



Factsheet

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Queensland fruit fly *Bactrocera tryoni* *Exotic threat to Western Australia*

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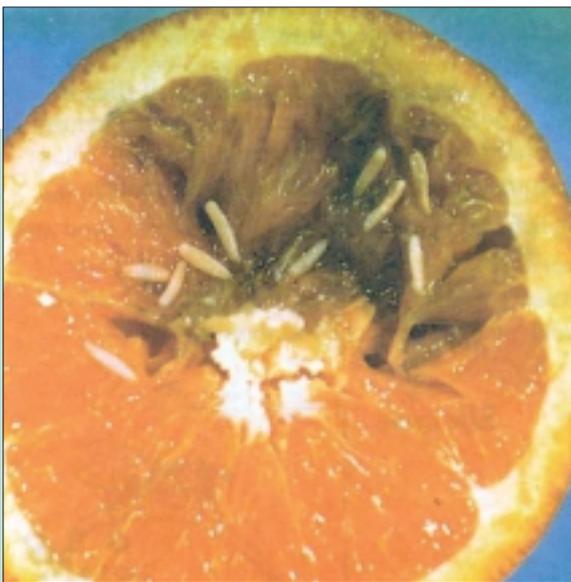


PHOTO: PERPELICIA, PRI, SOUTH AUSTRALIA

INTERNAL DAMAGE TO ORANGE



PHOTO: AGRICULTURE WESTERN AUSTRALIA

ADULT QUEENSLAND FRUIT FLY

Background

Queensland fruit fly is the most serious insect pest of fruit and vegetable crops in Australia. It infests all commercial fruit crops, other than pineapple and strawberry.

Distribution

Western hemisphere – Absent

Africa – Absent

Oceania – Australia (New South Wales and Queensland), French Polynesia, New Caledonia, Pacific Islands and Vanuatu.



DISTRIBUTION



Potential impact

Queensland fruit fly is an important pest wherever it has established in Australia. It is a very serious pest of a wide variety of fruits and some vegetables throughout its range. Damage levels can be up to 100% of unprotected fruit. In Australia potential losses if fruit flies were not controlled have been estimated at A\$100 million a year, and most of this would be attributable to Queensland fruit fly.

Plants affected

Major hosts: *Malus* (ornamental species apple), *Pyrus* (pears), *Malus domestica* (apple), *Cydonia oblonga* (quince), *Malus domestica* (apple), *Prunus armeniaca* (apricot), *Coffea arabica* (coffee), *Eremocitrus glauca* (australian desert lime), *Persea americana* (avocado), *Morus nigra* (black mulberry), *Rubus fruticosus* (blackberry), *Rubus ursinus* (california berry), *Physalis peruviana* (cape gooseberry), *Averrhoa carambola* (carambola), *Anacardium occidentale* (cashew), *Citrus medica* (citron), *Ficus racemosa* (cluster fig), *Ficus carica* (fig), *Psidium guajava* (guava), *Annona reticulata* (custard apple), *Phoenix dactylifera* (date palm), *Musa acuminata* (wild banana), *Juglans regia* (walnut), *Vitis labrusca* (fox grape), *Passiflora quadrangularis* (giant granadilla), *Citrus x paradisi* (grapefruit), *Opuntia ficus-indica* (indian fig prickly pear), *Ziziphus mauritiana* (jujuba), *Flacourtia jangomas* (indian plum), *Spondias cytherea* (jew plum), *Solanum laciniatum* (kangaroo apple), *Dovyalis caffra* (kei apple), *Citrus limon* (lemon), *Eriobotrya japonica* (loquat), *Citrus reticulata* (mandarin), *Mangifera indica* (mango), *Prunus cerasifera* (myrobalan plum), *Olea europaea* (olive), *Carica papaya* (pawpaw), *Prunus persica* (peach), *Pyrus communis* (pear), *Diospyros kaki* (persimmon), *Prunus domestica* (plum), *Punica granatum* (pomegranate), *Citrus grandis* (pummelo), *Passiflora edulis* (passionfruit), *Cydonia oblonga* (quince), *Syzygium jambos* (rose apple), *Fortunella japonica* (round kumquat), *Mimusops elengi* (spanish cherry), *Psidium littorale* (strawberry guava), *Annona squamosa* (sweetsop), *Eugenia uniflora* (surinam cherry), *Prunus avium* (cherry), *Citrus sinensis* (orange (sweet), *Capsicum frutescens* (chilli), *Lycopersicon esculentum* (tomato), *Terminalia catappa* (tropical almond), *Syzygium aqueum* (watery rose-apple), *Ficus benjamina* (weeping fig), *Morus alba* (mulberry), *Casimiroa edulis* (white sapote), *Vitis vinifera* (grapevine), *Cananga odorata* (ylang-ylang).

Queensland fruit fly has also been recorded from 60 wild hosts, belonging to the following families: Anacardiaceae, Annonaceae, Apocynaceae, Cappariaceae, Celastraceae, Combretaceae, Cunoniaceae, Davidsoniaceae, Ebenaceae, Euphorbiaceae, Lauraceae, Meliaceae, Moraceae, Myrtaceae, Naucleaceae, Oleaceae, Passifloraceae, Rhamnaceae, Rutaceae, Sapindaceae, Sapotaceae, Siphonodontaceae, Smilacaceae, Solanaceae and Vitaceae. This very wide host range enables Queensland fruit fly to build up large populations in forest areas (in its native range), which then act as reservoirs from which to invade crops.

Season of occurrence

Outbreaks are most likely to occur from November till May, but some activity may continue during cooler months of the year.

Symptoms

Queensland fruit fly feed internally on fruit. Following oviposition there may be some necrosis around the puncture mark ("sting"). This is followed by decomposition of the fruit.

