

II. Pome Fruits

c. Biological control

1. Codling moth, Asian pears

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Mating Disruption. An isolated 7-year-old Asian pear orchard in Yolo County was used for the third year in a trial of mating disruption for control of codling moth. The orchard has 345 trees of 'Shinseiki' and 75 of the 'Hosui' variety. No insecticides have been applied in this orchard. In the first year, the use of a ribbed plastic release unit on every other tree was unsuccessful, resulting in damage, on different harvest dates, ranging from 4-6% of the Shinseiki variety and 17% of the Hosui variety. The potential for infestation was established. In 1989, the Shin Etsu (Pacific Biocontrol Ltd.) three-component-pheromone release units (codlemone, 12 OH, 14 OH) were installed at two per tree in the northeast quadrant of each tree, ahead of spring emergence. At harvest, 1.3% of the Shinseiki and 2.1% of Hosui were infested.

In 1990 the Shin Etsu release units were again supplied by Pacific Biocontrol Ltd. These were installed as before. Control was again very successful, less than 1 percent of the harvest was damaged. Tree bands removed in early November to assess overwintering population levels had 4 hibernating larvae from 20 trees.