

7. Mating Disruption/SIR

NEW PHEROMONE FORMULATION FOR CODLING MOTH MATING DISRUPTION

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A novel new formulation of codlemone was evaluated in the laboratory and field to determine potential mating disruption efficacy on codling moth (*Cydia pomonella*). The new formulation is novel in that it is composed of beads approximately two millimeters in diameter. The beads are applied with an adhesive carrier that binds them to the foliage and/or the bark of the tree. In laboratory the codlemone content was determined to be approximately 1.3 mg per bead. In addition to codlemone, the bead contents include solvents and stabilizers. In laboratory experiments the beads released codlemone in temperature ovens throughout the entire 72 day evaluation period. The adhesive carrier had little effect on the codlemone release rate in oven experiments. In field experiments the beads applied at a rate of 200 beads per tree in small replicated blocks, provided varying levels of mating disruption for the 62 day duration of the experiment. These preliminary experiments indicate that the formulation may have potential as a mating disruption product that could be quickly and easily applied by hand or mechanical devices. Such a formulation would also address point source considerations and concerns about the long term impact of repeated application of hand-applied dispensers.