



## TREE AND VINE NOTES



### 2004 Merced / Stanislaus Bi-County Grape Day

**Friday, February 6, 2004**

**Turlock Irrigation District Auditorium, 333 East Canal Drive, Turlock**

8:00 Registration, Coffee & Donuts

Program 8:30 to Noon

3 hours of continuing education credits pending, including ½ hour of laws & regulations

8:30 Soft Insecticides for Omnivorous Leafroller Control in Winegrapes  
Maxwell Norton, UCCE Farm Advisor, Merced County

New Products for Powdery Mildew Management  
Dr. George Leavitt, UCCE Farm Advisor, Madera County

Central California Winegrowers  
Ron Metzler, Executive Director

Break

Identification, Monitoring and Control of the Vine Mealy Bug  
Walt Bentley, UCCE Statewide Integrated Pest Management Program

Pest Detection Programs for Vine Mealy Bug and Glassy-Winged Sharpshooter  
Paul Vanderhorst, Stanislaus County Agricultural Commissioner's Office

12:00 p.m. Adjourn

**No cost to attend – Handicapped accessible.**

## **GROUND SQUIRREL CONTROL – MARK YOUR CALENDAR by Maxwell Norton**

By waiting till you see a heard of squirrels traveling across the orchard and sustain damage it is too late to be highly effective in controlling them and control will be more expensive. Rodent control must start early and what method you use depends on the time of year. Unless you monitor closely what the squirrels are doing, control efforts will not be effective.

In January through March: squirrels eat green vegetation only – don't waste bait. It will only spoil or be harvested by non-target animals.

January through May are when fumigants work best. Phostoxin and Humatoxin work best but you can use gas cartridges (“smoke bombs”) if you don't want to get a permit. Only use products that are designed for this use. In all cases you need to seal all the openings.

Late May through July is generally the best time to broadcast anti-coagulant bait. Broadcasting over a wide area works better than bait stations or putting piles next to the burrows. Put out tiny test piles and wait until you see the squirrels feeding on the bait. Treating before then is just a waste. Once they are taking the bait, try two broadcasts, four days apart and wait. Re-treat if you continue to have activity. Generally you have a two week window when baits are really effective so don't be late. Use only bait that is labeled for broadcast.

August through October is the period squirrels prepare for winter. They may be taking bait but much of it is being stored and not eaten so control will be limited.

Bait stations are best used on perimeters to intercept in-migrating squirrels. Use only during times the squirrels are taking bait. Remove them completely when not in use. Don't leave them out all year long. Use only bait that is labeled for stations.

Organic growers are in a tough situation. The only thing that is legal is trapping which is labor intensive. It is illegal to trap and release mammals without a special permit which is hard to obtain so we only use lethal systems. Squirrels often will dig around the trap if they are not in a hurry. One technique I heard about is to set a large number of spring-loaded “Conibear” traps over the openings and leave for an hour. When you return, drive up quickly and make lots of noise. In their haste to get back into the burrow, many will get caught in the traps.

Trying to increase the number of predators like raptors probably will not make a big difference because they fly over very large distances. Mounting convenient perches on poles and posts will invite a few to hang around which is a good thing in itself and can't hurt. Researchers have been working on birth control methods for vertebrate pests since the sixties and none have worked in an un-confined setting.

### **CHILL HOURS**

As of 15 Jan we had 691 hours 45F compared to a ten year average of 773. This is data from an almond orchard between Cressey and Livingston. You can see the full table at:

**<http://cemerced.ucdavis.edu>** - click on agriculture / Tree & Vine Program / Chill Hours Chart. Chill hours for other locations can be found at **<http://fruitsandnuts.ucdavis.edu/>**

It is becoming evident that our winters in the Valley are getting warmer. Part of this may be due to warmer ocean currents and global climate change. Most of this trend is due to a million more homes, fireplaces and cars being crammed into the Central Valley.

## **NEW DRIED PLUM SELECTION D6N-72 BEING RELEASED BY UC**

The “D6N-72” dried plum is a new prune/dried plum cultivar developed for the dried plum fruit market. It is of the plum species *Prunus domestica*. This new cultivar is the result of a controlled cross made in 1992 between the European plum/prune cultivars “Improved French” and “Tulare Giant”. Date of fruit maturity in a normal year is early August approximately 13 days ahead of the industry standard dried plum cultivar “Improved French”. The fruit is large, light purple to light bluish in color and covered with a grayish waxy bloom. The fruit is oval in shape. In early tests, the fruit was substantially larger than “Improved French” at full maturity. The fruit stone is nearly free and pits easily. The “D6N-72” tree flowers approximately 2 weeks earlier in the spring than “Improved French”. The flowering of “D6N-72” coincides with the flowering of Tulare Giant, an early maturing fresh plum cultivar.

The “D6N-72” tree is slightly more vigorous than “Improved French”, it is productive and a regular bearer. The “D6N-72” dried plum has been successfully propagated on Marianna and Myrobalan plum rootstock with excellent results, however it is not recommended that it be grafted on peach rootstocks without significant pre-testing as many other *Prunus domestica* cultivars are incompatible with peach. Fruit of the “D6N-72” dried plum dries into a very high quality dried plum with an excellent, fruit flavor. Fresh fruit quality is also excellent with relatively low acidity. For optimum quality fresh fruit should not be picked with less than 19 degrees Brix.

Contact your commercial nursery about ordering trees to try in your orchards.

### **JUST IN**

2003 Regional Almond Variety Trials Progress Report. Statistical data from the various almond variety trials being conducted by Cooperative Extension. Available from your local Cooperative Extension office.

### **BAT HOUSES**

There has been some interest by farmers and gardeners in encouraging bat populations in the same way we have encouraged barn owls. Bats consume large amounts of insects every night and are considered beneficial for that reason. It is believed that bats can consume 600 mosquitoes in one hour. A source of bat houses and plans is Bat Conservation International [www.batcon.org](http://www.batcon.org).

### **UC RELEASING TWO NEW ROOTSTOCKS**

These rootstocks are probably best suited to loams and clay loams and not to sands or loamy sand soils. Contact your commercial nursery about testing these trees for peach & nectarine plantings.

### **P30-135**

The P30-135 rootstock is an interspecific hybrid rootstock developed for use as a commercial clonal rootstock under peach and nectarine cultivars. It imparts a substantial degree of vigor control to the scion cultivar that has been propagated on top of it, allowing for the reduction of the height of orchard trees without compromising the quality of the fruit. P30-135 eventually produces a tree about the same size as a tree growing on Nemaguard rootstock, but trees on P30-135 require less severe pruning, have a more open canopy, and allow a grower to reduce tree size by pruning without as much re-growth as one gets with Nemaguard. Size reduction of commercial orchard trees increases the efficiency of various cultural operations such as pruning, thinning and harvesting by reducing the need for workers in the field to carry and climb tall ladders. This stock has been successfully propagated clonally by hardwood cuttings.

### **K146-43**

The K146-43 rootstock is an interspecific hybrid rootstock, useful primarily as a commercial understock for peach and nectarine cultivars. It imparts a substantial degree of vigor control to the scion cultivar that has been propagated on top of it, reducing the height of the individual orchard tree without compromising the quality of the fruit. K146-43 produces an orchard tree that is about 50-60% of the size of trees growing on Nemaguard rootstock. This increases the efficiency of various cultural operations such as pruning, thinning and harvesting by reducing the need for workers in the field to use tall ladders. This stock has been successfully propagated clonally by hardwood cuttings.

NOTE: Both of these rootstocks are moderately rootknot nematode susceptible and are probably not inherently resistant to numerous soil pathogens.

### **SPRAY THINNING APPLES**

I have the latest report on apple spray thinning research conducted by UC Cooperative Extension. Merced County residents call me 385-7403 or e-mail me [mnorton@ucdavis.edu](mailto:mnorton@ucdavis.edu) and I will send or e-mail you a copy of this 8-page report. Elsewhere, please contact the author, Joe Grant at [jagrant@ucdavis.edu](mailto:jagrant@ucdavis.edu) or 209/468-9490.

### **Rejects up in 2003** By Roger Duncan

Almond rejects due to insect damage were substantially higher in 2003 than in the past few years. Although every orchard is different, navel orangeworm appears to have been a substantial contributor to reject levels in the Northern San Joaquin Valley. Damage from ant feeding also was significantly higher this year.

It will be very important this winter for growers to remove unharvested nuts (mummies) from their trees. This is how the navel orangeworm survives from one season to the next. Many studies have proven that orchard sanitation is the most important control strategy for NOW. Some growers feel birds do a good enough job removing mummies in the winter. One way to know for sure is to walk your orchard in early January and count the mummies in several trees. If you have two or more mummies on average per tree, you have too many overwintering NOW. Mummies can be knocked to the ground with bamboo poles or a commercial shaker can be used if mummy counts are very high. It is best to destroy the mummies on the ground with a flail mower. If mummy removal is done well, hull split sprays are often unnecessary. Remember, dormant sprays do not control NOW.

If ants were your problem, these can be controlled well with ant bait materials applied 4-6 weeks prior to harvest. It is also important to dry your almonds on the ground for only as long as necessary before picking them up. In orchards with very high ant populations, we can have up to 1% damage each day the nuts are on the ground. Next summer, I will include a monitoring guide in *The Scoop* to help determine if ant populations in your orchard warrant treatment.

If you had too much damage from peach twig borer (PTB), you have three opportunities to control them. The first opportunity is the dormant spray. Dormant sprays kill PTB larvae as they overwinter in tiny holes (hibernacula) they make in the crotches of one and two-year-old limbs. However, dormant sprays are becoming increasingly regulated and cost \$50 - \$60 per acre when you include application expenses. Another option is to apply materials such as Success<sup>®</sup> or Confirm<sup>®</sup> in one of your normally scheduled bloom-time fungicide sprays. These have proven to work as well or better than dormant sprays for PTB control. Your final crack at PTB is an in-season spray in May or July. However, these sprays must be timed just right using pheromone traps and the degree-day model. It is also possible that applying an organophosphate or pyrethroid insecticide at this time will kill some of the beneficial insects present in your orchard.

The bottom line is if you had unacceptable insect damage this year, you need to find out which insect(s) caused the problem. It is very important to ask your handler for a detailed breakdown on your rejects. Or better yet, take your own random sample from the windrows or nut carts and crack a couple hundred nuts by hand. You have to know which insect is causing you problems before you can formulate a control strategy. Otherwise, you may spend money unnecessarily on sprays you don't need and still have unacceptable reject levels.

## **NORTH SAN JOAQUIN ALMOND DAY**

**Sponsored by the UC Cooperative Extension**

**January 28, 2004 8:30 – 12:00**

**Stanislaus County Agricultural Center**

**Corner of Service and Crows Landing Roads, Modesto**

8:00 Coffee, donuts, registration

8:30 Program begins:

**Foliar Diseases of Almond, Including Rust, Scab, Alternaria and Hull Rot**

Dr. Jim Adaskaveg, Department of Plant Pathology, UC Riverside

**How to Determine Your Nitrogen Fertilization Needs**

Dr. Patrick Brown, Department of Pomology, UC Davis

**Understanding Almond Leases**

Karen Klonsky, Department of Agricultural Economics, UC Davis

**Making Treatment Decisions for Plant Bugs in Almonds**

Kent Daane, UC Berkeley

**2003 – The Year in Review from a Farm Advisor Perspective**

Roger Duncan, UC Cooperative Extension Farm Advisor, Stanislaus County

**Biology of and Potential Control Strategies for Fullers Rose Beetle**

Roger Duncan, UC Cooperative Extension Farm Advisor, Stanislaus County

12:00 Adjourn - 2 hours of continuing education credits pending

### **FREE COST STUDIES FROM COOPERATIVE EXTENSION**

Cost studies for most of the crops growing in the state can be downloaded for free at [www.coststudies.ucdavis.edu](http://www.coststudies.ucdavis.edu) – if you do not have internet access, come to the Cooperative Extension office and we can copy them for a nominal charge.

## **2004 REGIONAL ALMOND MEETING – MADERA**

**Wednesday, Feb 4, 2004**

**Madera County Conference Center, 700 E. Yosemite Ave, Madera**

**8:00 AM-12:30 PM**

8:00 a.m. PCA and continuing education credits sign-up

8:30 a.m. ***Almond leaf scorch disease diagnosis***

*Dr. Brent Holtz, UCCE Farm Advisor, Madera County*

- 9:00 a.m.            **Weed control in almond orchards**  
*Ron Vargas, University of Calif. Farm Advisor*
- 9:30 a.m.            **Hull rot control in the San Joaquin Valley**  
*Dr. Brent Holtz, University of Calif. Farm Advisor*
- 10:00 a.m.          **Pre-plant fumigation for nematode control**  
*Dr. Mike McKenry, UC Nematology Extension Specialist,*
- 11:00 a.m.          **Phytophthora canker and almond replant disorder**  
*Dr. Greg Browne, USDA-ARS Plant Pathologist*
- 11:30 a.m.          **Controlling brown rot, shot hole, scab, and anthracnose**  
*Dr. Jim Adaskaveg, Plant Pathologist, UC Riverside*
- 12:00 a.m.          **Wood chipping almond brush and its effect on the nematodes, soil aggregation, and soil nutrients**  
*Dr. Brent Holtz, UCCE farm advisor, Madera County*

A **Free** lunch will be served, sponsored by UC, BASF, Bayer, Dow Agro Sciences and Syngenta. Reservations requested by calling Sandra at 559/675-7879 X 201.

### **35TH SOUTH SJV TRI-COUNTY WALNUT DAY**

**Visalia Holiday Inn - February 5, 2004 - \$6.00 for program and lunch**

7:00 Registration (Advance registration requested)

8:00 Program:

- Walnut Commission Activities
- Deep Bark Canker
- New Air Regulations
- Walnut Brush Disposal
- Codling Moth Management
- Spider Mite Management
- Season in Review
- LUNCH (Reservations Required by 30 January)

**For a reservation form come by the Cooperative Extension office or call 559/582-5166**