

Thresholds, Monitoring and Sampling

ORIENTAL FRUIT MOTH MONITORING IN WASHINGTON

Mark Hitchcox¹, Michael W. Klaus¹ and Michael J. Willett²

¹Washington State Department of Agriculture, Yakima, WA

²Northwest Horticultural Council, Yakima, WA

Keywords: oriental fruit moth, *Grapholita molesta*, quarantine, certification, monitoring, pheromone, peach, apricot, nectarine, apple

Oriental fruit moth (OFM), *Grapholita molesta* (Busck), is primarily a pest of peaches, but literature also lists nectarines, 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.

Representatives of the Washington stone fruit industry asked WSDA to continue monitoring for OFM in 2000. 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 a strict 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 the current presence or absence of OFM in the major fruit growing regions of Washington State and to help 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 follow up our 1999 monitoring of OFM in 2000. Pherocon 1C sticky traps (low “stickum” form) containing a Trécé OFM pheromone lure were again placed late July through September to detect third generation OFM. 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 (AM) 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 may be placed in the same tree if necessary. Some sites had only OFM traps.

The survey focused on unsprayed backyard peach, nectarine, apricot, apple or plum trees.

Results and Discussion

The 2000 OFM survey monitored 213 trap sites compared to 300 in 1999. Traps were distributed among nine counties of interest from late July until late September. Table 1 lists the results. No OFM were caught in the previously positive counties of Franklin and Walla Walla in

2000. The single Kittitas County OFM detection represents a new county record. Chelan, Douglas, Grant, and Okanogan traps again yielded no OFM. Yakima County had only one catch in 2000 compared to three catch sites in 1999. A new site within the Yakima city limits was the only 2000 catch in Yakima County. The three 1999 positive sites from Yakima County did not repeat with OFM catches in 2000.

Table 1. 2000 WSDA oriental fruit moth survey

County	Number of traps placed	Number of positive trap sites	Number of OFM caught
Benton	19	12	99
Chelan	43	0	0
Douglas	16	0	0
Franklin	8	0	0
Grant	31	0	0
Kittitas	13	1	1
Okanogan	45	0	0
Walla Walla	6	0	0
Yakima	32	1	2
Totals	213	14	102