UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION COUNTY OF LAKE

your Lake County HORTICULTURAL NOTES

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JULY 1989

OREGON PEAR RESEARCHERS TO VISIT

Extension Horticulturalist David Sugar, Professor of Entomology Pete Westigard and Jackson County Agent Phil Van Buskirk will visit Lake County on July 20-21. They have graciously offered to discuss their research projects at the Southern Oregon Agricultural Experiment Station (SOES) in Medford. This is a VERY EXCITING event and I hope MANY local growers will take the opportunity to hear about research going on in Southern Oregon. It is also your chance to ask them about the 1989 crop and growing conditions.

PROGRAM

DATE: Thursday, July 20, 1989
TIME: 7:30 - 9:30 P. M.
PLACE: Lakeport Lions Community Hall
2495 Parallel Drive, Lakeport
COST: $3.00 (for hall rental)
Refreshments will be served

SELECTIVE PEST MANAGEMENT PROGRAMS
Dr. Pete Westigard, Professor of Entomology
SOES, Medford

Phil Van Buskirk, Jackson County Agent
Medford

ROOTSTOCK VARIETY TRENDS;
NEW ORCHARD MANAGEMENT PRACTICES
David Sugar, Extension Horticulturalist and Plant Pathologist
SOES, Medford

1 hour of PCA credit applied for

AGRICULTURAL WATER CONSERVATION PRACTICES

Water use by crops peaks in July. ET, or loss due to plant transpiration and evaporation, is about 7.3 inches. Despite the late rains, rainfall is still significantly below "normal". In the spirit of water conservation, the Kelsey and Adobe Creek Advisory Committees of the Lake County Water Plan Committee developed a list of agricultural water-saving practices. Growers should be aware that water is now considered a finite commodity and these 'Best Management Practices' (a new catch-phrase for efficient farming) are to be taken seriously.

1. IRRIGATION METHOD: Drip Irrigation is more efficient, however, grapes are the only crop that can be converted to drip irrigation once spray irrigation has been used. Dual irrigation systems are frequently needed, with a spray system for frost protection and a drip system for irrigation. During very hot periods, the spray is sometimes required to keep the fruit from being "burned".

   Sprinkler irrigation has been found to be more efficient than flood irrigation since the water is more evenly distributed.

2. MAINTENANCE: Leaking gaskets, valves, pump heads and sprinkler heads waste a lot of water. Proper maintenance and regular inspections can significantly reduce waste.

3. OVER IRRIGATION: This is primarily a problem with farmers who are new to a crop and who are unaware of the optimum amount of water needed by the crop. Use of soil moisture instruments may be helpful in determining when to irrigate and when to stop.

4. NIGHT IRRIGATION: Because evaporation is lower at night, significant water can be conserved through nighttime irrigation. Using one of PG&E's non-peak use rate structures can also save on electric bills. Blight and fungus infections could limit the effectiveness of this measure.

5. SPRINKLER HEAD: Selection of the proper sprinkler head for the purpose can also save water. A very fine spray provides more efficient frost protection while a coarse spray provides more efficient irrigation.

6. GROUND COVER: Grass provides a firm footing for workers moving irrigation pipe, holds soil in place and keeps the dust down (reducing disease danger). Keeping the grass closely mowed reduces its water use.

7. TAILWATER: Recycling tailwater can save on water use, however, this is less of a problem now that the cost of electricity is high and water is scarcer. There is very little irrigation tailwater, except in areas where lake water is used for irrigation.

8. ROAD IRRIGATION: Although it was felt that little water is wasted this way, the public's perception of water waste by agriculture is damaging. Standing water in and around orchards and vineyards is also felt to be damaging to agriculture's image.

9. COOPERATION: Comprehensive water conservation measures are needed in both agricultural and domestic water use to protect the limited water supply.

Further discussion on effects of water stress and ways to optimize water use can be found in the April and May 1988 issues of Hort Notes.

WILL 1989 BE A PREMATURE RIPENING YEAR?

The summer of 1989 has been very pleasant. In fact, there have been enough cool spells that blight sprays (and infections) continued in some orchards into June. Research by Oregon workers, Wang and Mellenthin, showed that if temperatures fall below 50°F during the final four weeks before harvest, growers should be ready for possible premature ripening. This means timing harvest to PRESSURE, NOT SIZE.

When I arrived in Lake County just after the 1987 harvest, you had just picked one of the largest crops in history (or was it the largest?) To top it off, minimum temperatures plunged in July, causing fruit to ripen on the trees and literally melt in cold storage. This huge crop prompted many growers to wait for the small fruit to size; in some cases it was picked a full week past optimal pressures. In addition, hormone sprays may have been applied late in some orchards as growers waited to harvest certain blocks.

This year, we are, fortunately, looking at a manageable crop of good size fruit. However, everyone should have learned from 1987.

During July, pressures should be monitored carefully in each block, especially if temperatures remain cool. Apparently, some of the effect of low temperatures is offset by daytime highs in the 90's; however, the ripening process, once started, is likely to continue to some extent.

Hormone sprays should also be applied according to pressures rather than on a calendar basis. Talk with your PCA about this -- as far as I know, they all pressure-test fruit. When it comes to hormone sprays in a cool year - WHEN THEY SAY SPRAY - DO IT!

With prices looking as good or even better than last year, hopefully Mother Nature will cooperate with a warm July. Awareness of potential problems may save and/or make you money in 1989. The table on page 4 gives ripening-inducing temperature information.

Threshold temperatures and length of exposure required to induce premature ripening in Bartlett pears during the month immediately preceding normal harvest. 1/

Temperature (° F)		Minimum	Premature
Maximum	Minimum	hours	ripening 2/
80	45	200	Slight
70	50	108	Moderate
70	45	25	Severe

1/ Wang, C. Y., 1982. The Pear pgs. 431 - 39.

2/ As indicated by increased production of C_2H_4 and CO_2.

REMINDER: GRAPE ROOTSTOCK UPDATE

Most growers received a special mailing for the Grape Rootstock Update for North Coast Vineyards to be held Thursday, July 13 at the El Rancho Hotel in Santa Rosa.

The meeting will be held from 1:00 - 5:00 P. M. and there will be a $5.00 fee for hall rental.

Contact me or the LCGGA if you need an agenda.

OAKVILLE GRAPE DAY

SOUTH BLOCK
of the
Oakville Experimental Vineyard
Department of Viticulture and Enology
University of California

TUESDAY, AUGUST 8, 1989

Location: 1/2 mile south of Oakville on Highway 29, Napa Valley, then go west on Dwyer Rd, follow signs to vineyard parking.

Parking is limited - please carpool!

Program

8:30 - 9:00	Registration
9:00 - 9:15	Welcome and Announcements
9:15	Organize into equal sized groups (each group will all presentations)
9:20 - 12 noon	Presentations

TRELLISING, ROW SPACING, AND PRUNING LEVEL EFFECTS ON CANOPY MICROCLIMATE, CROP YIELDS, AND FRUIT COMPOSITION OF CABERNET SAUVIGNON
W. Mark Kliewer* and Jason Benz

INFLUENCE OF SHOOT DENSITY AND CROP LOAD ON COMPOSITION AND QUALITY OF CABERNET SAUVIGNON FRUIT AND WINE
W. Mark Kliewer, Jason Benz* and Nick Dokoozlian

PARTITIONING OF N AND K IN CABERNET SAUVIGNON DURING FRUIT GROWTH AND ROOT DISTRIBUTION AS A FUNCTION OF ROOTSTOCK
Larry Williams*

ROLE OF SURFACE WAXES AND GRAPE BERRY EXUDATES IN SUSCEPTIBILITY TO *BOTRYTIS CINEREA*
Merilark Padgett* and Janice Morrison

UPDATE ON STATUS OF PHYLLOXERA IN CALIFORNIA
John DeBenedictis* and Jeffrey Granett

Demonstrations/Items of interest (Self-guided):

1. Mechanical pruning - South Vineyard
2. Trellis demonstration - South Vineyard
3. New CIMIS weather station - North Vineyard

NEW FEATURE - MONTHLY CHECKLIST

In past issues of Hort Notes, I have discussed in detail various orchard/vineyard activities. Because there are enough new topics to write about each month, beginning with this issue, I will remind growers of operations they should plan for the month and list the issue of Hort Notes in which it was discussed. This should be an incentive to SAVE PAST ISSUES for future reference. If you would like a back issue, or to review any of these topics with me, just call.

PETIOLE SAMPLES - pear and walnuts should be sampled for nutritional status by the end of July. (Hort notes, July 1988)

WALNUT HUSK FLY - yellow sticky traps (available at local ag chemical suppliers) should be hung before July 15 and monitored 2 - 3 times weekly, especially in orchards with a history of WHF damage.

Sprays should be timed 10 - 14 days after a significant increase in trap catches. Staley's protein bait added to sprays decreases the surface area of the orchard needing coverage, for example, only 25% of each tree, preferably on the north side, needs to be sprayed. The bait attracts the flies to the sprayed area. Staley's bait should be available where you buy traps. (Hort Notes, July 1988).

Sincerely,

Rachel

Rachel Elkins
Farm Advisor