



Food and Agriculture  
Organization of the  
United Nations



International  
Plant Protection  
Convention

INTERNATIONAL STANDARD FOR PHYTOSANITARY MEASURES 28

PHYTOSANITARY TREATMENT

ISPM 28  
ANNEX 43

ENG

# PT 43: Irradiation treatment for *Sternochetus frigidus*

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International Plant Protection Convention (IPPC)

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# ISPM 28

## Phytosanitary treatments for regulated pests

### PT 43: Irradiation treatment for *Sternochetus frigidus*

Adopted 2022; published 2022

#### Scope of the treatment

This treatment describes the irradiation of fruits and vegetables at 165 Gy minimum absorbed dose to prevent oviposition of any female *Sternochetus frigidus* that may emerge from fruit irradiated at the stated efficacy.<sup>1</sup>

#### Treatment description

<b>Name of treatment</b>	Irradiation treatment for <i>Sternochetus frigidus</i>
<b>Active ingredient</b>	n/a
<b>Treatment type</b>	Irradiation
<b>Target pest</b>	<i>Sternochetus frigidus</i> (Fabricius) (Coleoptera: Curculionidae)
<b>Target regulated articles</b>	All fruits and vegetables that are hosts of <i>Sternochetus frigidus</i>

#### Treatment schedule

Minimum absorbed dose of 165 Gy to prevent oviposition in *Sternochetus frigidus*.

There is 95% confidence that the treatment according to this schedule prevents oviposition in not less than 99.88684% of adult females of *Sternochetus frigidus*.

This treatment should be applied in accordance with the requirements of ISPM 18 (*Guidelines for the use of irradiation as a phytosanitary measure*).

This treatment should not be applied to fruit or vegetables stored in a modified atmosphere because the modified atmosphere may affect the treatment efficacy.

#### Other relevant information

Because irradiation may not result in outright mortality, inspectors may encounter live but non-viable *Sternochetus frigidus* (eggs, larvae, pupae or adults) during the inspection process. This does not imply a failure of the treatment.

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<sup>1</sup> The scope of phytosanitary treatments does not include issues related to pesticide registration or other domestic requirements for contracting parties' approval of treatments. Treatments adopted by the Commission on Phytosanitary Measures may not provide information on specific effects on human health or food safety, which should be addressed using domestic procedures before contracting parties approve a treatment. In addition, potential effects of treatments on product quality are considered for some host commodities before their international adoption. However, evaluation of any effects of a treatment on the quality of commodities may require additional consideration. There is no obligation for a contracting party to approve, register or adopt the treatments for use in its territory.

The Technical Panel on Phytosanitary Treatments based its evaluation of this treatment on the research reported by Obra *et al.* (2014), which determined the efficacy of irradiation of *S. frigidus* on mangoes.

The efficacy of this schedule was calculated based on a total of 2 274 adult females treated with no egg production; the control egg production was 397 eggs per female.

## References

The present annex may refer to ISPMs. ISPMs are available on the International Phytosanitary Portal (IPP) at [www.ippc.int/core-activities/standards-setting/ispms](http://www.ippc.int/core-activities/standards-setting/ispms).

**Obra, G.B., Resilva, S.S., Follett, P.A. & Lorenzana, L.R.J.** 2014. Large-scale confirmatory tests of a phytosanitary irradiation treatment against *Sternochetus frigidus* (Coleoptera: Curculionidae) in Philippine mango. *Journal of Economic Entomology*, 107 (1): 161–165.

## Publication history

*This is not an official part of the standard*

2017-10 Treatment submitted during 2017-02 call for treatments.

2018-03 Technical Panel on Phytosanitary Treatments (TPPT) reviewed and requested further information from submitter.

2018-05 Standards Committee (SC) added the topic *Irradiation treatment for Sternochetus frigidus* (2017-036) to the TPPT work programme.

2018-09 Submitter provided the requested information.

2019-07 TPPT reviewed and requested further information from submitter.

2020-02 Submitter provided the requested information.

2020-03 TPPT reviewed the additional information and recommended the draft for consultation.

2020-06 SC approved the draft for consultation via e-decision (2020\_eSC\_May\_21).

2020-07 First consultation.

2021-03 TPPT responded to consultation comments, revised the draft and recommended it for second consultation.

2021-05 SC approved for second consultation via e-decision (2021\_eSC\_May\_16).

2021-07 Second consultation.

2021-10 TPPT revised and recommended to the SC for approval for adoption by the CPM.

2021-12 SC approved for adoption by the CPM via e-decision (2022\_eSC\_May\_04).

2022-04 CPM-16 adopted the phytosanitary treatment.

**ISPM 28. Annex 43.** *Irradiation treatment for Sternochetus frigidus* (2022). Rome, IPPC Secretariat, FAO.

Publication history last updated: 2022-04

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## IPPC

The International Plant Protection Convention (IPPC) is an international plant health agreement that aims to protect global plant resources and facilitate safe trade.

The IPPC vision is that all countries have the capacity to implement harmonized measures to prevent pest introductions and spread, and minimize the impacts of pests on food security, trade, economic growth, and the environment.

### Organization

- ◆ There are over 180 IPPC contracting parties.
- ◆ Each contracting party has a national plant protection organization (NPPO) and an Official IPPC contact point.
- ◆ 10 regional plant protection organizations (RPPOs) have been established to coordinate NPPOs in various regions of the world.
- ◆ The IPPC Secretariat liaises with relevant international organizations to help build regional and national capacities.
- ◆ The Secretariat is provided by the Food and Agriculture Organization of the United Nations (FAO).

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