

Mating Disruption/SIR

FIELD RESULTS WITH SPRAYABLE CODLING MOTH PHEROMONE

Thomas E. Larsen, James Grenzebach, Lyla Lampson, Rick Hilton  
Consep, Inc., Bend, OR

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Field trials were conducted in 2000 to determine the potential of a new microencapsulated formulation of the codling moth pheromone (E, E-8,10 dodecadien-1-ol) developed by Consep, Inc. All trials were conducted in large non-replicated plots (10 acres or greater) in commercial orchards and compared to conventional grower practices in most cases and hand-applied codlemone dispensers in one location. Application methods included aerial, conventional airblast orchard sprayers and low volume applications. Water volumes ranged from 2 to 100 gallons per acre. Treated crops were apples, pears and walnuts. Pheromone and non-pheromone treated areas were monitored with 1x and 10x pheromone baited wing traps that were checked at least weekly. At harvest, fruit were sampled and evaluated for codling moth damage. Treatments were applied monthly or as needed, based on the level of moths captured in the pheromone-baited traps.

At all locations the applications of the sprayable, microencapsulated formulation reduced the capture of moths in traps as compared to conventional treatments. Reduction in trap captures ranged from 98% in low-pressure orchards to a low of 78% in very high-pressure orchards. Reduction in crop damage from 0% to 90% compared to conventional treatments. Based on these preliminary non-replicated results, Consep, Inc., will continue to move toward commercialization of a sprayable codling moth pheromone product for mating disruption. Future research efforts will be directed at refining the most efficacious rates and determining the longevity of individual applications under a range of cultural and environmental conditions.