



[1] **Draft Annex to ISPM 28:2007: IRRADIATION TREATMENT FOR *OSTRINIA NUBILALIS* (2012-009)**

[2]

Status box	
This is not an official part of the standard and it will be modified by the IPPC Secretariat after adoption.	
Date of this document	2014-04-23
Document category	Draft Annex XX to ISPM 28:2007
Current document stage	2014-04 SC approved for MC
Major stages	2012 Treatment submitted 2012-12 TPPT reviewed treatment and requested additional information 2013-02 TPPT sent letter to Submitter through Secretariat 2013-05 Submitter responded 2013-07 TPPT recommended to SC for MC 2013-09 TPPT approved treatment schedule (virtual meeting) 2013-09 TPPT started drafting position paper on adult emergence after irradiation 2014-02 TPPT approved position paper on adult emergence after irradiation and submitted to Secretariat 2014-02 SC e-decision for approval for MC 2014-03 Secretariat applied changes suggested by forum and opened poll 2014-03 SC approved draft treatment for MC via poll
Treatment lead	2012-12 Mr Andrew JESSUP (AU)
Secretariat notes	2013-09 Secretariat started using previously revised footnote regarding treatment adoption 2014-04 Editor edited the text

[3] **Scope of the treatment**

[4] This treatment comprises the irradiation of fruits and vegetables at a minimum absorbed dose of 289 Gy to prevent F₁ development past first instar in eggs through late pupae of *Ostrinia nubilalis* (European corn borer)¹.

[5] **Treatment description**

[6] **Name of treatment** Irradiation treatment for *Ostrinia nubilalis*

[7] **Active ingredient** N/A

[8] **Treatment type** Irradiation

- [9] **Target pest** *Ostrinia nubilalis* (Hübner) (Lepidoptera: Crambidae) (European corn borer)
- [10] **Target regulated articles** All fruits and vegetables that are hosts of *Ostrinia nubilalis*
- [11] **Treatment schedule**
- [12] Minimum absorbed dose of 289 Gy to prevent F₁ development past first instar in eggs through late pupae of *O. nubilalis*.
- [13] The efficacy is effective dose (ED)_{99.9918} at the 95% confidence level.
- [14] Treatment should be applied in accordance with the requirements of ISPM 18:2003.
- [15] This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres.
- [16] **Other relevant information**
- [17] Because irradiation may not result in outright mortality, inspectors may encounter live, but non-viable, *O. nubilalis* (larvae, pupae or adults) during the inspection process. This does not imply a failure of the treatment.
- [18] In evaluating this treatment the Technical Panel on Phytosanitary Treatments (TPPT) considered issues associated with the possibility of the survival of sufficient numbers of sterile adults that would escape from irradiated infested produce and fly into exotic pest traps, thereby causing financial loss and trade restrictions. The TPPT considered that, based on the work described in Hallman and Hellmich (2009) and Hallman *et al.* (2010), numbers of fit survivors would be negligible and would not pose quarantine concerns.
- [19] **References**
- [20] **Hallman, G.J. & Hellmich, R.L.** 2009. Ionizing radiation as a phytosanitary treatment against European corn borer (Lepidoptera: Crambidae) in ambient, low oxygen, and cold conditions *Journal of Economic Entomology*, 102: 64-68.
- [21] **Hallman, G.J., Levang-Brilz, N.M., Zettler, L. & Winborne, I.C.** 2010. Factors affecting ionizing radiation phytosanitary treatments, and implications for research and generic treatments. *Journal of Economic Entomology* 103(6): 1950–1963.
- [22] **ISPM 18.** 2003. *Guidelines for the use of irradiation as a phytosanitary measure*. Rome, IPPC, FAO.
- [23] **Footnote 1:** The scope of phytosanitary treatments does not include issues related to pesticide registration or other domestic requirements for contracting parties' approval of treatments. IPPC adopted treatments may not provide information on specific effects on human health or food safety, which should be addressed using domestic procedures prior to contracting parties approving 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.