fly is unable to establish a population that lasts all year round within the pest-free area, you might not need to take any action. For example, if the fruit fly would normally die off in winter and you have found the breeding population shortly before winter, you might decide to let winter eradicate the fruit fly. However, action is still needed if the presence of the fruit fly is an unacceptable risk to plant trade. You may need to agree on this with your trading partners in advance.

Some actions you could take in response to an incursion are:

- surveying (trapping and fruit sampling) to find out how far the fruit fly has spread (delimiting survey) and whether it is breeding;
- movement controls of host material within the pest-free area (i.e. controlling what can be taken out of the area that is infested with fruit flies);
- communicating with affected parties, such as your trading partners and people who live and work in the pest-free area;
- eradication measures (see below);
- increasing your surveillance to check whether the eradication measures are working;
- increasing your surveillance to confirm that the fruit fly has been eradicated.

You need to plan your eradication measures as well. You could plan to:

- destroy infested produce (fruit or flowers);
- destroy any other infested material (leaves or stems);
- treat the soil (using chemicals or other methods such as flooding);
- use insecticides, including selective baits;
- use biological controls;
- male annihilation technique;
- release sterile fruit flies; or
- increase your trapping.

Start your action plan as soon as an expert has confirmed that the fruit fly that is breeding is indeed the fruit fly you are trying to keep out of the area.

5.2 Taking action during an interception

You will first hear about an interception in a consignment from one of your trading partners. Some actions you could take in response to an interception in a consignment are:

- investigating the cause of the interception;
- fixing any problems that led to the interception;
- communicating with affected parties about your actions.

5.3 Trading during an incursion

Talk to your trading partners about your plan. It is a good idea for you and your partners to agree on measures that you could put in place after you have found fruit flies but before you have eradicated them. This will help you to continue trading with each other if something goes wrong. This could be things like cold treating fruit that will be exported or using a systems approach that combines many different measures (increased surveys, more traps, treating produce or others).

5.4 Pausing the area's pest-free status

If you have found a target fruit fly, you can simply carry out your action plan. However, if your pest-free area has a breeding population of the target fruit fly, you need to pause the area's pest-free status. You also need to pause the pest-free status if you find problems with any of your maintenance (e.g. failures with trapping, host-movement controls or any treatments that target the fruit fly within the area). It may be possible to pause the pest-free status for only a part of the area and for the rest of the area to keep its pest-free status.

Notify affected importing countries (in accordance with ISPM 17) that you have paused the area's pest-free status. If you are planning to fix the problems and then renew the pest-free status, tell the importing countries what criteria you will use to renew the status.

5.5 *Renewing the pest-free status*

If your plan is to renew the pest-free status of the area, go back to section "3.2 Setting up the fruit fly pest-free area" in this standard. Work through these steps again, and make sure that you still have everything in place to keep your area pest free. When the area meets all of these criteria again, you can renew the pest-free status. If you paused the pest-free status because of a breeding population, you can renew the pest-free status when:

- You have not found any number of the target fruit fly (other than marked sterile fruit flies) in your surveillance in the paused area for a certain period; and
- You have corrected any problems that allowed the population to occur and updated your procedures (if necessary).

The length of time you will survey the paused area is up to you, but you should still use scientific analysis to decide how long you will survey before concluding the area is pest-free. The length depends on the individual species, the environmental conditions, and how well your surveillance system is able to detect it.

If you paused the pest-free status because you found a problem with your maintenance or procedures, you can renew the pest-free status when:

- You have corrected the problem and updated your procedures (if necessary).

Once you have renewed the pest-free status of the area, notify relevant importing countries (in accordance with ISPM 17).

5.6 *Cancelling the pest-free status*

If the target fruit fly has become established in the area and you do not plan to eradicate it, you must cancel the area's pest-free status. If the fruit fly population is only in part of the area and the rest of the area is still pest free, you may be able to cancel the status from only the infested part. The rest of the area may be able to keep its pest-free status. Communicate with affected members of the public in your country about the changes to the pest-free area, and notify the affected importing countries that you have cancelled the pest-free status (in accordance with ISPM 17).

6 Eradicating a breeding population from a pest-free area

If you find a breeding population of the target fruit fly in your pest-free area, you need to set up an eradication area (see Figure 1) and control measures. This is the case for both established populations and fruit flies that are not able to establish a year-round population. The objective should be to eradicate the target fruit fly and restore the pest freedom of the area, protect the parts of the pest-free area that do not have the fruit fly, and meet the phytosanitary import requirements of importing countries. When people move items that could contain fruit flies out of or through an eradication area, it has the potential to spread the fruit fly even further. The control measures you put in place should reduce this risk.

6.1 *Setting up an eradication area*

Do delimiting surveys to find out the size of the infestation and the areas that are still pest free. Mark the centre of the infestation on a map, and draw a circle around the site with a radius some distance beyond the furthest finding of the fruit fly. Use scientific analysis to decide how far you will set the boundary. Consider practical aspects. Adjust the eradication area in line with your administrative boundaries or the geography of the area if you need to. If you have several populations, draw several

circles. See Figure 1 for an example. Use maps and coordinates to document the boundaries of the eradication area.

Pause the pest-free status of the eradication area. The eradication area is no longer part of the pest-free area.

It can be helpful to place signs on boundaries and roads to alert the public, and you may want to start a communication campaign to inform the public that the area is not pest-free and how this and your eradication efforts will affect them.

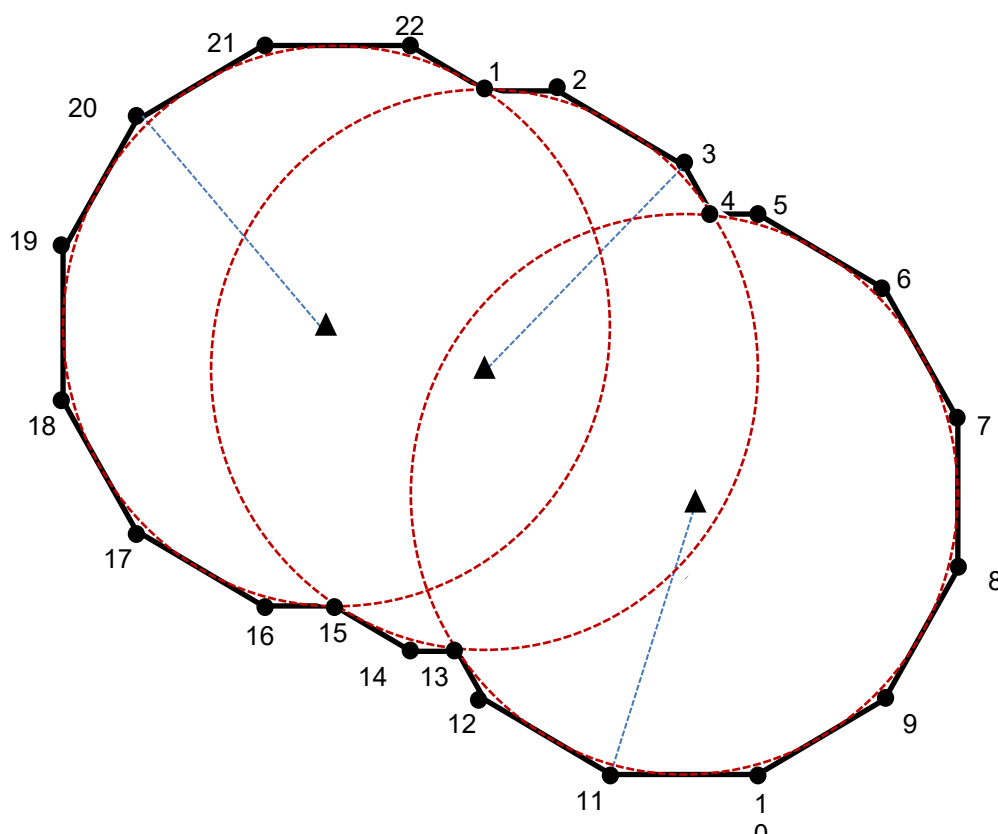


Figure 1: Three fruit fly populations (marked by triangles ▲), with a delimiting circle (red dotted lines) around each one. The numbers indicate places with geo-referenced coordinates, and the black line is the boundary of the entire eradication area.

6.2 Control measures

You might continue to produce goods for sale in the eradication area. In this situation, everyone in the entire production chain is a participant in the eradication effort. You might require growers and facilities to have control measures on fruit fly host material. If you have facilities that only handle produce from the area that is still pest free, these facilities will not need controls. The measures should be appropriate to manage the pest risk to the surrounding pest-free area and any importing countries.

Control measures applied at each stage of the production chain are described in the following sections.

6.2.1 Growing

During the growing and harvest period within the eradication area, you could require growers to take measures to keep fruit flies out of their plants or the soil. Think about all the methods growers have available: mechanical, cultural, chemical and biological controls. These are things like removing and

destroying host material, swamping the soil, ploughing, chemically treating the soil, spraying plants, bagging fruit, setting insecticide baits or bait stations, using a male annihilation technique, mass trapping, or using a sterile insect technique.

6.2.2 Moving items that could contain fruit flies

If people need to move items that could contain fruit flies out of or through the eradication area, they should transport them in ways that prevent fruit flies entering the items or escaping from them. Items that could contain fruit flies include produce that you intend to give phytosanitary certification to and fruit fly host material but also things like soil, contaminated equipment and waste. For example, you could require transporters to use insect-proofing, cover the load, use fully enclosed transport or refrigerate the load.

Your eradication efforts can be hampered by people moving goods around inside the eradication area. This could be home growers exchanging fruit with others or people selling host fruit in the eradication area. Consider requiring fruit at open-air markets to be covered or asking the general public to consume their fruit at home. If host material has been exposed to fruit flies, it should not be moved out of the eradication area.

6.2.3 Post-harvest facilities

As the national plant protection organization, you should have a clear overview of all post-harvest facilities in the pest-free area and the eradication area. This includes facilities that pack, store, process or treat produce. When deciding on control measures, think about each type of facility. You might need different measures depending on the activities they do and whether they are in the eradication area or the pest-free area. The measures you require should be designed to prevent the fruit fly entering the pest-free area. It is a good idea to require all facilities to be registered with your organization and for you to audit the facilities. Make sure the facilities:

- maintain traceability of host fruit;
- prevent the target fruit fly from entering or escaping the facility;
- monitor for the presence or absence of the target fruit fly in and around the facility;
- kill any fruit flies detected in or around the facility;
- prevent host fruit from areas with different pest statuses getting mixed together (e.g. by segregating consignments, using insect-proofing to prevent contamination); and
- dispose of rejected fruit securely.

6.2.4 Documenting measures and keeping records

Document all the control measures people are using in the eradication area, including corrective actions. Review these measures and make changes to them when you need to (see also ISPM 4). Keep your records for at least 24 months. Share them with your trading partners if they would like to see them.

6.3 Removing the eradication area

Keep the control measures in place until you have eradicated the fruit fly. You have successfully eradicated the fruit fly when the eradication area again meets the criteria for a pest-free area (see section 3.2.5 “**3.2.5 Criteria for declaring the fruit fly absent from the area**” earlier in this standard.

If you decide not to eradicate the fruit fly after all, cancel the area’s pest-free status.

ATTACHMENT 2: Lessons learned from the plain language drafting process (Comments from the language specialist)

Attachment 1 is an example of what an IPPC standard could look like in plain English. It is certainly not the only way this standard could be written, and the concept presented here is not the only solution to the difficulties that NPPOs have translating, using and understanding these standards, not to mention using them for negotiations. The example makes no claim to be the scientifically definitive version – we expect there to be scientific gaps and oversights. This draft was completed in around 50 hours of my time, with support and input from the steward and other experts at New Zealand’s Ministry for Primary Industries. With more time, we could resolve more of the science issues to greater satisfaction.

Below are a few findings from the exercise. The findings here are not unique to ISPMs. These are the same issues found in all technically complicated documents created by complex groups of people in complex organisations. I have found the same issues in engineering reports for large insurance firms, academic writing from senior lecturers at universities, and in reports and documents from all levels of government.

1. Complicated language can obscure problems with a paper**1.1 The complexity of the language has no relationship to the quality of the content**

It is equally possible to write content that is technically robust and scientifically rigorous using complicated language or plain language. When using complicated language, it is difficult for others to tell whether the content is robust and rigorous, and it may even be difficult for the writer to tell. When using simple words, it is easy for everyone to see. Good content will stand on its own merits regardless of how complicated the language is. It is just as robust in plain language as it is in complicated language.

1.2 Complicated language hides problems of logic

ISPM 26 contained several instances of unachievable instructions: instructions where two tasks were both dependent on the other task being completed, or instances where following one requirement would mean the user would be unable to fulfil another. In one place, the standard told the user they could use fruit sampling to support trapping if they did not have high confidence in the outcome of the trapping. Meanwhile, one of the annexes told the user that trapping procedures should provide the user with confidence that a pest-free area is free of fruit flies and that the procedures should be able to rapidly detect new breeding populations.

1.3 Complicated language hides repetition

After we removed the complicated language and replaced it with simpler language, we saw that much of the document repeated itself to no benefit (it can sometimes be useful in reference documents like this to repeat information if you are only expecting people to read single sections at a time, but this was not always the case here). We were able to delete several sections. This is a common problem in English, which has a large vocabulary with a high number of synonyms.

1.4 Complicated language hides information gaps

When we tried to structure the document in the order that the steps would be needed, it was clear that information was missing. Often the information missing was the answer to a “why” question – why should the reader consider the biology of the fruit fly at this point in the process? How does this step help the reader to set up a pest-free area? Why is it useful to have a list of species you are not targeting?

Sometimes the information missing was the connection between two ideas, such as what the reader should consider about the biology of the fruit fly to start with.

When the answer to one of the questions was there, the other answer could often be inferred or was easy for the reader to see, but when the answer to both questions were missing, it was hard for the reader to see how to apply the suggestions they were being given in practice. If you, like the standard’s steward, know that some fruit flies have a longer life cycle than others, then it may be easy for you to see that

the biology of the fruit fly could affect how long you run your surveillance for and that you might need to survey for longer if the fruit fly has a long life cycle.

If you, like me, did not know this, it would be impossible for you to know why you are collecting information on the biology of the fruit fly and how you will use this information. At our own organization, we frequently give the work of collecting information like this to junior staff. Seniority also hides information gaps, as it is easier for your thoughts to fill in the blanks. It is hard for very senior staff to remember what they first knew when they first entered the phytosanitary world and to remember that this kind of knowledge is not self-evident to people who have not worked in this field for decades.

1.5 Complicated language is easy to get wrong.

Complicated language is a lot of fun. If you can't use fun words among other scientists, when can you use them? And what was the point of learning them to start with? There is a lot of joy to be had in using words like "phenology", and it is extremely satisfying to write "approximating polygons". However, when these words are used incorrectly, it not only makes people who don't know the words feel stupid, it also makes the people who are using the words look stupid to people who do know them.

In this ISPM, "approximating polygons" was used where only one polygon was intended (perhaps a minor typo but one that no one picked up). Likewise, "phenology", meaning the *study* of periodic events in an organism's life cycle was being used to mean the periodic events themselves, after the pattern of "biology" ("biology" is an outlier among the "-ology" words).

2. Neither expert can do the work alone

2.1 The work of rewriting standards into plain language cannot be done by technical experts alone

A move to plain language will not erase the need for scientists. As phytosanitary experts, you are still absolutely essential to the entire process. You are the ones who understand the pests, the biosecurity, the measures and the regulations, not to mention the history and politics. But being good at science does not automatically make someone also good at process writing, story-telling, communicating, or imagining the perspective of the reader. Part of the intelligence, competence and capability of any expert also lies in being able to acknowledge areas where one is not expert and in knowing when to talk to people who are experts at other topics.

2.2 The work cannot be done by plain language experts alone

As I worked through this process, I needed to talk through different topics with the steward frequently. Although I, too, am highly skilled and proficient in my work, I cannot work alone. Indeed, talking to experts on other topics is *part of the work*. Neither myself as the language expert, nor the steward as the standards expert, nor a scientist as the fruit fly expert could do this work alone. It can only be done collaboratively.

2.3 Experts are still needed to implement the final standards

No matter how plainly these standards become, the subject matter itself will remain highly technical. The standards will never be able to be read or used by 12-year-olds, and having 12-year-olds read them is not the goal. Scientists and other experts will still remain absolutely essential within plant protection organisations. The need for such expertise will never go away, but at the same time, it is important to recognise that such specialists are a luxury item. It may not feel that way if everyone you know at work and privately has a PhD, but it does feel that way if you consider the breadth and scope of tasks you have to deal with beyond your area of specialisation and when you realise that you are now far more a generalist than you are a specialist. Hopefully, easier standards will help plant protection organisations that do not have hundreds of PhD graduates available to them. Maybe they have only 10 scientists instead of 500. Maybe they have only 1 scientist. On the other hand, plain language will also help organisations that have 500 scientists who are trying to do the work of 1,000 scientists and who are all extremely tired.

As an example, we sent the image included in this standard and its accompanying caption to a geospatial expert who creates maps for incursions within our own plant protection organisation. We asked their opinion on the two captions. They said, “I didn’t have to keep re-reading the second one to understand it.” At the very least, standards should be able to be read by their target experts in one read.