COLEACP GUIDELINES
ON EXPORTING FRESH CITRUS
FROM AFRICA, MADAGASCAR,
CAPE VERDE AND MAURITIUS

NEW PLANT HEALTH RULES
FROM THE EUROPEAN UNION
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PART 1

Meeting EU requirements for regulated pests on Citrus
1.1. BACKGROUND

The European Union (EU) is overhauling its plant health (phytosanitary) regulations. On 14 December 2019, the new Plant Health Regulation (EU) 2016/2031 came into operation, bringing rigorous new rules to prevent the introduction and spread of pests and diseases in the EU. This takes a much more proactive approach than the previous plant health regime, and affects the European fruit and vegetable sector as well as imports from third countries.

On 28 November 2019, Implementing Regulation (EU) 2019/2072 was introduced. It establishes uniform conditions for the implementation of special measures against a range of crop pests that are a known pathway into the EU of serious plant health problems, which could damage EU agriculture or the environment. These measures include stringent new requirements covering the export of citrus to prevent the introduction of:

- *Xanthomonas citri* pv. *aurantifolii* (citrus canker)
- *Xanthomonas citri* pv. *citri* (citrus canker)
- *Pseudocercospora angolensis* (citrus fruit and leaf spot)
- *Phyllosticta citricarpa* (citrus black spot)
- *Tephritidae* (non-European) (fruit fly)
- *Thaumatotibia leucotreta* (false codling moth)

In the Regulation (EU) No 2021/2285, published in December 2021, a new pest potentially associated with citrus, the Citrus chlorotic spot virus has been found to fulfil the conditions of Article 3 and Section 1 of Annex I to Regulation (EU) 2016/2031 in respect of the Union territory, and therefore was included in the list of Union quarantine pests in Annex II to Implementing Regulation (EU) 2019/2072. However, no addition declaration should be added regarding this pest in the phytosanitary certificate.

The new rules stipulate certain conditions that exporting countries must meet before exports of citrus are allowed. Some of these conditions refer to International Standards for Phytosanitary Measures (ISPMs). ISPMs are developed by the International Plant Protection Convention (IPPC) of the UN Food and Agriculture Organization (FAO), and are recognised by the World Trade Organization (WTO) Sanitary and Phytosanitary Agreement. Exporting countries must refer to the relevant ISPMs in order to fully understand and comply with the EU regulatory requirements.

National action plans and stakeholder engagement

Meeting these new rules requires immediate and concerted action from producers, exporters and national plant protection organisations (NPPOs). There is no room for complacency by any citrus-exporting country. If there are any interceptions of these pests in exported citrus, the EU is expected to react and impose more stringent measures.
Experience has shown that meeting the new EU rules requires effective dialogue and engagement between public and private sectors. All stakeholders must agree on the actions needed to ensure that exported citrus is free of the designated pests. This means identifying and agreeing on actions to be taken by private sector operators at all stages, from production to export. It also means agreeing to the responsibilities of the public sector authorities, in particular the NPPO.

COLEACP recommends the establishment of committees or task forces that bring all major stakeholders around the table to develop (and oversee the implementation) of a national citrus action plan. To be effective, this national action plan must be appropriate to the local context, and usable by the range of different producers and exporters concerned (large and small). It is essential that all stakeholders agree to, and implement, the national action plan. If just one exporter sends infested consignments to the EU, this could bring down the entire export sector.

**COLEACP support**

This document has been prepared by COLEACP for national authorities and operators in the citrus export sector to help orient the development of national action plans and dossiers to meet the new rules. It provides a framework to guide the process, and outlines the various elements that can be incorporated into a national approach to manage the pests concerned. It identifies the possible information to be provided, and actions to be taken, at all stages from production to export, by both public and private sectors. References and links to the relevant ISPMs are provided.

Note that the elements included here are not exhaustive. The national citrus action plan and dossier could include all or a selection of the measures outlined, as well as any others that may be available and appropriate locally.
1.2. REGULATORY CHANGES AFFECTING FRESH CITRUS EXPORTS TO THE EU

Since 2017, the EU has been introducing increasingly stringent measures to prevent the introduction of pests and diseases of citrus into the EU. Citrus is an economically important crop in several EU Member States, so tolerance of pest risk is very low.

These rules were updated in Implementing Regulation (EU)2019//207 issued on 28 November 2019. Under these rules, NPPOs in countries exporting citrus to the EU must provide detailed information on several critical pests and diseases, and must conform with a set of designated options.

In some of the designated options, there is a requirement to complete “Additional Declarations” in the phytosanitary certificate. Completing the phytosanitary certificate correctly is very important to avoid the interception of citrus exports at EU border controls. This is explained in detail in section 1.3.

Some of the designated options allow for a “free from …” declaration to be made, as explained in the following sections.

Information is given below on all requirements affecting citrus under Regulation (EU) 2019/2072. This includes general rules on citrus, and specific requirements concerning the individual quarantine pests and diseases.

On 14 December 2021 and 16 June 2022, new Commission Implementing Regulations (EU) 2021/2285 and (EU) 2022/959 were published notifying changes in Regulation (EU) 2019/2072. These changes concern, among other things, the list of harmful organisms, prohibitions and requirements for the introduction and movement within the European Union of plants, plant products and other objects. They apply respectively from 11 April and July 2022.

The new Regulation (EU) 2021/2285 and (EU) 2022/959 introduce changes that affect a number of ACP exports to the EU, notably Citrus sp.

Rules on peduncles and leaves attached to fruit

Leaves have been identified as an important route for entry of citrus pests and diseases into the EU. To eliminate this risk, citrus fruit imported into the EU must be free from peduncles and leaves.

Implementing Regulation (EU) 2019/2072 stipulates that fruits of Citrus, Fortunella (kumquat), Poncirus ( trifoli ate orange), and their hybrids shall be free from peduncles and leaves, and the packaging shall bear an appropriate origin mark.

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**Recommendations for NPPOs**

The NPPO of the exporting country must ensure through inspection that exported products are compliant with the above rules.

**Rules on citrus canker (Xanthomonas citri pv. aurantifolii and Xanthomonas citri pv. citri)**

Implementing Regulation (EU) 2019/2072 introduced rules concerning the pest *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri* on fruits of Citrus, *Fortunella* (kumquat), *Poncirus* (trifoliate orange), *Microcitrus*, *Swinglea* (Key lime), and their hybrids. The rules state that exports of these fruits must be accompanied by a phytosanitary certificate (section 1.3), and must meet requirements set out in one of the following options:

a. the fruits originate in a country recognised as being free from *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri* in accordance with the relevant International Standards for Phytosanitary Measures, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned;

or

b. the fruits originate in an area established by the national plant protection organisation in the country of origin as being free from *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri* in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned;

or

c. the fruits originate in a place of production established by the national plant protection organisation in the country of origin as being free from *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri* in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate under the rubric “Additional Declaration”;

or

d. the site of production and the immediate vicinity are subject to appropriate treatments and cultural practices against *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri*;

and

the fruits have been subjected to a treatment with sodium orthophenylphenate, or another effective treatment mentioned on the phytosanitary certificate, and the treatment method has been communicated
in advance in writing to the Commission by the national plant protection organisation of the third country concerned;

and

official inspections carried out at appropriate times prior to export have shown that the fruits are free from symptoms of *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri* and information on traceability is included in the phytosanitary certificate;

or

e. in the case of fruits destined for industrial processing, official inspections prior to export have shown that the fruits are free from symptoms of *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri*;

and

the site of production and the immediate vicinity are subject to appropriate treatments and cultural practices against *Xanthomonas citri* pv. *aurantifolii* and *Xanthomonas citri* pv. *citri*;

and

movement, storage and processing takes place under conditions approved in accordance with the procedure referred to in Article 107 of Regulation (EU) No 2016/2031;

and

the fruits have been transported in individual packages bearing a label, which contains a traceability code and the indication that the fruits are destined for industrial processing;

and

information on traceability is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031.

Recommendations for NPPOs

For countries in Africa as well as Madagascar, Cape Verde and Mauritius, *X. citri* pv. *aurantifolii* and *X. citri* pv. *citri* are two pathovars of the single species *Xanthomonas citri* (EFSA, 2014). There is no information on the distribution of *X. citri* pv. *aurantifolii* in the database of the European and Mediterranean Plant Protection Organization (EPPO, 2020a), but it is considered to be present in many, although not all, African countries (EPPO, 2020b). Given this lack of information, COLEACP recommends that the NPPO should conduct an assessment of whether this pest is present, and choose the relevant option from those given below. This assessment must be conducted according to international standards and guidelines (see section 1.4).

**Option (a)**

For countries that are found to be free from *Xanthomonas citri* pv. *aurantifolii* and
Xanthomonas citri pv. citri, selecting Option (a) is the most appropriate; in this case NPPOs must take the following action.

- The NPPO must send an official notification to the European Commission (EC) informing it that they are a pest free country with regard to X. citri pv. aurantifolii and X. citri pv. citri, in accordance with the methodology described in ISPM 4.
- Before exporting, pest free status for X. citri pv. aurantifolii and X. citri pv. citri must be acknowledged by the EC. This official acknowledgement can be checked on the EC webpage “Declarations under Commission Implementing Regulation (EU) 2019/2072”, which provides links to the current information provided by each country of origin and NPPO.
- Information about pest free country status must be included in the phytosanitary certificate (see section 1.3).

It is strongly recommended that NPPOs contact COLEACP to obtain guidance on additional actions that need to be taken with regard to pest free country status for X. citri pv. aurantifolii and X. citri pv. citri. If there is a problem or interception, or if a country is subject to an audit by the EU authorities (DG Santé) at any stage, the national authorities in the exporting country must be able to provide the necessary documentation to justify pest free country status according to international standards (ISPM 4).

**Options (b) and (c)**

Countries that have X. citri pv. aurantifolii and X. citri pv. citri present in a limited area could consider establishing a pest free area (Option b) or pest free place of production (Option c) in accordance with ISPM 4 or ISPM 10, respectively. NPPOs should be aware that meeting the requirements for Option (b) is considerably more complex than for Option (c). More details are given in section 1.4.

**Option (d)**

In countries where X. citri pv. aurantifolii and X. citri pv. citri are widely present, Option (d) may be the most appropriate. In this case the NPPO must take the following action.

- The NPPO must send an official notification to the EC informing them what treatments are being undertaken to control X. citri pv. aurantifolii and X. citri pv. citri, in accordance with the methodology described in ISPM 14 on the use of integrated measures in a systems approach for pest risk management.
- In addition, there are specific actions that must be taken by the NPPO for all packing sites that supply citrus for export to the EU:
  - The NPPO must conduct an official inspection of the fruit prior to
export. Exports can only be permitted if the produce is found to be free from *X. citri* pv. *aurantifolii* and *X. citri* pv. *citri*.

- The NPPO must ensure that there is full traceability covering all movements of the products concerned from the place of production to the point of export, and this should be referred to on the phytosanitary certificate.
- If there is a problem or interception, or if a country is subject to an audit by the EU authorities (DG Santé) at any stage, the national authorities in the exporting country must be able to provide all the necessary documentation to demonstrate that the correct registration, supervision and inspections have been conducted.

**Option (e)**

Where the fruit is destined for industrial processing and *X. citri* pv. *aurantifolii* and *X. citri* pv. *citri* are present, then the operator and the NPPO should follow option (e).

Rules on citrus fruit and leaf spot (*Pseudocercospora angolensis*)

*Implementing Regulation (EU) 2019/2072* clarifies rules concerning the pest *Pseudocercospora angolensis* on fruits of *Citrus*, *Fortunella* (kumquat), *Poncirus* (trifoliate orange) and their hybrids. The rules state that exports of these fruits must be accompanied by a phytosanitary certificate (see section 1.3), and must meet requirements set out in one of the following options:

a. the fruits originate in a country recognised as being free from *Pseudocercospora angolensis* in accordance with the relevant International Standards for Phytosanitary Measures, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned;  

   or

b. the fruits originate in an area recognised as being free from *Pseudocercospora angolensis* in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned;  

   or

c. no symptoms of *Pseudocercospora angolensis* have been observed in the site of production and in its immediate vicinity since the beginning of the last cycle of vegetation, and none of the fruits harvested in the site of production has shown, in appropriate official examination, symptoms of this pest.
Recommendations for NPPOs

For countries in Africa, as well as Madagascar, Cape Verde and Mauritius, the fungal pathogen *P. angolensis* is responsible for fruit and leaf spot of citrus. *Pseudocercospora angolensis* is present in many but not all African countries (EPPO, 2020c). COLEACP recommends that the NPPO conducts an assessment of whether this pest is present, and chooses the relevant option below. This assessment must be conducted according to international standards and guidelines (see section 1.4).

**Option (a)**

For countries that are found to be free from *P. angolensis*, selecting Option (a) is the most appropriate. In this case the NPPO must take the following action.

- The NPPO must send an official notification to the European Commission (EC) informing it that they are a pest free country with regard to *P. angolensis*, in accordance with the methodology described in ISPM 4.
- Before exporting, pest free status for *P. angolensis* must be acknowledged by the EC. This official acknowledgement can be checked on the EC webpage “Declarations under Commission Implementing Regulation (EU) 2019/2072”, which provides links to the current information provided by each country of origin and NPPO.
- Information about pest free country status must be included in the phytosanitary certificate (see section 1.3).

It is strongly recommended that NPPOs contact COLEACP to obtain guidance on additional actions that need to be taken with regard to pest free country status for citrus fruit and leaf spot. If there is a problem or interception, or if a country is subject to an audit by the EU authorities (DG Santé) at any stage, the national authorities of the exporting country must be able to provide the necessary documentation to justify pest free country status according to international standards (ISPM 4).

**Option (b)**

For countries that have *P. angolensis* present in a limited area, and a pest free area could be established in accordance with ISPM 4, then selecting Option (b) is a possibility. Note, however, that meeting the requirements for this option are complex. More details on pest free area requirements are given in section 1.4.

**Option (c)**

For countries where *P. angolensis* is widely present, selecting Option (c) may be the most appropriate. In this case NPPOs must take the following actions.

- At all production sites that supply citrus for export to the EU:
  - The NPPO must carry out official inspections during the last production cycle (cycle of vegetative growth). Exports can only be permitted if none of the fruit harvested at the site has shown, in appropriate official examinations, symptoms of this pathogen.
The NPPO must conduct an official inspection of the fruit prior to export. Exports can only be permitted if the produce is found to be free from citrus fruit and leaf spot. Sampling of fruit for export must be according to ISPM 31 (Methodologies for sampling of consignments).

- If there is a problem or interception, or if a country is subject to an audit by the EU authorities (DG Santé) at any stage, the national authorities in the exporting country must be able to provide all the necessary documentation to demonstrate that the correct registration, supervision and inspections have been conducted.

### Rules on citrus black spot (*Phyllosticta citricarpa*)

**Implementing Regulation (EU) 2019/2072** clarifies rules concerning the pest *Phyllosticta citricarpa* on fruits of *Citrus, Fortunella* (kumquat), *Poncirus* (trifoliate orange), and their hybrids. This requirement does not apply to fruits of *Citrus aurantium* (bitter orange) and *Citrus latifolia* (Persian lime). Exports of these fruits must be accompanied by a phytosanitary certificate (see section 1.3) and must meet requirements set out in one of the following options:

a. the fruits originate in a country recognised as free from *Phyllosticta citricarpa* in accordance with the relevant International Standards for Phytosanitary Measures, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned;

or

b. the fruits originate in an area established as being free from *Phyllosticta citricarpa* by the national plant protection organisation in the country of origin in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned;

or

c. the fruits originate in a place of production established as being free from *Phyllosticta citricarpa* by the national plant protection organisation in the country of origin in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”,

and

the fruits are found free of symptoms of *Phyllosticta citricarpa* by official inspection of a representative sample, defined in accordance with international standards;
d. the fruits originate in a site of production subjected to appropriate treatments and cultural measures against *Phyllosticta citricarpa*;

and

official inspections have been carried out in the site of production during the growing season since the beginning of the last cycle of vegetation, and no symptoms of *Phyllosticta citricarpa* have been detected in the fruits;

and

the harvested fruits from that site of production are found free of symptoms of *Phyllosticta citricarpa* during an official inspection prior to export of a representative sample, defined in accordance with international standards;

and

information on traceability is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031;

or

e. in the case of fruits destined for industrial processing, the fruits have been found free of symptoms of *Phyllosticta citricarpa* prior to the export during an official inspection of a representative sample, defined in accordance with international standards;

and

a statement that the fruits originate in a site of production subjected to appropriate treatments against *Phyllosticta citricarpa* carried out at the appropriate time of the year to detect the presence of the pest concerned is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”;

and

movement, storage and processing takes place under conditions approved in accordance with the procedure referred to in Article 107 of Regulation (EU) No 2016/2031;

and

the fruits have been transported in individual packages bearing a label, which contains a traceability code and the indication that the fruits are destined for industrial processing

and

information on traceability is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031
Recommendations for NPPOs

For countries in Africa, as well as Madagascar, Cape Verde and Mauritius, the fungal pathogen *P. citricarpa* is responsible for citrus black spot. *Phyllosticta citricarpa* is present in some but not all African countries (EPPO, 2020d). COLEACP recommends that the NPPO conducts an assessment of whether this pest is present, and chooses the relevant option below. This assessment must be conducted according to international standards and guidelines (see section 1.4).

**Option (a)**

For countries that are free from *P. citricarpa*, selecting Option (a) is the most appropriate. In this case the NPPO must take the following action:

- The NPPO in each exporting country must send an official notification to the European Commission (EC) informing it that they are a pest free country with regard to *P. citricarpa*, in accordance with the methodology described in ISPM 4.
- Before exporting, pest free status for *P. citricarpa* must be acknowledged by the EC. This official acknowledgement can be checked on the EC webpage “Declarations under Commission Implementing Regulation (EU) 2019/2072”, which provides links to the current information provided by each country of origin and NPPO.
- Information about the pest free country status must be included in the phytosanitary certificate (see section 1.3).

It is strongly recommended that NPPOs contact COLEACP to obtain guidance on additional actions that need to be taken with regard to pest free country status for *P. citricarpa*. If there is a problem or interception, or if a country is subject to an audit by the EU authorities (DG Santé) at any stage, the national authorities in the exporting country must be able to provide the necessary documentation to justify pest free country status according to international standards (ISPM 4).

**Option (b) and (c)**

For countries that have *P. citricarpa* present in a limited area, and a pest free area could be established in accordance with ISPM 4, then selecting Option (b) is a possibility. Note, however, that meeting the requirements for this option are complex. More details on pest free area requirements are given in section 1.4.

**Option (d)**

For countries where *P. citricarpa* is widely present, Option (d) may be the most appropriate. In this case the NPPOs must take the following action.

- At all production sites that supply citrus for export to the EU:
  - The NPPO must carry out official inspections during the period of export to verify that all fruit has received appropriate treatments and cultural measures for the control of *P. citricarpa*
The NPPO must carry out official inspections during the last production cycle (cycle of vegetative growth). Exports can only be permitted if none of the fruits harvested in the site of production has shown, in appropriate official examinations, symptoms of this pest.

The NPPO must conduct an official inspection of the fruit prior to export. Exports can only be permitted if the produce is found to be free from *P. citricarpa*.

- The NPPO must ensure that there is full traceability covering all movements of the products concerned from the place of production to the point of export, and this should be referred to on the phytosanitary certificate.
- If there is a problem or interception, or if a country is subject to an audit by the EU authorities (DG Santé) at any stage, the national authorities in the exporting country must be able to provide all the necessary documentation to demonstrate that the correct registration, supervision and inspections have been conducted.

**Option (e)**

Where the fruit is destined for industrial processing in the EU, the NPPO must:

- Conduct an official inspection of the fruit prior to export. Exports can only be permitted if the produce is found to be free from *P. citricarpa*.
- Carry out official inspections at the site of production to ensure appropriate treatments against *P. citricarpa* are carried out at the appropriate time of the year to detect the presence of the pest concerned, and include a statement in the phytosanitary certificate under the rubric “Additional Declaration”.
- Ensure that the fruit is packed in individual packages, with a traceability code (unique identification number), and labelled that the fruit is destined for industrial processing on the phytosanitary certificate.

**Rules on non-European *Tephritidae* (fruit fly)**

In recent years there have been consistently high numbers of interceptions in Europe of imported fruits due to the presence of fruit fly. As a result, a new EU Directive entered into force on 1 September 2019, placing additional requirements on all countries that export to the EU. These new requirements were further clarified in Implementing Regulation(EU) 2019/2072, which came into force in December 2019.

Some species and genera of fruit flies were already designated as EU quarantine pests. However, due to the lack of methods to identify many fruit flies at species level, the EU has taken a pragmatic approach. It has listed several entire genera as EU quarantine pests so that protective measures can be taken against them until potential identification methods are developed. This means that the entry into the EU of a wide
range of fruit fly species belonging to the *Tephritidae* group is prohibited (point 5 of Commission Implementing Regulation (EU) 2021/2285, published on 14th December 2021). This new regulation has applied since 11 April 2022.

Implementing Regulation (EU) 2019/2072 amended by (EU) 2021/2285 clarified rules concerning the pest *Tephritidae* on fruits of *Citrus*, *Fortunella* (kumquat), *Poncirus* (trifoliate orange), and their hybrids. The rules state that exports of these fruits must be accompanied by a phytosanitary certificate (see section 1.3) and must meet requirements set out in one of the following options:

a. the fruits originate in a country recognised as free from *Tephritidae* as referred to in point 77 of table 3, Part A of Annex II, to which those fruits are known to be susceptible, in accordance with the relevant International Standards for Phytosanitary Measures, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned,

or

b. The fruits originate in an area established by the national plant protection organisation in the country of origin as being free from *Tephritidae* as referred to in point 77 of table 3, Part A of Annex II, to which those fruits are known to be susceptible, in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned,

or

c. no signs of *Tephritidae* as referred to in point 77 of table 3, Part A of Annex II, to which those fruits are known to be susceptible, have been observed at the place of production and in its immediate vicinity since the beginning of the last complete cycle of vegetation, on official inspections carried out at least monthly during the three months prior to harvesting, and none of the fruits harvested at the place of production has shown, in appropriate official examinations, signs of the relevant pest and information on traceability is included in the phytosanitary certificate

or

d. have been subjected to an effective systems approach or an effective post-harvest treatment to ensure freedom from *Tephritidae* as referred to in point 77 of table 3, Part A of Annex II, to which those fruits are known to be susceptible, and the use of a systems approach or details of the treatment method are indicated on the phytosanitary certificate, provided that the systems approach or the post-harvest treatment method has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned.
**Options (a) and (b)**

These options are not generally achievable as *Tephritidae* are endemic and widely distributed in the listed countries (EPPO, 2020e). Options (a) and (b) are therefore not discussed further here, but additional information is provided in section 1.4.

**Option (c)**

This option requires a place of production designated as free from *Tephritidae*. This could be attempted where pest pressure is low, but resources are needed to ensure areas of low pest prevalence in the locality, and the place of production must be designated as pest free through a series of inspections by the NPPO, conducted strictly according to procedures specified in ISPM 10. These options are not described in detail in this document, but general information is provided in section 1.4.

**Option (d)**

This option requires fresh citrus to be subjected to an effective treatment, in addition to specified supervision and inspections by the NPPO. The effective treatment allows for the use of a systems approach. This is the most accessible option for the majority of citrus exporters, and requires the NPPO to take the following actions.

- A dossier must be submitted to the European Commission (EC) outlining the systems approach that will be used for the “effective treatment”. COLEACP strongly recommends that exporting countries should prepare and implement a national action plan that specifies the measures to be taken by all stakeholders along the supply chain to manage *Tephritidae* in the products concerned. It is critical to ensure that there is no risk of it being present in exported consignments.

- For all production sites that supply citrus for export to the EU:
  - The NPPO must send an official dossier to the European Commission detailing the systems approach or treatment method used to control *Tephritidae*.
  - The NPPO must carry out official inspections at all production sites and packhouses ensuring that the systems approach and/or treatment method for *Tephritidae* are being undertaken, and this should be indicated on the phytosanitary certificate.
  - The NPPO must conduct an official inspection prior to export. Exports can only be permitted if the produce is found to be free from *Tephritidae*.

- If there is a problem or interception, or if a country is subject to an audit by the EU authorities (DG Santé) at any stage, the national authorities in the exporting country must be able to provide all the necessary documentation to demonstrate that the correct registration, supervision and inspections have been conducted.
Note that the NPPO must provide sufficient information in the official dossier to enable the EC to evaluate and approve the proposed systems approach. A guideline on the development and submission of a dossier for *Tephritidae* is provided in Part 2.

Once the dossier is submitted, its acceptance or rejection by the European authorities should be checked on the EC webpage “Declarations under Commission Implementing Regulation (EU) 2019/2072”, which provides links to the current information provided by each country of origin and NPPO. Exports can only take place once the dossier is officially accepted. Citrus exported to the EU must be accompanied by a phytosanitary certificate, and there are strict requirements on how this should be filled. Section 1.3 provides clear instructions on how to complete the phytosanitary certificate.

Rules on false codling moth (*Thaumatotibia leucotreta*)

False Codling Moth (FCM, *Thaumatotibia leucotreta*) is listed as a priority pest under EU plant health regulations ((EU) 2019/1702). Unfortunately, as this pest has been intercepted on several host plants in recent months at EU border controls, stricter rules are now being introduced in the implementing regulation (EU) 2022/959 of June 2022. It shall apply from 14 July 2022.

The new rules for FCM include:

- Revised import requirements for fruits of *Capsicum, Citrus* (other than *Citrus aurantiifolia*, *Citrus limon*), *Prunus persica*, and *Punica granatum* L. (point 62 of the Annex)
- Specific import requirements for *Citrus sinensis* (point 62.1 of the Annex)

The amendments introduced in the affect a number of ACP export crops, targeted because they are a known pathway into the EU of a serious quarantine pest that could damage EU agriculture or the environment. They bring in strict new requirements for approval of production sites, inspections, and information. NPPOs and export sectors in the countries concerned need to act now to ensure that the necessary steps are taken to allow exports after 14 July 2022.

Amendments like this are generally made following risk assessments, or where there have been large numbers of non-conformities in imports from third countries. The rules have been tightened due to repeatedly high numbers of FCM interceptions from a number of countries, often in consignments exported under option (c) “free place of production”. Stricter measures must be now put in place in each exporting country, and communicated to the EU.

The following text is extracted from the regulation (EU) 2022/959, and lists the options that must be used in order to export after July. The amendments concern Points 62 and 62.1 of Annex VII to Implementing Regulation (EU) 2019/2072, and they affect Options (c) and (d), the most commonly used by ACP countries.
This gives 4 options that specify strict conditions for the management of FCM (*T. leucotreta*):

- In fruits of *Capsicum* (L.), *Citrus* L., other than *Citrus aurantiifolia* (Christm.) Swingle, *Citrus limon* (L.) Osbeck, and *Citrus sinensis* Pers., *Prunus persica* (L.) Batsch and *Punica granatum* L. (pomegranate)

- From countries on the African continent, Cape Verde, Saint Helena, Madagascar, La Reunion, Mauritius and Israel

The 4 options are as follows:

**Option (a)**

the fruits originate in a country recognised as being free from *T. leucotreta* (Meyrick) in accordance with the relevant International Standards for Phytosanitary Measures, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, or

**Option (b)**

the fruits originate in an area established by the national plant protection organisation in the country of origin as being free from *T. leucotreta* (Meyrick), in accordance with the International Standard for Phytosanitary Measures ISPM 4. The pest free area is mentioned on the phytosanitary certificate, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, or

**Option (c)**

fruits (i) originate in a place of production established by the national plant protection organisation in the country of origin as being free from *T. leucotreta* (Meyrick) in accordance with the International Standard for Phytosanitary Measures ISPM 10, and which is included in the list of place of production codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and

(ii) have been subjected to official inspections carried out in the place of production at appropriate times during the growing season and prior to export, including a visual examination with an intensity to enable at least the detection of a 2 % level of infestation, with a level of confidence of 95 % in accordance with the International Standard for Phytosanitary Measures ISPM 31 and including destructive sampling in case of symptoms, and have been found to be free from *T. leucotreta* (Meyrick), and

(iii) are accompanied by a phytosanitary certificate that indicates the place of production codes.

**Option (d)**

(i) the fruits have been produced in an approved site of production, which is included in the list of production site codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and
(ii) have been subjected to an effective systems approach to ensure freedom from *T. leucotreta* (Meyrick), in accordance with the International Standards for Phytosanitary Measures ISPM 14, or an effective stand-alone post-harvest treatment to ensure freedom from *T. leucotreta* (Meyrick), provided that the respective systems approach used or the post-harvest treatment, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin and that post-harvest treatment has been assessed by the European Food Safety Authority, and

(iii) prior to export, have been subjected to official inspections for the presence of *T. leucotreta* (Meyrick), with an intensity to enable at least the detection of 2% level of infestation, with a level of confidence of 95% in accordance with the International Standard for Phytosanitary Measures ISPM 31 and including destructive sampling in case of symptoms, and

(iv) are accompanied by a phytosanitary certificate that indicates the production site codes and mentions the details of the post-harvest treatment used, or the use of the systems approach

**Point 62.1 (New)**

This gives 4 options that specify strict conditions for the management of FCM (*T. leucotreta*):

- In fruits of *Fruits of Citrus sinensis* Pers.
- From countries of the African continent, Cape Verde, Saint Helena, Madagascar, La Reunion, Mauritius and Israel.

**Option (a)**

the fruits originate in a country recognised as being free from *T. leucotreta* (Meyrick) in accordance with relevant International Standards for Phytosanitary Measures, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin

**Option (b)**

the fruits originate in an area established by the national plant protection organisation in the country of origin as being free from *T. leucotreta* (Meyrick), in accordance with the International Standard for Phytosanitary Measures ISPM 4. The pest free area is mentioned on the phytosanitary certificate, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin

**Option (c)**

the fruits:

(i) originate in a place of production established by the national plant protection organisation in the country of origin as being free from *T. leucotreta* (Meyrick) in accordance with the International Standard for Phytosanitary Measures ISPM 10, and which is included in the list of place of production codes that has been communicated
in advance in writing to the Commission by the national plant protection organisation of the country of origin, and

(ii) have been subjected to official inspections carried out in the place of production at appropriate times during the growing season and prior to export, including a visual examination with an intensity to enable at least the detection of a 2 % level of infestation, with a level of confidence of 95 % in accordance with the International Standard for Phytosanitary Measures ISPM 31 and including destructive sampling in case of symptoms, and found to be free from *Thaumatotibia leucotreta* (Meyrick), and

(iii) are accompanied by a phytosanitary certificate that indicates the place of production codes,

**Option (d)**

the fruits:

(i) have been produced in an approved site of production, which is included in the list of production site codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and

(ii) have been subjected to:

- an effective systems approach, which includes a cold treatment of 0°C to -1°C for at least 16 days, in accordance with the relevant International Standards for Phytosanitary Measures ISPM 14 and ISPM 42, provided that the cold treatment has been documented and checked for each consignment by the exporting third country and the systems approach, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin,

  **or**

- an effective systems approach in accordance with the International Standard for Phytosanitary Measures ISPM 14, which includes a precooling step of the pulp of the fruit to the temperature of the cold treatment applied, followed by that cold treatment for at least 20 days at a set temperature between -1°C and +2°C, provided that the precooling step and the cold treatment have been documented and checked for each consignment by the exporting third country, and provided that the systems approach, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin,

  **or**

- an effective stand-alone post-harvest treatment to ensure freedom from *Thaumatotibia leucotreta* (Meyrick), provided that that post-harvest treatment, together with documentary evidence of its effectiveness has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin and has been assessed by the European Food Safety Authority,

  **or**
until 31 December 2022, an effective systems approach in accordance with the International Standard for Phytosanitary Measures ISPM 14, which includes a precooling step of the pulp of the fruit to 5°C, followed by a cold treatment for at least 25 days at a set temperature between -1°C and +2°C, provided that the precooling step and the cold treatment have been documented and checked for each consignment by the exporting third country, and provided that the systems approach, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin,

and

(iii) prior to export have been subjected to official inspections for the presence of *T. leucotreta* (Meyrick), with an intensity to enable at least the detection of a 2 % level of infestation, with a level of confidence of 95 % in accordance with the International Standard for Phytosanitary Measures ISPM 31 and including destructive sampling in case of symptoms,

and

(iv) are accompanied by a phytosanitary certificate that indicates the production site codes, mentions details of the post-harvest treatment used or the use of the systems approach together with the set temperature used and the duration of the cold treatment applied in that systems approach;

and

(v) in case the cold treatment has been applied during transport, in addition to the phytosanitary certificate, records on the application of the treatment have been kept and made available upon request.’

**Sampling Intensity**

Note that under both of these points, there is a new specification concerning the number of samples that should be taken during inspections for Options (c) and (d): “a visual examination with an intensity to enable at least the detection of a 2 % level of infestation, with a level of confidence of 95 % in accordance with the International Standard for Phytosanitary Measures ISPM 31”.

Inspectors will need to refer to Table 1 in Appendix 2 of ISPM 31 (Page 14). This gives a list of the number of samples that need to be taken to meet this specification, according to lot size. The following information is extracted from this table.

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Minimum Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>100</td>
<td>78</td>
</tr>
</tbody>
</table>
Action needs to be taken to protect exports of these crops to the EU. The most important points to note are for countries exporting these crops according to the options (c) “pest free place of production” or (d) “systems approach/post-harvest treatment”:

1. The NPPO must send a list of production site codes in advance in writing to the European Commission (EC)

2. Details of the systems approach (or the post-harvest treatment method) for FCM must be communicated in advance to the EC together with documentary evidence of its effectiveness.

3. Prior to export, produce must be subjected to official inspections for the presence of *Thaumatotibia leucotreta* (Meyrick). The number of samples to be inspected must follow ISPM 31 “with an intensity to enable at least the detection of 2% level of infestation, with a level of confidence of 95% and including destructive sampling in case of symptoms”. Table 1 in Appendix 2 of ISPM 31 (Page 14) indicates the number of samples that need to be taken to meet this specification, according to lot size.

4. For every consignment, the code for the production site must be included in the phytosanitary certificate. (Alongside the description of the product, you must write the unique identification number or name of the approved production site).

5. In the Additional Declaration of the phytosanitary certificate, the NPPO must copy and paste the Option selected by the country and indicate when relevant in the treatment box, details of the post-harvest treatment used or the use of the systems approach together with the set temperature used and the duration of the cold treatment applied in that systems approach. In case the cold treatment has been applied during transport, in addition to the phytosanitary certificate, records on the application of the treatment have been kept and made available upon request.

**Options (a) and (b)**

In practical terms, these are not viable options for citrus exported from Africa. Options (a) and (b) require pest free countries or areas, which are not generally feasible because of the widespread distribution of *T. leucotreta* in the countries covered by

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Sample Num.</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>105</td>
</tr>
<tr>
<td>300</td>
<td>117</td>
</tr>
<tr>
<td>400</td>
<td>124</td>
</tr>
<tr>
<td>500</td>
<td>129</td>
</tr>
<tr>
<td>600</td>
<td>132</td>
</tr>
<tr>
<td>700</td>
<td>134</td>
</tr>
<tr>
<td>800</td>
<td>136</td>
</tr>
<tr>
<td>900</td>
<td>137</td>
</tr>
<tr>
<td>1000</td>
<td>138</td>
</tr>
<tr>
<td>2000</td>
<td>143</td>
</tr>
</tbody>
</table>
Option (c)

This option requires a place of production designated as free from *T. leucotreta*. The place of production must be designated as pest free through a series of inspections by the NPPO, conducted strictly according to procedures specified in ISPM 10. Depending on the local circumstances, this could in theory be a possibility. However, in the case of an open plantation crop such as citrus in Africa, opportunities to use Option (c) for this pest will be limited, and so it is not discussed further in this guide.

Option (d)

This option requires citrus to be subjected to an effective treatment. The NPPO must submit a dossier to the European Commission describing in detail the “effective treatment” that will be applied to all citrus exports to ensure they are free from *T. leucotreta*.

The use of a single cold treatment post-harvest is the most commonly used control method for this pest in citrus. The cold treatment entails maintenance of temperatures below 0°C for 22 days, a treatment that is expensive, requires extensive pre-shipping cooling infrastructure, and can be detrimental to fruit quality (Moore et al., 2016). As an alternative, the Regulation also allows for the use of a systems approach. This means developing an action plan that combines several different pest management measures that, used together, will significantly reduce pest risk (see ISPM 14: FAO, 2017). These measures may include surveillance, cultural practices, crop treatment, post-harvest disinfection (including cold treatment), inspection, and others.

However, based on the new implementing regulation (EU) 2022/959 (point 62.1), it is now an obligation to use a cold treatment for fruits of *Citrus sinensis* Pers. The different options are mentioned here above.

Note that the NPPO must provide sufficient information in the dossier to enable DG SANTE to evaluate and approve the proposed systems approach. A guideline on the development and submission of a dossier for *T. leucotreta* is provided in Part 2 of this document.

Once the dossier is submitted, its acceptance or rejection by the European authorities should be checked on the EC webpage “Declarations under Commission Implementing Regulation (EU) 2019/2072”, which provides links to the current information provided by each country of origin and NPPO on the status of their pest dossiers and declarations. Exports can only take place once the dossier is officially accepted. Citrus exported to the EU must be accompanied by a phytosanitary certificate, and there are strict requirements on how this should be filled. Section 1.3 provides clear instructions on how to complete the phytosanitary certificate for each of these options.
Other quarantine pests

Under national plant health legislation, a number of plant pests and diseases are classified as quarantine organisms. These are pests that are mainly or entirely absent from a country, but which could have a potentially serious economic, environmental or social impact if they were to be introduced. Most countries have a quarantine list that identifies the most dangerous harmful organisms whose introduction must be prohibited.

The new EU Plant Health Regulation (EU) 2016/2031 classifies all plant pests according to the following four categories.

- Union quarantine pests: Not present at all in the EU territory or, if present, just locally and under official control. Strict measures must be taken to prevent their entry or further spread within the EU. Union Quarantine Pests are listed in Commission Implementing Regulation (EU) No 2019/2072 of 28 November 2019.
- Protected zone quarantine pests: Present in most parts of the EU, but still known to be absent in certain “protected zones”. These pests are not allowed to enter and spread within these protected zones.
- Regulated non-quarantine pests: Widely present in the EU territory, but since they have an important impact consignments should be guaranteed free or almost free from the pest.
- Priority pests: Those with the most severe impact on the economy, environment and/or society. The EC released a list of 20 priority pests in October 2019 (Regulation EU 2019/1702).

Citrus black spot (P. citricarpa), some species of fruit fly (non-European Tephritidae) and false codling moth (T. leucotreta), are listed as priority pests, and consequently are subject to the very strict measures outlined in this document.

There are other priority pests of citrus, but they are found only on plants and foliage, not on the fruit. Examples include citrus variegated chlorosis (Xylella fastidiosa), citrus greening disease (“Candidatus Liberibacter”), and the citrus long-horned beetle (Anoplophora chinensis). The other pests included in this document are Union quarantine pests, which are also subject to statutory controls.

It is important to note that this document is not exhaustive. There are other Union quarantine pests that concern citrus, and whose introduction into the EU is banned. For example the citrus chlorotic spot virus recently established as an EU quarantine pest and citrus scab (Elsinoë fawcettii and Elsinoë australis), which is distributed worldwide and is an EU quarantine pest found on a wide variety of citrus species. In 2019 there were 15 interceptions of citrus fruit due to this disease (Europhyt, 2020). It is essential to monitor and avoid the presence of citrus scab and all other harmful organisms in export crops to avoid consignments being intercepted and detained.
1.3. COMPLETING THE PHYTOSANITARY CERTIFICATE

All plants and plant products imported into the European Union from non-EU countries are subject to compulsory plant health checks. These include:

- a review of the phytosanitary certificate and associated documents to ensure that the consignment meets EU requirements
- an identity check to make sure that the consignment corresponds with the certificate
- an inspection of the produce to ensure that it is free from harmful organisms.

According to Regulation (EC) 2019/2072, a phytosanitary certificate (as referred to in Article 71 of Regulation (EU) 2016/2031) must accompany all citrus fruit exported to the EU, and there are strict requirements on how this should be filled. It is important to note that:

- The phytosanitary certificate must include information on all regulated pests of concern for the exported product. The regulated pests for each relevant citrus species are shown in Table 1, and all of those listed must be included.
- The information to be provided varies between pests, citrus species, and the management options selected.
Table 1. EU quarantine pests and diseases for plants in the citrus family (regulated pests/diseases are marked X, indicating that there are specific requirements for exports to the EU)

<table>
<thead>
<tr>
<th>CROP</th>
<th>PESTS/PATHOGENS</th>
<th>Xanthomonas citri pv. aurantifolii and X. citri pv. citri</th>
<th>Pseudo-cercospora angolensis</th>
<th>Phyllosticta citricarpa</th>
<th>Tephritidae</th>
<th>Thaumatotibia leucotreta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus</td>
<td>Citrus canker</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X (other than Citrus aurantiifolia (Christm.) Swingle and Citrus limon (L.) Osbeck)</td>
</tr>
<tr>
<td>Citrus</td>
<td>Citrus fruit and leaf spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Fortunella</td>
<td>Citrus fruit and leaf spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Poncirus (trifoliate orange)</td>
<td>Citrus black spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Microcitrus</td>
<td>Citrus black spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Naringi</td>
<td>Citrus black spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Swinglea (Key lime)</td>
<td>Citrus black spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Citrus aurantium (bitter orange)</td>
<td>Citrus black spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Citrus latifolia (Persian lime)</td>
<td>Citrus black spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Citrus hybrids (other than fruits of Citrus aurantium L. and Citrus latifolia Tanaka)</td>
<td>Citrus black spot</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

It is critically important to complete the certificate correctly as there is a low tolerance of mistakes by European importing countries. COLEACP has received information that consignments entering Europe from African countries in early 2020 have been rejected and destroyed because the phytosanitary certificate was filled incorrectly.

The EC has provided clear advice on what information must be given in the “Additional Declaration” section of the phytosanitary certificate, and the wording that
must be used. The guidance below from COLEACP is based on this advice from the Commission.

As a general rule, it is advisable to write the reference number of the regulation concerned, and to copy/paste the exact text for the option selected, as it is written in the regulation. This will avoid any possible mistakes or omissions, even if it appears cumbersome.

We can also advise to use the TRACES NT³ system for export to facilitate the certification process. The use of this electronic system reduces the risk of errors as you are automatically presented with option proposals for exported products from a specific origin.

According to ISPM 12 on phytosanitary certificates, if the space provided in the phytosanitary certificate is not sufficient to insert all the necessary information (e.g. in the Additional Declaration), it is permitted to add an attachment. If you do so, it is very important to ensure the following:

- Each page of any attachment must bear the number of the phytosanitary certificate and be dated, signed and stamped in the same manner as required for the phytosanitary certificate itself. The same person must sign both the certificate and the annexes.
- You must state in the relevant section of the phytosanitary certificate if there is an attachment.
- If an attachment has more than one page, the pages must be numbered, and the number of pages indicated on the phytosanitary certificate.

The information to be provided on the phytosanitary certificate varies between pests, and depending on which management option is selected. The following section gives guidance for the main pests addressed in the EU regulations.

³ https://ec.europa.eu/food/animals/traces_en#about-traces
Table 2 provides an example agreed by the EC for an Additional Declaration for citrus.\(^4\)

<table>
<thead>
<tr>
<th>POINT</th>
<th>PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</th>
<th>SPECIAL REQUIREMENTS ACCORDING TO ANNEX VII</th>
<th>TEXT TO BE INSERTED UNDER THE HEADING “ADDITIONAL DECLARATION”</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>Fruits of <em>Citrus</em> L., <em>Fortunella</em> Swingle, <em>Poncirus</em> Raf., <em>Microcitrus</em> Swingle, <em>Naringi</em> Adans., <em>Swinglea</em> Merr., and their hybrids</td>
<td>(a) the fruits originate in a country recognised as being free of <em>Xanthomonas citri pv. aurantifoli</em> (Schaad et al.) Constantin et al. and <em>Xanthomonas citri pv. citri</em> (Hasse) Constantin et al. in accordance with the relevant International Standards for Phytosanitary Measures, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned</td>
<td>58(a) [NAME OF COUNTRY] is free of <em>Xanthomonas citri pv. aurantifoli</em> and/or <em>Xanthomonas citri pv. citri</em>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) the fruits originate in an area established by the national plant protection organisation in the country of origin as being free from <em>Xanthomonas citri pv. aurantifoli</em> (Schaad et al.) Constantin et al. and <em>Xanthomonas citri pv. citri</em> (Hasse) Constantin et al. in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”, and this freedom status has been communicated in advance in writing to the Commission by</td>
<td>58(b) the fruits originate in an area [NAME OF AREA] established as free from <em>Xanthomonas citri pv. aurantifoli</em> and/or <em>Xanthomonas citri pv. citri</em>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NB. The name of the pest free area can also be included in the box</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POINT</th>
<th>PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>the national plant protection organisation of the third country concerned,</td>
<td>‘PLACE OF ORIGIN’</td>
</tr>
<tr>
<td>(c)</td>
<td></td>
<td>the fruits originate in a place of production established by the national plant protection organisation in the country of origin as being free from <em>Xanthomonas citri</em> pv. <em>aurantifolii</em> (Schaad <em>et al</em>.) Constantin <em>et al</em> and <em>Xanthomonas citri</em> pv. <em>citri</em> (Hasse) Constantin <em>et al</em> in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”,</td>
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<td>(d)</td>
<td></td>
<td>the site of production and the immediate vicinity are subject to appropriate treatments and cultural practices against <em>Xanthomonas citri</em> pv. <em>aurantifolii</em> (Schaad <em>et al</em>.) Constantin <em>et al</em> and <em>Xanthomonas citri</em> pv. <em>citri</em> (Hasse) Constantin <em>et al</em>., and the fruits have been subjected to a treatment with sodium orthophenylphenate, or another effective treatment mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, and the treatment method has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned, and official inspections carried out at appropriate times prior to export have shown that the fruits are free from symptoms of <em>Xanthomonas citri</em> pv. <em>aurantifolii</em> (Schaad <em>et al</em>.) Constantin <em>et al</em> and <em>Xanthomonas citri</em> pv. <em>citri</em> (Hasse) Constantin <em>et al</em>.,</td>
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<td></td>
<td></td>
<td>58(d) the site of production and the immediate vicinity have been subject to appropriate treatments and cultural practices against <em>Xanthomonas citri</em> pv. <em>aurantifolii</em> and/or <em>Xanthomonas citri</em> pv. <em>citri</em>, and the fruits have been subjected to a treatment [NAME OF TREATMENT] and official inspections carried out at appropriate times prior to export have shown that the fruits are free from symptoms of <em>Xanthomonas citri</em> pv. <em>aurantifolii</em> and/or <em>Xanthomonas citri</em> pv. <em>citri</em>.</td>
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<td>Traceability information: [INCLUDE HERE]</td>
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<td><em>N.B.</em></td>
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<td></td>
<td>The name of the post-harvest treatment can also be mentioned under the respective box of the PC.</td>
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<td>POINT</td>
<td>PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</td>
<td>SPECIAL REQUIREMENTS ACCORDING TO ANNEX VII</td>
<td>TEXT TO BE INSERTED UNDER THE HEADING “ADDITIONAL DECLARATION”</td>
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<td>and</td>
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<td>Traceability information can also be put together with the description of the commodity</td>
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<td></td>
<td>information on traceability is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031,</td>
<td></td>
<td>58(e) FRUITS DESTINED FOR INDUSTRIAL PROCESSING: inspections prior to export have shown that the fruits are free from symptoms of Xanthomonas citri pv. aurantifolii and/or Xanthomonas citri pv. citri, and the site of production and the immediate vicinity have been subject to appropriate treatments and cultural practices against Xanthomonas citri pv. aurantifolii and/or Xanthomonas citri pv. citri. Traceability information: [INCLUDE HERE] N.B. Traceability information can also be put together with the description of the commodity</td>
</tr>
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<td></td>
<td>in the case of fruits destined for industrial processing, official inspections prior to export have shown that the fruits are free from symptoms of Xanthomonas citri pv. aurantifolii (Schaad et al) Constantin et al. and Xanthomonas citri pv. citri (Hasse) Constantin et al., and the site of production and the immediate vicinity are subject to appropriate treatments and cultural practices against Xanthomonas citri pv. aurantifolii (Schaad et al) Constantin et al. and Xanthomonas citri pv. citri (Hasse) Constantin et al., and movement, storage and processing takes place under conditions, approved in accordance with the procedure referred to in Article 107 of Regulation (EU) No 2016/2031, and the fruits have been transported in individual packages bearing a label, which contains a traceability code and the indication that the fruits are destined for industrial processing and information on traceability is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031.</td>
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<tr>
<td>59(a)</td>
<td>Fruits of Citrus</td>
<td>the fruits originate in a country recognised as being free from</td>
<td>59(a) [NAME OF COUNTRY] is free from Pseudocercospora angolensis.</td>
</tr>
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<td>POINT</td>
<td>PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</td>
<td>SPECIAL REQUIREMENTS ACCORDING TO ANNEX VII</td>
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|       | L., *Fortunella Swingle*, *Poncirus* Raf., and their hybrids | *Pseudocercospora angolensis* (T. Carvalho & O. Mendes) Crous & U. Braun in accordance with the relevant International Standards for Phytosanitary Measures, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned. | 59(b) the fruits originate in an area [NAME OF AREA] recognised as free from *Pseudocercospora angolensis*.  

**NB.** The name of the pest free area can also be included in the box ‘PLACE OF ORIGIN’ |
<p>|       | (b) | the fruits originate in an area recognised as being free from <em>Pseudocercospora angolensis</em> (T. Carvalho &amp; O. Mendes) Crous &amp; U. Braun, in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned. | |
|       | (c) | no symptoms of <em>Pseudocercospora angolensis</em> (T. Carvalho &amp; O. Mendes) Crous &amp; U. Braun have been observed in the site of production and in its immediate vicinity since the beginning of the last cycle of vegetation, and none of the fruits harvested in the site of production has shown, in appropriate official examination, symptoms of this pest. | 59(c) no symptoms of <em>Pseudocercospora angolensis</em> have been observed in the site of production and in its immediate vicinity since the beginning of the last cycle of vegetation, and none of the fruits harvested in the site of production has shown, in appropriate official examination, symptoms of this pest. |
| 60(a) | Fruits of <em>Citrus</em> L., <em>Fortunella Swingle</em>, <em>Poncirus</em> Raf., and their hybrids, other | the fruits originate in a country recognised as free from <em>Phyllosticta citricarpa</em> (McAlpine) Van der Aa, in accordance with the relevant International Standards for Phytosanitary Measures, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned, | 60(a) [NAME OF COUNTRY] is free from <em>Phyllosticta citricarpa</em>. |</p>
<table>
<thead>
<tr>
<th>POINT</th>
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<tbody>
<tr>
<td>(b)</td>
<td>than fruits of <em>Citrus aurantium</em> L. and <em>Citrus latifolia</em> Tanaka</td>
<td>the fruits originate in an area established by the national plant protection organisation in the country of origin as being free from <em>Phyllosticta citricarpa</em> (McAlpine) Van der Aa in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned,</td>
<td>60(b) the fruits originate in an area [NAME OF AREA] established as free from <em>Phyllosticta citricarpa</em></td>
</tr>
<tr>
<td>(c)</td>
<td>the fruits originate in a place of production established by the national plant protection organisation in the country of origin as being free from <em>Phyllosticta citricarpa</em> (McAlpine) Van der Aa in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional declaration”, and the fruits are found free of symptoms of <em>Phyllosticta citricarpa</em> (McAlpine) Van der Aa by official inspection of a representative sample, defined in accordance with international standards,</td>
<td>60(c) the fruits originate in a place of production established as free from <em>Phyllosticta citricarpa</em> and the fruits are found free of symptoms of <em>Phyllosticta citricarpa</em> by official inspection of a representative sample, defined in accordance with international standards</td>
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NB. The name of the pest free area can also be included in the box ‘PLACE OF ORIGIN’.
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<td></td>
<td>(d) the fruits originate in a site of production subjected to appropriate treatments and cultural measures against <em>Phyllosticta citricarpa</em> (McAlpine) van der Aa, and official inspections have been carried out in the site of production during the growing season since the beginning of the last cycle of vegetation, and no symptoms of <em>Phyllosticta citricarpa</em> (McAlpine) van der Aa have been detected in the fruits, and the harvested fruits from that site of production are found free of symptoms of <em>Phyllosticta citricarpa</em> Van der Aa during an official inspection prior to export, of a representative sample, defined in accordance with international standards and information on traceability is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031,</td>
<td>60(d) the fruits originate in a site of production subjected to appropriate treatments and cultural measures against <em>Phyllosticta citricarpa</em> and official inspections have been carried out in the site of production during the growing season since the beginning of the last cycle of vegetation, and no symptoms of <em>Phyllosticta citricarpa</em> have been detected in the fruits, and the harvested fruits from that site of production have been found free of symptoms of <em>Phyllosticta citricarpa</em> during an official inspection prior to export, of a representative sample, defined in accordance with international standards. Traceability information: [INCLUDE HERE]</td>
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<td></td>
<td>(e) in the case of fruits destined for industrial processing, the fruits have been found free of symptoms of <em>Phyllosticta citricarpa</em> (McAlpine) Van der Aa prior to the export during an official inspection of a representative sample, defined in accordance with international standards, and a statement that the fruits originate in a site of production subjected to appropriate treatments against <em>Phyllosticta</em></td>
<td>60(e) FRUITS DESTINED FOR INDUSTRIAL PROCESSING - the fruits have been found free of symptoms of <em>Phyllosticta citricarpa</em> prior to the export during an official inspection of a representative sample, defined in accordance with international standards, and the fruits originate in a site of production subjected to appropriate treatments against <em>Phyllosticta citricarpa</em> carried out at the appropriate time of the year</td>
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<tr>
<td>61</td>
<td>Fruits of <strong>Citrus</strong> L., <em>Fortunella</em> Swingle, <em>Poncirus</em> Raf., and their hybrids, <em>Mangifera</em> L. and <em>Prunus</em> L.</td>
<td><em>citricarpa</em> (McAlpine) Van der Aa carried out at the appropriate time of the year to detect the presence of the pest concerned is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031, under the rubric “Additional Declaration”, and movement, storage and processing takes place under conditions, approved in accordance with the procedure referred to in Article 107 of Regulation (EU) No 2016/2031, and the fruits have been transported in individual packages bearing a label, which contains a traceability code and the indication that the fruits are destined for industrial processing and information on traceability is included in the phytosanitary certificate referred to in Article 71 of Regulation (EU) No 2016/2031</td>
<td>Traceability information: [INCLUDE HERE] N.B. Traceability information can also be put together with the description of the commodity)</td>
</tr>
<tr>
<td></td>
<td>(a) the fruits originate in a country recognised as free from <strong>Tephritidae</strong> as referred to in Point 77 of Table 3, Part A of Annex II, to which those fruits are known to be susceptible, in accordance with the relevant International Standards for Phytosanitary Measures, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned,</td>
<td>61(a) [NAME OF COUNTRY] is free from <strong>Tephritidae</strong>, to which those fruits are known to be susceptible</td>
<td></td>
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<td></td>
<td>(b) the fruits originate in an area established by the national plant protection organisation in the country of origin as</td>
<td>61(b) the fruits originate in an area [NAME OF AREA] established as free from <strong>Tephritidae</strong>, to which those fruits are known to be susceptible</td>
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<td>POINT</td>
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<td>being free from <em>Tephritidae</em> as referred to in Point 77 of Table 3, Part A of Annex II, to which those fruits are known to be susceptible, in accordance with the relevant International Standards for Phytosanitary Measures, which is mentioned on the phytosanitary certificate, and this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned.</td>
<td></td>
<td>NB. The name of the pest free area can also be included in the box ‘PLACE OF ORIGIN’</td>
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<tr>
<td>(c)</td>
<td>no signs of Tephritidae as referred to in Point 77 of Table 3, Part A of Annex II, to which those fruits are known to be susceptible, have been observed at the place of production and in its immediate vicinity since the beginning of the last complete cycle of vegetation, on official inspections carried out at least monthly during the three months prior to harvesting, and none of the fruits harvested at the place of production has shown, in appropriate official examinations, signs of the relevant pest (ISPM 10) and information on traceability is included in the phytosanitary certificate.</td>
<td>61(c). no signs of <em>Tephritidae</em> as referred to in Point 77 of Table 3, Part A of Annex II, to which those fruits are known to be susceptible, have been observed at the place of production and in its immediate vicinity since the beginning of the last complete cycle of vegetation, on official inspections carried out at least monthly during the three months prior to harvesting, and none of the fruits harvested at the place of production has shown, in appropriate official examinations, signs of the relevant pest (ISPM 10) and information on traceability is included in the phytosanitary certificate. Traceability information: [INCLUDE HERE]</td>
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<td><strong>NB. Traceability information can also be put together with the description of the commodity</strong></td>
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<td>61(d)</td>
<td>have been subjected to an effective systems approach or an effective post-harvest treatment to ensure freedom from <em>Tephritidae</em> as referred to in Point 77 of Table 3, Part A of Annex II, to which those fruits are known to be susceptible, and the use of a systems approach or details of the treatment method are indicated on the phytosanitary certificate, provided that the systems approach or treatment method have been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned.</td>
<td>61(d) the fruits have been subjected to [an effective systems approach]/[an effective post-harvest treatment - NAME OF TREATMENT] to ensure freedom from <em>Tephritidae</em> (non-European), to which those fruits are known to be susceptible.</td>
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<tr>
<td>62</td>
<td>Fruits of <em>Capsicum</em> (L.), <em>Citrus</em> L., other than <em>Citrus limon</em> (L.) Osbeck and <em>Citrus aurantiifolia</em> (Christm.) Swingle and <em>Citrus sinensis</em> Pers., <em>Prunus persica</em> (L.) Batsch and <em>Punica granatum</em> L.</td>
<td>(a) the fruits originate in a country recognised as being free from <em>Thaumatotibia leucotreta</em> (Meyrick) in accordance with the relevant International Standards for Phytosanitary Measures, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin.</td>
<td>62(a) [NAME OF COUNTRY] is free from <em>Thaumatotibia leucotreta</em></td>
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<td></td>
<td>(b) the fruits originate in an area established by the national plant protection organisation in the country of origin as being free from <em>Thaumatotibia leucotreta</em> (Meyrick), in accordance with the International Standard for Phytosanitary Measures ISPM 4(*). The pest free area is mentioned on the phytosanitary certificate, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin.</td>
<td>62(b) the fruits originate in an area [NAME OF AREA] established as free from <em>Thaumatotibia leucotreta</em></td>
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<td></td>
<td>(c) the fruits originate in a place of production established by the national plant protection organisation.</td>
<td>62(c) the fruits originate in a place of production established by the national plant protection organisation.</td>
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N.B. the name of the post-harvest treatment can also be mentioned under the respective box of the PC.
national plant protection organisation in the country of origin as being free from *Thaumatotibia leucotreta* (Meyrick) in accordance with the International Standard for Phytosanitary Measures ISPM 10(**), and which is included in the list of place of production codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin,

and

(ii) have been subjected to official inspections carried out in the place of production at appropriate times during the growing season and prior to export, including a visual examination with an intensity to enable at least the detection of a 2% level of infestation, with a level of confidence of 95% in accordance with the International Standard for Phytosanitary Measures ISPM 31 (***) and including destructive sampling in case of symptoms, and have been found to be free from *Thaumatotibia leucotreta* (Meyrick),

and

(iii) are accompanied by a phytosanitary certificate that indicates the place of production codes.

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(d) (i) have been produced in an approved site of production, which is included in the list of production site codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin,

and

(ii) have been subjected to an effective systems approach to ensure freedom from *Thaumatotibia leucotreta* (Meyrick), in accordance with the International Standards for an effective stand-alone post-harvest treatment to ensure freedom from pests; provided that the respective systems approach used or the post-harvest treatment has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and

(iii) have been subjected to an effective systems approach to ensure freedom from *Thaumatotibia leucotreta* (Meyrick), in accordance with the International Standards for an effective stand-alone post-harvest treatment to ensure freedom from pests; provided that the respective systems approach used or the post-harvest treatment has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and

(iii) are accompanied by a phytosanitary certificate that indicates the place of production codes.

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Traceability information: [INCLUDE HERE]

N.B. Traceability information can also be put together with the description of the commodity.

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62(d) the fruits
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<td>(ii) have been subjected to an effective systems approach to ensure freedom from <em>Thaumatotibia leucotreta</em> (Meyrick), in accordance with the International Standards for Phytosanitary Measures ISPM 14(***)), or an effective stand-alone post-harvest treatment to ensure freedom from <em>Thaumatotibia leucotreta</em> (Meyrick), provided that the respective systems approach used or the post-harvest treatment, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin and that post-harvest treatment has been assessed by the European Food Safety Authority, and</td>
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<td>(iii) prior to export, have been subjected to official inspections for the presence of <em>Thaumatotibia leucotreta</em> (Meyrick), with an intensity to enable at least the detection of 2 % level of infestation, with a level of confidence of 95 % in accordance with the International Standard for Phytosanitary Measures ISPM 31 and including destructive sampling in case of symptoms, and</td>
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<td>(iv) are accompanied by a phytosanitary certificate that indicates the production site codes and mentions the details of the post-harvest treatment used, or the use of the systems approach. ’</td>
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<tr>
<td>62.1</td>
<td>Fruits of <em>Citrus sinensis</em> Pers.</td>
<td>(a) the fruits originate in a country recognised as being free from <em>Thaumatotibia leucotreta</em> (Meyrick) in accordance with the relevant International Standards for Phytosanitary Measures, provided that this freedom status has been communicated in</td>
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N.B. the name of the post-harvest treatment can also be mentioned under the respective box of the PC.

62(a) [NAME OF COUNTRY] is free from *Thaumatotibia leucotreta*.
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<td>advance in writing to the Commission by the national plant protection organisation of the country of origin,</td>
<td></td>
<td>62(b) the fruits originate in an area [NAME OF AREA] established as free from <em>Thaumatotibia leucotreta</em></td>
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<td></td>
<td>(b) the fruits originate in an area established by the national plant protection organisation in the country of origin as being free from <em>Thaumatotibia leucotreta</em> (Meyrick), in accordance with the International Standard for Phytosanitary Measures ISPM 4(*), The pest free area is mentioned on the phytosanitary certificate, provided that this freedom status has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin,</td>
<td></td>
<td>NB The name of the pest free area can also be included in the box ‘PLACE OF ORIGIN’</td>
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<td></td>
<td>(c) (i) originate in a place of production established by the national plant protection organisation in the country of origin as being free from <em>Thaumatotibia leucotreta</em> (Meyrick) in accordance with the International Standard for Phytosanitary Measures ISPM 10(**), and which is included in the list of place of production codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and</td>
<td></td>
<td>62(c) the fruits (i) originate in a place of production established by the national plant protection organisation in the country of origin as being free from <em>Thaumatotibia leucotreta</em> (Meyrick) in accordance with the International Standard for Phytosanitary Measures ISPM 10(**), and which is included in the list of place of production codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and</td>
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<td></td>
<td>(ii) have been subjected to official inspections carried out in the place of production at appropriate times during the growing season and prior to export, including a visual examination with an intensity to enable at least the detection of a 2 % level of infestation, with a level of confidence of 95 % in accordance with the International Standard for Phytosanitary Measures ISPM 31 (***) and including destructive sampling in case of symptoms, and found to be free from <em>Thaumatotibia leucotreta</em> (Meyrick),</td>
<td></td>
<td>(ii) have been subjected to official inspections carried out in the place of production at appropriate times during the growing season and prior to export, including a visual examination with an intensity to enable at least the detection of a 2 % level of infestation, with a level of confidence of 95 % in accordance with the International Standard for Phytosanitary Measures ISPM 31 (***) and including destructive sampling in case of symptoms, and found to be free from <em>Thaumatotibia leucotreta</em> (Meyrick), and</td>
</tr>
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<td>POINT</td>
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<td>(a)</td>
<td>43 POINT PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</td>
<td>and (iii) are accompanied by a phytosanitary certificate that indicates the place of production codes.</td>
<td>(iii) are accompanied by a phytosanitary certificate that indicates the place of production codes.</td>
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<tr>
<td>(b)</td>
<td>43 POINT PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</td>
<td>Traceability information: [INCLUDE HERE]</td>
<td>N.B. Traceability information can also be put together with the description of the commodity.</td>
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<tr>
<td>(c)</td>
<td>43 POINT PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</td>
<td>62(d) the fruits (i) have been produced in an approved site of production, which is included in the list of production site codes that has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and (ii) have been subjected to: — an effective systems approach, which includes a cold treatment of 0 °C to – 1 °C for at least 16 days, in accordance with the relevant International Standards for Phytosanitary Measures ISPM 14(*****) and ISPM 42(****), provided that the cold treatment has been documented and checked for each consignment by the exporting third country and the systems approach, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin.</td>
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<td>POINT</td>
<td>PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</td>
<td>SPECIAL REQUIREMENTS ACCORDING TO ANNEX VII</td>
<td>TEXT TO BE INSERTED UNDER THE HEADING “ADDITIONAL DECLARATION”</td>
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<td>or</td>
<td>an effective systems approach in accordance with the International Standard for Phytosanitary Measures ISPM 14(****), which includes a precooling step of the pulp of the fruit to the temperature of the cold treatment applied, followed by that cold treatment for at least 20 days at a set temperature between –1 °C and +2 °C, provided that the precooling step and the cold treatment have been documented and checked for each consignment by the exporting third country, and provided that the systems approach, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, or</td>
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<td>or</td>
<td>an effective stand-alone post-harvest treatment to ensure freedom from <em>Thaumatotibia leucotreta</em> (Meyrick), provided that that post-harvest treatment, together with documentary evidence of its effectiveness has been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin and has been assessed by the European Food Safety Authority, or</td>
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<td>or</td>
<td>until 31 December 2022, an effective systems approach in accordance with the International Standard for Phytosanitary Measures ISPM 14(****), which includes a precooling step of the pulp of the fruit to 5 °C, followed by a cold treatment for at least 25 days at a set temperature between –1 °C and +2 °C, provided that the precooling step and the cold treatment have been documented and checked for each consignment by the exporting third country, and provided that the systems approach, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, or</td>
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<td>POINT</td>
<td>PLANTS, PLANT PRODUCTS AND OTHER OBJECTS</td>
<td>SPECIAL REQUIREMENTS ACCORDING TO ANNEX VII</td>
<td>TEXT TO BE INSERTED UNDER THE HEADING “ADDITIONAL DECLARATION”</td>
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<td>documented and checked for each consignment by the exporting third country, and provided that the systems approach, together with documentary evidence of its effectiveness, have been communicated in advance in writing to the Commission by the national plant protection organisation of the country of origin, and (iii) prior to export have been subjected to official inspections for the presence of <em>Thaumatochloia leucotreta</em> (Meyrick), with an intensity to enable at least the detection of a 2% level of infestation, with a level of confidence of 95% in accordance with the International Standard for Phytosanitary Measures ISPM 31 (&quot;&quot;”) and including destructive sampling in case of symptoms, and (iv) are accompanied by a phytosanitary certificate that indicates the production site codes, mentions details of the post-harvest treatment used or the use of the systems approach together with the set temperature used and the duration of the cold treatment applied in that systems approach, and (v) in case the cold treatment has been applied during transport, in addition to the phytosanitary certificate, records on the application of the treatment have been kept and made available upon request.</td>
<td>of origin.</td>
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</tbody>
</table>

*N.B. the name of the post-harvest treatment can also be mentioned under the respective box of the PC.*
1.4. PEST FREE STATUS

International Standards for Phytosanitary Measures (ISPMs) describe what needs to be done in order for an area, country, place of production or production site to be officially recognised as pest free. In each case the process must be led by the officially designated NPPO in each country, and the NPPO must follow closely the methodology outlined in the ISPMs.

Establishing pest free area (PFA) status requires data to be collected so that the presence or absence of the pest can be verified. Establishing pest free status needs to follow strictly the guidelines described in the relevant ISPM, and requires the NPPO (and their designated agents) to have the necessary training, resources and capabilities in data collection and pest risk analysis.

Pest free areas and countries

Pest free area or country status would be difficult to obtain in the case of Tephritidae (non-European) and *Thaumatotibia leucotreta* as these pests are highly mobile and widely dispersed. This option would only be worth pursuing in areas that are geographically distinct or isolated from the main areas of pest distribution. Establishing and maintaining an area of low pest prevalence may be a possibility (where the capacity and resources are available nationally), and can be part of the systems approach.

- **Pest- or disease-free area:** An area in which a specific pest or disease does not occur. This can be an entire country; an uninfested part of a country in which a limited area is infested; or an uninfested part of a country within a generally infested area.

- **An area of low pest or disease prevalence:** 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 or disease occurs at low levels and is subject to effective surveillance, control or eradication measures.

There are three main stages to establish and maintain a pest free area:

- systems to establish freedom;
- phytosanitary measures to maintain freedom;
- checks to verify freedom has been maintained.

The work needed in each case varies according to factors such as the biology of the pest, the characteristics of the PFA, and the level of phytosanitary security required.
The work involved in establishing and maintaining pest free area/country status is detailed and time consuming, and involves:

- data collection (pest surveys for delimiting, detection, monitoring);
- regulatory controls (protective measures against the introduction into the country, including listing as a quarantine pests);
- audits (reviews and evaluation);
- documentation (reports, work plans).

The International Standards for Phytosanitary Measures (ISPMs) and other guides developed by the International Plant Protection Convention (IPPC) provide further information:

- ISPM 4 Requirements for the establishment of pest free areas
- Guide for establishing and maintaining pest free areas on the requirements for pest free areas, pest free places of production, pest free production sites, and areas of low pest prevalence
- ISPM 6 Surveillance and ISPM 2 Guidelines for pest risk analysis provide details on general surveillance and specific survey requirements
- ISPM 10 Requirements for the establishment of pest free places of production and pest free production sites
- ISPM 31 Methodologies for sampling of consignments

**Pest free place of production and production site**

**Pest free place of production:**

Place of production in which a pest is absent (demonstrated by scientific evidence) and generally maintained officially pest free for a defined period.

A place of production is “any premises or collection of fields operated as a single production or farming unit”.

**Pest free production site:**

Place of production in which a pest is absent (demonstrated by scientific evidence) and generally maintained officially pest free for a defined period.

A production site is “a defined part of a place of production, that is managed as a separate unit for phytosanitary purposes”.

Directives covering regulated pests allow countries to export if products have been produced in a “pest free place of production”. A place of production can only be designated as pest free by the NPPO. The NPPO and producers/exporters are required to conduct surveillance and inspections according to the international guidelines.
2.1. THE ACTION PLAN

This section has been prepared by COLEACP to provide examples for national authorities and citrus sector operators to help orient the development of dossiers in the context of Implementing Regulation (EU) 2019/2072. It provides a guide to the process and outlines the various elements that can be incorporated into a systems approach to manage fruit fly and/or false codling moth (FCM). It identifies the information to be provided, and actions to be taken, at all stages from production to export, by both public and private sectors.

Note that the elements included here are not exhaustive. The national citrus dossier could include all or a selection of these measures, as well as any others that may be available and appropriate locally.

This guide covers the following sections that should be included in the dossier:

- General information on the national citrus sector
- Phytosanitary measures taken before, during and after harvest to prevent and control fruit fly/FCM
- Phytosanitary inspection and certification system
- Quality management system put in place by the NPPO to ensure that the national citrus pest management dossier is effectively implemented and monitored

**Effective engagement between stakeholders**

Experience has shown that engagement between public and private sector stakeholders is essential during development of the dossier to ensure that it is adapted to the local context, and to secure the buy-in of all involved. After a dossier has been submitted to the European Commission, it must be rigorously followed by all stakeholders in that country who are involved in citrus exports to the EU. It is very important therefore that the dossier is appropriate for the context, and is appropriate for the range of different producers and exporters concerned (large and small).
According to ISPM 14, the characteristics of a systems approach are as follows:

- A systems approach requires two or more measures that are independent of each other, and may include any number of measures. An advantage of the systems approach is the ability to address (local) variability and uncertainty by modifying the number and strength of measures (needed) to meet phytosanitary import requirements.

- Measures used in a systems approach may be applied pre- and/or post-harvest wherever NPPOs have the ability to oversee and ensure compliance with phytosanitary procedures.

- A systems approach may include measures applied in the place of production, during the post-harvest period, at the packing house, or during shipment and distribution of the commodity.

- Risk management measures designed to prevent contamination or re-infestation are generally included (e.g. maintaining the integrity of lots, pest-proof packaging, screening of packing areas).

- Procedures such as pest surveillance, trapping and sampling can also be components of a systems approach.

- Measures that do not kill pests or reduce their prevalence, but reduce their potential for entry or establishment (safeguards), can be included in a systems approach. Examples include designated harvest or shipping periods; restrictions on the maturity, colour, hardness or other condition of the commodity; use of resistant hosts; and limited distribution or restricted use at the destination.
2.2. WHAT TO INCLUDE IN THE NATIONAL ACTION PLAN

2.2.1. Overview of the national citrus export sector

According to ISPM 14, the following information is important for the evaluation of pest risk:

- The crop, place of production, expected volume and frequency of shipments.
- Production, harvesting, packaging/handling and transportation.
- The crop/pest dynamics.
- Plant health risk management measures that will be included in the systems approach, and relevant data on their efficacy.
- Relevant references.

Information on the national sector

Crop details:

- citrus species and varieties grown for export (scientific names and common names);
- characteristics of each species and variety;
- sensitivity or resistance to fruit fly/FCM;
- production zones:
  - describe and map the main production zones of citrus for export
  - describe the production seasons (timeframe), by zone
  - describe the climate in each production zone, assessed according to risk of pest infestation.

Production and export statistics for the past 2 to 3 years, specifying if possible:

- destination country;
- method of shipment (sea, air, land);

Presence and distribution of fruit fly/FCM in the country:

- geographical distribution and prevalence;
- period of infestation;
- other host plants in citrus production areas.
2.2.2. Integrated pre- and post-harvest measures to prevent and control fruit fly/FCM

According to ISPM 14, the following pre- and post-harvest measures may be integrated into a systems approach:

- surveillance and monitoring (traps)
- treatment, including the use of plant protection products
- post-harvest disinfestation (e.g. cold treatment);
- inspection
- others.

Combined into an integrated management system, these measures will reduce the risk of any capsicum exported to the EU being infested with FCM.

Measures at plantation level to monitor and control fruit fly/FCM

**Pre-harvest**

Growers producing for export to the EU should:

- **Apply good crop hygiene.**
  
  Good field management and crop hygiene are critical to eliminate FAW adults and larvae in fallen fruit, and to remove injured fruit. In all production sites, growers must:
  
  - remove all damaged and injured fruit, including fruit on the plants or on the ground;
  - remove all dead or dying plants;
  - destroy all crops and crop waste as soon as possible after harvest.

- **Conduct surveillance and monitoring.**
  
  Surveillance is a major component of the integrated management of fruit fly/FCM.

  - All production sites growing citrus for export should undertake monitoring on a daily basis using traps with pheromones specific to fruit fly/FCM. The national authorities should be able to specify the type of trap and attractant to use under local conditions (according to availability and effectiveness), as well as the frequency of collection.
The authorities should agree with industry the thresholds of intervention, for example what number of trapped fruit fly/FCM will trigger a decision to spray, or to stop harvesting for export. As the level of tolerance to fruit fly/FCM in export citrus is zero, the sector should agree to take action as soon as the first specimen is caught.

- **Agree the procedure to be followed by companies when there is a fruit fly/FCM alert**
  Strict procedures should be maintained until the pest is under control and citrus crops are certified free of fruit fly/FCM by the NPPO. These could include:
  - quarantine all harvest from the infested site and initiate a product recall of fruit recently harvested in the vicinity;
  - implement an eradication programme;
  - apply cultural and chemical control;
  - adhere to biosafety measures on the farm to eliminate pest transfer.

- **Implement cultural control of fruit fly/FCM to reduce incidence**
  Cultural control measures include, for example:
  - rotate crops susceptible to fruit fly/FCM with non-susceptible or low risk crops;
  - plough before transplanting during the dry season;
  - keep land free of citrus plants and other susceptible crops for at least four months every year to break the fruit fly/FCM cycle and remove egg laying sites for new generations;
  - produce citrus away from other host crops.

- **Control fruit fly/FCM using plant protection products.**
  The national authorities should provide guidance on which products to use, and how to use them (including application method, dose rate, pre-harvest interval). These must be in accordance with the registration status in the country of origin, and the maximum residue level (MRL) of the active ingredient in the EU.

- **Receive up-to-date training.**
  Growers and workers must be trained (and updated) in good practice relating to the identification, prevention, surveillance and control of fruit fly/FCM.
**During harvest**

Growers producing capsicum for export to the EU should:

- Ensure that procedures are in place during harvest for sorting, isolating and disposing of all damaged fruit;
- Ensure that handling and transport conditions are managed carefully to reduce the risk of fruit fly/FCM gaining access to harvested fruit;
- Operate a traceability system that allows for the identification of plantations, and strict separation of harvest lots;
- Ensure that all people involved in harvesting are trained so that they are aware of and apply good practices to reduce the risk of fruit fly/FCM attack; this includes good practice for prevention, control, crop hygiene, and traceability.

**Measures at the packhouse to prevent introduction, infestation and spread of fruit fly/FCM**

On receiving the fruit, packhouse managers must:

- Procedures in place to record the condition and phytosanitary status (pest presence) of the citrus when it arrives at the packhouse;
- A system in place to record all fruit fly/FCM control treatments applied pre- and post-harvest to each lot;
- A traceability system in place to ensure that each lot is identified and maintained separately through all post-harvest operations.

**Measures post-harvest to monitor and control fruit fly/FCM**

- Ensure that all operators involved in harvest and post-harvest activities can recognise fruit fly/FCM damage, and know what to do when they find it.
- Have procedures in place in the field and packhouse to inspect for fruit fly/FCM presence and damage at all citrus handling, packing and storage sites. This involves visual checks, and slicing fruits open to check for fruit fly/FCM larvae. Slicing a minimum of two fruit from every 100 fruit is recommended.
- When fruit fly/FCM-infested fruit is identified, initiate the fruit fly/FCM alert system and put intervention and isolation procedures in place.
- Maintain a system to keep records of packhouse inspections.
- Ensure practices and facilities are in place for the management of all citrus waste, including pest-damaged fruit.
- Use refrigerated storage facilities where possible.
Apply post-harvest treatments when necessary, using plant protection products or cold treatment:

- as in the case of field applications, the national authorities should be able to provide guidance on which products to use and how to use them (e.g. application method, dose rate, pre-harvest interval);
- these must be in accordance with the registration status in the country of origin and the maximum residue level (MRL) of the active ingredient in the EU.

Ensure that harvested fruit is never exposed to pest attack during packing, storage (including temporary storage), or transport (road, port or airport). This includes physical screening of transported consignments and packing areas to prevent pest entry. Use of pest-proof packaging is also an option.

Train all people involved in post-harvest handling so they are aware of and apply good practice at all times to reduce the risk of pest damage.

2.2.3. Inspection and certification system

This section outlines the administrative and regulatory framework that needs to be in place, with an emphasis on the official control system and its enforcement by the NPPO.

**Administrative and regulatory framework governing export of citrus to the EU**

- There should be a system in place to register and identify all individual operators in the production and export chain (e.g. with a unique number).
- There should be a system for the identification and traceability of all production sites that supply citrus for export to the EU.
- Authorities should conduct risk categorisation of exporters (high, medium and low risk).
- Authorities should conduct risk categorisation of exports (e.g. locations and seasons with higher pest pressure).

**National system for monitoring fruit fly/FCM populations**

This includes:

- Surveillance: monitoring of fruit fly/FCM populations (using traps) in and near areas where citrus is produced for export. This needs to be accompanied by a system to compile and analyse the data.
- Risk mitigation measures: according to the results of monitoring, measures may be needed to reduce the risk of infested fruit entering the export supply chain.
- Alert system: needs to be in place to inform stakeholders of any increased risk of fruit fly/FCM infestation, and any mitigation measures they must take.

**Control and certification system**

The NPPO (or its designated agents) must be active at all stages of the citrus export value chain. This includes providing advice and training, as well as monitoring the implementation of plant health measures (that may include specific controls and certification). In brief:

- At the plantation level, the NPPO provides advice and training to private sector operators on citrus production, and on the monitoring and control of fruit fly/FCM. They should oversee and ensure the application of good practice.

- At the packhouse level, the NPPO controls infrastructure and packing conditions. Training of private sector operators will be provided in identification of fruit fly/FCM presence and damage, crop waste management, among others.

- At the point of export (ports, airports, road borders), procedures are in place, and implemented effectively, for the inspection of produce, issuing of plant health certificates, and preparation of all necessary documentation.

**Action to be taken by the NPPO at producer level for export of citrus to the EU**

- Confirming exporter registration.

- Checking traceability of all plantations that supply citrus for export.

- Assessing and documenting the application of good practice by producers covering:
  - cropping practices;
  - crop hygiene and crop waste management;
  - fruit fly/FCM monitoring system using approved traps;
  - implementation of fruit fly/FCM control;
  - others.

- System to verify the training of operators in good practices for the prevention and control of fruit fly/FCM

**Action to be taken by the NPPO at all packhouses supplying citrus for export to the EU**

The NPPO will conduct an assessment of:

- Premises and equipment, to ensure the prevention of fruit fly/FCM entry and spread.
- Implementation of good hygiene practices and measures to prevent the risk of fruit fly/FCM infestation.
- Implementation of inspection/monitoring by packhouse personnel at all handling and storage sites to check for fruit fly/FCM.
- Effectiveness of sorting and isolation systems, and the suitability of infrastructure, to deal with citrus that shows fruit fly/FCM presence and damage.
- Facilities and procedures for disposal of damaged fruit and waste.
- Effectiveness and implementation of the traceability system.
- Effectiveness of the system in place for the isolation of lots.
- Frequency and effectiveness of staff training.

**The issuing of phytosanitary certificates**

The NPPO must operate a system of controls and certification according to the method of shipment. This must address:

- implementation of document checks;
- physical inspection;
- identity checks;
- sampling method
- a system in place for tracking and archiving inspection data;
- a system for tracking and archiving phytosanitary certificates.
2.2.4. NPPO quality management system

According to ISPM 14, the exporting country authorities are responsible for:

- monitoring, auditing and reporting on the effectiveness of the system;
- taking appropriate corrective measures;
- keeping the relevant documentation up-to-date;
- use of phytosanitary certificates in accordance with requirements.

**Internal audit**

This should describe the monitoring and internal audit system in place to ensure the effective implementation of the plant health inspection and certification system, including:

- training of NPPO managers and technical personnel (inspectors, enforcement officers);
- designing and implementing effective procedures for the inspection of production sites and packhouses.

**Management of interceptions/notifications**

This should describe the system in place for tracking notifications and communicating with stakeholders, including:

- statistics on fruit fly/FCM notifications;
- information on processing, tracking and communicating official notifications.

2.2.5 Summary and recommendations

Citrus exports to the EU must comply with one of the different options, depending of the pests, stipulated in different Implementing Regulations: 2019/2072 amended by 2021/2285 and 2022/959.

For most of the options, countries exporting citrus must submit a dossier to the European Commission describing in detail the system that will be applied to ensure that all citrus exported to the EU is free from the relevant pests.

The system described in the dossier must then be followed by all stakeholders involved in the citrus export sector, including growers, private operators and the NPPO. The dossier in effect becomes a national action plan.

The NPPO of the exporting country has the responsibility for submitting the dossier to the European Commission. However, it is essential that the NPPO works hand-in-hand with the private sector to develop the content of the dossier, and subsequently to ensure that it is implemented effectively.
- If private sector operators are not involved in developing the dossier, and the NPPO does not secure their buy-in (agreement), it is less likely that they will understand its importance and implement it effectively.
- Feedback from the private sector is essential to ensure that the dossier is adapted to local conditions, and is appropriate and usable by the range of different producers and exporters concerned (large and small).

The following steps are recommended for the preparation and submission of the dossier.

**Step 1: Setting up a Technical Working Group**

The Technical Working Group will bring stakeholders together (private and public sector) to consider and agree the elements that should be included in the national citrus dossier.

The Technical Working Group will be convened by the NPPO. The composition of the group may vary according to the local citrus industry and public authorities. As a general rule, a small group will be more effective than a large one, but as a minimum it is important for the group to ensure that the membership:

- includes representatives of the NPPO with sound knowledge and experience in the relevant phytosanitary controls and enforcement;
- is acceptable to organisations representing the private sector;
- is representative of the citrus export sector, including both large and small-scale operators, who have a sound knowledge of citrus production and export;
- includes representatives with strong scientific and technical expertise, which will be essential to document clearly and precisely the phytosanitary measures that will be included in the dossier.

**Step 2: Preparing the first draft of the dossier**

The first draft of the dossier will be prepared by the NPPO with the support and agreement of the Technical Working Group. This COLEACP guide can be used to provide a framework for the dossier; the content of each section should be adapted and customised according to local circumstances.

**Step 3: Validating the dossier with stakeholders**

Consultation with the key public and private stakeholders is essential to ensure that the dossier is fit for purpose, locally appropriate, and accepted by all the major stakeholders that will be involved in implementing it.
This consultation will give the wider industry a chance to obtain clarification and to recommend changes. The aim is to use feedback from the consultation to develop a final version of the dossier that is approved and recognised by all.

If resources are available, consultation is best achieved through the organisation of a national workshop where the dossier can be presented to and discussed with a large group. If this is not possible, the draft may be presented to smaller meetings/groups, or circulated via industry associations or other representative bodies.

Step 4: Submitting the dossier to the EC

The dossier must be submitted to the European Commission by the NPPO. Only an NPPO is authorised to submit the official documentation to their counterparts in the EU.

The dossier should be forwarded by the designated Contact Point at the NPPO to the following email address: SANTE-GI-PLANT-HEALTH@ec.europa.eu

Once the dossier is submitted, its acceptance or rejection by the European authorities should be checked on the EC webpage “Declarations under Commission Implementing Regulation (EU) 2019/2072”.

Requesting technical support from COLEACP

Preparing and implementing a national citrus management system according to ISPM 14 is a significant challenge. The private sector and the NPPO may therefore identify the need for technical support.

Where this is the case, it is important to identify and secure the support needed as soon as possible in order to ensure that all necessary action has been taken.

Requests for technical support can be made to COLEACP: https://eservices.coleacp.org/en/demandes-dintervention/request-for-intervention-fit-for-market-sps
2.3. THE SYSTEMS APPROACH

2.3.1 Non-European fruit fly (Tephritidae)

This section addresses the development of a dossier to meet Option (d) of Annex VII, point 61 of Implementing Regulation (EU) 2019/2072, specifically regarding fruit fly. Option (d) is the most accessible option for the majority of citrus exporters (see section 1.2 of this document).

This stipulates that citrus:

- have been subjected to an effective systems approach or an effective post-harvest treatment to ensure freedom from Tephritidae, to which those fruits are known to be susceptible, and the use of a systems approach or details of the treatment method are indicated on the phytosanitary certificate, provided that the systems approach or treatment method have been communicated in advance in writing to the Commission by the national plant protection organisation of the third country concerned.

According to Regulation (EU) 2019/2072, to meet the requirements of Option (d), the NPPO in each country concerned must submit a dossier to the European Commission. The dossier must describe in detail the “effective treatment” that will be applied to citrus exports to ensure they are free from fruit fly. This “effective treatment” must be applied by everyone involved in citrus exports to the EU.

Effective treatments

The use of a single cold treatment post-harvest is a commonly used control method for fruit fly in citrus. The cold treatment entails maintenance of low temperatures during a defined number of days depending on the fruit and fruit fly species. An example is given in Table 3. However, based on the new implementing regulation (EU) 2022/959 (point 62.1), it is now an obligation to use a cold treatment for fruits of Citrus sinensis Pers. The different options are mentioned clearly in the regulation and mentioned here above.

Table 3. Procedure for in-transit cold treatment to eradicate fruit fly in citrus fruit from South Asian ports to Indonesia

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Minimum exposure period (days)</th>
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<tbody>
<tr>
<td>≤0.0</td>
<td>12</td>
</tr>
<tr>
<td>≤0.55</td>
<td>13</td>
</tr>
<tr>
<td>≤1.1</td>
<td>14</td>
</tr>
<tr>
<td>≤1.6</td>
<td>16</td>
</tr>
<tr>
<td>≤2.2</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: PPECB (2020).
For other useful information on cold treatment, see:

- **ISPM 28** *Phytosanitary treatments for regulated pests* – specific treatments are accessed via the IPPC Phytosanitary Treatments (PT) search tool: PT 16–PT 18 and PT 24–PT 29.

  For example, PT 16 of ISPM 28 gives information on the cold treatment for *Bactrocera tryoni* on *Citrus sinensis*.


**Systems approach**

When a post harvest treatment is not possible or only partially possible, the Regulation also allows for the use of a systems approach (see section 2.1 of this document).

This means developing an action plan that combines several different pest management measures which, used together, will significantly reduce pest risk (see ISPM 14). These measures may include surveillance, cultural practices, crop treatment, post-harvest disinfestation (among other cold treatments), inspection, and others.

In its dossier, the NPPO of the exporting country must provide sufficient information to the EC to enable the evaluation and approval of the proposed systems approach to managing fruit fly.

Once the dossier is submitted, its receipt by the European authorities should be checked on the EC webpage “Declarations under Commission Implementing Regulation (EU) 2019/2072”, which provides links to the current information provided by each country of origin and NPPO.

**2.3.2 False codling moth (*Thaumatotibia leucotreta*)**

This part of the document addresses the development of a dossier to meet Option (d) of the point 62 and 62.1 which is the most accessible option for the majority of citrus exporters (see section 1.2 of this document).

The NPPO of each exporting country must submit a dossier to the EC describing in detail the “effective treatment” that will be applied to citrus exports to ensure they are free from false codling moth (FCM) and the list of approved production site codes.

**Effective treatments**

There are currently few effective single treatments available for post-harvest control on citrus that will guarantee it is free of FCM. The most widely used treatment involves exposure to sub-zero temperature. **Documentary evidence of the post-harvest treatment effectiveness must be communicated in advance to the Commission.**

**Systems approach**

When a standalone post-harvest treatment is not possible or only partially possible,
the Regulation also allows for the use of a systems approach.

This means developing an action plan that combines several different pest management measures which, used together, will significantly reduce pest risk (see ISPM 14). These measures may include surveillance, cultural practices, crop treatment, post-harvest disinfestation, inspection, and others. The new implementing regulation (EU) 2022/959 (point 62.1) the use of a cold treatment an obligation for fruits of *Citrus sinensis* Pers. The different options for this post-harvest treatment are available.

In its dossier, the exporting country must provide sufficient information to the EC to enable the evaluation and approval of the proposed systems approach to managing FCM. This includes providing as much scientific evidence as possible that the individual pest management methods included in the dossier are effective.

**Providing evidence of effectiveness**

Option (d)\(^5\) stipulates that citrus should have been subjected to an effective cold treatment or other effective treatment to ensure freedom from FCM. The treatment data should be indicated on the phytosanitary certificate provided that the treatment method, together with documentary evidence of its effectiveness, has been communicated in advance in writing by the NPPO to the EC.

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**Justifying a national approach**

Collecting evidence on the effectiveness of a systems approach in its entirety is complex and requires more than one season. Instead, provide as much evidence as possible on the effectiveness of integrated pest management (IPM) systems in general, and on the individual control methods included in the dossier, using existing research reports and scientific publications (see information sources below).

It is important to emphasise in the dossier that the national action plan takes a risk-based approach. The results of monitoring, surveillance and inspections are used to guide management decisions.

Also emphasise that training at all levels of the value chain is core to the systems approach in managing FCM. A list of required training that should be undertaken by the private sector could be provided. The NPPO, when undertaking site visits, should seek evidence that this training has been received.

Finally, explain that surveillance, cultural practices, crop treatment, post-harvest disinfestation, inspection and other methods are used in combination to deliver effective and efficient FCM management that mitigates the risk of infestation in citrus exported to the EU.

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**Information sources on false codling moth**

Several new and effective control measures for FCM in citrus have been introduced. Control of FCM has become more sophisticated with the use of multiple control measures and less reliance on single treatments. In citrus, the level of control achieved has been shown to be the sum of the efficacy of all measures used – even if the efficacy of a single measure is sub-optimal, when several effective measures are combined over a season, levels of FCM control exceed 95% (Moore and Hattingh, 2012).

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A treatment protocol combining several different pest control measures (cultural, physical, biological and chemical) used together can significantly reduce pest risk.

Crop sanitation is a critical element of IPM for FCM. In tree fruits in South Africa, research has shown that it is possible to remove an average of 75% of FCM larvae from a crop by conducting weekly crop sanitation (Moore, 2017).

If there is a long dry season, allowing land to remain fallow means that FCM (which needs a continual source of food) is less likely to reach pest proportions (CABI, 2019a).

Ploughing before transplanting during a dry spell exposes FCM larvae/pupae to natural enemies and extremes of heat (CABI, 2019b).

Pyrethroid insecticides kill FCM larvae by contact on the fruit surface. They are intended to be used to protect fruit against FCM infestation. Data from field trials in Ghana provide evidence of their effectiveness (Fening & Billah, 2017).

Trials to test pyrethroid insecticides for control of FCM have been conducted on citrus in South Africa, where crop losses due to FCM of up to 20% have been registered. Trials on citrus indicated that cypermethrin and deltamethrin, applied two to three months before harvest, reduced fruit drop by an average of 90% (cited in Hofmeyr et al., 2015). Single spray treatment of navel oranges with cypermethrin resulted in a 65–82% reduction in fruit loss four weeks later (Newton, 1987). Cypermethrin is registered for FCM control in South Africa (Moore, 2017).

*Bacillus thuringiensis* (Bt) has been shown to be effective against false codling moth (Li & Bouwer, 2012) and is widely used in Africa against most lepidopteran pests, including FCM. USDA (2010) recommends the use of Bt for FCM control in areas where chemical insecticides should be alternated or discontinued. It is applied as a full coverage spray when larvae are present, and can be repeated at 10–14-day intervals while larvae are active.

The Gambia, and other countries within the harmonised pesticide registration framework of the Comité Sahélien de Pesticides (CSP), have noted the potential availability of active ingredients for control of FCM (COLEACP, 2020). This includes active substances with alternative modes of action that would help to prevent the build-up of pest resistance, including teflubenzuron, spinetoram, chlorantraniliprole and methoxyfenozide, all of which are registered for use to control FCM in other countries.
BIBLIOGRAPHY


Fening, K.O., Billah, M.K. (2017) Guidelines to extend official export certification controls beyond the point of exit to include the fields of production and packhouses for vegetable exporters. Accra: Plant Protection and Regulatory Services Directorate (PPRSD), MoFA.


