Wheat midge protocol

This is part of a study to look at the feasibility of using pheromone traps for an early warning system for wheat midge. It is meant to be used as a compliment to midge development maps that we are in the process of creating for Alberta. The maps are under development and we hope to have them available for use in 2014. The traps showed merit in a small study in 2013 and we are excited about the possibility of setting up a provincial scale early warning system. Thank you for agreeing to help us this year.

You have been supplied with traps and lures to enable you to put the traps out in pairs. You will also find 2 sticky cards for each trap we supplied so you can change the sticky card after the first week if needed. We have supplied lures from Great Lakes IPM (orange septa).

Site Selection

Wheat midge are not considered to be strong fliers. For this reason the traps should be located on wheat fields adjacent to or on land that had a wheat crop last year. Across a road is fine as well.

Trap Setup

Please refer to the trap setup video here: Video to be announced

Traps should be set up when the flag leaf appears in the wheat (or before). Daily reporting, as much as possible is important because we want to catch the start of the midge activity. Because the males come out first this gives a 2 to 3 day warning for the need to start field monitoring.

1. Fold the trap and staple the top together. Make sure the holes line up so the trap can be hung by the single hole that is created.

2. Push a paper clip through the rubber pheromone lure. Please handle the lure using the gloves provided to prevent contamination of the lure. Poke the other end of the paper clip out the side of the trap and back in to hang the lure from the top of the trap.

3. Peel off the protective cover from the sticky card and place it sticky side up into the trap and fold the trap closed again.

4. Five (5) meters into the field push the fiberglass trap stand into the ground as far as possible. Using the plastic fencing attachment and the zip tie included, hang the trap off the fiberglass pole. The top of the trap should be level with the top of the crop. It may need to be adjusted during the trapping period to keep it at this level as the crop grows but this is easy to do with the system provided.

5. Make sure the traps are labeled with a system that you can use to report the daily catches.

6. **Record** the GPS coordinates of **EACH** of the traps in the field. This is critical for the mapping program.

7. Place the two traps 25 meters apart and 5 meters from the field edge. Tie flagging tape on the top of the fiberglass poles to make them more visible.

8. Take traps down after the crop is past anthesis.

Data reporting

Report the number of midge captured on a daily basis by emailing your counts to bugs.r.us@gov.ab.ca before 3:30 pm. It is preferred that you report on a daily basis but if are unable to do so, please report on as frequent a basis as possible. Use a Sharpie to mark the midge you have counted, so you don't recount them the next day. Replace the sticky card if they get too dirty or full of insects.

Remember that the traps will show the onset of activity and are not reliable for use as a threshold tool. Once the cumulative counts go over 100 or so there is no need to continue. Thank you for your assistance.

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