2. Implementation

West Parker Heights Areawide Codling Moth Management Project - Third Year

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Areawide codling moth control using pheromone mating disruption as the primary control method was again very successful in the W. Parker Hts. project in 1997, the third in an anticipated five year program. The mean number of organophosphate insecticides applied for codling moth control was reduced by 80% compared to conventionally managed blocks in the area. Most of the acreage (85%) received one organophosphate cover spray during the season, directed at first generation moths. The mean number of codling moths trapped over the season was reduced nearly 20% below the 1996 total, which was a 55% reduction from 1995 (table 1). There was no detectable codling moth damage at the end of the first generation in the project and less than 0.05% damage at harvest (table 2). Pandemis and fruitree leafrollers along with cutworms, have emerged as the pests causing the most damage to fruit. The total damage to fruit from these pests measured at the pre harvest fruit evaluation was 0.37%. Damage levels from these pests have increased over the duration of the project and could become a more serious problem. Basic biological knowledge leading to effective monitoring and control methods is needed for these pests. Fruit damage from all insect pests was well below commercially acceptable levels and organophosphate insecticides applied for secondary pests were reduced by about 70% compared to conventional apple and pear orchards.

Table 1. Mean pheromone trap captures, W. Parker Hts. areawide project.

	1st Generation			2nd Generation			Season		
	95	**96**	**97**	**95**	**96**	**97**	**95**	**96**	**97**
AW	3.75	1.8	1.4	1.8	0.94	0.6	5.35	2.34	2.0
95 Conv	48.9	56.8	24.1	44.3	14.2	11.9	95.4	71.0	36.0
96 Conv		39.1	27.8		11.5	12.7		50.6	40.5

Table 2. Percent fruit damage at harvest, W. Parker Hts.

	1995		1996		1997	
	CM	**PLR**	**CM**	**PLR**	**CM**	**PLR**
AW	0.2	0.23	0.08	0.15	0.05	0.03
Conv	0.8	0.13	0.12	0.09	0.17	0.04