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SEASON LONG COMPARISON OF IMIDAN, THIODAN AND PENNCAP-M INSECTICIDE TO CONTROL INSECTS ON PEACHES

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Background. The objectives of this study was to evaluate the effectiveness of Imidan 70 WP, Thiodan 50 WP and Penncap-M in a season-long foliar spray program on peaches. A field of 'Winblo' peaches, which ripen in late June to early July, located in Camp County, Texas, was selected for the test site. The test consisted of three treatments, one relying heavily on Imidan and Thiodan, one on Penncap-M and the third was an untreated. Each treatment included four 4-tree replicates for a total of 16 trees per treatment. Imidan 70 WP was used at the rate of 2.25 lbs/acre, Thiodan was used at the rate of 3.0 lbs/acre and Penncap-M was used at the rate of 4 pints/acre. Asana XL was applied as an alternate to Penncap-M on two occasions. Sevin XLR was applied as the pre-harvest spray in all treatments except the untreated check.

Table 1 shows the dates and rates of the products used in the test. Applications were made via backpack mist blower. Water was used as a carrier. Data was collected on July 9 by inspecting 100 ripe fruit (25/tree) in each sub plot. These were inspected for insect damage such as catfacing, plum curculio and oriental fruit moth injury. No curculio or oriental fruit moth injury was noted in any of the treatments including the untreated. There was, however, significant catfacing injury to the untreated fruit. The green stink bug and the leaf-footed bug were observed in the trees during the test.

Research Findings. Table 2 shows the percent of fruit injured by catfacing insects. The treatments relying heavily on Penncap-M had the least injury at 6.25%. The Imidan/Thiodan treatment had 9.5%. However, there were no significant differences between these treatments. The untreated had 46.4% injured fruit, which was significantly higher than the injured fruit in the two treated plots.

Application. This test reaffirms the season-long control strategies used by area farmers. If insecticides are not used to control in season peach insect pests, they run a high risk of having insect injured fruit at the time of harvest.

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Table 1. Dates, insecticides and rates of season long foliar insecticide test on peaches, Camp County, TX, 1997.

<u>Date</u>	<u>Plant Stage</u>	<u>Treatment Rate per acre</u>		
		<u>Imidan 70 WP/Thiodan 50 WP</u>	<u>Pennacap-M/Asana</u>	<u>untreated</u>
Mar 31	petal fall	Imidan 2.25 lbs + Thiodan 3.0 lbs	Pennacap-M - 4 pts	none
Apr 7	early shuck split	Imidan 2.25 lbs	Pennacap-M 4 pts	none
Apr 16	shuck split	Imidan 2.25 lbs + Thiodan 3.0 lbs	Pennacap-M 4 pts	none
Apr 28	1st cover	Imidan 2.0 lbs	Pennacap-M 4 pts	none
May 8	2nd cover	Imidan 2.0 lbs	Pennacap-M 4 pts	none
May 27	cover	Imidan 2.0 lbs	Asana XL 8 oz/100 gal	none
June 10	cover	Imidan 2.0 lbs	Pennacap-M 4 pts	none
June 19	cover	Imidan 2.0 lbs	Asana XL 8 oz/100 gal	none
July 3	pre harvest	Sevin XLR 1 qt/ac	Sevin XLR 1 qt/ac	none

Table 2. Percent insect injury to peaches in a foliar applied insecticide test, Camp County, Texas, 1997.

<u>Treatment</u> ^{1/}	<u>Percent Injured Fruit</u>
Imidan/Thiodan	9.50% a ^{2/}
Pennacap-M	6.25% a
Untreated	46.8% b

^{1/} for rates, refer to Table 1

^{2/} means followed by the same letter are not significantly different at the p = .05 level of probability