your *Lake County* HORTICULTURAL NOTES

DECEMBER 1995
Part II

IMPORTANT DATES

January 10 Lake County Department of Agriculture
Grower Meeting
Board of Supervisors Chambers
Lake County Courthouse
Call 263-0217 for information

IMPORTANT STAFF LOSS TO UC COOPERATIVE EXTENSION

On December 29, Agricultural Technician Jim Benson will officially retire from the County of Lake. His position was a casualty of the budget cuts which have ravaged county General Fund departments the last several years (indeed, many of you assisted us in the "budget battles" of 1993 and 1995). Although county budget cuts took effect in July, we were able to extend Jim's tenure through December using University grant funds. He has been working two days per week since October.

There are no words to express the meaning of this loss to the agricultural programs of UCCE in Lake County. Jim's intelligence, energy, devotion and instinctive grasp of the nature of Extension's role is truly unique. He has enabled this very small operation (only two Academic staff) to deliver a full and active program of research, extension, 4-H and public service. Jim is more than a "right hand" to the ag program. Many times, he is also the "brains". He keeps me organized and takes care of the day-to-day operations of field work - running traps, collecting samples, measuring tree and vine growth, pruning,

Wheelchair Accessible

building trellises, spraying test plots and on and on. He supervises trustees, trains interns and summer help and keeps all of our spray and other equipment going. He builds things for the office, repairs damages, cleans and fixes vehicles and engineers devices used in research trials. He has also assisted numerous others in various county departments over the years. It is indeed fair to say that Jim's work habits and efficiency have more than doubled the productivity of the ag program. Many of the activities he does will doubtless not get done in the future, especially if they are NOT GRANT-FUNDED. His capabilities were rewarded in 1993 when he was named an Outstanding Employee for County of Lake.

Much more important than his value as an employee is his value as a friend. Jim Benson is a member of our family. He and I are a team and it is hard to fathom doing this job without his encouragement, guidance and wisdom.

This issue of ***Hort Notes*** is dedicated to my partner and friend, Jim Benson. I thank him for all he has given UCCE, the agricultural industry, and the COUNTY OF LAKE these past 15 years. Most of all, I thank him for he has given me.

THE CASE FOR WINTER WEED CONTROL IN BEARING ORCHARDS AND VINEYARDS

As mentioned in previous newsletters, fall and early winter pre-emergence herbicide applications are far more effective and ultimately **cheaper**, than playing "catch-up" during spring and summer. This is especially true for persistent perennials such as bindweed, bermudagrass and Johnsongrass. Pre-emergence herbicides, applied to the soil, kill winter and summer weeds at germination. A well-timed pre-emergence combined with a post-emergence material in the fall is generally the most effective strip treatment system.

Timing of **post**-emergence materials differs depending on mode of action of the particular herbicide. Translocated materials, e.g. Round-up, are applied to foliage and move **downward** in the phloem to the roots. Thus, applications should be timed to coincide with the major movement of nutrients down to the roots. For perennials, this occurs around flowering. At this stage, the plant is finished growing vegetatively and begins to store carbohydrates in the root system. This is particularly important to know when treating perennials. Treating early during their active growth period is often futile (and a waste of money) because the herbicide is diluted by the rapid growth and movement of water and nutrients at this stage is **upward**, not down.

"Burn-back" materials such as paraquat work best on smaller weeds. Timing is thus very different than for Round-up. Paraquat may be applied more successfully in the spring than Round-up because weeds are small and most water-nutrient movement is upward.

Growers have expressed concern that high winter rainfall renders fall pre-emergence treatment impractical in the North Coast region. Most commonly used orchard and vineyard herbicides, e.g. simazine, diuron, Goal (now registered for use up to bud swell in deciduous trees and vines), Surflan, Devrinol and Solicam, will last 6-9 months in our heavier soils. Even if efficacy is somewhat reduced by heavy rainfall, you will likely still be way ahead in the spring. Rather than have to fight a jungle of vegetation during the growing season, a reduced number of weeds will be much easier to deal with.

There is great temptation, and a false sense of economics, to skip fall and winter weed control. Most growers would rather be on vacation than on a tractor. Indeed, costs may be high the first couple of years until the seed bank is diminished. In the end, however, those who move their program from spring/summer to fall and winter will be pleased with the results.

EUTYPA DIEBACK OF WINEGRAPES

Unlike other counties, Lake County growers suffer **relatively** little powdery mildew and bunch rot and have yet to encounter Pierce's disease or grape fanleaf virus. Replanting with certified rootstock and scion is also eliminating most known viruses from local vineyards (if you're not using certified stock, YOU SHOULD BE!).

However, our rainy climate is also particularly condusive to the fungus disease *Eutypa lata*. As vineyards age and the number of large pruning, grafting and retraining wounds increase, Eutypa dieback has become more apparent (since actual initial infection probably occurred much earlier in the vine's life). Growers should be especially cautious with Cabernet Sauvignon and Sauvignon blanc; Chardonnay is observed to be somewhat less susceptible.

Once Eutypa becomes established in a vineyard, it is almost impossible to eradicate. Spore-carrying bodies - called perithecia - may discharge sexual ascospores for 5 or more years. Cutting out infected vine parts, though recommended, creates more potential wounds that are the infection sites for the pathogen. Thus, the key to a successful control program is **preventing wound infections**. This must begin as soon as vines begin to be dormant pruned or when being grafted.

Current UC recommendations on Eutypa management are:

- **Prune in late winter to early spring** as vines come out of dormancy. Wounds heal faster (10 days to 2 weeks) than in deep dormancy (4 to 5 weeks) and spore load in the rainfall has decreased. DO NOT PRUNE **IN** THE RAIN.

- Apply benomyl (Benlate ®) to each pruning cut **immediately** after pruning. RE-APPLY EVERY TWO WEEKS UNTIL WOUND IS HEALED (see above).

- Remove (as much as practically possible) severely infested vines and any other nearby alternate hosts. Known hosts include apricot, cherry, kiwifruit, *Ceanothis*, and manzanita. When removing vines, dig out the lower part of the trunk as spore bodies may harbor there.

- Shoot thinning will reduce the number of dormant pruning cuts, as well as open up the vine canopy and clusters to light and air.

- Limit overhead irrigation as much as possible to times when drying is rapid to avoid prolonged moisture (extensive overvine frost protection may also reduce benomyl longevity).

- Remove infected areas in the spring when normal shoots are about 2 feet long. Use progressive saw cuts into 100% healthy wood. Treat cuts with benomyl.

Recent research has focused on biological control. Certain fungi (e.g. *Fusarium* and *Cladisporium* spp.) may be applied to fresh wounds, colonizing them before *Eutypa* is able to. This is similar to using Galltrol (Agrobacterium radiobacter) to prevent infection by the crown gall bacteria (Agrobacterium tumefaciens) in deciduous trees.

A detailed account of Eutypa symptoms, disease cycle and control practices is in UC's **Grape Pest Management**. Current UC recommendations are on page 7.

MEASLES - ANOTHER FRUSTRATING VINEYARD MALADY

Measles has been an increasing complaint of local growers. Unfortunately, we have no treatment recommendations since arsenite was banned. Further, plant pathologists have yet to identify and confirm a causal agent, making it almost impossible to do control experiments. One would assume affected vine parts could simply be cut out, as with Eutypa. However, as stated in the attached UC guideline section (page 7), symptoms, which mainly appear in late summer, may only appear in some years, and on different vines.

Until the causal organism(s) (if any) is/are identified, and the disease cycle learned, growers will have to live with measles.

SUPERVISORY SKILLS TRAINING FOR AGRICULTURAL PERSONNEL

February 28-29 and March 1, 1996 Modesto
$35 ($45 after January 31) includes lunches

A unique and worthwhile opportunity to ag supervisors is being offered by the UC Agricultural Personnel Program. They are sponsoring a 3-day intensive workshop to

train "first-line supervisors, managers and others interested in improving their supervision of agricultural operations".

Topics include:

* Key decisions in managing agricultural labor
* Challenges for first-line supervisors
* Building the manager-supervisor partnership
* Selecting and orienting employees
* Delegating responsibility and assigning work
* Working under different pay systems
* Discipline policy and practice
* Counseling and interpersonal relations at work
* Use and abuse of power
* Managing conflict
* Design and conduct of the hiring interview (Field Activity)
* Putting it all together

An additional evening roundtable seminar to critique the day session is offered to provide training on presenting workshops.

Presenters are UC Labor Management Area Farm Advisor Gregory Billikopf and Agricultural Labor Management Specialist Howard Rosenberg. These professionals are uniquely qualified to teach this **very important** topic to both **growers and** hired supervisory personnel.

A registration form is attached (blue page). A similar workshop in SPANISH will be offered in December 1996. Contact Stanislaus County UCCE at (209) 525-6654 for further information.

CROP INSURANCE DEADLINES

submitted by USDA Mendocino/Lake Farm Service Agency

Under a new law, producers are required to obtain at least the catastrophic level of crop insurance coverage to participate in certain USDA programs. These programs include the Commodity Price Support, Production Adjustment Programs, Farm Operating, Farm Ownership, Emergency Assistance Loans and the Conservation Reserve Program.

The past Disaster Assistance Programs that were available have been replaced with a new Catastrophic Coverage level "CAT", which is available to farmers for a nominal processing fee of $50.00 per farmer in multiple counties. "CAT" coverage will compensate farmers for crop yield losses greater than 50% at a payment rate of 60% of the established FCIC market price. These coverage levels are comparable to disaster relief programs in recent years.

JANUARY 31, 1996 - Sales closing date for CAT insurance on grapes and walnuts

MARCH 15, 1996 - Last day to submit actual production history for grapes and walnuts

APRIL 30, 1996 - Last day to complete your Acreage Report for grapes and walnuts

Producers may purchase the conventional crop insurance coverage providing higher yields and payment rates in order to satisfy the crop insurance requirement. Conventional crop insurance is only available thru private insurance agents.

The 1994 Federal Crop Insurance Reform Act created the Non-insured Assistance Program "NAP" to protect producers of non-insurable crops. NAP is similar to the catastrophic coverage. Producers must act soon to protect their non-insured crops. To be protected, a report of acreage and production history must be completed by April 30, 1996 at the Farm Service Agency office.

If you would like additional information, or are interested in signing up for crop insurance, contact the Farm Service Agency at 405 Orchard Avenue, Ukiah, CA 95482 (707) 468-9225.

Sincerely,

Rachel Elkins
Farm Advisor

EUTYPA DIEBACK (5/94)

Pathogen: *Eutypa lata*

SYMPTOMS: Eutypa dieback delays shoot emergence in the spring, and causes chlorosis, stunting, and tattering of leaves. Symptoms in the wood are characterized by wedge-shaped, darkened cankers that develop in the vascular tissue.

COMMENTS ON THE DISEASE: Eutypa dieback is not generally visible in vines younger than 5 to 6 years old and is seen most frequently in vineyards established for 10 or more years. The fungus survives in diseased wood and produces perithecia in old, affected host tissue under conditions of high moisture. Ascopores are discharged from perithecia soon after rainfall. This is the only known means of dispersal and infection. Infection occurs through pruning wounds, which remain susceptible about a week longer early in the dormant season than later in the dormant season.

CULTURAL CONTROL: Eliminate all infected wood of grape, stone fruit, or other known hosts to reduce the risk of this disease. Cut out and remove them from the vineyard dead arms and cordons. Prune directly after a rain because the risk for infection is lowest at this time as the atmospheric spore load has been washed out temporarily (or is at its ebb). Hand paint or spray large pruning wounds with fungicide as soon as possible after pruning and before rain. Prune late in dormant season to promote rapid healing of wounds.

ORGANICALLY ACCEPTABLE METHODS: Cultural practices.

WHEN TO TREAT: Immediately after pruning.

TREATMENT:

Pesticide (commercial name)	Amount/Acre**
A. BENOMYL (Benlate) 50WP	0.2 lbs product/gal water

** Apply with enough water to provide complete coverage.

MEASLES (Black Measles and Spanish Measles) (5/94)

Pathogen: Unknown. Species of fungi in the genera *Fomes, Cephalosporium,* and *Stereum* are most frequently mentioned in the literature as being associated with the disease.

SYMPTOMS: Affected leaves display small chlorotic interveinal areas which enlarge and dry out. In red varieties dark red margins surround the dead interveinal areas. Severely affected leaves may drop and canes may dieback from the tips. Symptoms may occur at any time during the growing season but are most prevalent during July and August. On berries, small, round, dark spots, each bordered by a brown purple ring, may occur. These spots may appear at any time between fruit set and ripening. In severely affected vines the berries often crack and dry on the vine or are subject to spoilage.

COMMENTS ON THE DISEASE: The cause of measles is not known, although it is assumed to be caused by wood-rotting fungi that gain entrance through large pruning wounds. It is suspected that toxins produced by these microorganisms are transported to portions of the vine and result in measles symptoms. Measles occurs sporadically and may show in vines during one season but not during the next. This disease is more prevalent in areas with consistently high summer temperatures such as the Central Valley. Generally, plantings that are 10 years of age or older are affected, although measles has been seen on fruit and foliage on younger vines.

TREATMENT: There are no recommended treatments at this time.

Supervisory Skills Training—Pre-Registration Form

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Name _____ ☎ ( ) _____

Business / Employer _____

Address _____

City _____ State _____ Zip _____

- **English** (February 28-29, March 1, 1996)

I am enclosing check for $_____ to cover (please indicate):

[ ] 3-day workshop, postmarked by January 31, 1996 ($35)
[ ] 3-day workshop, postmarked February 1, 1996, or later ($45)
[ ] Supplemental evening seminar, ($20)

Please make check payable to "UC Regents." Although there will be no refund for cancellation by a registrant, substitutions for participants may be made at any time. Meals will be Mexican food; please let us know if you have special dietary needs.

[ ] Special dietary needs _____

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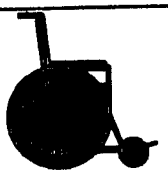
✉ Mail to: *Supervisory Skills Workshop, c/o Melynda Ange, University of California, 733 County Center 3, Modesto, CA 95355* (209) 525-6654



- Wheelchair accessible facilities available for both Spanish and English meetings, except possibly for field activity on March 1, 1996. With advance request, efforts will be made to provide accommodations for persons with disabilities.
- *Instalaciones accesibles a las sillas de rueda para reunión en español e inglés, con la posible excepción durante la actividad de campo el 1ro de Marzo de 1996. Con notificación previa, se harán esfuerzos para proveer acomodaciones para personas con incapacidades.*