



UNIVERSITY OF CALIFORNIA ≈ COOPERATIVE EXTENSION
SUTTER/YUBA COUNTIES
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ORCHARD NOTES

October/November 2007

SUBMITTED BY JANINE HASEY, U.C. FARM ADVISOR

ORCHARD FLOOR MANAGEMENT

Herbicide Charts

The 2007 registration status of herbicides for trees and vines was recently updated by Extension Weed Specialist, Tom Lanini, from UC Davis. It is included for your reference in the back of the newsletter. Also included is the 2007 Susceptibility of Weeds to Herbicide chart which can also be accessed through the Pest Management guidelines at the UCIPM website at <http://ucipm.ucdavis.edu>. Go to the weed section under each individual crop.

Cover Crops

Winter annual cover crops should be seeded in the fall. For walnuts, there is a short window of time right after harvest before significant leaf drop and rainfall to have equipment and seed ready for planting. Advantages to a cover crop include reduced soil erosion, better fall and winter access, increased water infiltration, reduced runoff of pesticides, soil protection and stabilization, weed suppression, and extraction of atmospheric nitrogen by legume cover crops. Allowing resident vegetation to grow and mowing in the spring has many of these same advantages but often is sparser producing less biomass than a seeded cover crop.

Two handouts from the September cover crops meeting titled “Annual reseeding cover crop options for noncultivated orchards” and “Cost comparison of N from cover crops, compost, and N fertilizer” are available from our office. We also have “Cover Crops for Walnut Orchards”, ANR Publication 21627, a very complete guide to planting and managing cover crops.

FALL ORCHARD CHECKLIST

Preparations for planting a 2008 orchard

- Remove old tree roots where replanting
- Rip soil where there is hardpan. Fall ripping also increases water infiltration, thereby decreasing runoff.
- Sample the roots and soil for nematodes. If lesion nematodes (*Pratylenchus vulnus*) or Ring nematodes are found and you are planning on planting walnuts or peaches, fumigate in the fall while the soil is warm and dry.

- Ridge berms in the fall so they have time to settle over the winter. Planting trees on berms is an established practice in our area, especially on heavier soils. With berms, water moves away from the tree into the middle to help reduce crown and root rot and water logging during heavy rains, and to help avoid saturation in flood irrigated orchards.
- Plan ahead before planting future walnut or peach orchards. There are many considerations in planning for a successful, economically viable orchard such as soil type and water quality. For information on planning an orchard, visit http://cesutter.ucdavis.edu/newsletterfiles/Orchard_Notes7877.pdf . For more information on preparing an orchard for planting, visit http://cesutter.ucdavis.edu/newsletterfiles/Orchard_Notes9248.pdf

Peach Shothole disease control

- Spray at leaf fall in late November or early December before winter rains to protect against twig infections caused by the fungal disease Shothole. The fungicides Pristine, Ziram, and copper are effective in disease prevention. Visit <http://ipm.ucdavis.edu/PDF/PMG/fungicideefficacytiming.pdf> for more information on control.

Pruning walnut trees

- Prune deadwood on mature walnut trees after harvest before leaf fall while it is visible. Diseased wood from branch wilt and Botryosphaeria blight can be pruned out and destroyed reducing inoculum levels.

Review all harvest grade sheets and determine the cause of any quality problems.

- Adjust pest, irrigation, and nutrient management programs accordingly next season.

TRAINING/PRUNING YOUNG WALNUT TREES

There are several new walnut orchards in our two counties planted in conventional or hedgerow spacing. Many of the growers are new to walnut culture. Young walnut trees can be damaged by low temperatures so it is best to delay pruning 1-3 year old walnuts until late February or early March once the threat of a winter freeze is over. Training walnut trees properly is very important to having a long-term and productive orchard. I am planning on holding pruning clinics on training conventional and hedgerow walnut trees in late February or early March of 2008. Look for the announcement in "Orchard Notes" in early 2008. If any of you have a 1-3 year old conventional or hedgerow planting and are interested in offering your orchard for a meeting demonstration, please call me at 822-7515.

THE 2007 PEACH CROP

Fruit size was the main issue with the 2007 peach crop. Factors contributing to small fruit size included:

- Warm weather for the first 30 days after bloom (almost as warm as 2004). Heat accumulation 30 days after full bloom is the most important factor affecting peach fruit development and ultimately harvest date. In years where heat accumulation during this time period is high, early harvests with smaller fruit sizes are predicted such as in 2004 and 2007.

- A tremendously heavy set this spring so there were high numbers of fruit requiring higher than normal amounts of resources to meet potential fruit growth demands. This contributed to reference date sizes being smaller than in 2004 coupled with a more mild, cooler spring after the initial warm period.
- Growers leaving more total fruit on the trees than they could size after thinning. Even though we all knew it was a heavy set, I think we still underestimated just how much fruit set on the trees. It is especially difficult to determine the fruit load early in the season when the fruit is so small.
- Labor was scarce and expensive and with the heavy set, many growers got behind on their thinning. The earlier the thinning is done, the better potential to size fruit. Thinning early and mid-season varieties within 50 days of bloom can increase both fruit size and crop yields while leaving more fruit per tree than thinning at 80 days after bloom.

NEW PUBLICATION/WEBSITE UPDATES

"Growing Processing Cling Peaches in California: An Overview". Is available online at <http://anrcatalog.ucdavis.edu/pdf/8276.pdf> or as hard copy from our office.

Year-Round IPM Program for Walnut is available at <http://ipm.ucdavis.edu/PMG/selectnewpest.walnuts.html>. This program tells you what you need to be doing throughout the year in an overall IPM program. It includes a Year-Round IPM Program Annual Checklist.

Walnut Research Reports, 1971-2006

All the research reports can now be accessed online at <http://walnutresearch.ucdavis.edu> through the Fruit & Nut Information Center at UC Davis.

NRCS ANNOUNCES PROGRAM SIGN-UP PERIOD

The application period for USDA's Environmental Quality Incentives Program (EQIP) will remain open until **NOVEMBER 2, 2007**. EQIP was established by the 2002 Farm Bill to provide a voluntary conservation program for farmers and ranchers to address natural resource concerns. It promotes agricultural production, environmental quality, ground and surface water quality, and conservation on private lands. Generally, 50 percent cost-share is available for a number of conservation practices. Beginning farmers or ranchers, having operated a farm or ranch for less than ten consecutive years, and limited resource farmers may be eligible for higher cost-share rates. **APPLICANTS WHO WERE NOT FUNDED IN PREVIOUS YEARS MUST SIGN NEW DOCUMENTS TO BE CONSIDERED IN THE 2008 PROGRAM YEAR BEFORE NOVEMBER 2.**

Practices that increase irrigation efficiency, such as microjet and sprinkler systems, are eligible for cost-share through EQIP. Tailwater recovery, nutrient management, integrated pest management, field borders, filter strips, and cover crops are other examples of eligible conservation practices in the valley region.

To sign up for the 2008 Environmental Quality Incentives Program in Yuba or Sutter Counties, please visit the Natural Resources Conservation Service at 1511-B Butte House Road in Yuba City or call (530) 674-1461, ext. 3, **WELL BEFORE NOVEMBER 2** to provide appropriate documentation of agricultural production, ownership, and project location before the application deadline.

2007 Susceptibility of Weeds to Herbicides

Preemergence

Postemergence

	Carson	Karmex	Devrinol	Solicam	Surflan	Goal	Simazine	Treflan	Prowl	Kerb	Gallery	Roundup	MSMA	Gramoxone	2,4-D	Poast	Fusilade	Prism	
Annual Broadleaves																			
Cheeseweed (Malva)	C	P	P	P	P	C	P	N	N	P	C	P	N	P	P	N	N	N	
Chickweed	C	C	C	P	C	N	C	C	C	C	C	C	C	C	P	N	N	N	
Clover	P	P	P	N	N	P	C	N	N	N	P	P	N	P	P	N	N	N	
Fiddleneck	C	C	C	P	C	C	C	C	C	N	C	C	N	P	P	N	N	N	
Filaree	P	C	C	P	N	C	P	N	N	N	C	P	N	P	P	N	N	N	
Flax-leaved Fleabane	C	N	N	N	N	N	C	N	N	N		C	N	P	C	N	N	N	
Goosefoot	C	C	C	C	C	C	C	C	C	C	P	N	N	P	C	N	N	N	
Grousel	C	N	P	P	N	C	C	N	N	N	C	C	N	C	C	N	N	N	
Henbit	C	C	N	P	C	C	C	C	C	C	C	C	C	C	P	N	N	N	
Horseweed (Mare's tail)	P	N	N	N	N	N	C	N	N	N	P	C	N	P	C	N	N	N	
Knotweed	C	C	C	P	C	P	C	C	C	C	P	C	N	P	P	N	N	N	
Lambsquarter	C	C	C	P	C	C	C	C	C	C	C	N	N	N	C	N	N	N	
Mustard	C	C	P	P	N	C	C	N	N	C	C	P	N	C	C	N	N	N	
Nightshade	C	C	N	C	P	C	C	N	P	C	C	C	P	C	C	N	N	N	
Pigweed	P	C	P	P	C	C	C	C	C	N	C	C	N	C	C	N	N	N	
Prickly Lettuce	C	C	C	C	N	C	C	N	N	N	C	C	N	P	C	N	N	N	
Puncturevine	C	P	N	C	C	C	P	P	P	N		C	N	C	C	N	N	N	
Purslane	C	C	C	C	C	C	C	C	C	C	C	C	N	C	C	N	N	N	
Shepherdspurse	C	C	N	P	N	C	C	N	N	C	C	C	N	C	C	N	N	N	
Sowthistle	C	C	C	C	N	C	C	N	N	P	C	C	N	P	C	N	N	N	
Spurge	C	P	N	C	C	C	P	C	C	N	P	C	P	P	P	N	N	N	
Wild Radish	C	C	N	N	N	C	P	N	N	C	C	C	N	C	C	N	N	N	

Annual Grasses

Annual Bluegrass	C	C	C	C	C	P	C	C	C	C	P	C	N	P	N	N	N	C
Barnyardgrass	P	C	C	C	C	P	C	C	C	C	P	C	P	C	N	C	C	C
Crabgrass	P	C	C	C	C	N	P	C	C	C	P	C	C	C	N	C	C	C
Ryegrass	N	C	C	C	C	N	N	C	C	C	P	C	N	P	N	C	C	C
Wild Barley	C	C	C	C	C	P	C	C	C	C	N	C	N	P	N	C	C	C
Wild Oats	P	P	C	C	P	P	C	P	C	P	N	C	N	P	N	C	C	C
Fescues	P	C	C	C	C	C	C	C	C	C	N	P	N	C	N	N	N	N

Perennials

Field Bindweed	P	N	N	N	P	N	N	P	P	N	N	P	N	N	P	N	N	N
Burmudagrass	P	N	N	P	N	N	N	P	P	N	N	C	N	N	N	P	P	P
Dallasgrass	N	N	N	N	N	N	N	N	N	N	N	C	C	N	N	C	C	C
Johnsongrass	N	N	N	P	N	N	N	P	P	N	N	C	C	N	N	C	C	C

C = Controlled
 P = Partial Control
 N = Not Controlled

Weed Susceptibility lists are available on the UCIPM website <http://ipm.udcavis.edu>

Herbicide Registration on Horticultural Tree and Vine Crops--2007

Herbicide-Common Name (trade name)	Almond	Apple	Apricot	Cherry	Grape	Kiwi	Nectarine	Olive	Peach	Pear	Pecan	Prune	Walnut	Pomegranate	Pistachio	Citrus
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Preemergence

dichlobenil (Casoron)	N	R	N	R	R	N	N	N	R	R	N	R	N	N	N	
diuron (Karmex, Diurex)	N	R	N	N	R	N	N	R	R	R	R	N	R	N	N	R
EPTC (Eptam)	R	N	N	N	N	N	N	N	N	N	N	N	R	N	N	R
Flumioxazin (Chateau)	R	R	R	R	R	N	R	NB	R	R	NB	R	NB	N	R	N
isoxaben (Gallery)	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB
napropamide (Devrinol)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
norflurazon (Solicam)	R	R	R	R	R	N	R	N	R	R	R	R	R	N	N	R
oryzalin (Surflan, Farm Saver)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
oxyfluorfen (Goal)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	NB
pendimethalin (Prowl H ₂ O)	R	R	R	R	NB	N	R	N	R	R	R	R	R	R	R	R
pronamide (Kerb)	N	R	R	R	R	N	R	N	R	R	R	R	R	N	N	R
simazine (Princep, Caliber 90)	R	R	N	R	R	N	R	R	R	R	R	N	R	N	N	R
thiazopyr (Visor)	NB	N	NB	NB	NB	N	NB	N	NB	N	N	NB	NB	N	NB	R in Orange and Grapefruit
Trifluralin (Treflan)	R	R	R	R	R	NB	R	NB	R	NB	R	R	R	NB	NB	R

Post emergence

Carfentrazone (Shark)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Clethodim (Prism)	NB	NB	NB	NB	NB	N	NB	NB	NB	NB	NB	NB	NB	N	NB	R
2,4-D (Clean-crop, Orchard Master)	R	R	R	R	R	N	R	N	R	R	R	R	R	N	R	N
fluzifop-p-butyl (FusiladeDX)	NB	NB	R	R	NB	N	R	NB	R	NB	R	R	NB	NB	NB	N
glyphosate (Roundup, Touchdown)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
glufosinate (Rely)	R	R	N	N	R	N	N	N	N	N	R	N	R	N	N	N
halosulfuron (Sandea)	N	N	N	N	N	N	N	N	N	N	R	N	R	N	R	N
MSMA	NB	NB	NB	NB	N	N	N	N	NB	NB	N	NB	NB	N	N	R
Paraquat (Gramoxone Inteon)	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R
sethoxydim (Poast)	R	R	R	R	R	N	R	NB	R	R	R	NB	R	NB	NB	R

Note: This is intended as a general guide only. Before use of any herbicide, consult the label. Labels change frequently and often contain special restrictions regarding specific use of a company's product.

N = Not registered, NB = nonbearing, R = Registered

SUTTER/YUBA ORCHARD SPRAY FIELD MEETING

OCTOBER 25, 2007

SIERRA GOLD NURSERIES WAREHOUSE FACILITY, 5320 GARDEN HWY, YUBA CITY

- 8:30 Sign-in and Refreshments
- 8:50 WELCOME, MEETING OVERVIEW
Franz Niederholzer, UCCE Farm Advisor, Sutter/Yuba Counties
- 9:00 NEW SPRAY TECHNOLOGY DEMO AND DISCUSSION: CASE/IH AIM COMMAND™ SYSTEM
Robbie Ratcliff, Farm Manager/Safety Director, Sierra Gold Nurseries
Ken Giles, Professor, Agricultural and Biological Engineering Department, UC Davis
- 9:30 CALIBRATION BASICS AND DEMO
Lynn Wunderlich, UCCE Farm Advisor, Amador/El Dorado Counties
Franz Niederholzer, UCCE Farm Advisor, Sutter/Yuba Counties
- 10:30 GETTING THE MOST FROM YOUR PRE-EMERGENT HERBICIDE: STRIP SPRAYER CALIBRATION/SET UP.
John Roncoroni, UCCE Farm Advisor, Napa County
- 11:00 CALIBRATING AN AIRBLAST SPRAYER
Lynn Wunderlich, UCCE Farm Advisor, Amador/El Dorado Counties
Franz Niederholzer, UCCE Farm Advisor, Sutter/Yuba Counties
- 11:20 “GREEN” UP AN AIRBLAST SPRAYER. LOW DRIFT IDEAS FOR CONVENTIONAL AIRBLAST SPRAYERS
- “Cornell donuts”
 - Venturi nozzles
 - Retrofit with “eyes”
- Franz Niederholzer, UCCE Sutter/Yuba Counties*
- 11:35 DEMONSTRATION OF AIRBLAST SPRAYER NOZZLE SET UP AND EVALUATION.
Robbie McMurry, CURES
- 12:00 REVIEW OF NEW REGULATIONS TO PROTECT GROUND AND SURFACE WATER
Jan Kendel, Agricultural Biologist, Sutter County Agricultural Commissioners Office
Steve Anderson, Agricultural Biologist, Yuba County Agricultural Commissioners Office
- 12:30 MEETING ENDS

**Co-sponsored by UCCE, CURES, CAFF, Yuba/Sutter RCD
Sutter County and Yuba County Agricultural Commissioner’s Offices**

3.5 HOURS OF CE CREDIT REQUESTED

**Seating: There will be some short presentations
There will be 20 camp stools available, to guarantee a seat please BYOC (Bring Your Own Chair)**

University of California Cooperative Extension
Sutter County Agricultural Commissioner Office
Continuing Education Seminars

Updates on Walnut Husk Fly and Peach Twig Borer using this year-round IPM program for
walnuts and peaches

November 14, 8:30 A.M. to Noon

3 Hours (1/2 hours Laws and Regs) CE time has been applied for

8:30 SIGN IN

8:55 INTRODUCTION/MEETING OBJECTIVES

9:00 LEARNING AND USING THE YEAR-ROUND IPM PROGRAMS, *CAROLYN PICKEL, UC IPM ADVISOR*

9:45 UPDATES ON WALNUT HUSK FLY AND PEACH TWIG BORER USING THE YEAR-ROUND IPM PROGRAM
FOR WALNUTS AND PEACHES, *JANINE HASEY, UC FARM ADVISOR, SUTTER/YUBA COUNTIES*

10:30 BREAK

10:45 UPDATES ON THE NEW CUPA PROGRAM REGULATIONS, *HARDEEP BAINS, SUTTER COUNTY AG DEPT*
CLOSED MIXING SYSTEMS, *SCOTT BOWDEN, SUTTER COUNTY AG DEPT*
WHAT ERP MEANS AND HOW TO AVOID MONETARY PENALTIES
PERSONAL PROTECTIVE EQUIPMENT AND THE COST OF NOT READING LABELS, *JAN KENDEL/KIM HICKS,*
SUTTER COUNTY AG DEPT

November 29, 2007, 8:30 A.M. to Noon

3 Hours (1/2 hours Laws and Regs) CE time has been applied for

8:30 SIGN IN

8:55 INTRODUCTION/MEETING OBJECTIVES

9:00 LEARNING AND USING THE YEAR-ROUND IPM PROGRAMS
UPDATES ON WALNUT HUSK FLY AND PEACH TWIG BORER USING THE YEAR-ROUND IPM PROGRAM
FOR WALNUTS AND PEACHES, *JANINE HASEY, UC ADVISOR, SUTTER/YUBA COUNTIES*

9:45 UPDATES ON PRUNES AND ALMOND PESTS USING THE YEAR-ROUND IPM PROGRAM EARLY DORMANT
SPRAY PROGRAM, *FRANZ NIEDERHOLZER, UC FARM ADVISOR, SUTTER/YUBA COUNTIES*

10:30 BREAK

10:50 UPDATE OF DORMANT SPRAY REGULATIONS, *JAN KENDEL, SUTTER COUNTY AG DEPT*

11:15 INVASION OF THE CROP SNATCHERS: A CAUTIONARY TALE OF INTRODUCED RICE PESTS, *CHRIS GREER,*
UC RICE FARM ADVISOR

*Other meetings with different programs/topics will be on November 1 and December 6, 2007. Contact the
Agricultural Commissioner's Office at 822-7503 for the contents of these meetings.*

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SUTTER/YUBA ORCHARD SPRAY FIELD MEETING, OCTOBER 25, 2007

*UNIVERSITY OF CALIFORNIA CE AND SUTTER COUNTY AG COMMISSIONER'S OFFICE CONTINUING
EDUCATION SEMINARS NOVEMBER 14 AND NOVEMBER 29, 2007*