

Section 4. Chemical Control/New Products

CONTROL OF LEAFROLLERS IN APPLE USING PARTICLE FILMS

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A range of studies were conducted to evaluate the effect of the particle film M96-018 on the obliquebanded leafroller, *Choristoneura rosaceana* (Harris). We wanted to examine its impact on each life stage of *C. rosaceana* at a number of key management time periods during the season. We found that M96 has potential when applied at delayed dormant in the spring to prevent the overwintering larvae from establishing feeding sites in the new green foliage. We found that M96 has little effect on larvae already feeding inside leaf shelters. M96 has little effect on egg hatch. Moths will, however, avoid ovipositing on residues. M96 affects neonate survivorship and retards larval growth. M96 caused outbreaks and reduced parasitism of gracillarid leafminers. M96 was effective in controlling codling moth. Coverage of fruit and leaves is critical in achieving control of codling moth. M96 cannot be completely removed from the stem-end of apples through washing with water and brushing. However, waxing or dipping apples in > 0.25% horticultural oil removes the appearance of the white residue.