This phytosanitary treatment was adopted by the X Session of the Commission on Phytosanitary Measures in 201X.
The annex is a prescriptive part of ISPM 28:2007.

INTERNATIONAL STANDARDS FOR
PHYTOSANITARY MEASURES

ISPM 28 PHYTOSANITARY TREATMENTS

PT X:
IRRADIATION TREATMENT FOR DYSMICOCoccus NEOBREVIPES, PLANOCOCCUS LILACINUS AND PLANOCOCCUS MINOR
(201X)

Scope of the treatment
This treatment describes the irradiation treatment of fruits and vegetables to prevent the reproduction of adult females of Dysmicoccus neobrevipes, Planococcus lilacinus and Planococcus minor at the stated efficacy level.

Treatment description
Name of treatment Irradiation treatment for Dysmicoccus neobrevipes, Planococcus lilacinus and Planococcus minor
Active ingredient N/A
Treatment type Irradiation
Target pests Dysmicoccus neobrevipes Beardsley, Planococcus lilacinus (Cockerell) and Planococcus minor (Maskell) (Hemiptera: Pseudococcidae)
Target regulated articles All fruits and vegetables that are hosts of the above mealybugs

Treatment schedule
Minimum absorbed dose of 231 Gy to prevent the reproduction of adult females of Dysmicoccus neobrevipes, Planococcus lilacinus and Planococcus minor.

1 The scope of phytosanitary treatments does not include issues related to pesticide registration or other domestic requirements for contracting parties’ approval of treatments for use in their territory. Treatments adopted by the CPM 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 for use in its territory. 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.
Efficacy and confidence level of the treatment is $ED_{99.99023}$ at the 95% confidence level.

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

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

Other relevant information

Because irradiation may not result in outright mortality, inspectors may encounter live but non-viable Dysmicoccus neobrevipes or Planococcus lilacinus or Planococcus minor (immatures or adults) during the inspection process. This does not imply a failure of the treatment.

This treatment schedule was based on the work of Doan et al. (2012). In this paper a minimum absorbed dose of 200 Gy prevented reproduction by adult females of Dysmicoccus neobrevipes and development to the next generation from all immature stages. A subsequent large scale confirmatory test showed that there was no reproduction at a maximum dose of 231 Gy. Further tests also showed that the other two species were more radio-susceptible than Dysmicoccus neobrevipes.

Very little data is available for other members of the Pseudococcidae and all papers are listed in the References. In each case a dose near to or less than 200 Gy was sufficient to ensure no reproduction providing additional confidence in the proposed dose.

References


Publication history

This is not an official part of the standard
2012-11 SG added subject under topic: (2006-014) Irradiation treatments
2012-09 Submitted in response to 2012 call for treatments
2012-12 TPPT evaluated submission, drafted schedule and recommended to SC for member consultation
2013-02 Submitted for SC e-decision
2013-04 Approved for member consultation by SC e-decision
2014-04 Treatment lead addressed members and TPG comments
2014-06 TPPT finalized the response and recommended to the SC for adoption
2014-09 SC reviewed (no changes) and recommended for CPM adoption

ISPM 28. 2007: Annex XX Irradiation treatment for Dysmicoccus neobrevipes, Planococcus lilacinus and Planococcus minor (201X), Rome, IPPC, FAO.

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