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



ISPM 28 Annex [x]

INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

ISPM 28 PHYTOSANITARY TREATMENTS

DRAFT PT [x]: Cold treatment for *Bactrocera tryoni* on *Citrus reticulata* × *C. sinensis*

Scope of the treatment

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

Treatment descriptionName of treatment:Cold treatment of fruit of Citrus reticulata × Citrus sinensis for
Bactrocera tryoniActive ingredient:N/ATreatment type:Cold treatmentTarget pest:Bactrocera tryoni (Diptera: Tephritidae) (Queensland fruit fly)Target regulated articles:Fruit of Citrus reticulata × Citrus sinensis (tangor)

Treatment schedule

3 °C or below for 16 continuous days.

Efficacy and confidence level: ED_{99.9980} at the 95% confidence level.

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

 $^{^2}$ 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.

The fruit must reach the treatment temperature before treatment commences. The fruit temperature should be monitored and recorded, and temperatures should not exceed the stated level throughout the duration of the treatment.

Other relevant information

Pre-cooling of the commodity to treatment temperature may be required.

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

This schedule was 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.J. & Mansfield, E.R.** 2007. Cold disinfestation of citrus (*Citrus* spp.) for Mediterranean fruit fly (*Ceratitis 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.

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