

WEDDLE, HANSEN & ASSOCIATES, Inc.
P.O. Box 529, Placerville, CA 95667

SUISUN VALLEY
Pear Pest Management Alliance
2000 Final Report

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Participating Growers: Larry Glashoff, Sue Lipstreu, Ray Erickson, Lupe Rodriguez, Henry Maeyama

Abstract

In this project, five growers (seven total orchards) used Codling Moth mating disruption (MD). Three of these growers had used MD for one season in 1994 but had abandoned it due to cost and poor crops in subsequent years. At that time, monitoring in MD blocks was less well developed.

Codling Moth (CM) populations in these blocks were relatively high in 1999. In four of the seven blocks, sprays were substantially reduced while the higher populations in the other three blocks only allowed for slightly reduced treatments in this first season. One additional grower began the season as part of this project, but the orchard was abandoned partway through the season due to extensive hail damage.

Background

Most pear orchards in the Suisun district are smaller than in other pear districts. The district is known for windy conditions. (Suisun means "west wind" in the local indigenous tongue.) The trees are trained in a very open style and are widely spaced in the typical orchard. All of these factors make it more difficult for MD to be as successful as in other situations.

The following pests were monitored in much the same way as in the Sacramento Pest Alliance project: CM, OBLR and other worms, European red mite, 2-spotted spider mite, pear psylla as well as predators of these pests. Weekly updates were sent to all growers.

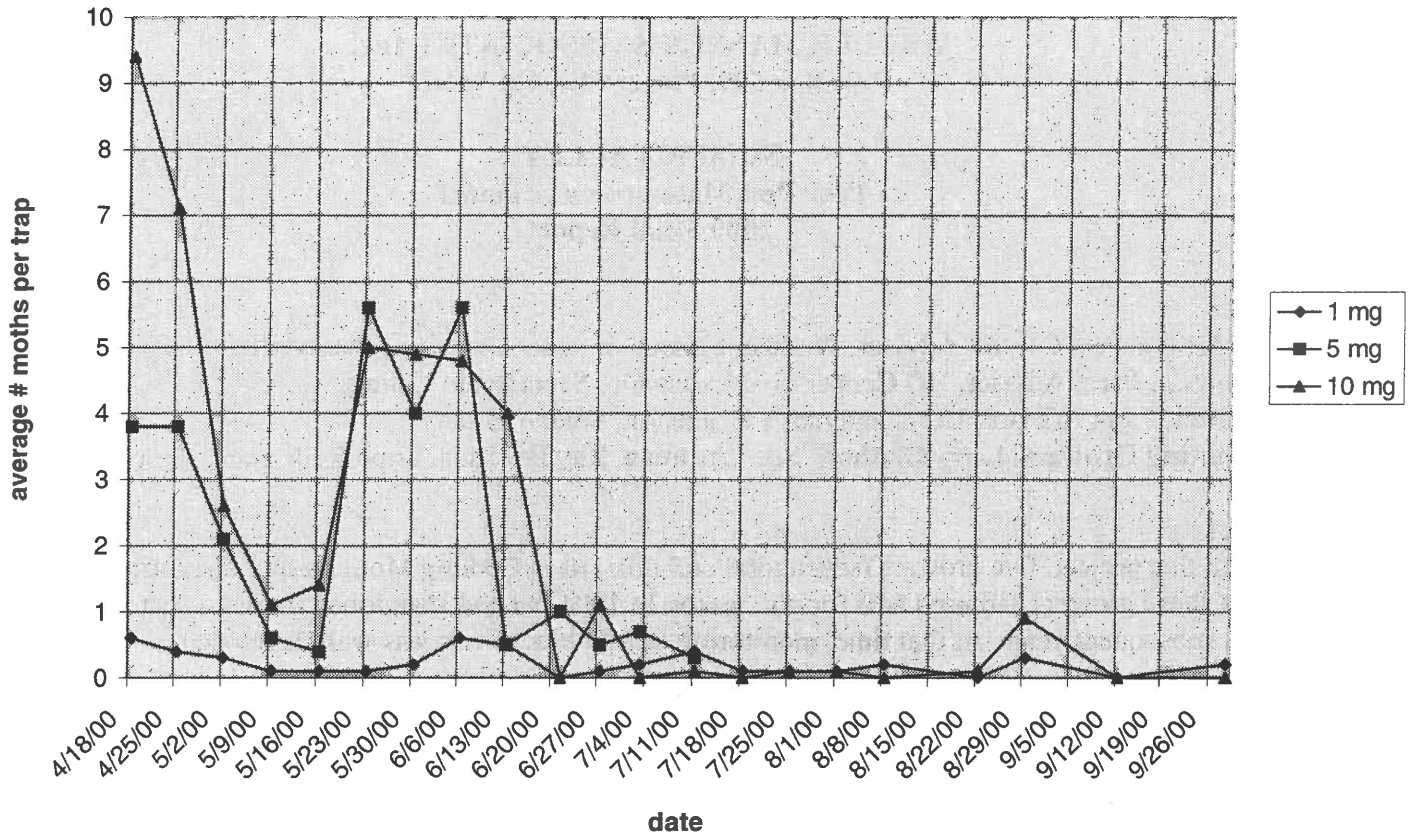
Results

Codling Moth Trap catches were very high the first 1-2 weeks after placing MD dispensers in the orchards. Catches in 5&10mg traps were nearly the same. 5mg traps were discontinued in early July. Blocks using Checkmate did had higher trap catches than the adjacent block using Isomate.

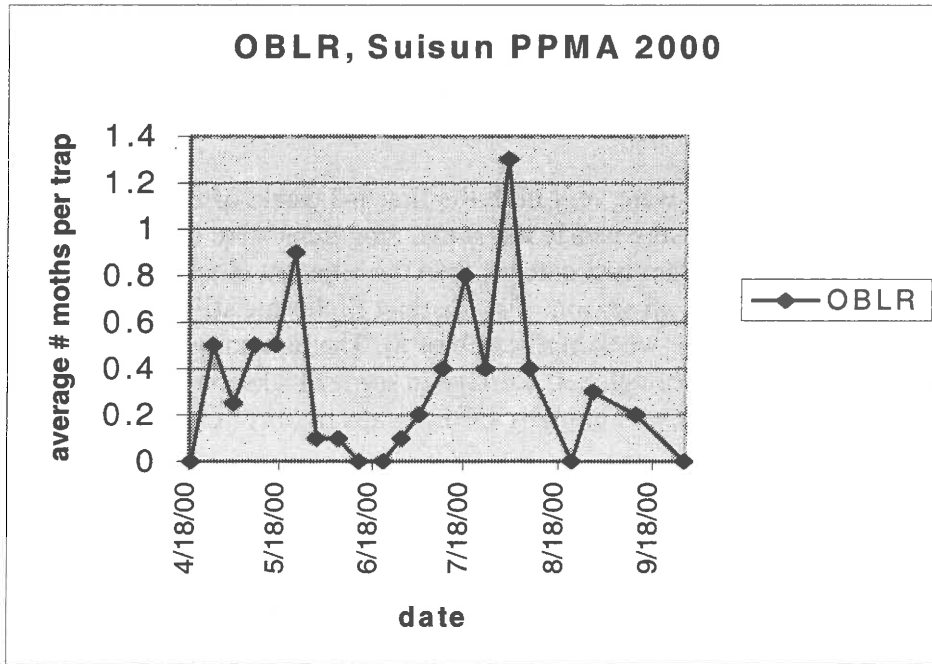
OBLR Traps were very low all season. Two distinct flights are still apparent. One orchard had a seasonal total of 35 in one trap (a one-week high catch of 8). The remaining blocks had seasonal totals of 0-5. No OBLR damage was seen, although hail damage in some blocks made assessment difficult. Fruit tree leafroller adults were heavily trapped in many OBLR traps in May. One block was treated for FTLR in early April.

OP Insecticide Usage In this district, 3-4 OP sprays per season is standard in non-MD orchards. All participating blocks had OP sprays reduced relative to previous seasons without MD. In the MD blocks, 3 growers reduced spraying to 2X (+ one in one of the Checkmate blocks), 1 grower used 3 including a spray for Fruit tree leafroller prior to CM timing and in the remaining three orchards, 3 sprays were directed at CM.

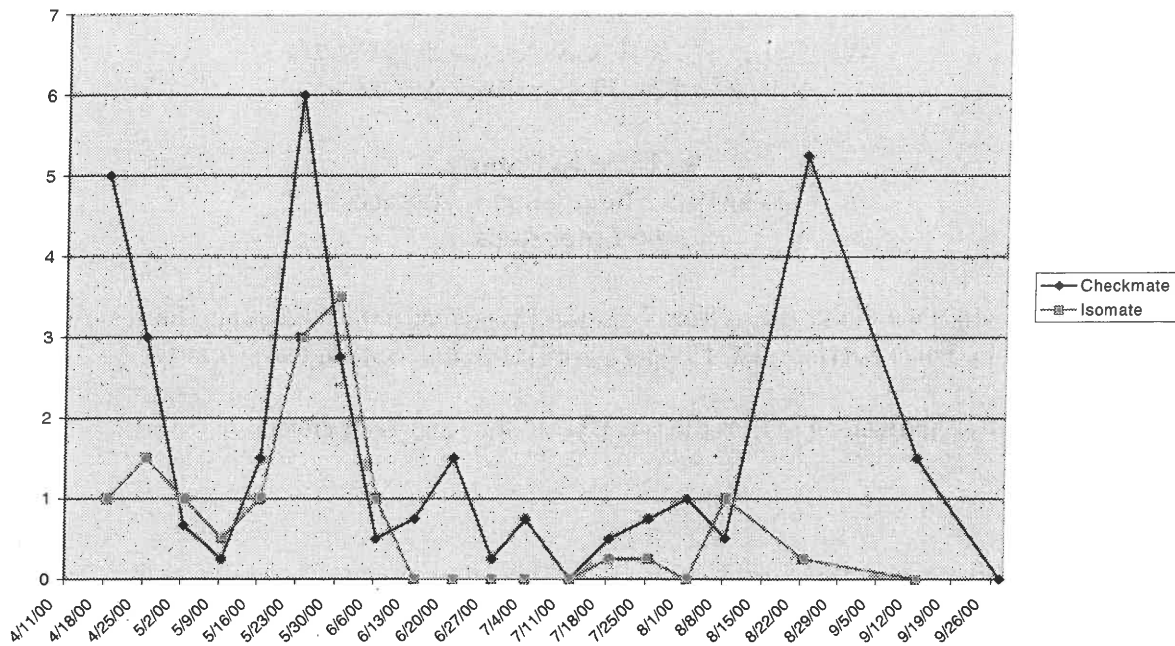
Codling Moth Suisun PPMA 2000



OBLR, Suisun PPMA 2000



Checkmate vs Isomate Comparison 2000 Suisun (mean of 2 orchards)



PHEROMONE & INSECTICIDE USE for CODLING MOTH & LEAFROLLERS
CM & Leafroller Insecticide Treatments

GROWER/ BLOCK	Dispenser Hanging Date	PRODUCT	DATE	RATE (lbs/ac)
Erickson – Isomate	4/10	Guthion	5/27	2
		Imidan	7/15	5
Erickson – Checkmate	4/10	Guthion	4/27	2
		Imidan	5/29	5
		Imidan	7/15	5
Maeyama Checkmate & Isomate blocks	4/10	Guthion	5/31	1.5
		Guthion	7/17	1.5
Glashoff Chadbourne	3/28	Guthion (borders only)	5/2	2.5 (borders only)
		Guthion	5/29	2.5
		Imidan	7/21	5
Lipstreu Grotheer	4/2	Diazinon	4/12	2.5
		Imidan	4/26	5
		Guthion	5/26	3
Rodriguez Home	4/10	Guthion	6/3	3
		Guthion	6/28	2.5
		Imidan	7/17	5
Rodriguez Wylie	4/4	Guthion	6/7	3
		Guthion	6/30	2.5
		Imidan	7/22	5
Rodriguez Gum	4/10	Guthion	6/10	3
		Guthion	7/1	2.5
		Imidan	7/18	5

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El Dorado County
Pear Pest Management Alliance
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Randy Hansen, Pest Control Advisor, Weddle, Hansen & Associates, Inc., Placerville
Chuck Ingels, Farm Advisor, UC Cooperative Extension, Sacramento County

Participating Growers: Pat O'Halloran, Byron Sher and Tom Heflin

Abstract

In this project, three growers used Codling Moth mating disruption (MD). Two growers first used MD in 1999 and one grower began this season. (A third grower participated in 1999. That block was removed between seasons).

In 1999, sprays were modestly reduced in the two participating blocks. The goal was to reduce them further in this second season. That goal was met as those blocks were treated one time each with an OP.

The first year block had a very high codling moth (CM) population. In 1999, this block was unsprayed and unharvested due to extensive hail damage. In 2000, MD combined with 3 OP sprays brought CM damage down to a level where the crop could be harvested.

Background

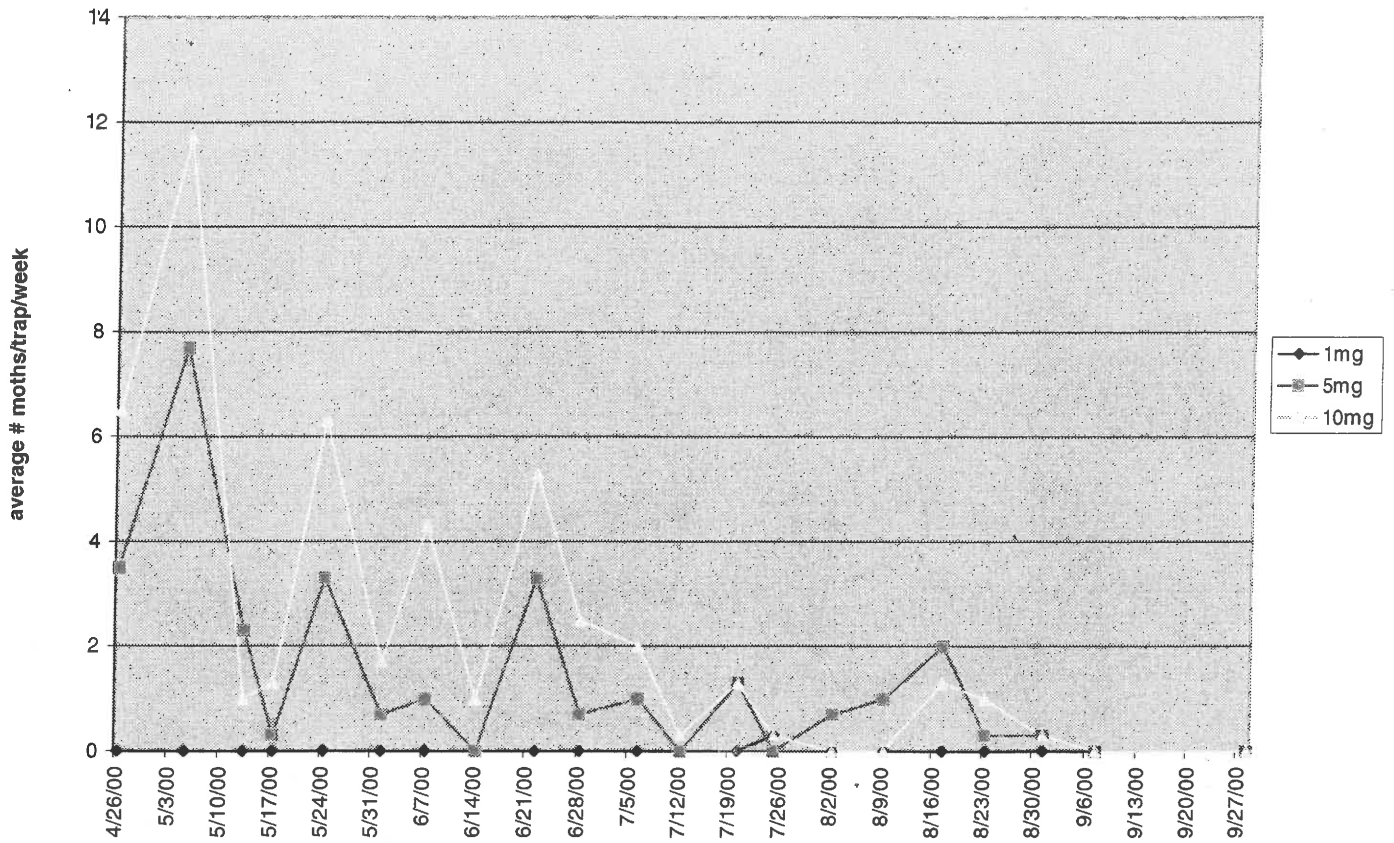
Most pear orchards in El Dorado County are smaller than in other pear districts. All of these factors make it more difficult for MD to be as successful as in other situations.

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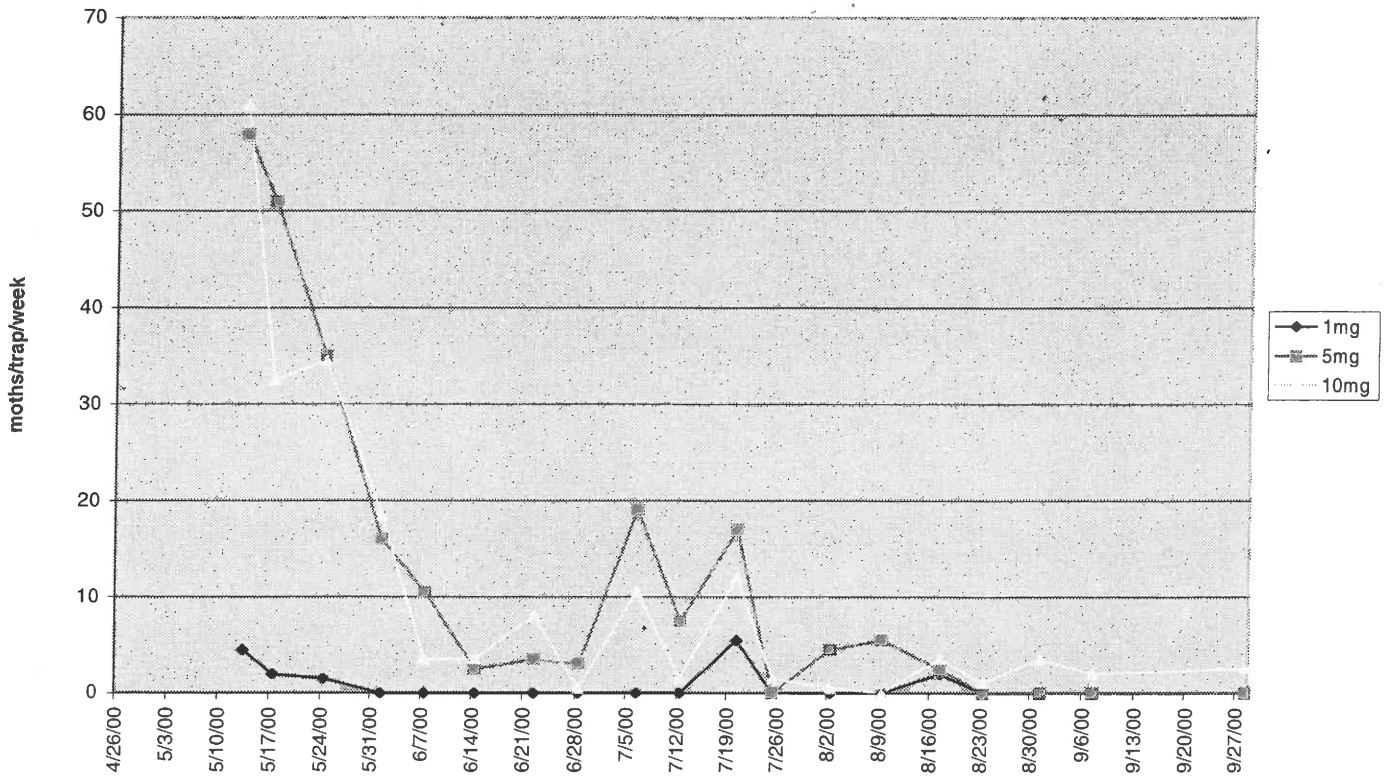
Results

Codling Moth trap data is charted separately below for the second and first year MD blocks since population sizes were so different. The two second-year blocks were treated one time each for CM (plus a border spray in one block). No CM damage was seen in harvest samples. In the first year block, 3 OP sprays were applied. (Non-MD blocks in the area are typically treated 3-4X with OPs). CM damage first appeared in late June and reached approximately 5% at harvest in mid August. Psylla and mite populations remained low in all blocks before and through harvest.

Average # Codling Moth/Trap (second year blocks)



Average # Codling Moth/Trap (first year block)



OBLR

