

# MONITORING GUIDE

## CODLING MOTH

*Cydia pomonella*

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### Suggested Traps

#### Delta 2



Product No. 2050202

#### Delta 1



Product No. 2050201

#### Diamond Trap



Product No. 2050204

### GENERAL INFORMATION

Insect monitoring traps are used to identify not only the presence or absence of a certain insect species, but also to establish the extent of their activity in a particular location. This information can be used to determine which stage of the insect life cycle is occurring at any time, allowing for more accurate and timely applications of control methods. Basic knowledge of the insect's life cycle is necessary, since the monitoring traps are only effective on the adult stage of the insect.

Regular recording of the trap catch is essential and over the years will provide a reliable blueprint with which the grower can properly manage the pest. In addition to collecting trap-catch information, it is also vital to assess the amount of insect damage that occurs in every generation of the insect, as a measure of the effectiveness of the control treatments.

### LIFE HISTORY

The Codling Moth is one of the most common pests of apples worldwide, but also attacks pear, crabapple, quince, walnut and certain other fruits. The insect produces 1-2 generations during the season (depending on locality) and overwinters as a late stage larva under the rough bark of the tree trunk, or even in and around apple packing sheds. These overwintering larvae have good low temperature tolerance and those that are found under the tree bark are often 30-60cm above the ground.

Between mid to late April, the larvae pupate within their protective cocoon, and form a hard brownish pupa which hatches into an adult moth between 2-4 weeks later, depending on temperature.

The grayish moths are moderately large (with a wingspan of about 18mm) and appear around the end of May or early June. They can be recognized by bronze chocolate-brown patches on the tips of the front wings, and faint wavy crossbands of brown on the rest of the wings. Mating activity takes place as the evening temperatures increase to about 16°C. The female can lay 300 eggs or more, often singly, on the fruit or leaf surfaces. Eggs hatch out after about 2 weeks (less in very hot weather) and the emerging larvae attack the fruits.

At first the larvae may feed on the fruit surface, but eventually they will tunnel into the centre of the fruit and eat the seeds. About 3 weeks later the mature larvae exit the fruit, drop to the ground and make their way to a suitably well-protected place on the bark. Here they spin a protective cocoon. The second generation of adult moths emerge from these cocoons about 2 weeks later (early August) and the life cycle is repeated.

### TRAP PLACEMENT

Traps should be placed in the orchard before the first moths emerge (mid-late May). Hang the traps at head height in the trees and space them 30 metres apart.

Monitor regularly (twice a week), record the catch and **scrape out** the moths each time so that you don't count the same moths next time. Plot the average number of moths caught from all the traps onto your graph to determine the peak population - usually the end of May and again in mid-August. The timing for the first generation spray should be 10-14 days after this peak is reached, and in the second generation, 3-4 days after the peak, since development is often faster. Keep annual records and monitor on the same regular 3 or 4-day cycle all season.

Replace the pheromone lure after 6 weeks. Keep lures in the freezer until ready for use.

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