

Mating Disruption/SIR

Filbertworm: Semi-Scientific Attempts With Mating Disruption

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Evidence for mating disruption in a filbertworm (FW) population infesting experimental blocks of hazelnuts using experimental dispensers took the form of greatly reduced trap catches within treated blocks compared to untreated blocks in 1994 and 1995.

In 1994 this did not result in reduced incidence of "wormy" hazelnuts at harvest. Two plausible explanations include the late date at which dispensers were placed in the blocks relative to FW emergence, flight activity and likelihood of gravid females being present at time of dispenser placement. Considering the flight capability of the moth, experimental blocks were too close together. Immigration into "disrupted blocks" by egg laying females was almost a given.

In 1995 two 1-acre blocks adjacent one another with a ca. 5% infestation in 1994 received dispensers. Eight pheromone traps caught 19 male FW from Jul through Sep. One thousand filberts collected randomly from each block had ca. 1% infestation based almost entirely on kernels damaged very early in the season. Dispensers were again located in trees after initial FW flight. Other blocks infested the previous year (and not sprayed in 1995) had greater percent infested filberts than in 1994 (typical of FW infestation buildup in unsprayed blocks).

Poor profit margin in recent years, presence of many mature, closed canopy orchards still in production and/or large percentage of orchard acreage with tall trees, making dispenser placement difficult are three challenges to MD acceptance.