

## Data Sheets on Quarantine Pests

# *Ceratitis quinaria*

### IDENTITY

**Name:** *Ceratitis quinaria* (Bezzi)

**Synonyms:** *Pardalaspis quinaria* Bezzi

**Taxonomic position:** Insecta: Diptera: Tephritidae

**Common names:** Five-spotted fruit fly, Rhodesian fruit fly, Zimbabwean fruit fly  
(English)

**Notes on taxonomy and nomenclature:** *C. quinaria* belongs to subgenus *Ceratalaspis*.

**Bayer computer code:** CERTQU

**EU Annex designation:** I/A1

### HOSTS

*C. quinaria* has been recorded from apricots (*Prunus armeniaca*), *Citrus*, guavas (*Psidium guajava*) and peaches (*Prunus persica*).

### GEOGRAPHICAL DISTRIBUTION

**EPPO region:** Absent.

**Africa:** Botswana, Malawi, Namibia, South Africa, Sudan, Zimbabwe.

**Asia:** Yemen.

**EU:** Absent.

**Distribution map:** See CIE (1963, No. 161).

### BIOLOGY

Detailed biological data on *C. quinaria* is lacking, but this species presumably resembles *C. capitata* (EPPO/CABI, 1996a) in biology and survival capacity (possibly, in view of its essentially tropical distribution, it is even less tolerant of winter cold).

### DETECTION AND IDENTIFICATION

#### Symptoms

Attacked fruit usually shows signs of oviposition punctures.

#### Morphology

*C. quinaria*, like other *Ceratitis* spp., has banded wings, and a swollen scutellum which is marked yellow and black. The pattern of grey flecks in the basal wing cells distinguishes *Ceratitis* spp. from most other genera of tephritids.

The larva of *C. quinaria* has not been described. The adult is similar to that of *C. cosyra* (EPPO/CABI, 1996b) in that the males lack the spatulate frontal setae and feathered mid-tibia, and in having only one anepisternal seta. However, the black markings on the scutum and scutellum are very much smaller (see White & Elson-Harris, 1992 for illustrations).

### Detection and inspection methods

*C. quinaria* can be monitored by traps baited with male lures. Like many *Ceratitidis spp.*, it is attracted to terpinyl acetate but not to cue lure. Unlike the main pest species *C. capitata* and *C. rosa*, it is not attracted to trimedlure. The responses to baits of 16 *Ceratitidis* species were tabulated by Hancock (1987). A review of the biological aspects of male lures is presented by Cunningham (1989) and the use of lures is described more fully by Drew (1982).

### MEANS OF MOVEMENT AND DISPERSAL

Adult flight and the transport of infested fruit are the major means of movement and dispersal to previously uninfested areas.

### PEST SIGNIFICANCE

#### Economic impact

*C. quinaria* is not a significant pest of any host.

#### Control

The following general recommendations on control of *Ceratitidis spp.* probably also apply to *C. quinaria*. When detected, it is important to gather all fallen and infected host fruits, and destroy them. Traps containing male lures should be used to monitor population size and spread continuously. Insecticidal protection is possible by using a cover spray or a bait spray. Malathion is the usual choice of insecticide for fruit fly control and this is usually combined with protein hydrolysate to form a bait spray (Roessler, 1989); practical details are given by Bateman (1982). Bait sprays work on the principle that both male and female tephritids are strongly attracted to a protein source from which ammonia emanates. Bait sprays have the advantage over cover sprays that they can be applied as a spot treatment so that the flies are attracted to the insecticide and there is minimal impact on natural enemies.

#### Phytosanitary risk

*C. quinaria* is not considered as a quarantine pest by any regional plant protection organization. It used to appear in the broad category "non-European Trypetidae" of the EPPO A1 list (OEPP/EPPO, 1983) but it was recently decided that it did not merit individual mention.

### PHYTOSANITARY MEASURES

*C. quinaria* does not seem important enough for the EPPO region to justify specific phytosanitary measures. However, measures similar to those for *C. rosa* (EPPO/CABI, 1996c) would no doubt be suitable for excluding it.

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