

## ESPS Satellite Project

### Alternate Year Dormant Insecticide Spray Program in the Sacramento Valley

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In recent years growers have tried to go to an alternate year dormant insecticide spray program to save money, help the environment, and to try and continue to have a larger population of natural enemies present. The main drawbacks of an alternate year dormant spray program are the control of mealy plum and leaf curl plum aphids. Some growers have reported having to apply an in-season treatment for aphids because the lack of a dormant spray leads to high aphid populations.

Other growers have reported little or no aphid problem when comparing a dormant spray year to a non-dormant spray year.

To see if there would be an aphid problem by adopting an alternate year dormant spray program in the Sacramento Valley six orchards that had received a dormant spray and were evaluated for aphids in 1999 did not receive a dormant spray and were evaluated for aphids in 2000. Three of the orchards were in Sutter County, two of the orchards were in Yuba County, and one orchard was in Tehama County. Aphid counts from the 1999 growing season were compared to aphid counts taken during the 2000 growing season. The results from the data comparison indicated that the Aphid populations in the orchards were significantly higher in the 2000 growing season when compared to the 1999 growing season (Table1). Four of the six orchards had a significant aphid problem by not applying a dormant spray, two had a moderate problem and one grower had no increase in aphids.

**Table 1: Alternate Year Dormant Insecticide Spray Treatment Results**

|  | Block with Dormant Spray |              | Block Without Dormant Spray |               |
|--|--------------------------|--------------|-----------------------------|---------------|
|  | 1999                     |              | 2000                        |               |
|  | LCPA                     | MPA          | LCPA                        | MPA           |
| <b>D.C. - Sutter</b>                       | 0.00%                    | 0.00%        | 15.00%                      | 3.75%         |
| <b>J.H. - Sutter</b>                       | 0.00%                    | 2.50%        | 5.00%                       | 100.00%       |
| <b>K.J. - Yuba</b>                         | 0.00%                    | 0.00%        | 0.00%                       | 0.00%         |
| <b>M.K. - Yuba</b>                         | 0.00%                    | 0.00%        | 13.75%                      | 17.50%        |
| <b>J.R. - Sutter</b>                       | 0.00%                    | 2.50%        | 0.00%                       | 30.00%        |
| <b>D.E. - Tehema</b>                       | 1.25%                    | 0.00%        | 85.00%                      | 0.00%         |
| <b>Average</b>                             | <b>0.21%</b>             | <b>0.83%</b> | <b>19.79%</b>               | <b>25.21%</b> |
| <b>Average % Increase from 99 to 2000:</b> |                          |              | <b>9500%</b>                | <b>3025%</b>  |

The aphid population increased dramatically presumably due to the lack of natural enemies in the orchards that had been killed along with the aphids, when a dormant insecticide was used. This data indicates that an alternate year dormant insecticide spray program is not a good program for many Sacramento Valley Growers due to problems created by one or both aphid. Both species of aphid are controlled when a dormant spray is applied.