



# your Lake County HORTICULTURAL NOTES

**FEBRUARY 1996**

**Part I**

## **!! MARK CALENDARS !!**

(contact us)

**February 21-22**      **Wine and Grape Industry Unified Symposium**  
Sacramento

**FEBRUARY 26**      **PREPARING FOR THE 1996 FROST SEASON**  
(yellow page) Odd Fellows Hall, Upper Lake

*We are very fortunate that National Weather Service Meteorologist Harold Coffey will be serving Lake, Napa, Mendocino and Sonoma Counties this season. Forecasts will be done from NWS at UC Riverside. Come meet Harold and learn the details as we enter a "new era" of local frost forecasting.*

## **ORCHARD AND VINEYARD THERMOMETER TESTING**

It's that time of year again! This year, the Lake County Department of Agriculture will test thermometers. The schedule is as follows:

<b>Monday, March 4</b>	<b>Bring</b> thermometers into UCCE office
<b>Wednesday, March 6</b>	Thermometers will be <b>tested</b>
<b>Friday, March 8</b>	<b>Pick up</b> thermometers

As always, a new thermometer tag will be provided when you bring them in. **PLEASE BE SURE ALL OLD TAGS ARE REMOVED PRIOR TO BRINGING THERMOMETERS IN.** Thermometers will not be tested without a new tag on each



one. Feel free to stop in ahead of time and pick up a supply if you like. The following instructions were provided by the National Weather Service Meteorologist:

- ① Store and transport thermometers in a ***sturdy box or container with the bulb end down.*** This will help prevent separation. Do not store or transport in a paper or plastic bag.
- ② Thermometers must be clean of chemicals and dust or they will not be tested.
- ③ ***Do not use rubber bands or wire to tie the thermometer testing tags to the thermometers.*** Twine is the only acceptable material. Tags should be tied to the top of the thermometer, not the bulb end. The bulb end is emersed in water during testing.
- ④ Have your name clearly marked on the thermometer testing tag (for identification purposes).

Fruit Frost Report recordings are furnished by the Agricultural Commissioner's office. The telephone numbers are available to commercial growers by calling the Ag Commissioner's office at 263-0217, the Farm Advisor's office at 263-2281 or your local pear packing shed or winery. For your ease in accessing the recordings, these numbers are unlisted and not available to the general public. ***PLEASE KEEP THEM CONFIDENTIAL!*** The general public will have access to the reports from local radio stations. Details of the radio broadcasts will be made available when they are known.

### ***PROPER ORCHARD HEATER MAINTENANCE AND OPERATION***

#### ***Lake County Air Quality Management District***

The agricultural crop frost protection season is here and now is the time to determine if your orchard heaters are being properly maintained and operated. Heaters should be periodically maintained for fuel efficient operation, as well as to prevent excessive smoke. Several points which you should consider before using your heaters:

- 1) Use approved heaters only. A list of approved heaters is available at the Lake County Air Quality Management District, 883 Lakeport Blvd., Lakeport. Call (707) 263-7000 if you have questions.
- 2) Soot accumulations in the stack, air louvers and primary air openings should be removed periodically to improve combustion. Keep these openings clear for optimum air flow.
- 3) Remove sludge, carbon and debris from the fuel bowl to maintain storage capacity.

- 4) Use clean fuel to maintain adequate volatility and good combustion. It is illegal to use waste oil.
- 5) Damaged or worn out components should be replaced to prevent air and oil leaks.

A poorly maintained heater is inefficient and produces a thousand times more particulate air pollutants than a properly operating heater. Good heater operating practices will make for better air quality for all of us. Should you have questions, please call the District.

Contact: Ross Kauper or Robert Reynolds  
Lake County Air Quality Management District  
263-7000

#### ***HOW TO CHECK NEW THERMOMETERS***

For those who are unable to bring thermometers in for testing, here is how to test your own. Remember, these instructions apply only to **new** thermometers, which also **may** not be accurate.

**U**se a 1 gallon thermos jug

**P**ut a layer of 2 or 3 paper towels in bottom to cushion

**F**ill full with ice cubes; fill with water

**L**et stand 15 minutes so ice and liquid cools down to 32° F

**P**ut the thermometers in the water for 10 minutes

**P**ull out far enough to read with bulb still in water

**I**f they aren't reading the same, put back in for water and ice to equalize, then check the thermometers again in 20 to 30 minutes

## **LATE WINTER CHECKLIST**

- 1) Trees are now being dug and delivered for planting. Growers planning on planting are advised to wait until soil is dried out enough so trees do not succumb due to lack of oxygen or related diseases. Contact our office for **guidelines on proper planting**. **WEED CONTROL AROUND YOUNG TREES AND VINES IS A MUST!**
- 2) Walnut trees should be treated with the **crown gall** preventative *Agrobacterium radiobacter* (Galltrol® or Norbac®) **before** planting. Paradox hybrid rootstock is especially sensitive to crown gall. Be especially careful to avoid wounding the crown and trunk during weed control or other activities.
- 3) Grape growers planning on planting green-growing vines should have drip irrigation available. Green-growers are much more tender than dormant rooting or grafts and require much "TLC". Regardless of planting stock, contact us for a good article on **proper post-plant vineyard care**.
- 4) It is now time to plan to **control orchard and vineyard weeds for frost season**. Depending on density and height, weed growth decreases temperatures up to 5° F, reducing the effective margin of safety for damage. Research by Dr. Steve Lindow of UC Berkeley confirms that ice-nucleating bacteria builds up on certain weed species, especially grasses (attached meeting agenda).
- 5) **Frosted scale populations in walnuts** have diminished this past year, probably due to the natural biological control cycle. If it is still a problem, delay dormant (bud swell) is the proper treatment timing. Contact us for treatment guidelines.
- 6) **WALNUT GROWERS SHOULD THINK SERIOUSLY ABOUT TREATING WALNUT BLIGHT** if it has built up in their orchard. Tests have shown that Lake County blight bacteria is still susceptible to copper (more on this in an upcoming issue).
- 7) **SEE YOU AT THE FROST MEETING ON FEBRUARY 26!**

Sincerely,



Rachel Elkins  
Farm Advisor

**COOPERATIVE EXTENSION**  
**UNIVERSITY OF CALIFORNIA**  

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**County of Lake**  

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**PREPARING FOR THE 1996 FROST PROTECTION SEASON**

**WHEN:** Monday, February 26, 1996  
9:00 a.m. - 12 noon

**WHERE:** Odd Fellows Hall, Upper Lake  
Main Street - next to Bank of Lake County

**SPONSORS:** University of California Cooperative Extension  
Lake Community Bank

**PROGRAM**

- 9:00 Registration and Coffee
- 9:15 Welcome and Introduction  
Rachel Elkins, UCCE, Lake County  
Jim Hamilton, Lake Community Bank
- 9:30 Update on the local fruit frost program  
Mark Lockhart, Ag Commissioner, Lake County  
Harold Coffer, National Weather Service, Riverside
- 10:00 Frost protection fundamentals with emphasis on using water  
Rick Snyder, Extension Meteorologist, UC Davis
- 10:45 The relationship of orchard bacteria to frost damage  
Steve Lindow, Dept. Environmental Science, Policy and  
Management, UC Berkeley
- 11:30 Update on the commercial use of Blight-ban A506®  
Steve Kelly and Oscar Kasparian,  
Plant Health Technologies, Boise, Idaho
- 12:00 ADJOURN

