Fact sheet

Plant Health AUSTRALIA

Exotic fruit flies

What are exotic fruit flies?

There are many fruit flies (FF) not currently present in Australia that would present a major risk to the citrus industry if they entered and became established. Some of these species include Mexican FF (*Anastrepha ludens*), Caribbean FF (*A. suspensa*), New Guinea FF (*Bactrocera trivialis*) and Oriental FF (*B. dorsalis*). The majority have wide host ranges and cause major economic impacts through production losses and restrictions on local trade and international market access.

Mexican fruit fly adult female; note the long ovipositor

Caribbean fruit fly adult female

Oriental fruit fly adults

What do they look like?

Mexican and Caribbean FF have yellow to brown bodies with long patterned wings. As with other *Anastrepha* spp., the wing pattern is characteristic, with the apical half of the wing having two inverted 'V'-shaped markings. Mexican fruit fly can be distinguished from *A. suspensa* by its wing band colour (pale yellow in Mexican fruit fly vs. dark brown in Carribean FF) and the long ovipositor of the Mexican FF female. In addition, the Mexican FF is about 7-11 mm long, while the Caribbean FF is about 12-14 mm long.

The Oriental FF is about 8 mm in length with clear wings and a slender, sharply pointed ovipositor. The colour of the fly is variable; however, there are prominent dark brown to black and yellow markings on the thorax. The abdomen is generally pale, with two horizontal black stripes and a longitudinal stripe in the middle which may form a distinctive dark coloured T-shaped marking. In contrast the New Guinea FF does not have this distinctive marking. It has a body that is black or a mixture of black and yellow, a thorax that is black with whitish-yellow markings, a predominantly black or yellow to orange-brown abdomen and clear wings.

What can they be confused with?

There are several species of fruit fly already present in Australia found on citrus. These include Mediterranean FF, present in parts of Western Australia and Queensland FF which is widespread throughout Queensland and has a limited distribution in the Northern Territory and south-eastern Australia. Any FF that looks different to those regularly encountered should be reported and further examined by an entomologist.

Caribbean fruit fly larvae in fruit

What should I look for?

As well as looking for adults (described left), look for larvae in suspect fruit which are the typical white colour and cylindrical shape of maggots and at full size measure about 7 mm. These appear following the laying of white banana shaped eggs beneath the skin of ripening fruit. Emerging larvae tunnel into the fruit to feed and contaminate it with frass. They leave holes when exiting to the ground to pupate in soil.

Fruit should be inspected for symptoms of infestation, such as puncture marks and black or brown lesions resulting from the associated decomposition of fruit. Infested fruit appears water soaked or distorted and considerable damage can occur inside the flesh before obvious signs of infestation can be seen on the fruit. Premature fruit drop may also occur.

New Guinea fruit fly adult

How do they spread?

Adult fruit flies can disperse over long distances by flight or wind currents and can also spread via the movement of fruit infested with larvae.

Where are they now?

Mexican FF is present in Central America, the Caribbean and Mexico. The Caribbean FF is present in the Greater Antilles, Virgin Islands, Bahamas and USA (Florida). The Oriental FF is widespread in mainland Asia, parts of south-east Asia (including Indonesia) and parts of the South Pacific. New Guinea FF is present in Papua New Guinea and Indonesia.

How can I protect my orchard from exotic fruit flies?

Check your orchard frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common citrus pests so you can tell if you see something different.

If you see anything unusual, call the Exotic Plant Pest Hotline

EXOTIC PLANT PEST HOTLINE
1800 084 881