

MELON FLY (*Myiopardalis* (syn. *Carpomyia*) *pardalina*)

Melon Flies copulating



Melon Fly pupae



Melon Fly laying eggs



Melon destroyed by melon fly. All unharvested fruit should be removed and destroyed.



Melon infested by melon fly. The exit holes where larvae left the fruit to pupate are clearly visible.

Description

Melon Fly is sometimes known as 'Baluchistan Fly'. Melon flies occur all over Afghanistan, but *M. Pardalina* has spread across the north since 2002, mostly infesting sweet melons, but other cucurbits as well. Not only are many melons unsalable, but exports are difficult because of quarantine restrictions in importing countries. High pesticide residues from over spraying near harvest may also be a problem. Losses of 80-90% are reported.

Melon fly overwinters as a pupa in soil at 5-15 cm depth, but can survive burial up to 50cm deep. Flies emerge in May/June when cucurbit flowers are setting. Eggs laid in melons hatch in 3 days and the larva develops in the melon for 8-18 days and then pupates 13-20 days either in the melon or the soil. There may be 3 overlapping generations in summer of about 30 days each.

Monitoring

Monitoring for melon fly depends on local knowledge of crops in the area the previous year. No traps are available for adult flies.

Control

Melon fly pupae are located in the soil directly under infested melons. Deep ploughing or flooding the field have not been effective in destroying pupae. They survive sowing of winter wheat.

Removing all melons from the field is very important. Dusting the soil underneath the melon with carbaryl may give some additional control. Unsold fruit should be buried at least 75cm and lime should be added to kill pupae.

The most effective method of melon fly control is to bag fruit immediately after pollination. Although successful in other countries, the economics may be different in Afghanistan: prices are low and there are few newspapers to make bags. Commercial bags can be imported from China

Adult melon flies do not have to feed before laying eggs. Thus baits are not effective. If growing within 500m of a melon crop the previous year, sprays of deltamethrin should be applied to fruit at 'apricot' size and repeated at 10-day intervals, but care should be taken to observe the recommended dose and the harvest interval (time between last spray and harvest).