



INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

ISPM 28 PHYTOSANITARY TREATMENTS

PT 17

Cold treatment for *Bactrocera tryoni* on *Citrus reticulata* × *C. sinensis*

Adopted 2015; published 2015

Scope of the treatment

This treatment comprises the cold treatment of fruit of *Citrus reticulata* × *Citrus sinensis*¹ (tangor) to result in the mortality of eggs and larvae of *Bactrocera tryoni* (Queensland fruit fly) at the stated efficacy².

Treatment description

Name of treatment	Cold treatment for <i>Bactrocera tryoni</i> on <i>Citrus reticulata</i> × <i>Citrus sinensis</i>
Active ingredient	N/A
Treatment type	Physical (cold)
Target pest	<i>Bactrocera tryoni</i> (Diptera: Tephritidae) (Queensland fruit fly)
Target regulated articles	Fruit of <i>Citrus reticulata</i> × <i>Citrus sinensis</i> (tangor)

¹ *Citrus* species and hybrids are named according to the nomenclature in Cottin, R. 2002. *Citrus of the world: a citrus directory*. Montpellier, France, INRA-CIRAD.

² 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.

Treatment schedule

3 °C or below for 16 continuous days

The efficacy is effective dose (ED)_{99,9986} at the 95% confidence level.

The fruit must reach the treatment temperature before treatment exposure time is started. The fruit temperature should be monitored and recorded, and the temperature should not exceed the stated level throughout the duration of the treatment.

Other relevant information

In evaluating this treatment the Technical Panel on Phytosanitary Treatments (TPPT) considered issues associated with temperature regimes and thermal conditioning, taking into account the work of Hallman and Mangan (1997).

This schedule is based on the work of De Lima *et al.* (2007) and developed using cultivars “Ellendale” and “Murcott”.

References

- De Lima, C.P.F., Jessup, A.J., Cruickshank, L., Walsh, C. & Mansfield, E.R.** 2007. Cold disinfestation of citrus (*Citrus* spp.) for Mediterranean fruit fly (*Mediterana capitata*) and Queensland fruit fly (*Bactrocera tryoni*) (Diptera: Tephritidae). *New Zealand Journal of Crop and Horticultural Science*, 35: 39–50.
- Hallman, G.J. & Mangan, R.L.** 1997. Concerns with temperature quarantine treatment research. In G.L. Obenauf, ed. *1997 Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reduction*, San Diego, CA, USA, Nov. 3–5. pp. 79-1–79-4.

Publication history

This is not an official part of the standard

- 2007-09 Treatment submitted in response to the Call for treatments
 - 2007-12 TPPT meeting considered cold treatment of *Citrus reticulata* x *C. sinensis* for *Bactrocera tryoni* (2007-106) and 2007-206H to create 2007-206F
 - 2008-04 CPMs added subject under topic Fruit fly treatments
 - 2008-09 SC approved for member consultation via e-decision
 - 2009-06 SC member consultation
 - 2010-07 TPPT meeting revised the text and recommended to SC for CPM-7 (2012) adoption
 - 2011-11 SC recommended to CPM for adoption
 - 2012-03 Treatment received formal objection
 - 2012-09 TPPT virtual meeting drafted response to formal objections (no revision recommended)
 - 2012-12 TPPT meeting revised the text and recommended to SC for CPM adoption
 - 2013-06 SC recommended to CPM-9 for adoption
 - 2014-03 Treatment received formal objection
 - 2014-06 TPPT meeting drafted response to formal objections and revised text
 - 2014-11 SC reviewed TPPT response and approved draft for CPM adoption
 - 2015-03 CPM-10 adopted the treatment
- ISPM 28. Annex 17.** *Cold treatment for Bactrocera tryoni on Citrus reticulata* x *C. sinensis* (2015). Rome, IPPC, FAO.

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