This phytosanitary treatment was adopted by the Fourth Session of the Commission on Phytosanitary Measures in 2009.
The annex is a prescriptive part of ISPM 28:2007.

INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

ISPM 28 PHYTOSANITARY TREATMENTS

PT 8: Irradiation treatment for *Rhagoletis pomonella* (2009)

Scope of the treatment

This treatment applies to the irradiation of fruits and vegetables at 60 Gy minimum absorbed dose to prevent the development of phanerocephalic pupae of *Rhagoletis pomonella* at the stated efficacy. This treatment should be applied in accordance with the requirements outlined in ISPM 18:2003[1].

Treatment description

Name of treatment:	Irradiation treatment for *Rhagoletis pomonella*
Active ingredient:	N/A
Treatment type:	Irradiation
Target pest:	*Rhagoletis pomonella* (Walsh) (Diptera: Tephritidae)
Target regulated article:	All fruits and vegetables that are hosts of *Rhagoletis pomonella*.

Treatment schedule

Minimum absorbed dose of 60 Gy to prevent the development of phanerocephalic pupae of *Rhagoletis pomonella*.

Efficacy and confidence level of the treatment is $ED_{99.9921}$ at the 95% confidence level.

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

[1] 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.

Other relevant information

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

The Technical Panel on Phytosanitary Treatments based its evaluation of this treatment on the research work undertaken by Hallman (2004) and Hallman & Thomas (1999) that determined the efficacy of irradiation as a treatment for this pest in *Malus domestica*.

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 recognized, 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.

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Publication history

This is not an official part of the standard

2006-04 CPM-1 added topic *Irradiation treatment for* pomonella (2006-129)

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2007-05 SC approved draft text for MC

2007-10 Sent for MC under fast-track process

2008-07 TPPT revised draft text

2008-12 SC revised draft text for adoption via e-decision

2009-03 CPM-4 adopted Annex 8 to ISPM 28:2007

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