



SUTTER/YUBA COUNTIES COOPERATIVE EXTENSION ~ UNIVERSITY OF CALIFORNIA  
142A GARDEN HIGHWAY, YUBA CITY CA 95991  
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# Pomology Notes



[2005 February Pomology Notes.doc](#)

## UCCE STATEWIDE PRUNE DAY

March 2, 2005, 8 am to 11:30 am

Veterans Building, 1425 Veterans Memorial Dr., Yuba City

- 8:00 am *Sign-in and refreshments, Donuts and coffee courtesy of Growers Ag Service, Inc., Yuba City  
Cookies and prunes courtesy of California Dried Plum Board*
- 8:15 MANAGING A LARGE PRUNE CROP - *Bill Krueger, Farm Advisor, Glenn County*
- 8:45 PCA/GROWER PANEL: MANAGING A LARGE CROP
- *John Post, crop consultant, Ag Advisors*
  - *Gary Walker, PCA, Growers Ag Services*
  - *Kulwant Johl, PCA and grower, John Taylor Fertilizers*
  - *Erick Nielsen or Hilary Porter, Erick Nielsen Enterprises*
  - *Ken Kaplan, Glenn County grower*

### EXTENDED BREAK FOR REFRESHMENTS AND TO VIEW POSTERS

- 9:45 IS THERE REALLY NO HOPE OF IMPROVING THE CALIFORNIA DRIED PLUM INDUSTRY BY USING IMPROVED ROOTSTOCKS AND SCION CULTIVARS?- *Dr. Ted DeJong, UC Davis*
- 10:15 PROGRESS FOR BREEDING RESISTANCE TO PLUM POX - *Carolyn DeBuse, UC Davis*
- 10:30 APHID BIOLOGY AND RESEARCH - *Dr. Nick Mills, UC Berkeley*
- 11:00 APHID CONTROL OPTIONS - *Franz Niederholzer, UCCE Sutter/Yuba Counties.*
- 11:15 DRIED PLUM INDUSTRY OVERVIEW - *Richard Peterson, California Dried Plum Board*
- 11:30 ADJOURN

CE UNITS (REQUESTED) SPONSORED BY PRUNE BARGAINING ASSOCIATION

The annual meeting of the Prune Bargaining Association (PBA) follows this meeting. All interested persons are invited to attend. Lunch will be available (see reservation sheet in this newsletter) during that meeting. The keynote speaker will be Rodger Wasson, President of the California Strawberry Commission, and past president and CEO of the Almond Board of California. He will speak on marketing the nutritional value of agricultural products. Mr. Wasson has a wealth of experience working in and with six different commodity groups over the past 30 years, and will address a key topic to the future of prune marketing.

## Prune Bargaining Association (PBA) Luncheon Registration Form

Registration must be received by Friday, February 25, 2005. To enable PBA to provide a lunch, pre-paid reservations are needed.

Please make \_\_\_ reservation(s) for lunch. Cost: \$10.00/person. A check for \$\_\_\_\_\_ payable to Prune Bargaining Association is enclosed.

### **Please mail this form and a check for lunch payment to:**

PRUNE BARGAINING ASSOCIATION, 335 TEEGARDEN AVE., SUITE B; YUBA CITY, CA 95991

Name: \_\_\_\_\_ Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

email: \_\_\_\_\_

If your reservation is for more than one person, please list the names of others covered by your check:

\_\_\_\_\_

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## **POLLINIZATION + FERTILIZATION OF HEALTHY FLOWERS = GOOD FRUIT OR NUT SET.**

### PRUNE ORCHARD CHECKLIST FOR FEBRUARY/MARCH:

- Decide if you want to put hives in your orchard this year and place order if you want them (and can get them). **Bees are needed for effective pollinization in prunes – even though prunes are self-fertile. If there are no bees in your orchard – either from hives in your block or wandering bees from neighboring hives – your production will suffer.**
- Get orchard ready for bloom -- a plowed or mowed orchard has less frost risk than an orchard with high weeds or cover crop.
- Get sprayer ready for bloom fungicides (if there is wet weather at bloom).
- If you have sprinkler (impact or micro-jet) irrigation, check out/maintain irrigation system used for frost control.
- Make plans to protect flowers from brown rot at bloom -- if weather is wet at bloom. Prune flowers are susceptible to brown rot beginning at green bud, and most susceptible at full bloom. (UC fungicide efficacy data is included in this newsletter.)
- Rainy, wet weather at full bloom can cause lacey scab damage in prunes (in addition to brown rot.) Consider a captan or chlorothalonil (Bravo®, Echo®, etc.) application if full bloom timing looks wet.
- Place your order for [peach twig borer](#) traps. Traps should be up by April 1. UC recommends 2 traps per block.
- Line up a harvester to shaker-thin your orchard if a large crop is set. You may not need to, but it might be a good idea to make plans in case there is a need. The May 3 Prune Field Day will include a thinning demonstration.

ALMOND ORCHARD CHECKLIST FOR DECEMBER/JANUARY:

- ❑ Place healthy bees in the orchard prior to bloom. Current UC recommendations are for 2-3 hives per acre. When bloom weather is cold and wet, more hives (3 per acre) = more nuts at harvest.
- ❑ Check out/maintain irrigation system used for frost control.
- ❑ Prepare/maintain your orchard sprayer.
- ❑ Have clean spray strips and close-mowed orchards when frost season starts.
- ❑ Check out your frost alarm and thermometers.
- ❑ Protect almond flowers with the right fungicide for the particular timing and target disease(s). (UC fungicide efficacy data is included in this newsletter.)
- ❑ Place your order for [peach twig borer](#) and [navel orangeworm](#) traps. Peach twig borer traps should be up by April 1, and one trap will cover 20 acres. Navel orange worm traps should be up by April 1. Use four traps per block or 1 trap per 10 acres in large blocks.

**PLANNED MEETINGS:**

DATE	TITLE	LOCATION	CONTACT PHONE NO.
FEBRUARY 15	SOUTH SAC VALLEY ALMOND MEETING	COLUSA	458-0570
MARCH 2	STATEWIDE PRUNE DAY (SEE AGENDA)	YUBA CITY	822-7515
MARCH 11	TEHAMA COUNTY PRUNE DAY	RED BLUFF	527-3101
MAY 3	SPRING FIELD DAY (PRUNES)	YUBA CITY	822-7515
JUNE 15	SUMMER ALMOND FIELD MEETING	YUBA CITY	822-7515

**MONITORING WORM PESTS IN DRIED PRUNES AND ALMONDS**

Buying peach twig borer “insurance”, such as an extra spray or a higher rate of pesticide in the spray tank, can cost dried prune and almond growers a lot of money. While insurance might help you sleep at night, here’s what could be a better plan. Why not monitor a block to know if you need to spray or not, then, if you don’t need to spray, use the “insurance” money to travel so you can fall asleep to the sound of the wind in the pines or the surf crashing on the beach? You might be able to travel more often than you thought.

*PRUNES:* Peach twig borer (PTB) is usually not a significant pest in dried prunes. Here’s how to find out if PTB will be a problem:

1. Hang pheromone traps in by April 1 – two per block. Check the traps every 2-3 days (every day if you have the time) to find out when moths begin to fly. (The official term for this is ‘biofix’, and it marks the start of the biological clock that can be used to track when worms hatch and start to feed on trees.) Measure degree days in your orchard or a nearby site (see info below) starting at biofix.
2. Look for damaged fruit at 400 degree days after biofix (usually in mid-late May). UC recommends looking at 1200 fruit (15 fruit from 80 trees) per block for signs of worm feeding. If 2% or more of the fruit are damaged (24 of more out of 1200), then a spray is needed. If less than 2% of the fruit are damaged, you should not have a problem with PTB damage at harvest.

*ALMONDS:* Most blocks only need one spray per year to control PTB. Proper spray timing is the key to effective control. Here is how to accurately time PTB sprays:

1. May Spray: Hang pheromone traps in mid-late March – Use one trap per 20 acres, but never less than two for smaller blocks. Check the traps every 2-3 days to find out when moths begin to fly. Measure degree days accumulation in your orchard or a nearby site (see article below) starting at biofix. Once the flight has started, use degree days to track the development of the insect, and spray between 300-500 DD -- depending on the material used – after carefully reading the label. “Soft” pesticides are now available that selectively target worms, may help avoid mite problems later in the season.

2. **Hull-split spray:** Control of PTB at this time is difficult. However, here is how to give it your best shot: When 900 degree days from the first biofix (probably early-mid April) are approaching so is biofix for the second generation. Clean up the traps and put in new lures, and determine biofix (as described above) for the second generation. Time hull split spray to match 300-500 DD from second biofix.

Navel orange worm (NOW) is also controlled, at least partially, with hull split sprays. Matching the timing for best control of both PTB and NOW with one spray at hull split can be hard to do, so it may be advisable to spray for PTB in May (300-500 degree days) and at hull split for NOW. You could also put on a dormant spray for PTB and a hull split spray for NOW. However, the dormant spray can lead to surface water pollution, and an in-season spray, with soft materials (B.t., Intrepid®, Success®, etc.) will not harm mite predators and is an opportunity to apply a foliar nutrient (potassium nitrate, etc.) to support crop growth.

### **ACTARA® NOW LABELED FOR APHID CONTROL IN PRUNES.**

Actara®, a new systemic pesticide, is now labeled for aphid control (also leafhoppers, cherry fruit fly, stink bugs, and tarnished plant bugs) in stone fruit. This material offers prune growers an alternative to diazinon for leaf curl plum aphid control, and should work as well as Asana® or diazinon for mealy plum aphid control. On May 11, 1999, Bill Olson (recently retired UCCE farm advisor in Butte County) and Carolyn Pickel (UC IPM Area Advisor) tested Actara® and other pesticides for mealy plum aphid control. The trial was evaluated 3 days later, and here are the most interesting results:

Material	Rate per Acre (in 100 gpa)	Aphid Control <i>1 = complete control</i> <i>3 = partial control</i> <i>5 = No control</i>	Fruit Phyto
Untreated	None	5.0	No
Omni oil	6 gallons	3.1	No
Actara®	4.5 oz*	1.3	No
Actara®	5.5 oz*	1.0	No
Asana®	8 oz	1.0	No

*\*The current label recommends 3.0-4.0 oz/acre for aphid control.*

*There was no statistical difference in control between 4.5 and 5.5 oz of Actara®.*

Unfortunately, Actara®, along with diazinon and Asana®, has the potential to increase spider mite populations and, possibly, the need to apply a miticide to avoid defoliation. Bill Olson and Carolyn Pickel both saw increased mite numbers in the Actara® treated trees in the 1999 test plot, and Dr. Nick Mills (UC Berkeley) has told me that materials like Actara have the potential to harm mite predators, although not as much as diazinon or Asana®. (Dr. Mills will be at Prune Day on March 2 to present his work on aphid biology and control.)

The best timing for aphid control, from an IPM perspective, is still between October and petal fall. With this general timing, there are no fruit residue issues (no pesticide deposits on the fruit) and no risk of harming beneficials. However, spraying in January or February timing -- the traditional “dormant spray” timing -- has the greatest risk of surface water pollution. UC researchers have shown that reduced pesticide rates for aphid control save money for growers and help the environment. Please call Franz if you would like to discuss aphid control in prunes (822-7515).

## LOADS OF CHILLING THIS WINTER

This has been a good year for chilling in the Sacramento Valley. Comparisons of the last few years chilling accumulations appear below.

Comparison of chilling hours (degree hours under 45°F) at three locations close to Yuba and Sutter orchards (CIMIS weather stations) from November 1 through February 29.

YEAR	NICOLAUS	COLUSA	DURHAM
2004-2005 (thru Feb 6)	936	900	937
2003-2004	869	929	911
2002-2003	930	794	839
2001-2002	829	760	786
2000-2001	1419	1229	1334

## MEASURING DEGREE DAYS TO TRACK INSECT DEVELOPMENT

Growers can track degree day accumulation and insect development using temperatures in their own orchard or a neighbor's, or by using the CIMIS weather data. The closest CIMIS stations to Yuba and Sutter county orchards are in Colusa or Nicolaus. While these locations are dozens of miles away from many orchards in Sutter and Yuba counties, there is usually not that much difference in degree day accumulation over time between those locations and local orchards. Spray timings calculated using temperatures from these sites should be close enough to allow growers to time sprays properly. What can make a difference is making sure to use biofix from your orchard to track pests in your orchard. Don't track your orchard pest population with information about your neighbor's pest population. Please call Franz (822-7515) if you would like to discuss options for tracking degree days.

### TO ALL GROWERS:

**I'D LIKE TO MEET WITH YOU AND LEARN ABOUT YOUR OPERATION.  
CALL ME (FRANZ AT 822-7515) AND INVITE ME OUT TO YOUR ORCHARD**

**FRANZ NIEDERHOLZER  
UC FARM ADVISOR**