

RESEARCH LABORATORY TECHNICAL REPORT

Pheromone Traps

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A pheromone is a sex hormone that attracts male insects. The pheromones released by an insect can usually only be detected by individuals of the same species i.e. pheromone traps are insect specific and will not attract other insect species. These pheromone are typically placed in glue or liquid container traps and used to manage and/or monitoring insect populations (caterpillar, boring beetle, leaf miners etc). Pheromone traps are designed to attract insects at very low population densities to allow control measures to be in place prior to insect populations building up.

Types of Pheromone Traps

Two types of pheromone trap exist:

A container traps (Photograph 1) or a Delta trap (Photograph 2). Pheromone traps should be installed early in the growing season (April-May).



Photograph 1: Container Trap

Container traps are delivered almost fully assembled, pheromone capsule will need opening and inserting into the lid of the trap. The base should be filled with water and a drop of washing up liquid and the lid inserted on top.

Instructions for Assembling A Delta Trap (Figure 1)

(1) Open the flat packed Delta trap.

(2) Slot the 2 flaps on one side of the trap into the slits.

(3) Place sticky insert inside the base of the Delta trap and slot the remaining 2 flaps into the slits to secure the sticky insert.



Photograph 2: Delta Trap

(4) If using a lure holder, put one pheromone lure into the basket of the lure holder and slot the lure holder into the apex of the delta trap (with the basket containing the pheromone directly above the sticky insert).

(5) If a lure holder is not used, place the lure on its side in the centre of the sticky insert.

(6) Use the holes at the apex of the delta trap to thread through the wire hanger.

(7) Make sure the wire hanger is secured to the Delta trap.

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(8) Hang the delta trap on a branch 1.5-2.0m above ground level within the tree canopy on the canopy of the tree.

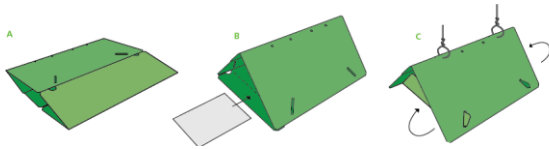


Figure 1. Assembling a Delta Trap

Instructions for Monitoring with Delta Trap

- (1) Hang the traps 1.5-2.0m above ground level within the tree canopy within the canopy level of the trees.
- (2) It is important to space the traps at least 40m apart to prevent the traps from interfering with each other.
- (3) Trapping density should be adjusted to the infestation level with a higher trap density being adopted for higher infestations.
- (4) It is recommended to replace the pheromone dispensers every 4-6 weeks to achieve optimum results.
- (5) Replace the sticky inserts when they become filled with dust or insects. (Photograph 3)



Photo 3: Insect sticky traps

The guidelines presented for Delta traps should be used if using container traps.

Further Information When Using Pheromone Traps

Each pheromone is designed for a specific insect. No trap will be effective for all insects.

Lures need to be replaced often (5-6 weeks) for maximum efficiency.

Traps can be affected by bad weather (high winds, heavy rain etc.). Check traps afterwards to see if they need repair or replacement.

Ensure traps are out of the reach of children and pets

Wash your hands thoroughly after using pheromones.



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