

This annex was adopted by the Commission on Phytosanitary Measures in March 2011.

The annex is a prescriptive part of ISPM 28:2007.



**ISPM 28  
Annex 12**

## **INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES**

### **ISPM 28:2007 PHYTOSANITARY TREATMENTS FOR REGULATED PESTS**

#### **PT 12: Irradiation treatment for *Cylas formicarius elegantulus* (2011)**

##### **Scope of the treatment**

This treatment applies to the irradiation of fruits and vegetables at 165 Gy minimum absorbed dose to prevent the development of F1 adults of *Cylas formicarius elegantulus* at the stated efficacy. This treatment should be applied in accordance with the requirements outlined in ISPM 18:2003 (*Guidelines for the use of irradiation as a phytosanitary measure*)<sup>1</sup>.

##### **Treatment description**

|                                   |  |
|-----------------------------------|--|
| <b>Name of treatment:</b>         | Irradiation treatment for <i>Cylas formicarius elegantulus</i>                     |
| <b>Active ingredient:</b>         | N/A  |
| <b>Treatment type:</b>            | Irradiation  |
| <b>Target pest:</b>               | <i>Cylas formicarius elegantulus</i> (Summers) (Coleoptera: Brentidae)             |
| <b>Target regulated articles:</b> | All fruits and vegetables that are hosts of <i>Cylas formicarius elegantulus</i> . |

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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 approval of treatments. Treatments also do not provide information on specific effects on human health or food safety, which should be addressed using domestic procedures prior to approval of 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.

### Treatment schedule

Minimum absorbed dose of 165 Gy to prevent the development of F1 adults of *Cylas formicarius elegantulus*.

Efficacy and confidence level of the treatment is ED99.9952 at the 95% confidence level.

Treatment should be applied in accordance with the requirements of ISPM 18:2003 (Guidelines for the use of irradiation as a phytosanitary measure).

This irradiation treatment should not be applied to fruit and vegetables stored in modified atmospheres.

### Other relevant information

Since irradiation may not result in outright mortality, inspectors may encounter live, but non-viable *Cylas formicarius elegantulus* (eggs, larvae, pupae and/or adults) during the inspection process. This does not imply a failure of the treatment.

Countries with established trapping and surveillance activities for *Cylas formicarius elegantulus* need to take account of the fact that adult insects may be detected in the traps in the importing country. Although these insects will not establish, countries need to assess whether such treatments are applicable in their countries, i.e. whether or not such findings would disrupt existing surveillance programmes.

The Technical Panel on Phytosanitary Treatments based its evaluation of this treatment on the research work undertaken by Follet (2006) and Hallman (2001) that determined the efficacy of irradiation as a treatment for this pest in *Ipomoea batatas*.

Extrapolation of treatment efficacy to all fruits and vegetables was based on knowledge and experience that radiation dosimetry systems measure the actual radiation dose absorbed by the target pest independent of host commodity, and evidence from research studies on a variety of pests and commodities. These include studies on the following pests and hosts: *Anastrepha ludens* (*Citrus paradisi* and *Mangifera indica*), *A. suspensa* (*Averrhoa carambola*, *Citrus paradisi* and *Mangifera indica*), *Bactrocera tryoni* (*Citrus sinensis*, *Lycopersicon lycopersicum*, *Malus domestica*, *Mangifera indica*, *Persea americana* and *Prunus avium*), *Cydia pomonella* (*Malus domestica* and artificial diet) and *Grapholita molesta* (*Malus domestica* and artificial diet) (Bustos et al., 2004; Gould & von Windeguth, 1991; Hallman, 2004, Hallman & Martinez, 2001; Jessup et al., 1992; Mansour, 2003; von Windeguth, 1986; von Windeguth & Ismail, 1987). It is recognised, however, that treatment efficacy has not been tested for all potential fruit and vegetable hosts of the target pest. If evidence becomes available to show that the extrapolation of the treatment to cover all hosts of this pest is incorrect, then the treatment will be reviewed.

### References

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- von Windeguth, D.L. & Ismail, M.A.** 1987. Gamma irradiation as a quarantine treatment for Florida grapefruit infested with Caribbean fruit fly, *Anastrepha suspensa* (Loew). *Proceedings of the Florida State Horticultural Society*, 100: 5–7.

#### Publication history

*This is not an official part of the standard*

2006-08 IPPC Secretariat issued a call for phytosanitary treatments

2006-12 TPPT evaluated the treatment submission and recommended that the SC approve it for member consultation (MC) via the fast-track procedure

CPM-2 (2007) added the treatments to the Work Programme

SC 2007-10 reviewed treatment electronically and sent it for member consultation under the fast-track procedure

MC 2007-10 ten formal objections received during

Attempts made to resolve the formal objections prior to CPM-3 (2008) but not achieved prior to the Commission meeting

SC 2008-08 revised draft treatment in consultation with the TPPT and recommended it to go to CPM-4 (2009)

CPM-4 (2009) returned draft treatment as formal objections received

SC 2009-05 requested the TPPT to review the formal objections and present options on how to resolve the technical issues

2009-11 TPPT revised draft treatment and returned it to the SC via e-mail

SC 2009-12 recommended via e-mail the draft treatment to go to CPM-5 (2010)

Formal objections received by the Secretariat 14 days prior to CPM-5 (2010)

CPM-5 (2010) requested SC to reconsider the treatment, with the formal objections received

SC 2010-05 requested the TPPT to consider the treatment and propose additional wording explaining the problems that may arise from detections by the importing country of live pests in treated commodities

2010-07 TPPT reviewed and revised the treatment

SC 2010-08 reviewed the revised draft proposed by the TPPT via e-decision and recommended it to go to CPM-6 (2011), August 2010

CPM-6 (2011) adopted Annex 12 to ISPM 28:2007. PT 12:2011 Irradiation treatment for *Cylas formicarius elegantulus*.

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