Trap Assembly and Monitoring Protocol for Diamondback Moth

Contacts:

Scott Meers

Phone (403) 362-1366

Email - scott.meers@gov.ab.ca

Shelley Barkley

Phone (403) 362-1350

Email - shelley.barkley@gov.ab.ca

When to Monitor

Diamondback moth does not overwinter in the Canadian prairies in significant numbers, but high populations may be blown in on winds from the south. They are at a higher risk of being a problem in years when high populations blow in and establish early (May or early June). The primary goal of this monitoring program is to determine when diamondback moth populations arrive, and in what number. This, combined with considering what the environmental conditions are like when they arrive, will determine the risk of them being a significant problem. Diamondback moth traps should be placed in fields during the first week in May, or as close to this date as possible, and first moth counts should be made the following week.

Traps for diamondback moth can be placed in fields regardless of whether canola has, or will be, seeded into the field. Having traps near fields that are or will be seeded to canola is ideal, but it is more important to place the traps at the proper time than to wait and see where canola is seeded.

Assembling the Traps

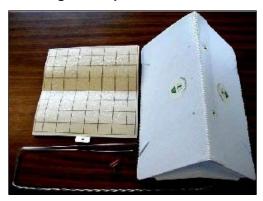


Figure 1
Trap components



Figure 2
Inserting wire



Figure 3
Pheromone placed in trap



Figure 4
Sticky bottom placed in trap

- 1. Insert the wires through the holes in the top of the trap as in Figure 2. Bend the wires to secure them to the trap.
- 2. Do not handle the lures with your bare hands. Please wear rubber or latex gloves when handling the lures.
- 3. Remove the plastic T-shaped attachment from the lure. Open the paper clip into an S-shape. Push one end of the paperclip through the hole left from the T-shaped plastic attachment in the lure (rubber stopper containing pheromone). Straighten the other end of the paperclip, push it through the middle hole in the top of the trap (Figure 3), bend the paper clip back and push the end back through the plastic trap. Make one wrap around the paper clip above the lure. The rubber stopper containing the pheromone should hang from the top of the trap. Remember not to touch the pheromone with your hands.
- 4. Unfold the sticky insert and place in the bottom of the trap (Figure 4).
- 5. Press in the front and back flaps until they clip into the slits in the sides of the trap (Figure 5). This will secure the sticky bottom in place.



Figure 5
Trap with front and back flaps closed



Figure 6
Completed trap set-up

6. The wire that extends from the top of the diamondback moth trap can be wrapped around one of the horizontal ends of the T-shaped bar to secure the trap in place (Figure 6).

Trap Height (THIS IS NEW)

Traps should either be positioned at **50 cm** above the ground or moved with the crop canopy. Research has shown that traps positioned at **50 cm** or moved with the crop canopy attracted more moths than those placed higher (1.5m).

Tips for Setting up the Traps

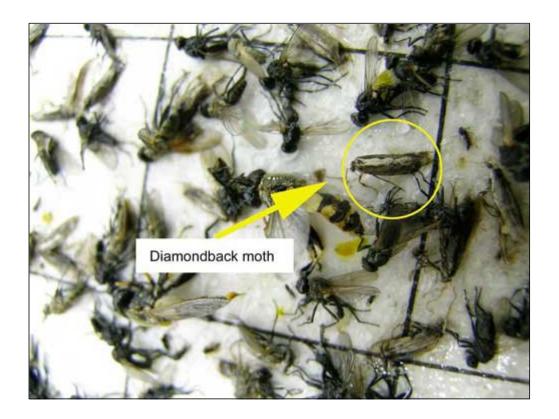
- 1. If more than one trap is being placed in a field, leave at least 100 meters between traps.
- 2. Do not handle the lures with your bare hands. Please wear rubber or latex gloves if handling the lures.

Length of Trapping Period

Traps should be checked and the number of diamondback moths counted once a week over a six-week period, or until it is evident that diamondback moth has arrived in an area. The pheromone lures for diamondback moth will remain attractive for the full trapping period and does not need to be replaced.

Reporting

It is important that you sample the field once a week in order to have continuity in the data. Once you have sent Jan Lepp (janet.lepp@gov.ab.ca) the legal land description and/or the GPS coordinates of your trap location, you will receive a web address that you use for data entry. Data entry is directly onto this website. Maps are updated within a few minutes of you entering your new trap counts.



Adapted from Manitoba Agriculture, Food and Rural Initiatives http://www.gov.mb.ca/agriculture/crops/insects/fad58s00.html

For more information about Diamondback moths or view Alberta's forecast maps visit: http://www.agric.gov.ab.ca/app21/loadmedia or visit Alberta Insect Pest Monitoring Network and follow the links