

your *North Coast* Orchard Notes

University of California Cooperative Extension
883 Lakeport Blvd., Lakeport, CA 95453

MARCH 2000

!! IMPORTANT MEETINGS !!

**Please plan to attend
AGENDAS ENCLOSED**

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|----------------|---|
| March 3 | Planning for the 2000 Codling Moth Season
Clear Lake Grange, Finley |
| March 6 | Lake County Fruit Frost Meeting
Board of Supervisors Chambers, Courthouse, Lakeport |

Agendas are enclosed for these two very important meetings. I sincerely hope you will be able to attend!

Rachel Elkins
Farm Advisor

PLANNING FOR THE 2000 CODLING MOTH SEASON

Growers should now be planning codling moth (CM) programs for the 2000 season. Most California pear growers are considering adopting some type of mating disruption (MD) program, especially since the loss of methyl parathion (i.e. Penncap M[®]) as of January 2000.

The most important thing to remember is that MD works the best under low to moderate CM pressure. Orchards with high CM populations will require several years of combined MD plus insecticides to establish consistent control with reduced insecticides. Azinphosmethyl (e.g. Guthion[®]) and Imidan[®] are now the two materials most growers will likely choose from to supplement their MD program. The number and rates of applications will vary based on CM pressure, orchard location, and worker safety factors. Remember that there will be reduced rates and perhaps a longer pre-harvest interval for azinphosmethyl in 2000.

MD strategy options: There are two basic strategies currently in use. The first is a full season program generally supplemented by one or two organophosphate (OP) applications. For those already in MD programs, the number of OP treatments may be none to two. Growers may also reduce pheromone dispenser rates as CM pressure decreases. Any decision to do such should be made after discussion with your PCA and with careful accompanying monitoring. Timing of supplemental insecticides should also be carefully considered. First (1A flight) and/or second (1B flight) cover are the major timings.

The second strategy is to apply one or two cover sprays early in the season, then apply pheromone dispensers in June or July to cover the remainder of the season. This approach has been successful in the late districts where coverage is needed from late March through September. Growers and PCA's can gauge initial CM pressure, treat, then apply pheromone once. The cost of one application of dispensers is saved without sacrificing CM control.

MD products: There are several commercially available dispensers, with more likely coming. Products differ in the amount of pheromone emitted, number per acre, and longevity. The most widely used are Checkmate CM[®] (Concep, Inc.) and Isomate C Plus[®] (Pacific BioControl). These are applied at 160 to 400 per acre and last from 60 to 140 days, according to the labels. **Actual** longevity may vary with weather conditions, but in recent years, data has been collected to more precisely ascertain actual dispenser life. Produce cost may vary from dealer to dealer. In 2000, growers may see new products from different companies, and also new formulations designed to lengthen dispenser life, thereby reducing seasonal cost. For the above products, application costs range from \$15 to \$30 per acre, depending on number of dispensers applied, applicator skill, and orchard conditions for walking and hanging.

A different type of dispenser is the aerosol emitter. These are labeled at the rate of about two per acre around a 40-acre block. As the treated area enlarges, the number of emitters decreases, which in turn decreases total cost. 500 acres were treated in Kelseyville, Lake County using 1.3 units per acre. In 2000, 800 acres will use about 1.1 per acre. The dispenser currently available is made and sold by Paramount Farming Co. of Bakersfield. It was originally developed by the late Dr. Harry Shorey of UC Riverside. It may be programmed for different rates, as well as emission intervals and times. The CM unit emits pheromone for 200 days when programmed to

run for 12 hours per day. For more information on the “puffer”, as it is called, contact your farm advisor, PCA, or Paramount Farming Co. Concep has also registered an aerosol dispenser with EPA, but so far only tested it in the Northwest in orchards from three to about 60 acres.

OBLR and true bug problems: Oblique-banded leafroller (OBLR) has emerged as the main secondary pest in CM MD programs. It appears from one to four seasons following the removal of OP's. This has increased pest control costs for monitoring, including traps, degree-day tracking and in most cases, special pre-bloom and/or in-season sprays. The OBLR lifecycle is still being studied, although it is generally agreed that the best control timings are pre-bloom, petal fall and at about OBLR 600-700° D, which roughly corresponds to the 1B peak of CM. Lorsban® applied at green tip can provide 50-100% seasonal control, depending on initial pressure. BT is effective if timing, coverage and weather conditions are optimal. In 2000, Confirm 2F® will also be registered.

True bugs are a serious but more sporadic problem. Stink bugs, lygus bugs, and boxelder bugs are the three commonly experienced species, depending on locality. Riparian areas and certain orchard floor (including cover crops) and surrounding vegetation types harbor populations which then move into the orchard in mid to late season. Their elusive and unpredictable life cycle makes control timing hard to predict. Materials are limited to a limited number of broad spectrum insecticides applied when nymphs are young.

Additional monitoring costs: CM MD requires PCA's to spend more time in the field monitoring additional traps, searching for eggs and larvae, and checking for damage in case “rescue” sprays are needed. Most PCA's will adjust to this by increasing their per acre charge or adding special surcharges for specific services. It is believed that the trade off for these increased costs is at least partially offset by 1) lower costs for pear psylla and mite control and 2) fewer cover sprays for CM. If the number of dispenser products increase, competition may also result in lower material costs.

The California pear industry has invested many thousands of dollars studying CM MD. The USDA and California Dept. of Pesticide Regulation have also supported large demonstration projects in Lake, Mendocino and Sacramento Counties. Results from both research and demonstration projects are available from your farm advisor or CPAB/PPMRF research reports and web site (www.calpear.com). It should be stressed, however, that your first and major line of communication should be with the PCA's active in the pear industry. Working with their grower clientele, they are the best qualified to design a CM MD program for individual orchard situations.

PLANNING FOR THE 2000 CODLING MOTH SEASON

- WHEN:** Friday, March 3, 2000
12:30 – 4:15 p.m.
- WHERE:** Big Valley Grange #680
1510 Big Valley Road, Finley
- PRESENTERS:** U.C. Cooperative Extension
California Department of Pesticide Regulation
Lake and Mendocino County PCA's
Mating disruption dispenser producers

AGENDA

(3 hours PCA continuing education credit applied for)

12:30 Registration

1:00 Why are we here? Introduction to issues and concerns
*Rachel Elkins, Pomology Farm Advisor, UC Cooperative Extension
Lake and Mendocino Counties*

1:15 Update on current North Coast areawide mating disruption projects
*Rachel Elkins
Bob Elliott, CalDPR
Lucia Varela, UCCE North Coast Area IPM Advisor
Pete Chevalier, Ukiah IPM Growers, Inc.*

2:00 Alternative insecticides for codling moth and major secondary pests
Bob Van Steenwyk, Dept. of Insect Biology, UC Berkeley

2:30 BREAK (refreshments by Clear Lake Grange)

2:45 Mating disruption dispensers
*Rich Bakke, Concep, Inc.
Roland Gerber, Paramount Farming Co.
Jack Jenkins, Pacific BioControl*

3:15 Commercial implementation of mating disruption programs (Panel and round table discussion)

*Pete Chevalier, UAP, Ukiah
Bill Knispel, UAP, Finley
Bill Oldham, Ag Unlimited, Ukiah
John Sisevich, Harvey Lyman Ag Services, Lakeport
Broc Zoller, Pear Doctor, Inc., Kelseyville*

4:15 ADJOURN

Please come prepared with questions, concerns, and your own experiences and observations!

LAKE COUNTY FRUIT FROST MEETING
Monday, March 6, 2000
1:30 – 4:00 p.m.

BOARD OF SUPERVISORS' CHAMBERS
LAKE COUNTY COURTHOUSE
255 N. FORBES STREET; LAKEPORT

SPONSORS: Lake County Department Of Agriculture
Lake County Fruit Frost Trust Fund
U.C. Cooperative Extension
Lake County Air Quality Management District

AGENDA

- 1:15 p.m.** **Registration and welcome**
Mark Lockhart, Agricultural Commissioner
- 1:30 p.m.** **2000 Fruit Frost Program and Thermometer Testing**
Mark Lockhart, Agricultural Commissioner
Don Schukraft/Steve Martinez, Weathernews, Inc. Chico, CA
Drew Tritchler, Lake County Agricultural Department
- 2:00 p.m.** **Lake County Weather Page / Winds Software Update**
Don Schukraft
- 2:15 p.m.** **UCIPM Pest Cast Network and Website Update**
Rachel Elkins, UC Cooperative Extension
Joyce Stand, UCIPM, Davis
- 2:45 p.m.** **Break**
- 3:00 p.m.** **The Lake County Weather Information Network**
David Adam, LCAQMD
- 3:15 p.m.** **Using the Adcon network for frost protection**
Devin Gordon, Ag Unlimited, Ukiah
- 3:30 p.m.** **Fruit Frost e-mail and fax sign up**
- 4:00 p.m.** **ADJOURN**

BRING THERMOMETERS
FOR TESTING TO MEETING