

DEVELOPMENT OF KAIROMONE-BASED MASS-TRAPPING AND OTHER CONTROL TACTICS TARGETING BOTH SEXES OF CODLING MOTH IN CALIFORNIA WALNUTS

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The impact of killing both female and male codling moths was investigated in field trials using the mass-trapping control tactic with the pear-derived kairomone lure. Evaluation of the kairomone, ethyl (2E, 4Z)-2,4-decadienoate, as an attractant-lure verses the pheromone, codlemone, were conducted in mass-trapping field studies in Californian walnut orchards. Moth capture rates and efficacy, and walnut damage rates were compared for the kairomone and pheromone lure plots (four replicated one-acre plots for each lure). The mass-trapping plots with kairomone-baited traps captured far greater numbers of total moths and male moths, let alone female moths, than the plots with pheromone-baited traps. Also, mid-season nut damage was lower in kairomone plots than pheromone or control plots.