

Controlling tufted apple budmoth

BIGLERVILLE — It didn't take long for the tufted apple budmoth to achieve the status of number one apple pest after it began invading orchards in Pennsylvania and the Mid-Atlantic region some 15 years ago.

Since then, this member of the leafroller family has continued to challenge growers' best efforts to produce blemish-free crops.

Sometimes referred to as "chewers", tufted apple budmoth larvae are notorious for eating through the skin of apples and causing shallow but unsightly surface scars which leave the fruit unsuitable for fresh market sales.

"In West Virginia the insect has been our number one apple pest for several years, and we can usually count on it damaging anywhere from 5% to 10% of the crop each season," says Dr. Henry Hogmire, West Virginia University associate professor of entomology and extension specialist at the Kearneysville Experiment Farm. "Damaged processing apples are generally tolerated without downgrading, but growers can lose significant profits when fresh apples, particularly varieties such as red delicious, stayman and others have to be culled and thrown into the processing bins."

Timing Important For Control

Hogmire emphasizes that spray timing is particularly important for effectively controlling tufted apple budmoth.

"Our objective is to get growers to spray insecticides just prior to egg hatch. When the newly emerged larvae crawl across the leaves they contact the chemical and die before causing damage."

Generally speaking, first generation sprays should be applied from about June 10 through the early part of July, although this year's spraying schedules are running a week or so earlier than usual, Hogmire adds. Second generation sprays should be scheduled from about the second week of August through to harvest.

"Properly timed sprays are also important because this species, like other leafrollers, has the ability to protect itself inside rolled leaves," Hogmire says. "The larvae have a tendency to chew a leaf partway through the leaf petiole shortly after they hatch from the eggs. The leaf dies and hangs limp on the tree, but it doesn't fall off. Meanwhile, the worm spins a web, folding the leaf around itself. Once they're inside a rolled leaf you usually can't kill

them because they don't come into contact with the spray."

Marshall Kuntz, a private fruit consultant from Adams County, Pennsylvania stresses the importance of effectively controlling the first generation larvae.

"The first brood of tufted is the one that does the most damage," he says. "If you do a good job controlling the first generation, the second brood shouldn't be that difficult to control with insecticide sprays after they begin hatching in August."

University recommended insecticides for controlling tufted apple budmoth include LorsbanTM 50W, GuthionTM, methomyl (LannateTM or NudrinTM) and PennCapTM. Lorsban 50W wettable powder, the newest of these materials, has demonstrated effective control of tufted apple budmoth and several other major apple pests in university trials and commercial orchard applications in Pennsylvania, Virginia, West Virginia, New Jersey and other apple producing states over the last two years.

Paul Hall, who with brothers Francis and Harry grows 90 acres of apples in Adams County, evaluated Lorsban for tufted apple budmoth control last year as part of a field research program administered through the Pennsylvania State University Biglerville Fruit Laboratory.

"We tried a full-season program with Lorsban 50W in combination with Lannate on a 13-acre block of York Imperial and Golden Delicious," Hall says. "The combination was very effective on tufted apple budmoth...we sprayed from petal fall through June for the first brood and then again in August to control the second brood. The treatments provided good control of other pests as well, including apple aphids, redbanded leafroller and white apple leafhopper."

Kuntz, who works with the Halls as a consultant, adds that the brothers' exemplary pruning techniques and spray practices are a big plus in their ability to control tufted apple budmoth and other pests, particularly in blocks containing a lot of York Imperial trees.

Hogmire notes that for most growers, tufted apple budmoth is particularly troublesome in blocks

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Hanging leaves — a telltale sign of tufted apple budmoth. While most larvae feed on the surface of apples, some of the worms cut through leaf stems, spin a web and wrap the dead leaf around them. Once sheltered inside a rolled leaf, the pest is difficult to kill with insecticide sprays.

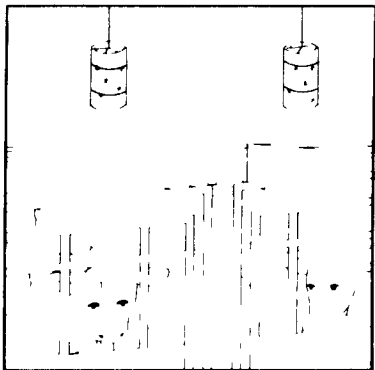
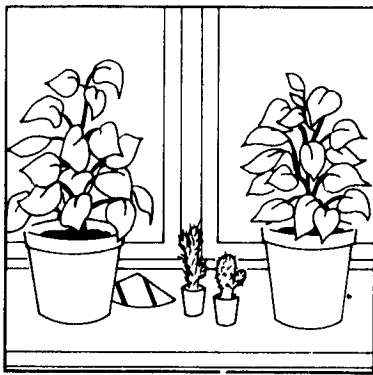
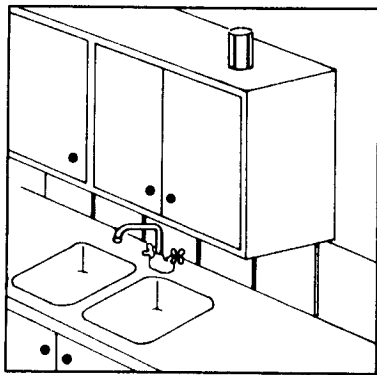


Tufted apple budmoth remains enemy #1 for apple growers throughout the Mid-Atlantic states. The pest is notorious for chewing through the skin of apples, causing unsightly scars and leaving the fruit unfit for fresh market sales.

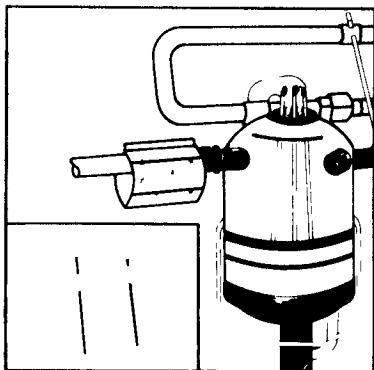


Adams County growers Paul Hall (1) and his brother Francis (r), work closely with fruit consultant Marshall Kuntz (c) to control tufted apple budmoth and other pests. Halls' pest management program includes carefully timed sprays, effective new insecticides, proper application procedures and well pruned trees — factors which help them to consistently harvest top-quality apples.

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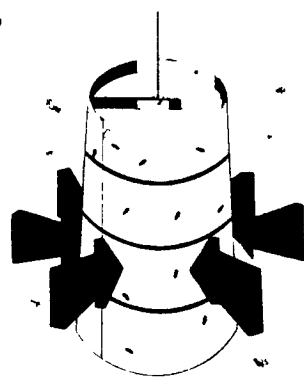


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