Implementation

Organic and IPM Programs for Areawide Pest Management of Pear

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Keywords: organic, organophosphate, areawide, pear, pear psylla, Cacopsylla pyricola, codling moth, Cydia pomonella, biocontrol

Abstract: In 2002, an Areawide Organic Management Program was established on 310 acres of contiguous pear in a small valley near Peshastin, WA. Organic pest management practices were implemented for insect and mite control throughout the project. Approximately 50% of the acreage was Certified Organic; however, other organic practices were not required in the remaining acreage (e.g., nutrient, rodent, and weed control were conventional). Over two years, there was a reduction in pesticide use and an associated reduction in insecticide costs. However, there have been no correlated increases in overall natural enemy densities. Fruit yield and quality have been maintained, and alternative marketing programs have been explored.

In 2003, pear psylla densities were much lower across the entire project area than 2002, and densities remained below economic threshold levels. Spider mite pressure was generally low, although an outbreak of pear rust mite occurred in one orchard. Codling moth pressure was surprisingly high in 2003, but management programs proved very effective at controlling fruit damage. Despite 1st generation trap catches of over 100 moths in several locations (up to 315), pre-harvest damage was at or below 0.5% in all locations that followed control recommendations. Low predatory insect densities were found in all programs, with increases in late season correlated with increasing pear psylla. This suggests that damage thresholds for pear psylla may be too low to sustain higher densities of natural enemies. Nevertheless, predators appear to be more numerous in orchards under organic pest management.