TRAPS & LURES

Pheromone traps and lures are very economical to use. They provide valuable information for three important pests. In cranberry IPM, we use sex pheromones and sticky traps to indicate peak flight or end of moth flight of a pest species in a given area. We then use this 'flight' data to properly time our insecticide sprays.

WHAT TRAP SHOULD I USE? The Pherocon II trap is recommended for monitoring black-headed fireworm (BHFW) and cranberry girdler (CG), and Pherocon I wing trap is recommended for monitoring *Sparganothis* fruit worm. The wing trap can be used to monitor all three moths, if desired. Using the wing trap is slightly cheaper than using the Pherocon II trap if you re-use the top for the season.

The wing trap is preferable when you are catching large numbers of moths (typical sparganothis counts are in the 100's). Counting moths is much easier on the grid of the wing trap liner bottom than on the plain white bottom background of the Pherocon II trap. However, most people fine the Pherocon II trap easier to deal with physically when changing traps. Typically, counts of CG and BHFW rarely exceed 100 moths, so the Pherocon II trap should be adequate.

THE LURES. The lures are very specific for the particular moths and are effective at low densities. Store extra lures in the refrigerator or freezer to preserve their activity. It is a good idea to date the bags when you receive them. Remember to rotate your stock of lures. According to the manufacturers, the Sparganothis and BHFW lures will remain viable for 2 years and CG lures for 1 year when stored in the freezer (32°F or below) or the refrigerator (32-45°F). Lures for cranberry pests will remain viable for just one year when stored at room temperature (75°F max).

HOW DO I USE THE TRAPS? Traps should be on the marsh by early June. Place the appropriate lure in the correct trap. If you are using identical trap types, be sure to label the traps for the moth you are targeting. Secure the trap on a stake or a rod so that it will not blow off in strong winds or rain storms. Place the trap 100 feet from the outermost bed edge. If you don't have sufficient space on the prevailing wind side, place the trap about 10-20 feet in from the bed edge.

The trap should be place on the **upwind** side of the marsh. This is the side from which the prevailing summer winds blow (west in Wisconsin). The scent should travel across **your** vines, not your neighbors or the woods. Position the trap so it is about one foot above the vines.

It is recommended to use 1 trap per 10 acres. You can modify this recommendation as conditions warrant. For example, if you have a problem with cranberry girdler, you may want to set out two traps. You could set one trap in the conventional leeward side of the marsh, and one trap near the spot where you have seen damage. You can use the moth counts of the two sites to more accurately estimate the activity of the moth flight for that piece.

Separate individual traps by 100-200 feet where possible. The manufacturer recommends arranging traps in a staggered

pattern to minimize potential overlap of scents. However, the lures for cranberry pests are fairly distinctive and specific (i.e., the correct moths will be drawn to the correct lure and trap) so the exact arrangement of the traps is probably not as critical. It certainly wouldn't be detrimental to stagger the traps if you can.

HOW SHOULD I MONITOR THE TRAPS? Check your traps at least once a week. Change the bottom of the wing trap and the Pherocon II trap every 2 weeks or as needed. If your marsh has heavy moth flight (more common for sparganothis moths), you may need to check and change your traps more than once a week. Transfer the lure from one trap to another as needed.

The lure manufacturers recommend changing the lure every 3-4 weeks. If the weather is very hot and/or windy, the lure may need to be changed more often. The material that catches the moths is quite sticky, so be careful not to get it on your hands. Use an instrument, such as tweezers or a pick, to remove the lures.

It is a good practice to document moth activity for your IPM records. Be sure to write down the date and moth counts as you check your traps. Do not rely on your memory. This is the crucial information you will need to appropriately plan your management strategies.

From the Massachusetts Cranberry Station Newsletter, slightly adapted for Wisconsin.
We hope to begin including trap counts in the next issue of the newsletter.

PRISM REPLACED BY SELECT

The herbicide PRISM has been labeled for non-bearing cranberry. PRISM has been replaced east of the Rocky Mountains by SELECT. This product has the same active ingredient but at a higher concentration. Rates are 6-8 oz/A for annual grasses and 8-16 oz/A for perennial grasses. Use SELECT or FUSILADE for non-bearing beds, & POAST for bearing beds.

CRANBERRY FRUITWORM PHEROMONE: ITS VALUE IN FRUITWORM MANAGEMENT

The value of fruitworm pheromone for management of fruitworm in Wisconsin is yet unclear. Cranberry fruitworm pheromone has been characterized, and the fruitworm lures have been used in the research of Dr. Anne Averill of the University of Massachusetts to determine their potential usefulness in fruitworm management in Massachusetts.

The take-home message from Massachusetts is that traps using this lure will give information as to the presence or absence of fruitworm, and captures may bear some relation to overall fruitworm abundance. However, Dr. Averill's lab found that the timing of fruitworm oviposition onto cranberries was not strongly related to pheromone trap catches, but rather it was related to sizing of fruit which female fruitworm moths are very attuned to. This means that in Massachusetts the University will continue to recommend timing fruitworm treatments based on percent out-of-bloom counts and egg counts, rather than on pheromone trap captures.

Cape Cod Cranberry Growers' Association and Ocean Spray Cranberries are supporting Dr. Averill's research on fruitworm adult behavior. At this juncture it appears that mating disruption using pheromones would not be likely to work, because of the substantial movement of moths between habitats. However, there is still much to learn about fruitworm!

Don Weber, Ocean Spray Cranberries

The proverb warns that "You should not bite the hand that feeds you." But maybe you should, if it prevents you from feeding yourself.

Thomas Szasz

NEW GROWER SEMINARS

A series of new grower seminars has been organized for growers or managers who are new to the industry. These are informal sessions where there can be a lot of discussion and sharing of ideas. Dates and locations for the remaining sessions are:

June 25
Topic: Disease Management
Presenter: Dr. Patty McManus
Location: J & J Cranberry Marsh
Go south on Hwy 13 from Wisc. Rapids. Turn left (east) on CTH D (about 2 miles south of the Adams co. line). The marsh is about 5 miles east of Hwy 13 on the north side of CTH D. It is the first marsh along D.

July 2
Topic: Insect Management
Presenter: Jayne Sojka
Location: Bassuener Cranberry Co.
Go east of Wisconsin Rapids on Hwy 54. Turn right (east) on Washington Street. The marsh is about 2 miles east of 54 and on the north side of Washington Street.

July 9
Topic: Chemigation
Presenter: WDATCP Staff
Location: Northland's Biron Division
Take hwy 54 east of Wisc. Rapids. 8 miles from Wisc. Rapids turn left on Hoffman road. Signs indicate the marsh.

July16
Topic: Mineral Nutrition
Presenter: Teryl Roper
Location: Valley Corporation
Marsh is about 1 ½ miles north of Valley Junction, NW of Hwy 173. Valley Junction is about 2 miles north of Hwy 21 on CTH N or about 10 miles southwest of Mather.

A little kingdom I possess,
Where thoughts and feelings dwell;
And very hard the task I find
Of governing it well.

Louisa May Alcott

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