

Mating Disruption/SIR

Comparison of Mating Disruption With and Without Insecticides for Control of Navel
Orangeworm in Almonds

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Abstract: Puffers (Suterra) containing (ZZ) 11,13 - hexadecadienal, the major component of the navel orangeworm (NOW) sex pheromone, and hullsplit insecticide treatments were evaluated for disruption of mating and damage reduction in almonds. We used four 20-acre replicates each to compare the effects of mating disruption (puffers, deployed in grids @ 2 per acre), Imidan plus permethrin applied at hullsplit or both the mating disruption and hullsplit insecticides with untreated control plots. Comparison of virgin-baited flight trap data within the treatment plots to traps between the treatment plots and in an adjacent section demonstrated that the mating disruption treatments reduced male capture in flight traps throughout the experimental section. We nonetheless captured significant numbers of males in the nonmating disruption treatment plots and showed complete trap shutdown in the mating disruption plots. There was significantly less NOW damage in the Puffer treatment plots than in the untreated controls and also significantly less damage in the Imidan/permethrin than in the Puffer treatment plots. There was, however, no significant difference in NOW damage between the Imidan/permethrin and the Imidan/permethrin/Puffer plots, indicating that there is no additive benefit from using both the mating disruption and hullsplit insecticide treatments.