Thresholds and Monitoring

MONITORING CODLING MOTH IN APPLE WITH A BISEXUAL ATTRACTANT

Dr. Alan Knight (USDA, ARS, Wapato, WA),
Dr. Doug Light (USDA, ARS, Albany, CA)
and Dr. Scott Lingren (Trece Inc., Salinas CA)

Key Words: *Cydia pomonella*, kairomone

Lures loaded with DA2313, the potent bisexual attractant for codling moth were evaluated in over 100 orchards in Washington State during the 2000 season. DA2313 lures were effective in tracking the emergence and flight periods of codling moth. As a general rule, moth captures by DA2313-baited traps begins a few days after the first males are caught in pheromone-baited traps and weekly counts are generally lower during the first flight in DA2313-baited than pheromone-baited traps. However, DA2313 lures clearly outperformed sex pheromone lures during the second flight in pheromone-treated orchards. The regression of moth catch versus the estimate of fruit injury within 2.5 acres around each trap was more highly correlated with DA2313-baited than with sex pheromone-baited traps. Traps baited with DA2313 were used effectively to establish a Biofix for timing insecticide applications. However, sprays based on 155 degree days (time required for egg hatch) not 250 degree days following Biofix are recommended with the use of DA2313. Preliminary data suggest that practitioners may not need to sex moths caught in the trap or dissect the female moths to determine their mating status when using DA2313 lures. Apparently, high levels of female mating occurs in orchards treated with Isomate-C+ despite its success in reducing fruit injury, and both sexes tend to be caught concurrently. Segregating female catch did not improve the moth catch regression with fruit injury.