
PHEROMONE
desire®
Pheromone traps and lures
Pest monitoring tools
Can be used to determine:
Which moth species are present
When moths are flying
Relative numbers of moths
Spray requirements in pipfruit and summerfruit IFP programmes
New!
Bee-friendly traps
Available in red and green
Plant & Food RESEARCH
RANGAHAU AHUMĀRA KAI

Pheromone traps and lures

Desire®pheromone traps and lures provide an environmentally friendly method of insect pest monitoring.They are essential pest monitoring tools in all IFP programmes.

IFP - Integrated Fruit Production is the economic production of market quality fruit, giving priority to methods that are the safest possible to the environment and to human health. The programme emphasises an integrated approach to pest and disease management, encourages monitoring to determine if pest and disease thresholds have been exceeded, and gives preference to non-chemical controls.

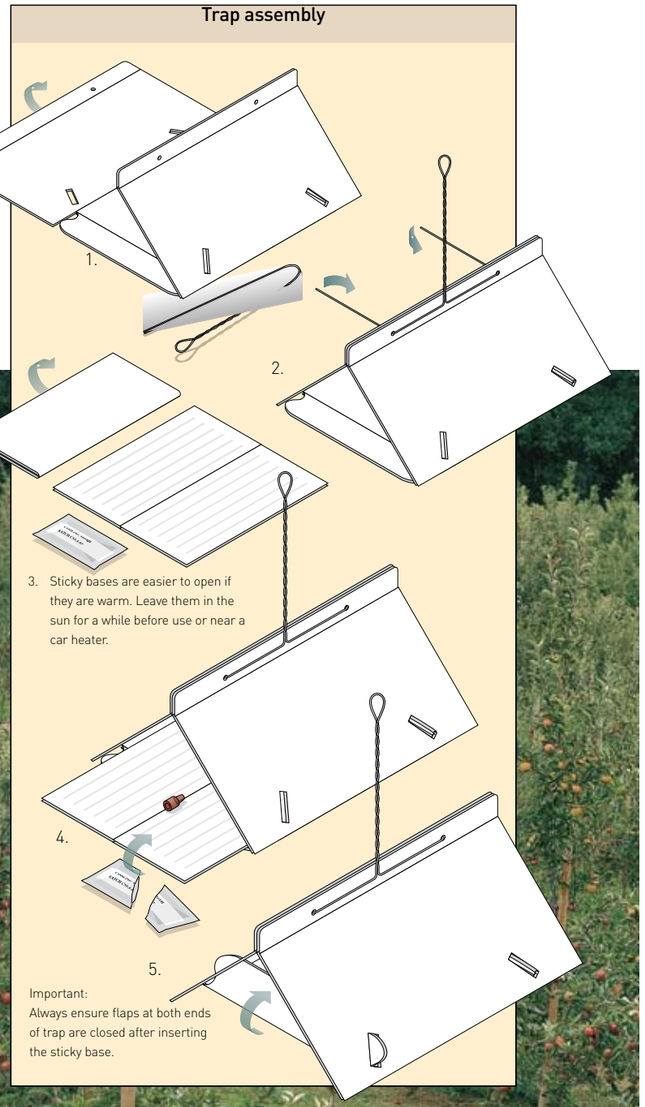
How do Desire®pheromone traps and lures work?

Desire® pheromone traps are specially designed open-ended traps, each containing a pherocap (a rubber lure impregnated with a synthetic pheromone for a specific species), and a sticky base insert. Male moths are attracted to the scent from the pherocap and caught on the sticky base of the trap.

Monitoring pest populations.

Desire® pheromone traps can be used to determine some insecticide applications in pipfruit and summerfruit Integrated Fruit Production (IFP) programmes

Estimating the pest levels within an orchard is an essential part of IFP. Informed pest control decisions can only be made on the basis of reliable estimates of pest numbers. It is important that monitoring guidelines are followed to prevent serious crop damage and/or to avoid unnecessary pesticide use.



Benefits of using pheromone traps:

- The pheromone trap is a tool for monitoring adult moth flight activity.
- Determines which moth species are present in the orchard.
- Monitors relative levels of moth activity during the season.
- Allows for decisions to be made on basis of reliable estimates of moth numbers.
- Traps are species-specific.
- Used to determine spray requirements in pipfruit and summerfruit IFP programmes.

Trap placement

Traps should be placed about 1.5m (5ft) above the ground. Use the wire to hang the trap from a tree, a support wire or post. You may want to identify it with a streamer to make it easier to find.

Where more than one insect species is being monitored, single traps should be placed together at one site but at least 5m apart to avoid interference between the pheromones of different species.

To monitor orchard populations traps must be placed within orchard blocks (at least 30 metres from block borders).

Perimeter and internal traps may be required initially to determine whether there is a resident population within the orchard or whether moths are flying in from external host plants.

Trap number

For effective monitoring for codling moth, not less than one trap per hectare, and for all other species, not less than one trap per two hectares.

When to start

As traps often catch resident populations of moths when they are first placed in the orchard, they should be placed and cleared for at least one week before spray decisions have to be made based on trap catch.

Trap action thresholds

Thresholds have been developed for codling moth, oriental fruit moth and leafroller in pipfruit and summerfruit orchards. Thresholds may differ regionally, by market (e.g. IFP-USA, process crops), or be further refined on an annual basis. Please consult a current IFP manual or consultant for threshold values.

Thresholds may require you to accumulate trap catch (add this week's catch to last week's accumulated catch), or average the catch across all traps (total moths caught in all traps, divided by the number of traps).

When the threshold is exceeded, spraying is required within 1-2 weeks.

Recording information

Weekly catches should be recorded on a trap catch template (example included). Record the date, number of moths per trap and the accumulated catch for each trap.

If monitoring more than one species, place traps at least 5 metres apart to avoid interference between the pheromones of the different species.

Trap maintenance

It is important that traps are correctly maintained. Inadequately maintained traps will catch fewer moths and will therefore affect your pest management programme.

Keep entrances to the traps free of vegetation to ensure the flow of air through the trap is unimpeded.

Handling of pherocaps

- Keep refrigerated until use.
- Do not touch the pherocap with your fingers. You may contaminate the cap and make it less attractive to moths.
- Remove all old pherocaps from orchard and dispose in rubbish, as they may compete with the traps.
- Discard pherocaps that have passed their use by date, as pheromone chemicals degrade over time.

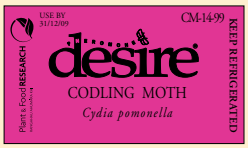
Weekly - Traps need to be checked and cleared on the same day every week. Count and record the number of moths caught. Remove all moths and any other stray insects with a penknife, scraper or twig.

Three weekly - Replace sticky base inserts every three weeks. Replace more often if dust, high moth catch or other insects (bees) have affected stickiness. Use forceps, pen or twig to transfer pherocap between bases.

Six weekly - Every six weeks replace pherocaps. Place pherocap in the centre of the sticky base using foil wrapper to avoid touching with fingers.

Codling moth *(CM) Cydia pomonella*

Important pest in pipfruit, as they directly attack apples and pears in all districts. Start trapping mid to late October. Control must be achieved before the larva enters the fruit.



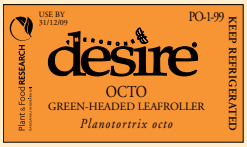
Lightbrown apple moth *(LBAM) Epiphyas postvittana*

Pest of most fruit crops. LBAM trap-catch used to determine leafroller spray requirements in summerfruit and pipfruit in all districts. Start trapping early December.

Green-headed leafrollers OCTO *Planotortrix octo* **PEX** *Planotortrix excessana* *(adults of both species look identical)*

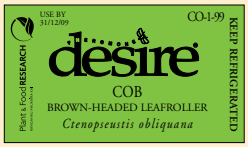
OCTO important species in parts of Otago, Canterbury and Hawke's Bay. OCTO should be used for thresholds in Otago.

PEX important species in subtropical fruits in the North Island and Nelson.



Brown-headed leafrollers COB *Ctenopseustis obliquana* **HERANA** *Ctenopseustis herana* *(adults of both species look identical)*

COB important species in pears and parts of Hawke's Bay. Species distribution is varied and overlapping.



Oriental fruit moth **(OFM)** *Grapholitha molesta*

OFM is a cosmopolitan pest of stone and pipfruit. Trapping of OFM is important in North Island summerfruit IFP. Check traps weekly from mid September to February.

Black lyre moth *Cnephasia jactatana*

Important leafroller species in kiwifruit orchards.

Tomato fruit worm *Helicoverpa armigera*

Pest of tomatoes and corn.

Potato tuber moth *Phthorimaea operculella*

Potato pest.

Desire® pheromone traps and caps are available at all leading merchant suppliers.
Supplied by:

For further information refer to • HortNET at www.hortnet.co.nz/ • ENZA IFP manual • Heinz Watties NZ Processing Peach IFP manual