Implementation

Areawide II Pear Project: All IGRs All the Time

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Abstract: In 2002, an areawide implementation program was initiated in pear to examine the effects of pest management using selective insecticides on crop protection and biological control. The program was arbitrarily limited to insect growth regulators, with the exception of kaolin (Surround) for prebloom pear psylla control, and endosulfan (Thiodan) for prebloom pear rust mite control. Pear orchards at six locations, three in the Wenatchee Valley and three in the Yakima Valley, were split into conventional and soft (All-IGR) blocks. Comparisons were made between pest and natural enemy densities throughout the season and overall costs.

Insect pest control in pear was maintained in soft management programs, arbitrarily limited to insect growth regulators, relative to conventional programs over the two-year period. Pear psylla and codling moth control was not significantly different either year. Grape mealybug and pear rust mite control remain problematic, as there are no soft materials available. Densities of natural enemies were expected to be higher in soft programs but were not found to be significantly different between programs. In both years of the project, numbers of applications as well as costs of the soft program were higher, though not significantly so. Thus, it appears that pest management is feasible when limiting pest management tactics to the more environmentally benign materials, although costs may increase. Further study is necessary to determine if long-term implementation can increase biological control and reduce overall costs.