Grapholita molesta *(oriental fruit moth / peach moth)*

Grapholita molesta, known commonly as oriental fruit moth or peach moth is a moth of family Tortricidae. This pest is native to north-west China, and spread from Japan to Australia, central Europe, the east coast of the USA and Brazil at the beginning of the twentieth century. Since then the pest has been introduced into many other countries.

The pest has, during the course of this century, spread from its east Asian origin to practically all the major stonefruit-growing areas of the world

Life History

The number of generations per year varies from four to six. The adults of the first generation survive 30-40 days, compared with 11-17 in later generations. Egg deposition usually begins 2-5 days after the females emerge and continues for 7-10 days or longer. The eggs are laid singly and each female lays 50-200 eggs. In peach orchards, especially on young trees, most of the eggs are found on the under-surface of leaves near the tips of growing twigs. In quince and apple orchards the eggs are placed on the upper surface of the leaves.

The larval development lasts 6-22 days, varying with temperature, humidity and feeding conditions. In spring the larvae infest the young shoots of numerous fruit trees, while in summer they feed on fruits. G. molesta attacks both wild and cultivated trees, but appears to prefer the latter.

Hosts

The principal economic hosts are fruit trees of the genera Prunus, Malus and Pyrus, and Cydonia oblonga. The species also occurs on other fruit trees and ornamental trees of the Pomoideae (Cotoneaster, Crataegus. Host range includes apple, stonefruit, loquat, apricot, sweet cherry, plum, almond, peach, pears.

Nature of Damage

G. molesta is a serious pest of economic importance of commercial stone and pome fruits around the world. G. molesta damages peaches, nectarines, plums, cherries, apricots, apples, pears, quinces and nashi (Asian pears) and can also attack and cause economic damage on other commercial fruits. In severe attacks, young trees can suffer distortion of growing shoots and stems, which makes pruning, training and shaping the tree canopy difficult, particularly for close-planting industrial systems such as Tatura trellis. One larva can damage many shoots by tunnelling deep into young shoot tips. Larvae move to feed on the green fruits usually after shoots mature and harden. One larva can damage many fruits, particularly when fruits are located close to each other.

Identification of the Pest

The wingspan is about 13 mm. Adults are gray with brown markings. There are four to seven generations per year. The larvae feed on peach, apple, quince, pear, plum, cherry, apricot and nectarine. They are pinkish to creamy-white with brown heads and about 13 mm long. Early in the season, larvae tunnel in tender twigs causing twig die-back. Heavy infestations may give the tree a bushy appearance. Later generations may feed on terminal growth and developing peaches. Larvae attacking the fruit often enter near or through the stem and bore directly into the interior of the fruit. Larger peaches may show no external damage. Fruit damage may cause an increase in the amount of brown rot.

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Management

Use Pheromone Traps continuously throughout the year to monitor population. For mass trapping one trap recommended for every 150 Sq Meters.

Always use Phero – Sensor ^{TM} – SP / BP Traps in dusty areas or heavy populations and Delta trap in non dusty areas and with low population density for best results

Specifications of Pheromone Lures

1. Works for a minimum period of 30-45 days in after installation (temperature ranging 27-30 degree Celsius).
2. Made of high quality silicone rubber for uniform release of pheromone in tube form.
3. Packed individually in aluminum foil pouches.
4. Have a shelf life of 18 months from manufacturing.