COOPERATIVE EXTENSION UNIVERSITY OF CALIFORNIA

TREE AND VINE NOTES

September 2008

Almond Pest management Alliance Field Day

September 23rd, 2008 11:30 AM-1:30PM
Louie Bandoni's Orchard, Merced County
Corner of South Bear Creek Drive and North Arboleda Drive

Topics include:
History and Growing Practices within the orchard – Louie Bandoni, grower; Chris Morgner, Agrov-Valley Consulting.
The Role of NOW in food safety, aflotoxin, and international markets – Bob Curtis, Almond Board of California.
Post harvest evaluation and winter insect control – Walt Bentley, UC IPM, Kearney Ag Center
Almond Diseases – David Doll, UCCE Merced
Lunch will also be included, please RSVP to Joy at (530) 756-8518, ext 27.

Partners in IPM 9/30/08 11:15 – 1:15 PM

Merced County Agriculture Center classroom.

USDA-NRCS: Protecting and Conserving Resources
EQIP, 595 Pest Management Standards, IPM and Resource Conservation making it work for you – Carolyn Agrifoglio, NRCS, Fresno
Pest Management and NRCS in the Northern San Joaquin Valley: Update from Chris Hartley, DC NRCS Stanislaus County

UC IPM - Tools to support development and documentation of an IPM program (20 minutes)
Walt Bentley – UC IPM, Kearney Ag Center
Pete Goodell - UC IPM, Kearney Ag Center

CA Dept of Pesticide Regulation - How Pest Management Alliance and community projects support IPM adoption (15 minutes) - Bob Elliott– CDPR, Sacramento

Hands-on Training – Using the resources available (35 minutes)

NRCS – Planners will be there to answer questions and describe the process
UC IPM computer stations to re-enforce what tools are available, where to find them and how they can be used.

Alternatives to Methyl Bromide in Orchard Replanting October 28th, 2008

Talks and tours will be held at the USDA-ARS San Joaquin Agricultural Center USDA-ARS, Parlier, CA and UC Kearney Agricultural Center, Parlier, CA
UC and USDA-ARS researchers will discuss replanting strategies for almond, stone fruit, and walnut. Topics include alternatives to methyl bromide in managing soil-borne pests and diseases, minimizing rates and non-target emissions of fumigants, and fumigant regulations. More details will follow in an upcoming announcement.

Merced Community College

Presents

Pest Management Update Course

21 Hours – including up to 8 hours Laws and Regs

Next Classes: Fall 2008

Sept 23, 30 Oct 7, 14, 21, 28 & Nov 4

From 8am to 11am, Each Tuesday

Merced County Agricultural Center

2145 West Wardrobe Ave. Merced

Class Fee $100.00 Total

- **Includes all needed materials**
- **Guest Speakers**
- **Convenient Location & Times**
- **Earn Continuing Education Units**
- **Coffee & Snacks Each Morning**

21 Hour Class:

- **laws: sprayer calibration & BMPS for mixing/spraying**
- **LAWS: Headquarter INSPECTIONS**
- **laws: internet reporting & Dormant Season Regulations**
- **laws: Mitigation in orchard systems: pesticides in surface water**
- **laws: mitigation in row crop systems: pesticides in surface water**
- **many other related topics & guest speakers**

For Additional Information Call Cindy Lashbrook (209) 761-0081 or Robert Vincelette (209) 386-6734. Registration and payment will be due on the first class meeting you attend, starting at 7 AM .

Please make check payable to: Merced College.

Visit Our Web Site At www.mccd.edu/WpLRC For Additional Information

Disease Digest: Ceratocystis Canker of Almond.

By: David Doll, UC Cooperative Extension, Merced County

Ceratocystis or “mallet wound canker” has been found on almond throughout California for almost 50 years. This fungal canker, caused by *Ceratocystis fimbriata*, can develop on areas of the trunk or branches that have been damaged by tractors, hedgers, and harvesting equipment. Pruning wounds are also susceptible. Cultivars that are most susceptible include Nonpareil, Mission, and Ne Plus Ultra.

Ceratocystis cankers appear as either water soaked or dry cankers. Amber-colored gum is found at the canker margins. Infected tissue turns brown and the area eventually becomes sunken. Unlike *Phytophthora* infections, *Ceratocystis* remains active during the summer months in which rapid canker growth can occur. Cankers can girdle limbs, scaffolds, and tree trunks. Limbs 4-6 inches in diameter have been observed to be girdled in 3-4 years, while smaller branches are killed more quickly.

Several species of sap-feeding beetles and fruit fly can spread *Ceratocystis*. These insects feed on the fungus, ingesting and coming into bodily contact with the spores. The spores are then transported to other trees and deposited on the bark by the insects. Rains and sprinkler irrigations can wash the spores into fresh pruning wounds or other injuries. Once the fungus infects the cambium, it will begin to invade the healthy bark and xylem tissues of the tree. Dark stains may permeate into the heartwood of the tree, but rarely is the fungus found in these tissues.

Ceratocystis cankers can be avoided by preventing shaker damage on trunks and scaffolds. Irrigation should also be reduced or avoided during the 2-3 weeks before harvest, as available water increases the susceptibility of the bark to bruising and insect vector activity. If the bark is injured, shave the damaged portions to promote callus formation. Avoid pruning before any rainy weather. Following bark injury, trees are susceptible to *Ceratocystis* infections for 8-14 days.

Established cankers can be surgically removed. Remove infected bark and 1/4 - 1/2 inch of the woody tissue underneath the bark. The cut should extend one inch beyond the canker margin. Limbs that have been killed by the enlarging canker should be removed by cutting six inches below the canker margin. Branch removal and surgery should occur during December-February when the pathogen and vector insects are less active. Attempts to remove cankers may be unsuccessful, in which case the fungus may continue to grow. Affected trees should be rechecked the following year, and the surgical process repeated if survival of the canker has occurred. Dressing of pruning or surgical wounds made during the winter is not needed as most vectors are inactive at this time.

Orchards severely infested by *Ceratocystis* have typically been damaged repeatedly by harvesters. Proper equipment usage in order to prevent tree injury will reduce the incidence of the disease. If any questions arise, please don’t hesitate to contact me. I am always available to visit with you about your operations.

Post-harvest irrigation is important in the next year's almond crop

Adapted from David Goldhammer's
Drought Irrigation Strategies for Deciduous Orchards.

Postharvest water management is crucial for the following year's almond crop. Recent research showed that postharvest water deprivation reduced nut set and, to a lesser extent, also reduced bloom. Growers should reserve at least 3 to 4 acre-inches/acre (of the normal 8 inches) for postharvest irrigation. Irrigation should begin as soon as possible after harvest. With deep soils that are surface or sprinkler-irrigated close to harvest, postharvest irrigation may not be as important.

Trees that defoliate prematurely indicate inadequate irrigation. Preharvest defoliation followed by postharvest irrigation can lead to refoliation (a new leaf canopy). Contrary to conventional wisdom, this practice benefits the tree by improving tree water status during a critical period of flower morphogenesis. Flowering in the late fall, however, will reduce yield the following year. This occurs when orchards refoliate in the fall and followed by a cold weather in October and a warm November. Limiting irrigation during the late fall may reduce premature flowering.

AGRITOURISM CONFERENCE

San Joaquin County Agritourism Conference

Wednesday, November 12, 2008
8:30 am to 4:00 pm
Robert J. Cabral Agriculture Center
2101 E. Earhart Avenue (Off Arch-Airport Rd.)
Stockton, CA 95206

Tourism is the largest industry in the world. Agritourism and nature tourism are steadily growing forms of tourism due to an increasingly urbanized population desiring a rural experience and a connection to where food is produced. For many farmers and ranchers, agritourism offers an additional and welcome form of income. In California, agritourism and nature tourism opportunities for farmers and ranchers abound. Farm tours, U-pick operations, school tours, on-farm classes, and special events are just a handful of the many forms of agritourism farmers are choosing to participate in. However, developing a tourism enterprise is not simple. Hosting visitors on the farm or ranch brings with it issues of liability, public safety, marketing and governmental regulations.

Attendees will receive a copy of the UCCE Agritourism manual, "Agritourism and Nature Tourism in California."

Registration is $40.00 per person and includes lunch and the manual. For more info or to attend, please call Michelle at 209-337-2726.

Produced in partnership with the San Joaquin Farm Bureau, San Joaquin County UC Cooperative Extension, San Joaquin County Visitors Bureau & Chamber of Commerce and the San Joaquin Partnership.

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Pruning and Eutypa Dieback Disease

Bill Coates, UC Cooperative Extension, San Benito County

Eutypa dieback disease of apricot and cherry trees is caused by spores of the fungus Eutypa lata landing on fresh pruning wounds, germinating and infecting them. This disease is a wood-rotting disease that results in the death of limbs and eventually the tree. Symptoms including amber colored gumming, darkened and cracked bark, summer dieback of limbs with the leaves still attached and wood discoloration when viewed in cross-section.

The best management technique is to prune apricot and cherry trees only in July or August following harvest. These months are usually warm and dry and allow sufficient wound healing before the rainy season sets in. We are approaching the most susceptible period (October – December) for Eutypa infection when there are (usually) numerous rainy periods and lots of built-up spores. Try to avoid pruning apricot and cherry trees during the fall and winter. Larger pruning cuts into hard wood are definitely susceptible but current season's growth may be less susceptible - this needs further verification with research results. The only wound treatment that is registered is a high rate of Topsin-M which has a special label for that purpose and must be painted on wounds. It is a protectant not an eradicant so must be on the wound prior to infection.

Available at your local Cooperative Extension office:

Maintaining Microirrigation Systems

This handy new publication discusses the maintenance issues of micro-irrigation systems that can be used on tree crops, row crops, and trees and vines. Chapters include an overview of maintenance needs, monitoring and water assessment, causes and prevention of clogging, flushing and safety concerns. Also includes methods of preventing root intrusion, soil ingestion, bacterial growth, and backflow contamination.
#21637 $20.00

IPM for Strawberries, 2nd Edition

This newly revised manual is the ultimate guide to pest management for strawberries. Using this manual you will learn how to prevent and diagnose causes of damage; identify pests and key natural enemies; establish an IPM program for your field; manage problems related to irrigation, nutrition, and the growing environment; and determine when direct control actions are necessary. This revised manual also includes chapters on strawberry transplant production and managing pests in home garden strawberries.
Contains over 100 pages of color photographs; 56 line drawings and charts that will help you identify over 90 important pests and disorders.
#3351 $30.00

Available free online – Updated Pest Mgt Guidelines

anrcatalog.ucdavis.edu/PestManagementGuidelines
Caneberries
Pears
Strawberries
Tomatoes
Walnuts