



# your Lake County HORTICULTURAL NOTES

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JULY 1990

## IMPORTANT MEETING DATES

July 9 - WATER MANAGEMENT SEMINAR (See Page 2)

November 27-30 - 1990 Pear Growers Short Course  
(See Page 4)

## WALNUT HUSK FLY

Because it is the major walnut pest in Lake County (the only one in some orchards), WHF is always front-page news in the July issue of Hort Notes. Growers should obtain yellow sticky apple maggot (AM) traps and prepare to hang them in the shadiest, moistest area of the orchard by mid-July. Late varieties, e.g. Chandler, Franquette and Hartley, are the most susceptible; most growers are aware of past WHF history and will prepare accordingly.

Attached are the latest UC recommendations for WHF monitoring and treatment.

NOTE: MALATHION IS NOW ONE OF VERY FEW INSECTICIDES REGISTERED SPECIFICALLY FOR WHF. HOWEVER, GROWERS MAY USE UP EXISTING STOCKS OF ETHION.

Contact the Lake County Ag Department at 263-2271 if you have any questions about the legality of using Ethion or any other insecticide. As usual, phosphamidon to treat hatched maggots is NOT an option in Lake County; careful monitoring and prompt treatment of emerging adults should be everybody's goal.

It is highly recommended that growers utilize Nu-Lure Bait in order to decrease the sprayed area of the orchard. Using bait, only part of each tree or alternate rows require treating since the bait attracts flies to the traps.

After reading the attached recommendations, give me a call if you have any questions or would like assistance to get started monitoring.

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University of California and the United States Department of Agriculture Cooperating.

**MARK CALENDARS!!! WATER MANAGEMENT SEMINAR**

Pear and walnut, as well as grape growers are cordially invited to attend a timely seminar on a very important aspect of farming. The information presented applies to all deciduous tree and vine crops. I urge all growers to take the opportunity to participate in this very special event.

WATER MANAGEMENT SEMINAR  
Monday, July 9, 1990  
Lakeport Yacht Club

Co-Sponsored by  
Lake County Grape Growers Association  
and  
University of California Cooperative Extension

**PROGRAM**

- 8:30 - 9:00 a.m. Registration/Coffee and Doughnuts
- 9:00 - 9:45 a.m. Tom Smythe, Water Resources Engineer, Lake County  
Flood Control and Water Conservation District  
"Water Issues in Lake County"
- 9:45 - 10:30 a.m. Larry Schwankl, Extension Specialist, Department of  
Land, Air and Water Resources, University of  
California at Davis  
"Irrigation Scheduling Using Soil Moisture Monitoring"
- 10:30 - 11:15 a.m. Ron Brace, President, Crop Care Services, Inc.  
"Soil Moisture Monitoring Devices  
and Their Commercial Applications"

Seminar Fee: \$2.50 per person  
Advance registration not required

## IRRIGATION MANAGEMENT OF YOUNG PEAR TREES

It is very heartening to see new pear plantings here and there around the county. Since July and August are usually the warmest and most stressful part of the season for young trees, the following article by Greg Vogel, U. C. Farm Advisor in Sacramento County, is particularly appropriate. Although it was written at the end of the season, the bottom line is more useful before water stress occurs than after.

Now that harvest is over and the season is still fresh in your mind, it is a good time to sit down and analyze the past production year and make a list of management decisions that need changing next year.

One problem that did show up was irrigation management of young trees. I was called out in May to look at some one year old trees that were not doing well. They had started to grow in the spring, but soon growth stopped, and some of the trees were barely surviving. The young trees were interplanted between recently topworked, mature trees. I dug up a few of the young trees and looked for root problems. There was no vascular discoloration or root rot which would have indicated a disease problem. The young trees were just stressed for water, because they had received only one irrigation by May. The irrigation strategy fit the larger topworked trees, they were still growing, but the young interplanted trees were showing the effects of water stress. Plant growth is one of the first biological processes to slow down and stop when plants run out of water.

To solve the problem, I suggested that water be applied at least once every two weeks during the hotter part of the summer. It is important to note that young trees need to be on an irrigation schedule with frequent, light irrigations because they have much smaller root systems than mature trees. A mature tree can have roots exploring deep into the soil. On the other hand, a young tree with fewer roots down possibly two feet, explores a much smaller column of soil. Therefore, the reserve water available to a small tree between irrigations is much less than a large mature tree. Young trees need many frequent, light irrigations to keep them growing. Tree growth is a good indicator of plant water needs, so if growth slows in early summer, check for adequate soil moisture.

\* \* \* \* FIRST ANNOUNCEMENT \* \* \* \*

1990 PEAR GROWERS SHORT COURSE

MARK CALENDARS NOW!!! For the first time in many years, the University of California is planning a comprehensive 4-day short course to be held November 27, 28, 29 and 30 at Ronald Harbor Inn in Kelseyville. The course will include lectures and field trips in both Lake and Sacramento Counties to see research trials and various orchard operations.

The theme of the course is "Pear Growing in the 90's". Focus will be on "cutting-edge" production: varieties/rootstocks, young orchard development, canopy management, frost control, irrigation, crop management, fertility, labor, and of course, pest management. Speakers from both the public and private sectors will introduce and update growers on industry trends in the Northwest and eastern U. S. as well as California. The program will be TERRIFIC!

The short course will be useful to all growers, but especially those who will be actively farming in the next decade and/or have not had an in-depth overview of pear production. I also highly recommend that growers encourage (even sponsor?) responsible hired personnel to attend the course - growers will profit from what they learn!

Course fee, including meals, bus tours and a written summary of talks, will be approximately \$180.00. Details will be released as the date draws nearer. Contact me if you have questions.

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PEOPLE WITH HEARING DIFFICULTIES CONTACT EDD AT (800) 698-4544  
WEDNESDAYS FROM 9:00 A.M. TO 5:00 P.M.

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JULY CHECKLIST (CONTACT US)

Leaf Samples For Pears and Walnuts - Samples should be collected by the third week of July. See July 1988 HORT NOTES for detailed information of sampling and critical nutrient levels. Contact our office for a list of local labs that will analyze and interpret samples. An excellent reference is:

California Commercial Laboratories  
Providing Agricultural Testing  
UCANR Special Publication #3024  
June 1988 \$1.00

Grape Leafhoppers and Mites - Growers should contact us for the latest UC monitoring and control recommendations.

**WALNUT HUSK FLY** (3/90)Scientific Name: *Rhagoletis completa*

**DESCRIPTION OF THE PEST:** The adult walnut husk fly is about the size of a housefly and very colorful. A yellow spot just below the area where the wings are attached and a dark triangular band at the tip of the wings distinguishes the husk fly from other flies likely to be found in orchards.

Husk flies have one generation per year. They overwinter as pupae in the soil and emerge as adults from early July until early September. Peak emergence is usually in mid-August. The female deposits eggs in groups of about 15 below the surface of the husk. Eggs hatch into white maggots within 5 days. Older maggots are yellow with black mouth parts. After feeding on the husk for 3 to 5 weeks, mature maggots drop to the ground and burrow several inches into the soil to pupate. Most emerge as adults the following summer but some remain in the soil for 2 years or longer.

**DAMAGE:** The walnut husk fly is a mid- to late season pest. It occurs in all walnut-growing areas in California except in certain parts of the central and southern San Joaquin Valley. Black walnut and all cultivars of English walnut are suitable hosts for the husk fly. Some early maturing cultivars, such as Ashley, escape serious damage in most years. Mid-season and late-maturing cultivars such as Eureka, Hartley, and Franquette are most susceptible to husk fly damage.

The first signs of an infestation are small stings caused by females depositing eggs in the husk. After hatching, the maggots feed inside the husk, turning it very soft and black. The outer skin of the husk usually remains intact, but its fleshy parts decay and stain the nutshell. These stains cannot be removed by normal bleaching procedures, and the nut is therefore unsatisfactory for in-shell sale. A husk fly infestation early in the season (late July to mid-August) leads to shriveled and darkened kernels or may induce mold growth. This damage may also be caused by other pests or environmental stresses. Late infestations do little damage to the kernels but may stain the shells.

**WHEN TO TREAT:** Use an apple maggot fly trap (Pherocon AM) charged with ammonium carbonate to lure adult flies for monitoring populations. Hang traps in the orchard on or before July 1 as high as possible within an area of dense foliage on the north side of trees. Use at least five traps per 100 acres placed within an orchard of the same variety in the areas where the heaviest infestations occurred the previous year. If varieties are mixed, place a second set of traps on the other variety if it matures on a date different from that of the first variety. Count and remove trapped flies three times a week and record count numbers and date. The total average number of flies per trap necessary before treatments are required is too variable to use to determine if a spray is needed. Base treatment decisions on past experience in the orchard concerned; a high population of flies may occur without egg laying.

If the decision is made to treat, time the spray application for 10 days after the first marked increase in trap catch is observed. This timing will kill adult flies that emerge from the soil for about a 2 week time period. Timing of applications in different years, between orchards or between varieties within an orchard, can vary considerably and requires separate trap monitoring procedures. An alternate method of timing is to look for the presence of stings (egg laying punctures) on walnut hulls. When this is observed apply a treatment of phosphamidon immediately. One spray is often sufficient for early maturing varieties, but later maturing varieties may

Continued on next page.

require two or three sprays for adequate control. Continue monitoring with traps until harvest begins. All varieties of walnuts are considered susceptible to infestation, and late varieties are particularly susceptible.

All chemicals used for the control of husk fly are disruptive and may result in secondary aphid and mite infestations. Treatments are not required in orchards with no husk fly damage the previous year. Husk flies are not a problem after husk split; the use of ethephon to hasten maturity can aid in control of this pest.

**TREATMENT:**

Pesticide (commercial name)	Amount to Use** (dosage/acre)	P.H.I.+ (days)	Comments
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**Before Egg Hatch**

A. NU-LURE BAIT (formerly Staley's Protein Bait No. 7)	1-3 pt		
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Baited sprays are the preferred treatment and are aimed at killing adults before eggs are laid. Nu-lure bait attracts flies to spray material and enhances control. If significant egg laying has occurred before treatments, however, adequate control will not be attained.

...PLUS...

MALATHION 8EC

1.5-3 pt

0

Malathion can increase mite problems. Alternate row spraying is adequate with bait.

**NOTE:** The following treatment requires more pesticide than baited sprays for equal effectiveness and is more disruptive to parasites and predators.

B. MALATHION 8EC

3-4 pt

0

Malathion can increase mite problems.

**After Egg Hatch**

**Note:** If egg hatch has occurred, there is still a chance to control hatching maggots provided they have not already developed to the point at which widespread discoloration of the hulls is observable as the result of larval feeding. Under these conditions, the following material is recommended.

A. PHOSPHAMIDON\* 8EC

1 pt

7

This product is disruptive to parasites and predators and may result in secondary outbreaks of scale and mite pests.

\*\* For dilute application use with 300 to 600 gal water per acre; for concentrate application use at least 20 gal water per acre.

+ Preharvest interval. Do not apply within this many days of harvest.

\* Permit required from county agricultural commissioner for purchase or use.

HS Do not apply after husk split.

# Acceptable for organically grown produce.

## TOXICS LIABILITY SYMPOSIUM

A daylong meeting billed as a working symposium on the impact of toxics liability on agricultural lending is being held July 26 at the Holiday Inn Center Plaza in Fresno. It is being sponsored by UC Cooperative Extension and the UC Agricultural Issues Center.

The concept of lender liability for borrowers' misuse of hazardous materials has its roots in "Superfund" legislation of 1980, but it has been only within the last few years that court cases have surfaced.

The symposium will cover legal aspects of toxics liability, relevant legislation and environmental audits. A panel of agricultural lenders will discuss how they are dealing with the problem of toxics liabilities.

The symposium will be of interest to anyone involved in or affected by agricultural lending - lenders, growers, appraisers and anyone else whose work involves farm property.

A limited number of registration packets are available at our office. Further information and packets are available by contacting Toxics Liability Symposium, Department of Agricultural Economics, University of California, Davis, CA 95616. Phone (916) 752-4424.

Until next time.....

*Rachel B. Elkins*

Rachel Elkins  
Farm Advisor

Hearing impaired residents of Lake County now have direct access to the vast wealth of information from the University of California's Cooperative Extension Service via a telecommunications device for the deaf (TDD) link.

The TDD link went on line June 1, 1990, according to the UCCE County Director Pat Johns and provides access to anyone with a TDD device and a telephone.

The TDD telephone number is 800-698-4544.

UC's Cooperative Extension offers a broad range of information and advice in agricultural practices, home gardening and landscaping, food preparation and nutrition, consumer affairs, natural resources and 4-H youth development.

The TDD link provides the hearing impaired with access to this information and advice visually, through a system similar to a telegram or computer modem. Inquiries by the public, typed into the link, appear as printed questions in the UCCE county office. Answers sent back through the link appear either on digital displays or paper printouts, depending on the caller's equipment.

The TDD link also serves as a message center with questions directed to appropriate experts and answers relayed back from the experts to callers. UCCE makes no charge for the service, which is part of the University's public service function.

For further information on the TDD link, callers with TDD equipment may call on the TDD number or write to:

Pat Johns, County Director, U. C. Cooperative Extension  
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