



## Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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### Queensland fruit fly (425)

Relates to: **Fruit flies**



Photo 1. Queensland fruit fly, *Bactrocera tryoni*. Note, the yellow stripe towards the edge of the thorax as seen from above.



Photo 2. Queensland fruit fly, *Bactrocera tryoni* (side view).



Photo 3. Steiner fruit fly trap. A plastic cylinder about 1 litre volume, with openings at each end for entry of the flies and to allow free movement of the pheromone from the cotton wick.

### Summary

- Restricted. Oceania. In Australia (under eradication except Queensland), French Polynesia, New Caledonia, Pitcairn.
- A very serious and invasive pest causing rots in >200 fruits, vegetables and wild species.
- Eggs laid (100/day) inside hosts just below surface. Maggots up to 7 mm long, curl into U-shape and jump. Fall to ground to pupate. Adults 5-8 mm long, 10-12 mm wingspan, red-brown thorax, two yellow stripes near the sides, black spots below antennae, clear wings.
- Spread on the wing (strong flier), by people while travelling, and international trade in fruit.
- Natural enemies: parasitism up to 30% but not effective in suppressing populations.
- Biosecurity: technologies and schemes to facilitate trade including:
  - post-harvest measures: HTFA (high temperature forced air); low temperatures; insecticide dips; irradiation.
  - area freedom: supported by cultural and chemical measures, e.g., pheromone traps on defined grids; frequent monitoring; public awareness.
  - area-wide management: trapping; protein-bait/insecticide sprays; male annihilation (concentrated trapping); cover sprays as a last resort (e.g., dimethoate); community application of cultural controls; public awareness.

- Cultural control: i) monitor - trap male flies with pheromone (cure-lure); regularly check ripe fruit; ii) proteins baits – use yeast autolysate and insecticide spray; iii) hygiene – bag fruit; harvest early; pick up fallen fruit, and destroy.
- Eradication: define quarantine area; control fruit movement; remove fruit from trees and collect fallen fruit, protein bait/insecticide sprays; male annihilation; possibly SIT (sterile insect technique)

## Common Name

Queensland fruit fly; abbreviation QFF.

## Scientific Name

*Bactrocera tryoni*

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Information (and Photos 1&2) Hinkley S, Walker K. (2005) Queensland Fruit Fly (*Bactrocera tryoni*). PaDIL - <http://www.padi.gov.au>; and Ekman J (2016) Fruit fly management for vegetable growers. Applied Horticulture Reseach. Horticulture Innovation Australia. (<http://ahr.com.au/wp-content/uploads/2017/01/Fruit-Fly-guide-Booklet.pdf>); and Information for gardeners. Agriculture Victoria. (<http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/pest-insects-and-mites/queensland-fruit-fly/gardeners>); and CABI *Bactrocera tryoni* (Queensland fruit fly) (2018) Crop Protection Compendium. (<http://www.cabi.org/cpc>); and from Waterhouse DF (1993)<sup>1</sup> *Biological Control Pacific Prospects - Supplement 2*. ACIAR Monograph No. 20. Brown Prior Anderson, Burwood, Victoria.

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