



INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

ISPM 28 PHYTOSANITARY TREATMENTS

PT 16

Cold treatment for *Bactrocera tryoni* on *Citrus sinensis*

Adopted 2015; published 2015

Scope of the treatment

This treatment comprises the cold treatment of fruit of *Citrus sinensis* (orange) to result in the mortality of eggs and larvae of *Bactrocera tryoni* (Queensland fruit fly) at the stated efficacy¹.

Treatment description

Name of treatment	Cold treatment for <i>Bactrocera tryoni</i> on <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 sinensis</i> (orange)

Treatment schedule

3 °C or below for 16 continuous days

For cultivar “Navel” the efficacy is effective dose (ED)_{99,9981} at the 95% confidence level.

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.

For cultivar “Valencia” the efficacy is $ED_{99,9973}$ 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).

References

- De Lima, C.P.F., Jessup, A.J., Cruickshank, L., Walsh, C.J. & Mansfield, E.R.** 2007. Cold disinfestation of citrus (*Citrus* spp.) for Mediterranean fruit fly (*Ceratitidis 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 split Cold treatment of *Citrus sinensis* for *Bactrocera tryoni* from 2007-106 to create 2007-206E
 - 2008-04 CPM-3 added subject under the topic Fruit fly treatments
 - 2008-09 SC approved for member consultation via e-decision
 - 2009-06 Sent for 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 objection (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 16** Cold treatment for *Bactrocera tryoni* on *Citrus sinensis* (2015). Rome, IPPC, FAO.

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