

WINTER SANITATION PRACTICES FOR NAVEL ORANGEWORM IN CALIFORNIA PISTACHIO MAY NOT BE COMPLETE

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Navel orangeworm (NOW), *Amyelois transitella*, is a moth pest of almond and pistachio nuts. The larvae directly damage nuts, which is the only portion of the tree attacked. NOW populations can be suppressed through an orchard sanitation practice of removing nuts or “mummies” left on the tree after harvest; thereby removing NOW host sites from winter until nut-split the following season. Still, pistachio growers using sanitation practicing often report high NOW damage. We studied NOW survival in overwintered mummies knocked to the ground and left on the orchard floor middles and berms from winter through harvest the following summer/fall. Results show overwintered pistachio nuts the berm can host NOW throughout the season. Nut infestation levels were 8.5, 6.7, 1.7, 0.2, 1.1 and 0.3% in January, February, March, April, June and August respectively. The spring and summer infestations represent new NOW generations – and indicate that adult NOW oviposited on the fallen nuts. Based on the number of infested nuts per m², we estimated a live NOW every 3 m of berm in summer, a significant contribution to damage at harvest. Ongoing studies indicate that sanitation practices can be improved by blowing nuts off the berms and into the middles during the winter. Also, discing the middles significantly reduces NOW survival in nuts.