



Food and Agriculture  
Organization of the  
United Nations



International Plant Protection Convention  
Protecting the world's plant resources from pests

INTERNATIONAL STANDARD FOR PHYTOSANITARY MEASURES 28

PHYTOSANITARY TREATMENT

ISPM 28  
ANNEX 29

ENG

# PT 29: Cold treatment for *Ceratitis capitata* on *Citrus clementina*

This page is intentionally left blank

This phytosanitary treatment was adopted by the Twelfth Session of the Commission on Phytosanitary Measures in 2017.  
The annex is a prescriptive part of ISPM 28.

# ISPM 28

## Phytosanitary treatments for regulated pests

### PT 29: Cold treatment for *Ceratitis capitata* on *Citrus clementina*

Adopted 2017; published 2017

#### Scope of the treatment

This treatment describes the cold treatment of fruit of *Citrus clementina*<sup>1</sup> to result in the mortality of eggs and larvae of *Ceratitis capitata* at the stated efficacy<sup>2</sup>.

#### Treatment description

<b>Name of treatment</b>	Cold treatment for <i>Ceratitis capitata</i> on <i>Citrus clementina</i>
<b>Active ingredient</b>	n/a
<b>Treatment type</b>	Physical (cold)
<b>Target pest</b>	<i>Ceratitis capitata</i> (Wiedemann, 1824) (Diptera: Tephritidae)
<b>Target regulated articles</b>	Fruit of <i>Citrus clementina</i> Hort. ex Tanaka

#### Treatment schedule

2 °C (maximum fruit core temperature) or below for 16 continuous days.

There is 95% confidence that the treatment according to this schedule kills not less than 99.9900% of eggs and larvae of *Ceratitis capitata*.

The fruit must reach the treatment temperature before treatment exposure time commences. 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

This schedule is based on the work of Santaballa *et al.* (2009) and was developed using the variety “Clemenules”, and using larval mortality.

---

<sup>1</sup> Citrus species and hybrids are named according to the nomenclature in Cottin, R. 2002. *Citrus of the world: A citrus directory*, version 2.0. France, SRA INRA-CIRAD.

<sup>2</sup> The scope of phytosanitary treatments does not include issues related to pesticide registration or other domestic requirements for contracting parties' approval of treatments. Treatments adopted by the Commission on Phytosanitary Measures may not provide information on specific effects on human health or food safety, which should be addressed using domestic procedures before contracting parties approve 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.

## References

The present annex to the standard may refer to International Standards for Phytosanitary Measures (ISPMs). ISPMs are available on the International Phytosanitary Portal (IPP) at <https://www.ippc.int/core-activities/standards-setting/ispms>.

**Santaballa, E., Laborda, R. & Cerdá, M.** 2009. Quarantine cold treatment against *Ceratitis capitata* (Wiedemann) (Diptera: Tephritidae) to export clementine mandarins to Japan. *Boletín de Sanidad Vegetal Plagas*, 35: 501–512 (in English).

### Publication history

*This is not an official part of the standard*

2010-04 Cold treatment for *Ceratitis capitata* on *Citrus clementina* var. *Clemenules* treatment submitted (2010-102).

2010-07 TPPT reviewed treatment and requested additional information.

2012-05 TPPT received additional information.

2012-12 TPPT requested additional information from Submitter.

2013-02 TPPT sent letter to Submitter through Secretariat.

2013-05 Submitter responded.

2013-07 TPPT recommended to SC for member consultation only for var. *Clemenules*.

2013-09 TPPT approved treatment schedule (virtual meeting).

2014-02 SC e-decision for approval for member consultation.

2014-06 Member consultation.

2015-02 Member consultation comments reviewed by TPPT.

2015-11 SC assigned the status “pending”.

2016-07 Modified by Treatment lead (EW) in response to country comments.

2016-09 TPPT meeting (TPPT agreed to change title (removing “varieties”) and invited SC to note the change in title from *Cold treatment for Ceratitis capitata on Citrus clementina* var. *Clemenules* (2010-102) to *Cold treatment for Ceratitis capitata on Citrus clementina* (2010-102); TPPT agreed that there are no fruit fly population differences in relation to cold treatment).

2016-09 TPPT recommended to SC for adoption.

2016-11 SC recommended to CPM-12 for adoption via e-decision (2016\_eSC\_Nov\_11).

2017-04 CPM-12 adopted the phytosanitary treatment.

**ISPM 28. Annex 29.** *Cold treatment for Ceratitis capitata on Citrus clementina* (2017). Rome, IPPC, FAO.

Publication history last updated: 2017-04

This page is intentionally left blank

## IPPC

The International Plant Protection Convention (IPPC) is an international plant health agreement that aims to protect cultivated and wild plants by preventing the introduction and spread of pests. International travel and trade are greater than ever before. As people and commodities move around the world, organisms that present risks to plants travel with them.

### Organization

- ◆ There are over 180 contracting parties to the IPPC.
- ◆ Each contracting party has a national plant protection organization (NPPO) and an Official IPPC contact point.
- ◆ Nine regional plant protection organizations (RPPOs) work to facilitate the implementation of the IPPC in countries.
- ◆ IPPC liaises with relevant international organizations to help build regional and national capacities.
- ◆ The Secretariat is provided by the Food and Agriculture Organization of the United Nations (FAO).

### International Plant Protection Convention (IPPC)

Viale delle Terme di Caracalla, 00153 Rome, Italy

Tel: +39 06 5705 4812

Email: [ippc@fao.org](mailto:ippc@fao.org) | Web: [www.ippc.int](http://www.ippc.int)

