

## Hemlock Looper

### MULTI - PHER SEX PHEROMONE TRAPS

A. functional sex pheromone trap consists of three parts: i) the trap itself, ii) a pheromone lure and iii) a killing agent.

#### Trap:

The Multiplier trap is a high capacity re-useable trap, capable of monitoring spruce budworm moth populations over a wide range of densities. Using the lure provided, catches will range from 10-20 at low population densities to over 1000 at high densities.

To assemble the trap follow the attached instructions.

#### Lure:

The lure is a pellet with the pheromone incorporated into it to provide a slow, controlled rate of release to last throughout the moth flight period.

Immediately upon receipt place the lures in a freezer, or if not available, a cool place. Avoid at all times direct sunlight, or excessive heat (do not place them on the dashboard or in the glove compartment of a car).

To mount the lure, in the trap a pin must be inserted through it. This can be done anytime prior to deployment of the trap, but again store the pinned lures in the freezer.

When the traps are to be placed out, pin the lure inside the "shuttle-cock" which is then inserted into the inside lower surface of the lid as shown in the figure. During this process avoid touching the lure with your fingers as this may result in contamination of the trap.

Lures may be mounted in the traps and the traps assembled the day before being deployed, provided they are kept in a cool shady place. Avoid putting the insecticide in until the trap is being deployed.

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### Killing agent (insecticide)

The killing agent is a plastic strip impregnated with dichlorvos (DDVP). The particular brand used is "Vaportape II". Each tape is individually wrapped in tin-foil. Keep in a cool place until use, but not where food or live insects are kept.

Open tin-foil and place Vaportape in trap at time of deployment. The tape can be placed in the bucket of the trap through the hole in the funnel after the trap is assembled.

Avoid handling the tape, and do not carry large numbers of traps in the car with the exposed tape in them for any length of time --- the fumes are poisonous.

### Trap collection and moth counting

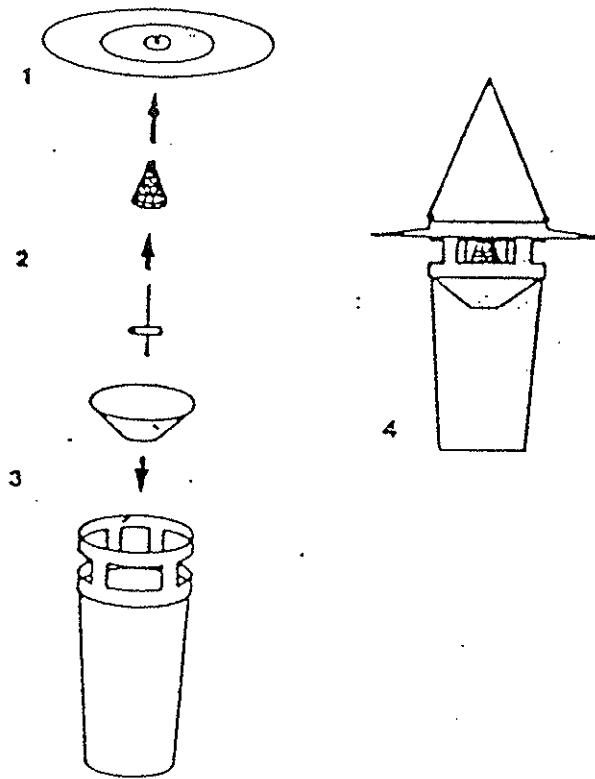
Collect the traps up soon after moth flight is complete, allowing a few days grace to ensure the flight is completely over.

How the catches will be counted and recorded will be decided by the local coordinator. If the catches are to be returned to a central location for counting, they can be tipped into paper bags, which can then be sealed with a stapler. Keep a separate bag for the contents of each trap (make sure the bag is labelled). Avoid plastic bags as the moths may rot if at all damp.

After use the pheromone lure and the insecticide should be discarded, NOT left in the trap. Traps should be washed with detergent, rinsed thoroughly and then left out in full sunlight for a few days to remove residues of pheromone and insecticide.

Avoid, if possible, using the same trap for different species of insect --- the residual pheromone of one species may affect the response of another species..

## Assembly of Multi-pher Trap



1. Pin pheromone lure inside "shuttlecock" cage.
2. Insert "shuttlecock" cage into lid and press firmly to snap it into place.
3. Insert funnel into bucket, push down firmly all around to ensure proper positioning.
4. Attach lid by pressing down and twisting. Check to ensure proper fit.
5. Attach wire "hanger".
6. Stick warning label prominently on outside of trap.
7. Drop insecticide strip inside trap at time of deployment.
8. Deploy trap by hanging it on a branch. Check to make sure the lure and insecticide are in place.

