Thresholds, Monitoring, and Sampling

Hypmolizes with

Comparison of Kairomone DA 2313 and pheromone lure trapping for codling moth with oviposition monitoring

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Abstract: A kairomone-based codling moth (CM) adult trapping system was paired with a pheromone-based male trapping system in 137 interior locations of 836 hectares of pear orchards utilizing mating disruption for control in 4 California northcoast geographic areas. To monitor oviposition during June and July, 1.3 cutfruit/hectare/week were located in the trap locations; in perimeter locations of the same blocks there were 3.0 cutfruit/hectare/week. The ratio of DA capture to pheromone capture (by field age of the pheromone lure) suggested greater stability of the DA lure response compared with the pheromone lures in the highest population area. A comparison of the fraction of the season total ovae counted with the accumulated CM/trap at the time of oviposition showed that 92% of the ovae were detected with 1 or more adults/DA trap vs 79% of ovae detected with 1 or more males/pheromone trap. However, 83% were detected with 4 or more accumulated DA captures vs only 44% detected with 4 or more males/pheromone trap. The experiences indicated that DA action thresholds may be utilized at levels below detection of CM using pheromone traps; however, more frequent lure changes could increase the sensitivity of the latter.

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