2. Implementation

THE CODLING MOTH AREAWIDE MANAGEMENT PROGRAM (CAMP) FOR THE PEAR PEST COMPLEX IN SOUTHERN OREGON

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A program to control arthropod pests of pear in southern Oregon utilizing codling moth (CM) mating disruption and three horticultural spray oil applications during the foliar season was initiated in 1995 on 300 acres and was expanded to over 500 acres in 1997. During 1995, 1996, 1997 and 1998, the program reduced foliar use of organophosphates by 72%, 73%, 70% and 59% respectively and overall synthetic pesticide use by 80%, 81%, 78% and 69% respectively. Besides reducing pesticide use, the program has continued to achieve suppression of primary and secondary pear pests, maintaining damage between 1.5-3.2% fruit downgrading, while lowering the cost of arthropod control by about $179-$335 per acre. The weaknesses of the program which have yet to be resolved are: the prediction of CM and leafroller damage from pheromone trap catches, and management of true bugs; while concerns regarding gradual buildup in CM and other arthropod pest levels still exist.

Basic Spray Program:

Timing of Application	Target Pest(s)	Material and Rate
Dormant	Pear Psylla (PP)	Oil, 4 gallons
Delayed Dormant	PP, San Jose Scale (SJS) Pear Rust Mite (PRM), Codling Moth (CM), Twospotted mite (TSM)	Oil, 4 gallons Lime Sulfur 12 gallons Or Sulforix 2.5 gallons
Just Prior to Codling Moth Biofix (ca. 200 DD from January 1st))	CM, PP, TSM, etc.	Pheromone Dispensers
200 DD post CM biofix	CM, PP, TSM	Horticultural Spray Oil 1%
400 DD post CM biofix	CM, PP, TSM	Horticultural Spray Oil 1%
600 DD post CM biofix	CM, PP, TSM	Horticultural Spray Oil 1%
1250 DD post CM biofix	CM	Guthion 50 WP 2.5 lbs. or Imidan 70W 4 lbs.

% Fruit Damage By Pest:

Pest	1995	1996	1997	1998
Codling Moth	0.26	0.04	0.09	0.16
Leafroller	0.45	0.32	0.23	0.58
Pear Psylla	0.06	0.04	0.01	0.06
True Bugs — RED VARIETIES HARDEST HIT	0.38	0.89	1.82	2.25
Other	0.38	0.23	0.25	0.13
Total	**1.53**	**1.53**	**2.40**	**3.18**

BOSC = 10 Pear in Program

Summary Of Foliar Treatments Conventional vs CAMP Blocks: Bosc Cultivar Only

Management Type	# Of Orchards	Total # Applications	# OP's	# Other Synthetics	Total # Synthetics
1995					
Conventional	15	5.4	3.2	2.8	6.0
CAMP	7	4.3	0.9	0.4	1.3
1996					
Conventional	10	4.2	3.7	3.0	6.7
CAMP	7	4.9	1.0	0.3	1.3
1997					
Conventional	4	3.8	3.3	2.5	5.8
CAMP	4	3.8	1.0	0.3	1.3
1998					
Conventional	4	4.75	4.25	3.75	8.00
CAMP	4	4.25	1.75	0.75	2.50

Note: pheromone dispenser installation not included