

Monitoring Weather Data and Insect Activity to Build a Data Base and Assist in Spray Recommendations for Washington County Orchards

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Project Leaders:

Rick Heflebower, Extension Agent, Horticulture
Diane Alston, IPM Coordinator, Utah State University
Carin Miller, IPM Associate, Utah State University
Bud Scow, Commercial Orchardist, Hurricane, Utah

Situation Statement:

The proper timing of insecticide sprays is essential to the production of clean marketable fruit. The Washington county area is different from anywhere else in the state due to its warm climate. Although, fruit production is not on as large a scale as it used to be, there remain some productive orchards in the area. The climate is well suited to the production of peaches and apricots. Growers wrestle as to when to apply insecticide materials to control peach twig borer and greater peach tree borer. Codling moth has recently caused damage to peaches in the Hurricane area as well.

Objectives:

I propose setting up a weather monitoring station where information could be collected to build a data base that would assist growers in better timing their sprays for effective insect control. This would require the purchase of a weather monitoring device that would remain in the orchard during the season to collect the needed data. In addition traps would be set out to catch the major fruit pests i.e. codling moth, twig borer and greater peach tree borer.

Procedures:

A weather station will be purchased and put place in January 2002. Bud Scow, orchardist in the Hurricane area, has offered to be a cooperator and provide a place to set up the system in this orchard. Weather data including temperature, humidity and rainfall will be recorded daily and downloaded once a week to a computer for storage. Traps for the insects mentioned above will be placed in the orchard during the growing season. They will also be checked once each week. Rick will work in cooperation with Bud to collect the data. The information will be sent to Diane and Carin for collaboration on determining degree days and spray timing. Recommendations on spray timing will be disseminated through Bud and Rick to other growers in the area. Bud will host a grower meeting during the season where information would shared.

Budget:

Weather Station	\$1100
Pheromone Traps	\$ 150
Total	\$1250

Summary:

Recently, the Environmental Protection Agency announced the phase out of two of the insecticides most commonly used in orchards, i.e. Guthion and Imidan. It is important that growers have a system in place to monitor insect pests and know how to time sprays so they are most effective. As the current products are phased, out it will be critical that universities and chemical companies work with growers to help insure a transition to new products that will be effective. The understanding of pest population dynamics and effective treatment times, will be valuable in helping growers produce high quality crops and remain profitable.