



SUTTER/YUBA COUNTIES COOPERATIVE EXTENSION ~ UNIVERSITY OF CALIFORNIA
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Pomology Notes

2004 Nov/Dec Newsletter

Upcoming Meetings



<u>DATE</u>	<u>PROGRAM</u>	<u>LOCATION</u>	<u>CONTACT</u>
Dec. 1-2	Almond Board Annual Meeting	Modesto, CA	(209)549-8262
Dec. 7	Sutter County Ag Meetings	Yuba City, CA	(530)822-7503
Dec. 9	Sutter County Ag Meetings	Yuba City, CA	(530)822-7503
Dec. 14	UCCE Winter Field Meeting	Yuba City, CA	(530)822-7515
Feb 5, 2005	PlacerGROWN Farm Conference	Lincoln, CA	(530) 889-7398

ORCHARD MANAGEMENT PRACTICES TO CONSIDER IN NOVEMBER/DECEMBER:

Prunes:

- Get dormant spur sample (see December 14 meeting agenda)
- Prune (see December 14 meeting agenda)
- Remove mummies (old fruit) to reduce brown rot pressure in the spring.
- Apply potassium in flood or solid set irrigated blocks.
- Tune-up and calibrate orchard sprayer(s).
- Remove tree guards (tree boxes, etc.) from around young trees.

Almonds:

- Get dormant spur sample (see December 14 meeting agenda)
- Sanitize orchards. Goal is to reduce mummies to one or less per tree.
- Prune if needed
- Apply potassium in flood or solid set irrigated blocks.
- Tune-up and calibrate orchard sprayer(s).
- Apply zinc sulfate at normal leaf fall to correct zinc deficiency.
- Remove tree guards (tree boxes, etc.) from around young trees.
- Arrange for bees for bloom season. Availability was tight in 2004.
- Consider applying preemergent herbicides(s).

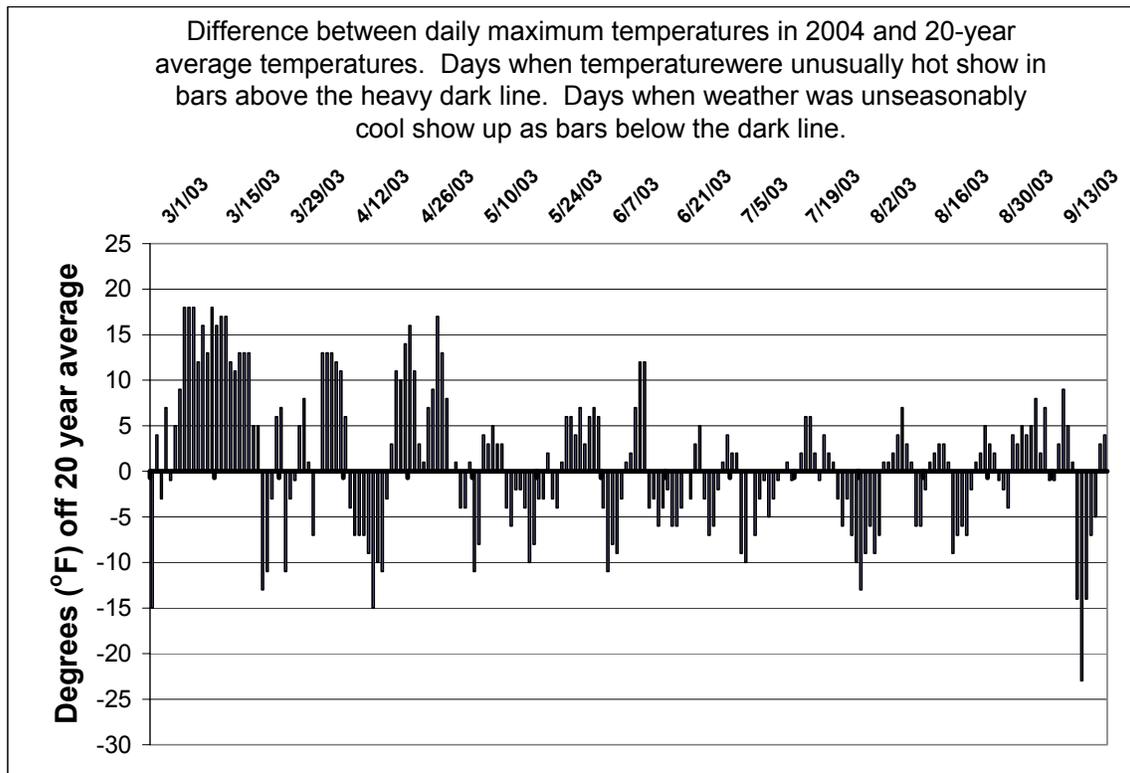
POSTMORTUM FOR THE YEAR IN PRUNES

A 20/20 LOOK BACK AT THE 2004 CROP

Unfortunately, for most prune growers, there is not much to say looking back on 2004. The hot and dry weather at bloom (between 15-20 degrees above normal for mid-March) resulted in virtually no prune crop for most growers around the state.

After the heat of March and April, May temperatures were mild, and June and July temperatures were seasonal. Given the low cropload and mild weather, growers who were monitoring orchard moisture were able to cut back on water – some growers saved one irrigation.

The following graph shows how the maximum temperature differed from the 20-year average for every day last year from March through September. If the daily high temperature was 10 degrees above the average, then the graph shows a bar reaching to 10 on the left-hand scale. If the daily maximum temp was 15 degrees under the 20 year average, then the graph shows a bar at -15 on the left-hand scale.



APHID OPTIONS IN PRUNES

Aphids are the primary pest in prune production. Aphid management can cost prune growers a lot of money or a little money, depending on how and when it is done.

Years of UC research has shown that low rates of insecticides applied before bloom will give excellent aphid control through the following season without risking pesticide resistance. Good spray coverage is needed for good control. Reduced pesticide rates will control aphids, but may not give the same scale and/or peach twig borer (PTB) control as a spray at the full rate.

Higher pesticide rates in the dormant or delayed dormant spray (prebloom) will control scale and/or PTB, depending on material used. Diazinon and Supracide are registered for scale control; pyrethroids (Asana® and Warrior®) are not. Dormant spur sample monitoring will show if scale need to be controlled.

Do prune growers need to worry about PTB? That’s a grower’s call. PTB is usually not a problem in dried plums, but can be a serious pest in fresh plum production. There are several timings and a range of materials that will give good PTB control. A strong rate of insecticide in the dormant spray or B.t. or Intrepid® in the bloom spray(s) will give good PTB control. Finally, PTB can be controlled with a “May spray” if an early May (400 DD after biofix) fruit check shows PTB damage and a need for control. Growers need to ask themselves, “How much is the extra insurance of high dormant spray pesticide rates worth to me this year”?

APHID CONTROL OPTIONS FOR PRUNE GROWERS

Treatment	Timing	Effective materials/rates	Relative Material Costs	Water Pollution Potential
Pre-dormant	November	Low pesticide rates ^{1,2}	Low	Lower
Dormant	January-early February	Low pesticide rates ^{1,2}	Low	Higher
Delayed dormant**	February	Low pesticide rates ^{1,2}	Low	Higher
Late delayed dormant**	Early March	Low pesticide rates ^{1,2}	Low	Lower
Oil-at-bloom	Bloom	4% (v/v) oil at green bud + 10 days	High	None
In-season	When aphids appear	Diazinon or Asana® (MPA only)	Low/High*	Is there irrigation water runoff?

¹Low rates proven by UCCE include 1-3 oz Asana®/acre and 1-2 pints diazinon/acre. Warrior® and Supracide® are also labeled for prunes in the dormant season.

²Oil can be used with synthetic pesticides from pre-dormant thru delayed dormant sprays for scale control. Four gallons of narrow range oil (Omni Oil, Super 94 440, WE Superior Oil, Gavicide 90, etc.) are needed for best scale control, especially if low pesticide rates are used. Don't spray high rates of oil if trees are dry.

*Cost is low if the aphid control spray doesn't harm mite predators and flare mites. Mite control is expensive!

**Need to notify county Agricultural Commissioner and bee keepers to avoid harming bees.

DO ALMONDS NEED A DORMANT SPRAY?

A dormant spray in almonds controls PTB and scale, plus some secondary pests (leafrollers). **A dormant spray will not control navel orange worm or spider mites.** Navel orange worm (NOW) over winters in mummy nuts, and is only controlled by orchard sanitation [destroying the nuts by knocking them out of the trees and then burying/shredding them]. Spider mites overwinter on the orchard floor and dormant sprays don't control them. Oil + pesticide in dormant season will cost growers \$15-30/acre or more (plus application cost) and a hull split spray may still be needed for best possible worm control using pesticides. (Orchard sanitation is the best way to control NOW.)

Unless they have a scale problem, many almond growers have concluded that a dormant insecticide spray is not worth the money and time (plus chance of putting ruts in the orchard).

THINKING ABOUT PLANTING ALMONDS?

If you have almonds or are thinking about planting them, don't miss the Almond Board of California's annual meeting on December 1-2 in Modesto. There is no cost to attend, but you must register. There will be a trade show, research and marketing reports, and interesting general presentations. Call (209) 549-8262 for information and/or registration forms for the conference or log onto <http://conference.almondboard.com/>. Registration forms and conference schedule are also available at the UCCE Farm Advisor office in Yuba City.

ALTERNATE PESTICIDE CHEMISTRY TO MANAGE RESISTANCE

Alternating pesticides is a sound strategy that should delay development of pesticide resistance in PTB. For example, if PTB control is needed, when selecting an insecticide control, consider using diazinon or Supracide (organophosphate pesticides) or an insect growth regulator this year, if Asana (a pyrethroid) was used last year. Do not alternate within a class of chemicals. For example, alternating between Warrior® and Asana® is like switching from Coke to Pepsi -- there is no difference in how these pesticides kill insects and this is not effective resistance management. Listed below are some pesticide chemistry classes and the products in those classes that are registered for tree crops for PTB control. **Not all materials are registered for all tree crops. Check the label and/or ask your PCA.**

Pesticide Chemistry Groups with different modes of action, and some examples of materials labeled in tree crops. These products are listed as examples, and not all products labeled in tree crops are listed.

Pyrethroids	Organophosphates (OPs)	Insect Growth Regulators (IGRs)	Spinosid	BT
Asana®	diazinon	Confirm®	Success®	Dipel®
Warrior®	Supracide®	Intrepid®	Entrust®	Javelin®
Ambush®	Dibrom®	Seize® WP		Deliver®
Pounce®	Guthion®	Applaud®		
		Dimilin®		

WHAT DO YOUR SPUR SAMPLES SHOW?

Dormant spur sampling is an excellent way to evaluate scale pressure in an orchard. Knowing the scale situation helps almond growers decide if a dormant spray is needed, and prune growers decide if they need to go with heavier rates of oil and, if needed, higher rates of pesticide. Spur sampling is easy, and knowing the results could save a grower a lot of money. Instructions on spur sampling are on the web at: <http://www.ipm.ucdavis.edu/PMG/C606/m606wc02.html> or call Franz at 822-7515. Interested growers and PCAs are also invited to attend the field meeting on December 14. There will be a presentation on spur sampling by a grower who has done this for years.

REMOVE TREE BOXES IN THE FALL

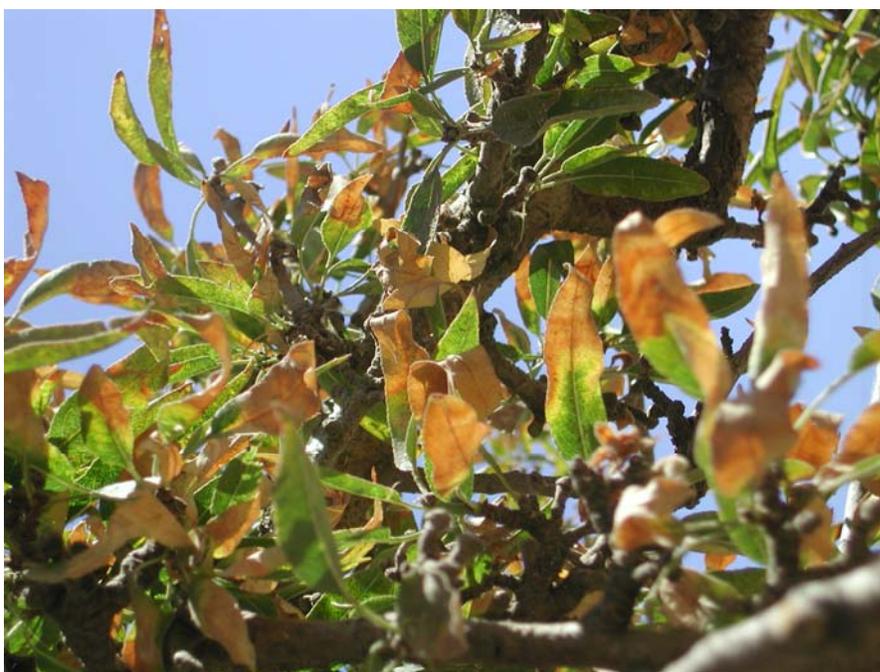
Tree boxes are great for protecting young trees from sunburn and herbicides. (Although, the trunk should also be painted to avoid “box burn” in hot springs like 2004.) The boxes keep herbicide sprays and sunlight off the trunk in the summer, **but** will hold disease-causing moisture around the trunk in the fall. **Leaving trunk protectors in place during the winter, especially on peaches and almonds, is asking for disease problems.** Any savings in “reusing” boxes from one year to the next by leaving them on the trees, could be lost many times over in replant costs.

ALMOND LEAF SCORCH

Almond leaf scorch (*Xylella fastidiosa*), a serious disease of almond trees, is caused by the bacteria that causes Pierce’s disease in grapes. This disease has been in the state for decades, but an increased number of cases have been reported around the state in the past decade. Many people associate the disease with the glassywinged sharpshooter, but that insect has not been found in Sacramento Valley almond orchards, yet there are several confirmed cases of almond leaf scorch (ALS) in the area, including one in Sutter County.

ALS can also spread by smaller sharpshooter species, such as the redheaded sharpshooter and the green sharpshooter, and these insects are the prime suspects in the rising number of ALS cases in the Sacramento Valley. This disease is most common and severe in ‘Peerless’ variety, followed by ‘Sonora’. ‘Nonpareil’ trees can be affected, but the disease is rare in ‘Carmel’ and ‘Butte’. Growers and PCA’s should know what this disease looks like and be watching their blocks for symptoms.

Leaf symptoms of ‘Peerless’ trees with Almond leaf scorch disease.



WATCH FOR RODENTS!

I've seen a couple of orchards in the area that appear to be suffering from rodent damage. **More than a few trees are dying.** Both of these blocks are young, good-looking blocks that are disced and flood irrigated. The problem looks to be voles (meadow mice) in at least one orchard – probably from feeding last winter.

Growers need to be aware of the dangers, especially for young orchards, from rodents (mice, gophers, ground squirrels, or rabbits) and watch for signs of rodent activity.

Baiting for rodents is an effective, but is only worth paying for when the animals are around to eat the poison. For example, baited grains, broadcast for mice control, will breakdown quickly in wet conditions (this fall!). Unless the mice are in the orchard and will immediately feed on the bark, the application is wasted. Please call me with any questions on rodent control (822-7515). Also, the county Agricultural Commissioners' offices sell rodent bait, and have a lot of expertise to offer.

What looks like vole (meadow mice) damage in a Sutter County prune orchard.



UCCE WINTER PRUNE FIELD MEETING
TUESDAY, DECEMBER 14

Orlando Orchards, 4600 George Washington Blvd., Yuba City

- 9:00 A.M. Pruning Demonstration and Discussion –
younger, mature trees
- 10:00 Pruning Demonstration and Discussion –
older, mature trees
- 11:00 Dormant Spur Sampling Training
- 11:30 Brief round up.

*Funding for this project has been provided by the CDFA's Buy
California Initiative and the USDA.*

FRANZ NIEDERHOLZER
U.C. FARM ADVISOR