

Pome Fruits—Biological Control

Codling Moth on Apple

J. Franklin Howell  
Britt and Associates, Yakima, WA

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Temperature affects short-term pheromone emission rates for Isomate C dispensers more than other factors, i.e., age and dose. Based on females caught in blacklight traps mating disruption in the order of 70% or above occurs when dusk temperatures exceed 22°C. Average dusk temperatures in the Yakima valley range from 17 to 19°C. Small heaters were used to heat the pheromone dispensers about 3°C above ambient to increase the pheromone emitted. Plots with heated pheromone had mating disruption equivalent to plots without heated pheromone; both had codling moth control comparable to insecticides. However, 30% less pheromone (fewer ties) was used with heaters and more pheromone remained in the dispensers at the end of the year. Also, there were 65% fewer emission points in the heat treatment. Using less pheromone and having fewer point sources have practical value in relation to pheromone and application costs.