



Cooperative Extension ~ University of California
Sutter/Yuba Counties
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O r c h a r d

N o t e s

May 2003

FIELD MEETING ON COVER CROPPING, COMPOST AND WEED MANAGEMENT IN A NO-TILL ORGANIC CLING PEACH SYSTEM

Friday, May 23, 2003, 10:00 am - noon

Pantaleoni Orchards

West end of O'Brien in Gridley (See directions below)

Have you thought about planting cover crops? How do planted cover crops compare to resident vegetation in biomass production and nutrition management? How does composted chicken manure work as a nitrogen source? How do you control weeds in an organic orchard? How much do these practices cost? These are some of the questions that will be answered at our field meeting site which is a 3rd leaf peach orchard in its second year transition to certified organic. Whether you are an organic, considering organic or conventional grower, there will be information you can use.

Topics will include cover crop and weed control treatments at this site, cover cropping with legumes and grasses, the effects of composted chicken manure on tree and soil nutrients, treatment cost comparisons and the grower's viewpoint.

Speakers include:

- Janine Hasey, UC Farm Advisor, Sutter and Yuba Counties
- Roland Meyer, Extension Soil Scientist, LAWR Dept., UC Davis
- Fred Thomas, Cerus Consulting
- Pete Livingston, Staff Research Associate, Agricultural and Resource
Economics Dept, UC Davis
- Darin Pantaleoni - Grower

2 Hours of CCA credit is pending

This meeting is sponsored by University of California Cooperative Extension in Sutter and Yuba Counties.

DIRECTIONS: Going north on Highway 99, go east (right) at Nielson, north (left) at Gilstrap and west (left) at O'Brien to the end of road. Look for the yellow UCCE signs.

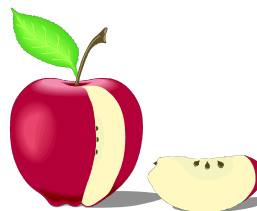


In case of rain or if special accommodations are needed, please call our office.

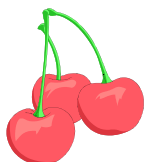
SIERRA Foothill ORGANIC FRUIT AND NUT CROPS VARIETY DEMONSTRATION



W H E N : SATURDAY, JUNE 7, 2003
 10:00 - 11:30 AM



W H E R E : U.C. SIERRA FOOTHILL RESEARCH AND EXTENSION CENTER,
 8279 SCOTT FORBES ROAD,
 BROWNS VALLEY, CALIFORNIA



FROM MARYSVILLE TAKE HIGHWAY 20 EAST (ABOUT 14 MILES) TOWARDS GRASS VALLEY, TURN NORTH ON PEORIA ROAD AND FOLLOW THE SIGNS (5 MILES).

W H A T : YOU WILL SEE A MIX OF DIFFERENT FRUIT AND NUT VARIETIES THAT WERE PLANTED IN 1992 OR MORE RECENTLY AT THIS LOW ELEVATION FOOTHILL SITE (ABOUT 600 FT.) TO DETERMINE WHAT CROPS AND VARIETIES PERFORM BEST UNDER FOOTHILL CONDITIONS. THE TREES HAVE ALSO BEEN GROWN ORGANICALLY SINCE 2001. WE WILL DISCUSS ORGANIC PEST, WEED AND NUTRIENT MANAGEMENT PRACTICES.

W H O : DAVE LABADIE FROM THE RESEARCH AND EXTENSION CENTER, JANINE HASEY, UC FARM ADVISOR IN SUTTER AND YUBA COUNTIES, AND JOHN TECKLIN AND LEONARD CHAPMAN FROM MOUNTAIN BOUNTY IN NEVADA CITY WILL DISCUSS VARIETY PERFORMANCE, ORGANIC PEST CONTROL AND CULTURAL PRACTICES. THERE WILL BE AMPLE TIME TO WALK AROUND THE PLOT, LOOK AT TREES, AND SAMPLE FRUIT FROM SOME VARIETIES AND ASK QUESTIONS.

Sponsors include University of California Cooperative Extension, Sutter and Yuba Counties And University of California Sierra Foothill Research and Extension Center.

PLEASE CALL THE SUTTER/YUBA UCCE AT (530) 822-7515 OR THE SIERRA FOOTHILL RESEARCH AND EXTENSION CENTER AT (530) 639-8800 IF SPECIAL ACCOMMODATIONS ARE NEEDED.

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SUTTER/YUBA COOPERATIVE EXTENSION, 142A GARDEN HWY., YUBA CITY CA 95991

NEWSLETTER & PEST TRACKER SUBSCRIPTION

Newsletter – There are two ways you can subscribe to “Orchard Notes” newsletter – the fast way or the slow way. The slow way is to receive the printed hard copy in the mail. If you want to continue to receive it in this form, you **MUST** return the renewal form sent recently by May 15 to our office or you will be dropped from the list. The fast way to receive the newsletter is to subscribe to it on our website at <http://cesutter.ucdavis.edu>. Click on “Pomology”, and then click on “Orchard Notes”. As soon as the newsletter is finished, it gets posted on the website. You can also see what meetings and events are scheduled as soon as they are planned on the web. By subscribing online, you will get the information sooner and save our office resources that can be used elsewhere.

Pest Tracker – Likewise, the pest tracker which started again in April and will continue through the summer can be accessed or subscribed to online. Click on “Pomology”, and then click on “Pest Tracker”. You may also receive it directly from my email as an Excel attachment. Just send your email address and request to jkhasey@ucdavis.edu. For those who still prefer not to use the computer, the pest tracker print out will be posted every Friday on yellow paper in our office. Oriental fruit moth, peach twig borer, codling moth, San Jose scale and Oblique banded leaf roller will be tracked from the beginning of the flight in Yuba City and/or in District 10. Cling peach rust updates will also be included. The rust forecasts are based on the presence of inoculum and rain to predict whether a spray is needed. I am using FieldWise, Inc. weather stations to calculate degree days again this season.

The pest tracker is intended as a guide only. Each grower should have traps in their orchards and consider past history, trap catches, and pest control advisor input when determining treatments.

FINAL CHILL HOURS

The chill hours accumulated below 45⁰ F from October 31, 2002 to February 28, 2003 at our office in Yuba City were 779. At the beginning of January, 388 chill hours had accumulated but January and February were unusually warm. So we ended this season near the low 2001-2002 total of 767 for Yuba City. That season, only 227 chill hours had accumulated by December’s end. At the Nicolaus CIMIS station where temperatures typically run cooler than in Yuba City, the final chill hours were 920 (2002-03) versus 822 for the previous year.

As in the previous year, we are seeing some of the same low chilling effects on Peaches and Walnuts. From observations, certain varieties appear more affected by low chilling than others but this is not well documented. Stanislaus peaches, especially young trees, dropped flower buds before bloom as in 2002. Some other peach varieties had straggled bloom and poorer set than usual. Chandler walnuts, like last year, have a straggled bloom. They appear to be much more susceptible to lower chilling than Howard walnuts.

WATER AND IRRIGATION ISSUES

“Water Quality News of Importance to All Growers”, a recent article written by UC Irrigation Water Resources Advisor Allan Fulton, discusses new water quality regulations facing irrigated agriculture and the Sacramento Valley Water Quality Coalition formed in response to the regulations. The article can be accessed from our website or through the April/May 2003 issue of “Pomology Notes” or as hard copy from our office.

Irrigation Scheduling – The publication, Scheduling Irrigations: When and How Much Water to Apply, provides information on irrigation scheduling. It gives step-by-step procedures for developing irrigation

schedules for different irrigation methods. If you would like assistance on developing an irrigation schedule for your orchard, please give me a call. There is also a model available for calculating tree water use for young peach trees developed by Extension Pomologist Scott Johnson.

COUNTY OBSERVATIONS AND SPRING CHECKLIST

For insect updates, check the pest tracker through email, our website or in our office.

WALNUTS-

Blight - For the last several years we have had relatively low blight pressure. This year could be different if the rains continue. The blight model for predicting protective blight sprays is based on both wetness (rain, dew) and temperature. Although we had significant rainfall in April, many of the storms were too cold for optimum blight development. There is more likelihood of blight being a problem in May as temperatures warm up if rains continue. You can access the Xanthocast Model and walnut blight risk map and forecast at <http://www.fieldwise.com>.

Winter Kill - Some orchards were reported to have winter kill in the southern part of Sutter County including Rio Oso. It became noticeable in April on some Hartleys, Chandlers and Howards as affected limbs failed to leaf out. There were temperatures down to 28-29°F last November 1-2, but if damage occurred then, most likely it would have been noticed soon afterward. In reviewing temperatures from several local weather stations, the Nicolaus CIMIS and the FieldWise Rio Oso stations, recorded low temperatures of 25 and 26°F on February 8 and 9, 2003. Temperatures were probably even colder in the orchard that had a tall cover crop at that time. My GUESS is that this is when the initial damage occurred. Normally, an unstressed, hardened walnut tree with adequate soil moisture should be able to handle these winter temperatures. However, the preceding January and February temperatures were warmer and dryer than usual, so temperatures in the mid-twenties may have caused cell damage. Following the initial damage, bark becomes darkened mainly on the south and west sides of limbs as damaged tissue subsequently has sunburn injury. Even in the winter months, warmer temperatures and sunshine may desiccate the damaged cells causing death. Research has shown that painting trees with white latex paint as soon as freeze injury occurs reduces damage, probably by allowing cells to repair and continue to function. This year it would have been hard to know when to paint trees unless weather was monitored closely throughout the winter and trees were checked for damage. There have been no reports of winter kill around Yuba City where temperatures reached lows of 28 and 29 for the same time period in February. Temperatures are usually cooler in the southern part of Sutter County.

Nitrogen Fertilizer - Fertilizer applied now will be used by the tree during the growing season.

Training New Trees - Select one dominant shoot to form the trunk of the tree and tie it to the stake (10' stakes with 2' in the ground) throughout the summer.

PEACHES-

Powdery Mildew - This disease is favored by warm, humid conditions and cool, moist nights. Perhaps it won't be a severe problem this year since our temperatures have been cooler. Apply the last protective fungicide before pit hardening which will vary by variety.

Rust - For this disease to occur there needs to be an inoculum source (spores in twig cankers) and rain. The ideal temperatures for rust are between 60-70°F. Although April brought substantial rainfall, the temperatures were also cooler, so as of early May, we still have not found twig cankers with rust spores. We will continue to monitor twice a week through May and will make our findings known through the pest tracker.

HISTORICAL BIOFIX AND PEACH RUST DATA

YEAR	OFM	PTB	CM	PEACH RUST
2003	3/5 (S)	Not set yet	3/30 (Y)	?
2002	2/22 (S) 2/26 (Y)	5/7 (S)	3/27 (Y)	5/3 - Twig Canker
2001	2/26 (S) 2/28 (Y)	4/24 (S)	3/19 (S) 3/21 (Y)	5/4 - Twig Canker
2000	2/23 (S) 2/23 (Y)	5/3 (S) 4/24 (Y)	4/2 (S) 3/22 (Y)	None
1999	2/24 (S) 2/24 (Y)	5/3 (S) 5/17 (Y)	4/15 (S) 4/12 (Y)	4/21 - spores found (Twig Cankers)
1998	3/9 (S)	4/27 (S)	4/19 (S) 4/18 (Y)	4/6 - spores found (Twig Cankers)
1997	3/7 (S)	4/14 (S)	3/21 (S) 3/19 (Y)	
1996	3/7 (S)	4/25 (S) 4/25 (Y)	3/18 (S) 3/16 (Y)	4/11 - spores found 5/9 spores on leaves
1995	3/2 (S) 3/4 (Y)	5/2 (S) 5/5 (Y)	4/1 (S) 4/1 (Y)	
1994	2/28 (S)	4/11 (S)	4/4 (S) 3/26 (Y)	

S = Sutter County
Y=Yuba County

REPORT ALL CROP DAMAGE IMMEDIATELY

Any time you have significant crop damage from any source you should report it immediately to the Ag Commissioner's office. This enables them to keep an accurate record of crop losses. It can be very useful in getting your county qualified for USDA disaster assistance if such assistance becomes available. For federal assistance to be available, the local USDA FSA office must be able to show that a significant number of growers were hurt. Even if an individual grower is wiped out, if only a few growers were affected, they may be out of luck as far as federal programs go.

NEW PUBLICATIONS

- TREE FRUIT PEST IDENTIFICATION AND MONITORING CARDS, PUBLICATION 3426, \$15.00

Each pest is identified by a description and close-up photographs of important life stages. The information on these 32 cards will help pest control advisers and growers know how and when to look for these pests, both in the growing and dormant seasons. The cards will be available at the Sutter/Yuba UCCE Office soon.

- ABIOTIC DISORDERS OF LANDSCAPE PLANTS, DIAGNOSTIC GUIDE, PUBLICATION 3420, \$35.00

This new book contains a wealth of information to help diagnose abiotic disorders in landscape plants. The book includes strategies, techniques, and tools you can use in diagnosing plant problems, common injury symptoms and their abiotic causes, and plant traits that can resemble abiotic disorders. Illustrated with 319 color photographs and 38 tables, this book is a great book for landscape professionals. 248 pps.

U P C O M I N G M E E T I N G S

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COVER CROPPING, COMPOST AND WEED MANAGEMENT IN A
NO-TILL ORGANIC CLING PEACH SYSTEM
MAY 23, 2003
PANTALEONI ORCHARDS
(SEE INSIDE NEWSLETTER FOR DIRECTIONS)

COOPERATIVE EXTENSION
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