

## Thresholds/Monitoring/Sampling

### Oriental Fruit Moth Monitoring in Washington

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Oriental fruit moth (OFM), *Grapholita molesta* (Busck) is primarily a pest of peaches, but literature also lists apricot, apple, cherry, plum, prune and quince as hosts. In Washington State, OFM occurs almost exclusively on peaches and rarely in apples, apricots, plums and prunes. The WSU Entomology collection has no OFM specimens from Washington State and since the last OFM survey of ten years ago, there has been renewed interest in the actual distribution of OFM in our state.

Representatives of the Washington stone fruit industry asked WSDA to consider monitoring for OFM in 1999. Due to quarantine restrictions by British Columbia (D-99-04), Washington stone fruit growers wanting to ship into British Columbia are required to participate in the Canadian OFM Certification Pilot Program. This program requires growers to follow an orchard monitoring/control and inspection protocol. Many entomologists, extension agents and industry experts believe that OFM may not exist in some of the growing regions of our state. Our survey objective was to determine whether official pest free areas, as defined by the North American Plant Protection Organization (NAPPO, 1994), may be established.

#### **Materials and Methods**

WSDA agreed to monitor for OFM during August and September through the use of Pherocon IC sticky traps (low "stickum" form) containing a Trécé OFM pheromone lure. A well-established and efficient method of detecting multiple pest species in an area involves the practice of placing different trap types at the same specific locations within the area—also known as "piggybacking." Because apple maggot trapping occurred in the same areas for which OFM data were needed, OFM traps were piggybacked with apple maggot traps at selected sites. Sites having the respective host trees for AM and OFM, namely apple and peach, were the preferred piggyback sites but, as needed, apple-only sites received both AM and OFM traps. Both trap types can be placed in the same tree if necessary. Only OFM traps were placed at some of the sites. The survey focused on unsprayed backyard peach, nectarine, apricot, apple or plum trees. Traps were placed in late July and early August to detect third generation OFM.

#### **Results and Discussion**

The 1999 OFM survey monitored 300 trap sites. Traps were distributed among the 12 counties of interest. Traps were removed in September. Table 1 lists the results.

<b>Table 1. 1999 WSDA Oriental Fruit Moth Survey</b>			
<b>County</b>	<b>Number of Traps Placed</b>	<b>Number of Positive Trap Sites</b>	<b>Number of OFM Caught</b>
Adams	1	0	0
<b>Benton</b>	<b>24</b>	<b>9</b>	<b>425</b>
Chelan	15	0	0
Douglas	50	0	0
<b>Franklin</b>	<b>6</b>	<b>3</b>	<b>10</b>
Grant	39	0	0
Kittitas	16	0	0
Okanogan	37	0	0
<b>Skagit</b>	<b>8</b>	<b>0*</b>	<b>0*</b>
<b>Walla Walla</b>	<b>5</b>	<b>1</b>	<b>1</b>
Whatcom	9	0	0
<b>Yakima</b>	<b>90</b>	<b>3</b>	<b>14</b>
<b>Totals</b>	<b>300</b>	<b>16</b>	<b>450</b>

\*3 OFM moths were detected in a Skagit County Codling Moth trap by Talea Herndon, Inspector for the Horticultural Pest and Disease Board.

Suspect OFM specimens were identified by WSDA with collaboration from Dr. Jim Hansen USDA, ARS Yakima. Canadian Agriculture officials visited many of our OFM monitoring sites in August as part of a review of the Canadian OFM Certification Pilot Program.