

Mating Disruption/SIR

Pheromones—Oriental Fruit Moth and Peach Twig Borer

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Oriental fruit moth and peach twig borer pheromones were mixed in water emulsions of paraffin and commercial emulsifiers. The finished paraffin/pheromone emulsions were applied at OFM and PTB biofix to Prunus trees using a 1-quart Idico® stainless steel paint gun at application rates of 20-31 g a.i. pheromone/acre. Emulsion deposits dried within 2 to 4 hours; subsequent heavy rains and wind had no observable effects on the dried deposits.

The efficacy of mating disruption (MD) pheromones in paraffin emulsions on trap collections is shown in Figs. 1 (OFM) and 2 (PTB). The OFM formulations performed better than the PTB materials; fruit infestations at harvest reflected similar trends in MD efficacy (Table 1).

Table 1. Efficacy of mating disruption with pheromones applied in paraffin emulsion carriers.

Location	Crop	Treatment ¹	% infested fruit	
			OFM	PTB
KAC 36	peach	Check	3.5	3.1
		MD	0.3	3.5
	almond	Check	--	2.7
		MD	--	3.8
KAC 74	nectarine	Check	2.4	19.8
		MD	0.4	15.0
KAC 32	nectarine	Check	SJS ²	
		MD	19.8	26.1

¹Two applications per season @20 to 31 g a.i./application.

²One application @30 g a.i., March 6, 1995.

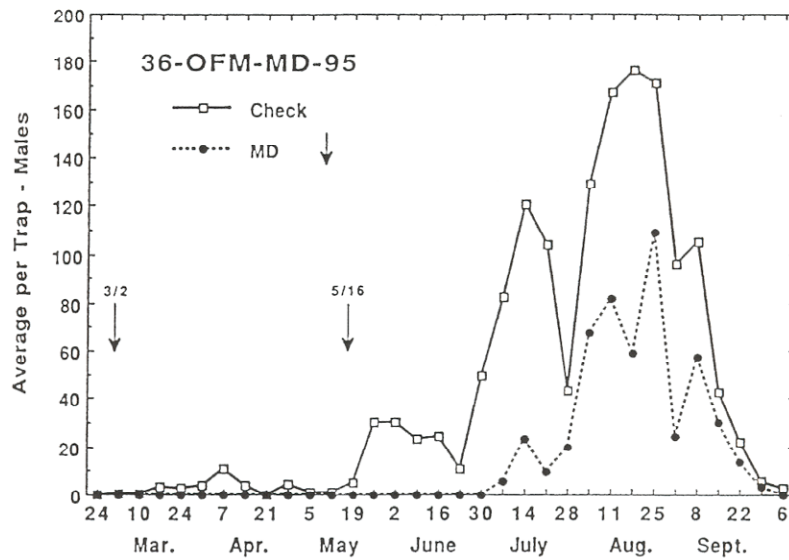


Fig. 1. Collections of male Oriental fruit moths in a stone fruit orchard treated twice with pheromone/paraffin emulsions.

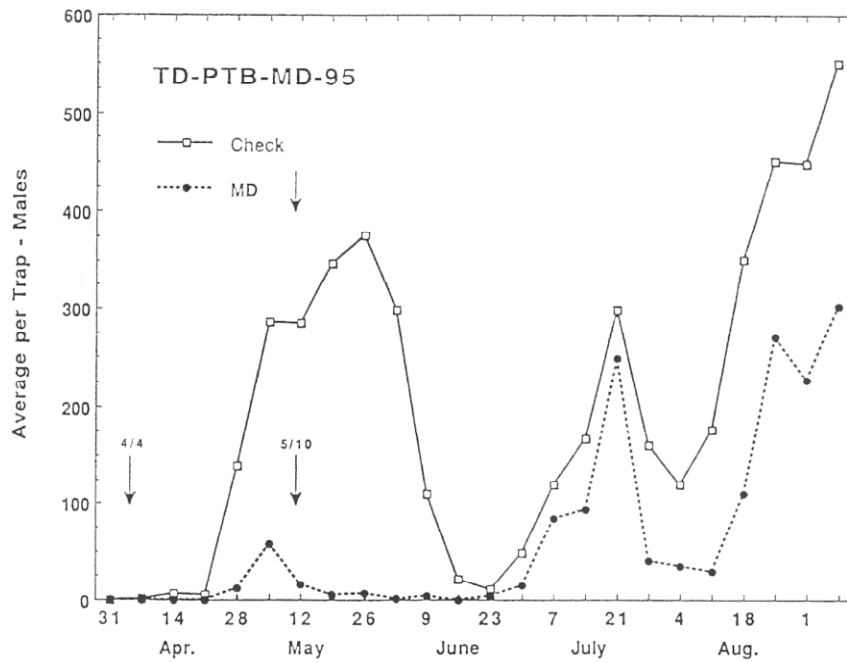


Fig. 2. Collections of male peach twig borer moths in an almond orchard treated twice with pheromons/paraffin emulsions.