

ISPM 28 Annex 10

## INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

### ISPM 28 PHYTOSANITARY TREATMENTS

# PT 10: Irradiation treatment for *Grapholika molesta* (2010)

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

This treatment applies to the irradiation of facts and vertable at 232 Gy minimum absorbed dose to prevent the emergence of adults of *Grapha ta molesta* as he stated efficacy. This treatment should be applied in accordance with the requirement autlined in IS M 18:2003<sup>1</sup>.

**Treatment description** 

Name of treatment: Irraliation treatment for *Grapholita molesta* 

Active ingredient:

Treatment type:

Irradiation

Target pest: Grapholita molesta (Busck) (Lepidoptera: Tortricidae)

Target regulated artic.

All fruits and vegetables that are hosts of *Grapholita molesta*.

Treatmer schedy

Minimum bsor a dec. 232 Gy to prevent the emergence of adults of *Grapholita molesta*.

Efficacy and a fidence level of the treatment is ED<sub>99,9949</sub> at the 95% confidence level.

Treatment should be applied in accordance with the requirements of ISPM 18:2003.

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

<sup>&</sup>lt;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.

#### Other relevant information

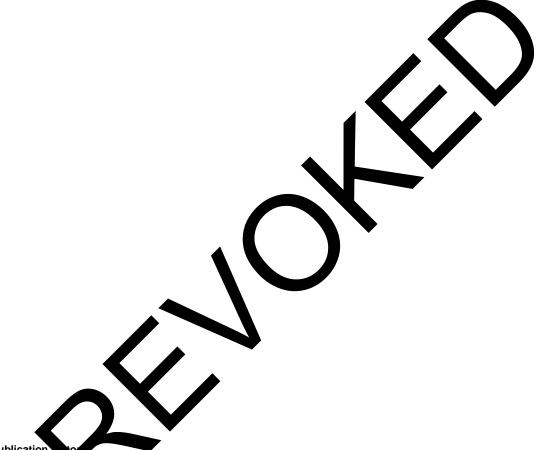
Since irradiation may not result in outright mortality, inspectors may encounter live, but non-viable *Grapholita molesta* (larvae and/or pupae) during the inspection process. This does not imply a failure of the treatment.

The Technical Panel on Phytosanitary Treatments based its evaluation of this treatment on the research work undertaken by Hallman (2004) 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 nd *Mangifera* indica), Bactrocera tryoni (Citrus sinensis, Lycopersicon lycopersicum, Ma Mangifera s domest indica, Persea americana and Prunus avium), Cydia pomonella (Malus d estica and a ficial diet) and Grapholita molesta (Malus domestica and artificial diet) (Bust 2004; G ıld & von Windeguth, 1991; Hallman, 2004, Hallman & Martinez, 2001; Je sour, 2003; von Windeguth, 1986; von Windeguth & Ismail, 1987). It is cognize that treatment how efficacy has not been tested for all potential fruit and vegetable the target pest. If evidence becomes available to show that the extrapolation of the ti hosts of this pest is cover 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 100

This is not an on. I part of the standard

2006-04 CPM-1 ad work topic *Irradiation treatment for* Grapholita molesta (2006-127A)

2006-12 TPPT developed draft text and recommended it to the SC

2007-07 SC revised draft text and approved for member consultation via email

2007-10 Member consultation under fast-track process

2008-07 TPPT reviewed and revised draft text via email

2008-12 SC revised draft text via e-decision

2009-03 Secretariat received formal objections prior to CPM-4

2009-05 SC requested TPPT for review draft text

2009-11 TPPT revised draft text via email

2009-11 SC reviewed draft text for adoption

2010-03 CPM-5 adopted Annex 10 to ISPM 28

**ISPM 28.** 2007 **Annex 10** *Irradiation treatment for* Grapholita molesta (2010). Rome, IPPC, FAO.

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