

# Oriental fruit moth on peach

*Grapholita molesta* syn. *Cydia molesta*, oriental fruit moth, ferskenvikler, 梨小食心虫 in Chinese



Old up to 1.5 cm larva; fruit with holes, gummosis, frass (photo L.A. Hull)



Dark grey marmorated, 1 to 1.5 cm adult fruit moth (photo Erukidze)



Larva in twig can cause dieback (photo Hossain)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> <li>Deep plough the soil around peach trees in autumn to reduce overwintering larvae</li> <li>Intercrop with chestnut to support natural enemy parasitic wasps</li> <li>Remove pruned braches and post-harvest fruits to decrease pests before winter</li> <li>Flood the soil with water about 70-100 cm on the ground for 3-5 days in winter to kill the overwintering larvae</li> </ul>	<ul style="list-style-type: none"> <li>Start monitoring for larvae at flowering every 3 to 5 days.</li> <li>Choose 10 out of 100 trees for monitoring. Look on upper leaves, newly top twigs and young fruits for redish 1 to 1.5 cm soft larvae with dark head</li> <li>Leaves are distorted and wilt, twigs dieback due to larvae feeding</li> <li>Fruits may have several holes and gummosis exits</li> <li>Consider action when 10-15 percent of the peach trees have 10 to 20 larvae</li> <li>Lure adults with pheromone ((z)-8-twelve carbene-1-alcohol acetate) during March to October at night to estimate peaks of moth populations and subsequent egg laying period. At 15 to 30 moths per night consider action against eggs few days later and against young larvae 1 to 2 weeks later.</li> </ul>	<ul style="list-style-type: none"> <li>Tie grass to the stems after harvest to gather overwintering larvae and burn grass in spring</li> <li>In early spring, clean up the old, drying bark of stems with knife and kill the overwinter larvae on bark</li> <li>Prune dieback twigs with wilting leaves every third day in flowering period</li> <li>Put black light trap (such as from BYQ company) on the branch about 2 meters high to attract and kill adults during March to October (1 trap per 1-5 trees)</li> <li>Release 1.5 million <i>Trichogramma dendrolimi</i> (from biological companies) per hectare when the high peak of adults, because they will parasitize and kill the newly laid eggs.</li> </ul>	<ul style="list-style-type: none"> <li>When using a chemical or botanical pesticide, always wear protective clothing and follow the instructions on the product label.</li> <li>WHO toxicity class II pesticides may not be allowed in certain IPM or "green" production schemes.</li> <li>Always consult recent list of registered pesticides of ICAMA/China, and of China pesticide information network.</li> <li>Abamectin- products (such as Avi worm qing 25%EC, and others) against young larvae (1 to 2 weeks after peak of adult flight). Usually dilute product 1500-2500 times with water and flat spray 375ml-600ml active ingredient / hectare. But double check product label. No resistance reported so far.</li> <li>Lambda-cyhalothrin - products (such as Peach heart snack net 2.5% EC, and others ). Usually applied as 2000-3000 times diluted liquid (600g active ingredient / hectare); but double-check product label. Pyrethroid of contact action. Moderate risk of resistance.</li> </ul>	<ul style="list-style-type: none"> <li>Not classified by WHO, but considered to be potentially slightly acute hazardous; pre-harvest interval (p.h.i.) 3 weeks; restricted re-entry interval (r.e.i.) 1 day after spray; min retreatment 10 days for max 3 sprays. Toxic to bees, and aquatic organisms. Cover leaves, twigs, and young fruits. Spray early in the morning 6.00-9.00 am, don't spray when rainy.</li> <li>WHO toxicity class II (moderately acute hazardous); p.h.i. 21 days. r.e.i. 3 days after spray; max 2 sprays per season in min 1 week interval. Cover leaves, twigs, and young fruits in early morning during April to July when thresholds are reached. Do not spray near water sources because toxic to fish</li> </ul>

## China

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