

Mating Disruption/SIR

Understanding Adult Codling Moth Behavior to Improve Mating Disruption

Alan L. Knight  
USDA, ARS, Wapato, WA

*Keywords:* codling moth, apple, pear

Several studies were conducted during 1995 which have contributed to our knowledge of codling moth behavior. The levels of sex pheromone which codling moth adults were exposed to in previous laboratory studies of sensory habituation were quantified using ion mobility spectrophotometry. A field test demonstrated that males' response to virgin females after a 24 h exposure to field rates of sex pheromone was little affected. Recapture of released marked moths on the edges of pheromone-treated and untreated plots showed that males were more likely and females less likely to be caught in pheromone than untreated orchard plots. A passive interception trap developed within this project was found to be unbiased in catching mated and virgin females. Moth catch, sex ratio, and mating status of females on these traps were also closely associated with egg density and fruit injury.