

**PROTOCOL ON PHYTOSANITARY REQUIREMENTS FOR THE EXPORT OF
FRESH CITRUS FRUITS FROM ITALY TO CHINA**

between

**the Ministry of Agriculture Food and Forestry Policies
of the Italian Republic**

and

**the General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

Requirements for the establishment of pest free production site
for *Pantomorus cervinus* and *Apomyelois ceratoniae* in Italy,
on *Citrus* orchard

According to ISPM 10

SCOPE

In this document are described the requirements for the monitoring system that will be applied for the establishment and maintenance of the “pest free production site”. The pests monitored are *Apomyelois ceratoniae* and *Pantomorus cervinus*.

CHARACTERISTICS OF THE PESTS

- *Apomyelois* (= *Ectomyelois*) *ceratoniae*
Moth of the carobs *Lepidoptera: Piralidae*



The presence of this pest on citrus trees is correlated to mealybugs infestation. The larvae feed on the leaves and sometimes the peel of fruits. The infestation is largely present on the navel of orange, which allows the insect to enter and oviposit inside the fruits. Larvae can enter and feed in the fruits. The insect has 1-2 generations per year on citrus (during July and October).

Monitoring and Inspection methods

In open field The pest is very rare on citrus fruits. Means of monitoring is based on the visual inspection of infested fruits. N. 20 fruits are cut and checked for detection of larvae harvested on 20 trees per hectare (see ANNEX).

In packinghouse Before and during processing (washing, brushing, waxing and packaging), check fruits with symptoms on 2% of the consignment destined to the export. If the pest is detected or its presence is suspected, the consignment is reprocessed for local destination or rejected.

- *Pantomorus cervinus*
Fuller rose beetle *Coleoptera curculionidae*



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Fuller rose beetle does not cause economic damage in mature citrus. The presence of the eggs in the fruit could represent a quarantine concern for exportation. In Italy it has been detected on other crop plant (not citrus) on Aeolian islands, but it is not present in the Italian territory. According to IOBC report (IOBC wprs Bulletin, Vol. 62, 2011) it is not present on citrus trees in the Mediterranean area. Adults damage citrus leaves and the pest is a concern only on young trees. The larvae drop to the ground, live and pupate in the soil.

Monitoring and Inspection methods

In open field The pest is absent in the mainland Italy. Means of monitoring are based on the visual inspection of chewed leaves. If chewing is found, the branches are shaken on a white sheet beneath the canopy. N. 20 fruits are inspected under sepals for detection of beetle eggs on 20 trees per hectare and traps (synthetic wool) of 20 trees per hectare will inspected (see ANNEX).

In packinghouse Before and during processing (washing, brushing, waxing and packaging), check fruits with eggs on 2% of the consignment destined to the export. If the pest is detected or its presence is suspected, the consignment is reprocessed for local destination or rejected.

CHARACTERISTICS OF THE PLACE OF PRODUCTION

Each orchard included in the export program to China, will be monitored for the establishment of pest free production site

OPERATIONAL CAPABILITY OF THE PRODUCER

The producer will be assisted by a private consultant for the application of the monitoring system

System to establish pest freedom

A. ceratoniae is very rare and *P. cervinus* is absent in the territory of Citrus production.

The producer will carry out every **two weeks** a random survey on **5%** of the cultivated area to verify the absence of the two pests. The orchards will be monitored as described above in open field for both pests. Records of the monitoring activity will be maintained on a data sheet (see annexes). The formal agreements between the producers and the NPPO is based on the official request of the producer for export program of citrus in China.

System to maintain pest freedom



For both pests, the monitoring system will be maintained starting from April, for *P. cervinus*, and in August for *A. ceratoniae*, in each year of exportation.

If *A. ceratoniae* is detected, the rest-embalmed fruits and those dropped to ground are collected and burned.

For *P. cervinus*, an important component of the strategy to prevent the flightless adults from reaching the canopy is using skirt pruning (0,5 m from ground) in combination with a trunk barrier (synthetic wool, see picture).

In case one pest is detected a spray program with insecticides will be implemented. The producer will maintain the records of cultural and pest control procedures on the “calendar treatments of the orchard”.

If the pests will be detected a **buffer zone**, about 100 meters, will be established.

REQUIREMENTS AND RESPONSABILITIES OF THE NPPO

The official control will be carried out by trained inspectors of the NPPO.

Verification of establishment and maintenance of pest freedom

The NPPO will carry out **3 official surveys** (April, October and December) before the consignments are certified for exportation. In the surveys, the monitoring system of the producers and the relative records will be checked. The pest free site will be controlled at random on 5% of the cultivated area. For each official survey a form will be filled and subscribed by the producer. If necessary, samples will be collected for laboratory observations.

Product identity and phytosanitary security of the consignment

The consignments will be labeled in order to ensure the traceability to the pest free place of production. In each label the identity code of the producer and the code of the orchard will be reported.

Monitoraggi dei parassiti degli agrumi previsti da protocollo fitosanitario Italia – Cina *

Monitoring pests of citrus fruits under the phytosanitary protocol Italy - China *

FOR FREE PRODUCTION SITE

PARASSITA/PEST: 2. *Apomyelois ceratoniae* - NOME COMUNE/Common NAME: Tignola delle carrube/ carob moth

Azienda di produzione/Farmer _____ codice agrumeto/ orchard code _____

Specie e var. coltivata/species variety	Giorno/day	media di frutti con larve (n. frutti con larve/n. __frutti) average fruits with larvae (n. fruits with larvae /n. __ fruits)	Note/notes

Metodo di monitoraggio/monitoring method

Controllare a cadenza quindicinale la presenza del parassita sezionando 20 frutti presi da 20 alberi ad ettaro. Check every two weeks the presence of the pest cutting 20 fruits harvested on 20 trees per hectare

*La scheda di monitoraggio dovrà essere accompagnata da copia del "quaderno di campagna" - The monitoring schedule must be accompanied by a copy of "calendar treatment of the orchard"

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FOR FREE PRODUCTION SITE

PARASSITA/PEST: 3. *Pantomorus cervinus* - NOME COMUNE/COMMON NAME: Scarabeo/ Fuller rose beetle

Azienda di produzione/Farmer _____ codice agrumeto/ orchard code _____

Specie e var. coltivata/species variety	Giorno/day	Catture medie trappole (n. individui/n.__trappole) Average catch traps (n. specimens/n.__traps)	Media di frutti con uova (n. frutti con uova/n__frutti) Average fruits with eggs (n. fruits with eggs/n.__fruits)	Note/notes

Metodo di monitoraggio/monitoring method

Controllare a cadenza quindicinale la presenza del parassita controllando le trappole e sezionando 20 frutti (sotto i sepali) presi da 20 alberi ad ettaro
Check every two weeks the presence of the pest in the traps (synthetic wool) of 20 trees per hectare and on the 20 fruits (under sepals) harvested on 20 trees per hectare

*La scheda di monitoraggio dovrà essere accompagnata da copia del “quaderno di campagna” - The monitoring schedule must be accompanied by a copy of "calendar treatment of the orchard"