

Implementation Programs

Research Demonstration and Implementation of Integrated Fruit Production on Pears in Northern Oregon

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This was the first year of a three-year study to compare the effectiveness and economics of an Integrated Fruit Production program to a conventional orchard management system. This project has the following objectives:

1. To research, demonstrate and implement an integrated fruit production (IFP) program for pears.
2. To evaluate the short-term as well as long-term costs and benefits of integrated versus conventional pear production.
3. To promote the adoption of integrated production practices through demonstration orchards, grower training, educational materials, and development of IFP guidelines.

An IFP management system includes all aspects of production from site selection to postharvest practices. Two sites in the Hood River Valley were selected for the IFP program. Weather stations were installed to provide accurate input for pest and disease forecasting.

During the first year of this study the focus was on implementing selective pest management programs. Pear psylla and mite sprays were applied when pest levels exceeded economic injury levels. Pear psylla control was generally better in the IFP blocks than in the conventional. This was also reflected in the fruit evaluations at harvest. Codling moth control by mating disruption was partially successful, however, an organophosphate was required for the second generation to prevent further damage. AgriMek was not used in the IFP blocks. Spider mite populations remained low through early summer, but began to build in July in response to high temperatures. Vendex 4L combined with a surfactant was effective in controlling spider mites in the two IFP blocks.

The IFP program will be expanded in 1995 to include irrigation scheduling based on soil moisture levels, horticultural practices to reduce insect pest habitat, groundcover management, and nutritional inputs. Education programs for the growers are also planned. Due to grower interest, an additional site will be added to the program in 1995.

A task force to develop IFP guidelines has been established and is sponsored by the Hood River Grower-Shipper Association. Members of the IFP task force represent the various segments of the fruit industry including growers, packing house representatives, fieldmen, consultants and Oregon State University extension and research personnel.