LABORATORY STUDY OF THE EFFECTS OF VOLCK OIL ON SAN JOSE SCALE STAGES

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Abstract: Plum twigs infested with various stages of San Jose scale were either dipped or sprayed with concentrations of Volck oil ranging from 1-6%. The survival of 1st instar, 2nd instar, 3rd instar scale and the fecundity of females was evaluated after 8 days Dipping scales with 1, 2, 4, or 6% oil killed all stages equally well. When oil was sprayed on the twigs, concentrations of 4 and 6% oil were significantly better in killing scale and reducing fecundity of females than 1 or 2% oil. First and 2nd instar scales were easier to kill with oil than older instars. These results confirm that greater coverage and higher percentage of oil more effectively control of San Jose scale. When organophosphates were added to the dormant application for San Jose scale, California stone fruit growers reduced water volume and the concentration of oil in the mix. As organophosphate resistance builds and growers return to treatments of oil alone, they need to return to higher volumes of water and maintain the oil concentration high.