

# tree and vine notes

UC COOPERATIVE EXTENSION  
MERCED COUNTY

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## **HENDRICK'S NOTES**

### **• ALMOND HULL ROT**

Hull rot hit many orchards hard this harvest season. Nonpareil, Kapareil, and Sonora are the most susceptible to hull rot which is caused by both *Rhizopus* (bread mold) and *Monolinia fruticicola* (brown rot). *Rhizopus* causes the gray mold or a "beard" inside hulls, and *Monolinia* causes the brown rot of the hull. I saw *Monolinia* causing a lot of the infections this year. This summer has been especially humid, and many diseases including *Botryosphaeria* of pistachio have been severe.

Shoot die back and sticking nuts were common in vigorous, well-watered, heavily fertilized Nonpareil orchards with dense canopies. Remember the management guidelines to reduce hull rot in 1999:

- 1) Keep leaf N between 2.5% and 2.7%.
- 2) Induce a slight moisture stress at early hull split to speed hull splitting and drying. But be very watchful for mite buildup!

\*Mid-June skip an irrigation.

\*July - irrigate about 50% of normal. Monitor mites carefully!

\*August - resume normal irrigations.

***WINTER SANITATION WILL BE A MUST THIS YEAR TO ELIMINATE  
OVERWINTERING SITES FOR NAVEL ORANGEWORM!***

• **PEACH SILVER MITE**

Peach silver mite was a problem in many young almond orchards since June. Hundreds of these tiny mites could be found on the under side of each leaf in heavily infested almonds. They cause leaf bronzing or silvering, rolling margins and tips, scattered necrosis, shotholing, and defoliation. These mites can be very destructive to young trees.

Many mature orchards showed a bronzing of the terminal shoot leaves. This was also PSM, but it does very little harm to mature trees. The peach silver mite is very easily overlooked, and its leaf damage can easily be blamed on some other cause. The PSM is very easily controlled with wettable sulfur, insecticidal soaps, oils, or a number of miticides at very low rates per acre. Keep this pest in mind, and prepare to control it if necessary, next May to June.

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**NORTON'S NOTES**

• **USE CAUTION WHEN POST HARVEST IRRIGATING**

On any soil but a loamy sand or a sand, be very careful about fall irrigation. If you fill the soil profile with water and we end up having a wet fall or winter, you run the risk of loosing trees to crown and root rot. The last two years have seen significant losses to this disease. Orchards that are so dry that the trees might defoliate, should have a fall irrigation but probably no later than the first week of October. Each orchard is different and such decisions must be made based on experience.

• **LEAVES PUSHING OFF ON VIGOROUS GRAPES**

Occasionally in vigorous vineyards, large, fully expanded leaves may start to scald during hot weather. The leaf symptoms will look very much like Pierces disease which can cause stress in the owner. Often times the real cause is the leaves being pushed off as a result of rapid increase in trunk or cordon diameter. The Xylem traces in the leaf petiole

become disconnected and the leaf becomes unable to get water and minerals from the root system. A similar phenomenon occurs with Pierce's disease – thus the similar symptoms. These leaves will fall off with no harm to the vine.

- **BUNCH ROT LOSSES IN GRAPES**

Bunch rot has been worse this year in many blocks. While the usual cause is either Omnivorous leafroller damage or very tight bunches, this year, much of it is due to powdery mildew damage. Because of the cold spring, most of us were surprised by how fast the disease grew once we got up into the optimum temperature range for the organism to grow. All we can do now is resolve to get an early start in our mildew program next spring and not be fooled by Mother Nature again.

- **MEASLES IN GRAPES**

Measles symptoms were widespread in grapes this year. Affected leaves will have small chlorotic interveinal areas, which enlarge and dry out. In red varieties, those areas will be surrounded by dark red margins. Severely affected vines will experience leaf drop and cane dieback. The fruit can have small, dark spots, which may be surrounded by a purple ring. In severely affected fruit, the berries will crack and dry out. Measles can be confused with other disorders such as viruses or severe nutrient deficiencies.

Since we still don't know what the causal organism is, we have no recommended treatments. The disease is more common on older vineyards but may be seen in young blocks. The appearance of symptoms is unpredictable and will vary in severity from year to year.

- **LACEY SCAB IN PRUNES**

Some prune blocks were severely affected by lacey scab. This disease can result in large losses at the dehydrator. The infections are caused by rain during the full bloom period. Growers who were aggressive about treating with Captan or Bravo just prior to these rains were able to control the disease for the most part. Blocks that were not sprayed or were treated too late had damage.

Central valleys the amount of side cracking varies more from year to year than it does between orchards. End cracking can be minimized by applying enough irrigations in May and June to avoid tree moisture stress. However, avoiding such stress may not be possible with flood-irrigated prune orchards on heavy or shallow soils. Some growers try to minimize side cracking by avoiding irrigations around July 4, the "normal" time side cracking begins. Unfortunately, side cracking does not occur during the same calendar period every year.

Side cracking begins about a week after the cheek diameter becomes larger than the suture diameter and continues for about three weeks. Making weekly cheek and suture, the side-cracking period can predict measurements during June, each year. Side cracking can also be caused by severe aphid infestations (see Pest Management Notes).

- **WEAK VINEYARDS WITH SLOW CANOPY DEVELOPMENT IN SPRING**

Vineyards with insufficient vigor and canopy development in the spring can have problems with fruit sunburn. When addressing the problem, one must determine if the problem is due to nematodes, lack of nitrogen or irrigation. The first priority is to make sure irrigation scheduling and application method is correct. Extremely high nematode populations can be suppressed but not eliminated with nematicides, but that is an expensive practice. If you are convinced your irrigation is optimized, look at nitrogen applications at harvest. An application of 20-50 pounds of nitrogen at or just after harvest can be absorbed by the fall root flush and stored for spring growth. If petiole levels are already high, you may not see a response. The nitrogen must be incorporated into the root zone for it to be absorbed in time to do any good. Late fall and winter applications are not efficient and much of the nitrogen is lost to the groundwater or other parts of the environment.

- **BROWN ROT CONTROL STARTS AT HARVEST**

To reduce brown rot pressure on the 1999 crop, start now with these measures:

1. Knock down unharvested fruit from the trees before they dry into hard mummies. They will decompose rapidly compared to dry mummies which are persistent.
2. Remove winter mummies at pruning time and destroy in a burn pile. Do not leave them lying under the tree. They are essentially brown rot spore hand grenades.
3. Prune out and remove infected twigs from the orchard and burn them.
4. Cultivate before bloom to bury any mummies that are still lying around – and waiting.
5. Apply fungicides at 5% and again at full bloom.

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**UPCOMING TREE AND VINE EVENTS .....MARK YOUR CALENDAR!**

This year's **North San Joaquin Valley Peach Seminar** will be on Thursday December 17, 1998. We will deviate from our usual meeting place (TID auditorium) and meet at the brand new agriculture center in south Modesto. More in a following newsletter.

**Viticulture Short Course: Recent Advances in Table Grape Production**

This intensive three-day course is designed to update growers and production specialists on recent advances in all phases of table grape growing in California. Special emphasis is

placed on production-oriented research and industry advancements during the past five years. A field tour of commercial vineyards employing recently-developed table grape training and trellising systems is included. Lectures are presented by with Cooperative Extension Farm Advisors and Specialists and UC Davis faculty.

Lectures include: environmental and production physiology; berry growth, development and composition; fruit bud differentiation and cluster development; soil pest considerations; plant materials; vineyard design; influence of water status on vine performance; soil and plant monitoring devices; irrigation scheduling; vine performance; nutrient considerations; plant growth regulator physiology and use; physiology and vine microclimate; trellis systems and canopy management practices; postharvest handling; pest management; fantasy seedless; ruby seedless; redglobe; black emerald; autumn royal and crimson seedless.

When: November 30, through December 2,

Where: Visalia Convention Center

Fee: \$295 includes three lunches and course materials. Enroll by calling 800/752-0881

Note: The WINE GRAPE SHORT COURSE will be 17-19 February 1999 – more on this later. If you are on our mailing list for the newsletter you will receive a registration notice from UC Davis in reference to the short course sometime soon . So watch your mail!

### **The Third Annual San Joaquin Valley Chip-Off**

Thursday, October 29, 1998

Atwater, CA - Orchard growers, PCAs and others in the agricultural community are invited to Dave Souza's almond orchard for the Third San Joaquin Valley Chip-Off on October 29. The event, co-sponsored by the Community Alliance with Family Farmers (CAFF) and the East Merced Resource Conservation District, is one of three sites across the San Joaquin Valley that will be demonstrating different brush chippers and shredders for almond and walnut orchards. The morning's event will also feature a presentation about potential changes in the regulations of agricultural burning and a panel of experienced growers and hullers who will share their brush chipping expertise.

For more information, please contact Mark Cady at CAFF: (530) 756-8518 X20, or call the University of California Cooperative Extension office at 384-7403, Lonnie Hendricks.

Meeting Time and Location: 9:00 - Noon

Dave Souza's almond orchard On Hull Avenue between Sunset Drive and Atwater-Jordan Road, Atwater, California

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Nut Grower Magazine Harvest Show

Nov. 4, 1998  
Stanislaus County Fairgrounds

7:30 a.m. Gates Open

**8:00 - 9:30 BIOS Seminar**

Presented by Mark Cady, Community Alliance with Family Farmers

Bios Panel: growers will talk about the costs and profitability of BIOS Orchard management

Grower Panel: Donovan Ratzlaff, Sherman Boone and Cindy Lashbrook

Moderator: Laura Tourte, Dept. of Ag and Resource Economics, UC Davis

Cover Crop Discussion and Workshop

Fred Thomas, CERUS Consulting

Rearing and Releasing Beneficial Insects and Mites

Kevin D. Olsen, S&J Ranch

9:30 - 10 a.m. Break

Industry exhibits

**10 a.m. - 10:30 Labor: How to Hire the Best Employees**

Gregory Billikopf, UC Area Advisor, Farm Labor Management

**10:30 - 10:45 Brush Shredding**

Lonnie Hendricks, UC Farm Advisor, Merced County

**10:45 - 11:30 Almond Board of California: New AIM Program**

Rodger Wasson, President, Almond Board California

**11:30 - Noon Canker Diseases of Almonds**

(Root rot, crown rot, bacterial canker, ceratocystis)

Roger Duncan, UC Farm Advisor, Stanislaus County

Noon - 1 p.m. Lunch

**1:00 - 1:30 Post-plant Nematicides in Nut Tree Crops**

Michael McHenry, UCCE Nematology Specialist

**1:30 - 2:00 Walnut Management Update: Chandler, Tulare and Howard Varieties**

Kathy Kelley, UC Farm Advisor, Stanislaus County

3 p.m. Grand Prize Giveaway: 1,000 Shopping Spree from Fisco Farm and Home Stores

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California Nut Expo --- Speaker Line-up  
Thursday Nov. 12, Merced County Fairgrounds

Breakfast Presentations

6:45 a.m.- 8:00 Free PCA/ Grower Breakfast with seminar Speakers: Lonnie Hendricks, UC Extension Farm Advisor, Merced County: Get Ready for the 1999 Pea Control Year, and Paul Verdegaal, UC Extension Farm Advisor, San Joaquin County: What Growers Need to know about Almond Anthracnose.

*Concurrent Sessions Running Inside and Outside*

**Inside Presentations on Walnuts and Almonds**

9:00-9:30 a.m. Kathy Kelley, UC Extension Farm Advisor, Stanislaus County- Pruning Chandler Walnut and What to Know about Future Production.

9:30-10:00 a.m. To Be Announced -Walnut Bargaining Association speaker

BREAK

10:30-11:00 a.m. Beth Teviotdale, UC Davis Extension Plant Pathologist  
Absolute Essential Knowledge on Spring Diseases in Nut Crops.

11:00-11:30a.m. Rodger Wasson, CEO, Almond Board of California---Long Range Plans...

BREAK

**Outside Presentations on Pistachios and Pecans**

9:00-9:30 am. Bob Beede, UC Extension Farm Advisor, Kings County—  
The Latest on Dormant Oil Sprays in Pistachios

9:30-10:00 a.m. Brent Holtz, UC Extension Farm Advisor, Madera County  
Botryosphaeria: How to Curve the Devastation in Pistachios

BREAK

10:30-11:00 a.m. Steve Sibbett, UC Extension Farm Advisor Tulare County  
Innovative Approaches to Pecan Hedging.

11:00-11:30 Eugene Cripe, President, California Pecan Growers Association  
The State of the California Pecan Industry.

BREAK

NOON LUNCH

Lunch Speaker: George House, California Assemblyman (25th District) and Modesto area Almond Grower—Legislative Farming

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Almond Research Conference

December 2 and 3, 1998

Modesto - The latest findings on research affecting the almond industry will be presented at the annual Almond Industry Conference on December 2 and 3, 1998, in Modesto at the Doubletree/Modesto Centre Plaza.

The conference will follow its traditional two-day format with the first day featuring topics including the globalization of agriculture, production and processing competition, almond nutrition research and the future of farming in the Central Valley. The second day will highlight production research projects funded by the Almond Board. A few of the many topics will include Anthracnose, the Chipping and Shredding of Prunings, Genetic Engineering, and Soil Replacement for Methyl Bromide and Pomology Weather Services. For further information contact the Almond Board of California, 1150 9th Street, Suite 1550, Modesto, CA (209) 549-8262 or check the website at [www.AlmondsAreIn.com](http://www.AlmondsAreIn.com).

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PUBLICATIONS AVAILABLE

**Support UCCE in Merced County..... Purchase Publications Here**

Many growers, as well as the public at large, purchase and use University of California publications for useful information on a wide variety of topics. When you buy these reasonably priced publications at our office, you support your local Cooperative Extension office because we receive a substantial portion of the proceeds from the sales. You can also review the publications before you purchase them to be sure they are what you are looking for. We have nearly all the UC publications available and the price is the same as that you would pay through the UC publication catalog. Come in and check out the hundreds of publications we have! If we do not have the publication we will gladly order for you!

The Modesto Cooperative Extension office still has copies of the out-of-print Stanislaus Orchard Handbook for sale. This reference book, while a little out of date, is considered a classic in the northern San Joaquin Valley. If you are interested in purchasing a copy before they become un-available, contact the Modesto office at 525-6800.

Merced County Cooperative Extension still has copies of the **IPM FOR APPLES AND PEARS**, which is being revised and updated. We do not know when the new revised edition will be available. The cost for the publication is \$30.00, plus tax. Contact our office if you are interested in reserving a copy for yourself.

### **Cover Cropping in Vineyards: A Grower's Handbook**

For over 5 years, I have coordinated the writing and editing, of this publication, which will be available in October. The publication has 12 chapters and 22 authors. It describes the cover crop species and their uses, cover crop systems and management, soil and water effects (soil erosion, soil ecology, soil fertility and plant nutrition, and water use), pest effects (insects, weeds, nematodes, and vertebrates), and actual practices of a number of growers. The 168-page publication should be useful to both grape and tree crop growers. It has over 150 color photos and costs \$20 (plus tax).

### **Natural Enemies Handbook**

The UC Statewide IPM project has produced this 164-page book, which draws on the experience of more than 60 experts from UC and beyond. The book has over 180 color photographs and 140 line drawings to help readers find, identify, and use natural enemies to control pests in almost any agricultural crop, garden, or landscape. The nine chapters cover the biology of hundreds of predators, parasitoids, and pathogens that attack pest insects, mites, nematodes, plant pathogens and weeds. The cost is \$35 (soft cover) or \$50 (hardbound), plus tax.

### **Pesticide Safety: A Reference Manual For Growers**

This publication is a resource for growers preparing for the Certified Private Applicator examination. Its easy-to-read workbook format takes you through each of the steps needed to use pesticides safely and responsibly on the farm. The publication is 128 pages and costs \$7 (plus tax). It is available in our office or through Communication Services (see above). Publication No. 3383.

### **Vineyards in an Oak Landscape**

This new publication explores the physical, biological, and social benefits of maintaining and restoring native vegetation in and around the vineyards. It discusses the biodiversity in and around the vineyard and vine diseases and the role of native vegetation. The publication is 15 pages and costs \$4.50 (plus tax). It is available through our office or Communication Services. Publication No. 21577

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