

## MONITORING CODLING MOTH



The standard method of monitoring codling moth is with a pheromone trap (trap baited with pheromone lure). The most common and most durable trap used in orchards is the delta trap. This trap holds its shape and the sticky bottom insert is easy to check and change. The trap

should be placed in the top portion of the tree, preferably the top 1/3 of the tree's canopy. Foliage should not block the entrance of the trap. To make placing traps at the correct height in the tree easier, it is recommended that a pole, bamboo works well, be attached to the wire on the trap. The pole can then be used to properly place the trap high in the tree and also makes it easy to check the trap. Traps should be checked once

per week. The number of moths should be counted and removed. Separate records should be kept for each trap capture. The sticky bottom of the trap becomes contaminated by moth scales and parts over time and it is recommended that adhesive on the bottom of the trap be stirred after each inspection. The trap bottom should be changed after an accumulation of thirty (30) moths has been reached.



## LURES



Lures come in many different colors and shapes. The standard pheromone load for

a rubber lure is 1mg; however, in pheromone treated (mating disruption) orchards, a lure with a 10mg load, or one that releases pheromone at the same rate as a 10mg

rubber lure, is recommended. Each lure will have its own longevity so be sure to follow the recommended lure change intervals by the company providing the lure.

## TREATMENT THRESHOLDS

Pheromone trap captures can be used as a guide to assess the size of the codling moth population and therefore the threat or risk of crop injury. However, the number of traps used per area is critically important when using moth capture as a tool to determine the need to apply control sprays. The recommended density is one trap for every 2 to 3 acres. If you use this trap density then guidelines can be used to assess the need to apply control sprays. In the first generation an accumulation of 4-5 moths in a trap signals the need for a control spray.

After a control spray is applied moth captures in each trap should be started over at zero to determine if additional controls are necessary. By examining the distribution of trap captures in an orchard it is possible to treat only those portions of the orchard with high pressure, therefore avoiding treating areas of the orchard where codling moth densities are low. In the second generation it is recommended that an accumulation of only 2-3 moths in a trap be used as a trigger to apply control treatments.

### Recommendations

- 1 Trap for every 2-3 acres.
- 1<sup>st</sup> generation: 4-5 moths in a trap signals the need for a control spray (applied at appropriate timing).
- 2<sup>nd</sup> generation: 2-3 moths in a trap signals the need for a control spray (applied at appropriate timing).
- After a control spray is applied, moth captures in each trap should be started over at zero to determine if additional controls are necessary.

## VISUAL EXAMINATION

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It is always possible that moth captures will not accurately predict pest pressure, that is, no moths are captured but damage occurs. Therefore, capture of codling moths in pheromone traps should be backed up by visual observations of damage in the orchard at the end of the first generation. Visual examinations are relatively easy to perform and do not take a great deal of time. Checking 40 to 50 trees in a ten acre block is sufficient to determine if damage has exceeded desired levels.

A sequential sampling plan has been developed to assess crop damage from codling moth for orchards that want to qualify for the Taiwan market.



Details on this sampling method can be found at - [http://entomology.tfrec.wsu.edu/Cullage\\_Site/CM\\_Sampling.html](http://entomology.tfrec.wsu.edu/Cullage_Site/CM_Sampling.html)

## APPLE EXPORTS TO TAIWAN: ORCHARD & BIN SAMPLING

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Those who do not have a Pest Consultant's license or Commercial Applicator's license must attend training to perform orchard or field bin sampling. If you attended training last summer (2008) you do not have to attend training again this year; however, NHC and USDA/APHIS strongly advise refresher attendance. Certified cull cutters may perform field bin sampling if informed of bin sampling protocols. Official forms must be used. Training Sessions are scheduled for

August. Classes are free, but pre-registration is advised due to space limitations. Please send a fax (509) 662-8714 or an email to Wendy Jones, [wendyej@wsu.edu](mailto:wendyej@wsu.edu) at least 2 days prior to your desired session date. For more information call (509) 663-8181 or (509) 679-3867. Please include company or facility name, number of participants, session, and if you will have an interpreter or require one, along with your contact information in case of changes.

### August Training Sessions

- Prosser, 8/5, 1pm
- Yakima, 8/11, 11am
- Royal City, 8/13, 3pm
- Wenatchee, 8/15, 3pm
- Brewster, 8/20, 11am

Visit PMTP online at:  
<http://pmtip.wsu.edu>

Pest Management Transition Project  
Washington State University  
1100 North Western Avenue  
Wenatchee, WA 98801