

ISPM 28 Annex 11

INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

ISPM 28 PHYTOSANITARY TREATMENTS

PT 11: Irradiation treatment for *Grapholita molesta*under hyporia

Scope of the treatment

This treatment applies to the irradiation of fruits and ve etables at 232 Gy minimum absorbed dose under hypoxic conditions to prevent vipo sion of *Gr pholita molesta* at the stated efficacy. This treatment should be applied in accordance with a read ments outlined in ISPM 18:2003¹.

Treatment description

Name of treatment: \tag{Treatment} tion treatment for Grapholita molesta under hypoxia

Active ingredient: N/A

Treatment type: _____Irradiation

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

Target regulated: ticles: All fruits and vegetables that are hosts of *Grapholita molesta*.

Treatment of dule

Minimum abstracted dose of 232 Gy to prevent oviposition of *Grapholita molesta*.

Efficacy and confidence level of the treatment is ED_{99,9932} at the 95% confidence level.

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

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 *Grapholita molesta* (larvae, pupae and/or adults) during the inspection process. This does not imply a failure of the treatment.

Although the treatment may result in the presence of irradiated adults, the following factors may affect the likelihood of adults being found in traps in importing countries:

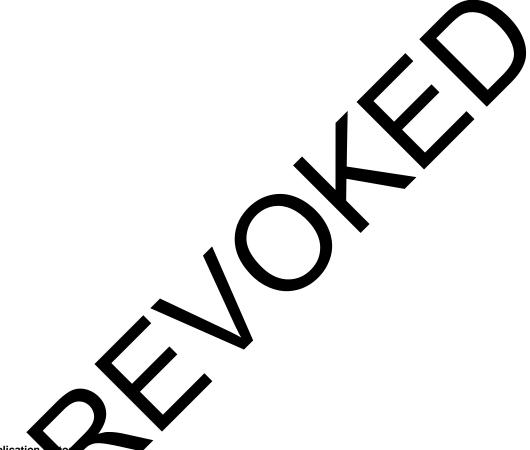
- Only a very small percentage of adults are likely to emerge after irradiation.
- Irradiated adults are very unlikely to survive for more than one week, post-irradiation, and they are therefore less likely to spread than non-irradiated adults.

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 ledge and ed on knd experience that radiation dosimetry systems measure the actual radia bsorbed. the target pest independent of host commodity, and evidence from research of pests and tudies on a commodities. These include studies on the following pests hosts ludens (Citrus paradisi and Mangifera indica), A. suspensa (Averrhoa caram rus paradisi and Mangifera indica), Bactrocera tryoni (Citrus sinensis, Lycopersicon l' a. Malu lomestica, Mangifera opersi indica. Persea americana and Prunus avium), Cydia pomo estica and artificial diet) ella (Malu and Grapholita molesta (Malus domestica and artial., 2004; Gould & von sial et) (Bustos Tet al., 1992; Mansour, 2003; Windeguth, 1991; Hallman, 2004, Hallman & Martin 987) von Windeguth, 1986; von Windeguth & Isp is recognized, however, that treatment le hosts of the target pest. If evidence efficacy has not been tested for all potentia ruit and becomes available to show that the extra treatment to cover all hosts of this pest is lation of th incorrect, then the treatment will be review

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 off. Lpart of the standard

2006-04 CPM-1 ad topic Irradiation treatment for Grapholita melosa under hypoxia

2006-12 TPPT developed draft text and recommended to the SC (2006-127B)

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 the TPPT to review

2009-11 TPPT revised draft text via email

2009-11 SC revised draft text for adoption

2010-03 CPM-5 adopted Annex 11 to ISPM 28:2007

ISPM 28. 2007: Annex 11 Irradiation treatment for Grapholita molesta under hypoxia (2010). Rome, IPPC, FAO.

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