University of California
Agriculture and Natural Resources
UC Cooperative Extension

February 2015

Fruit and Nut Notes

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- Volume 3 -

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SACRAMENTO VALLEY REGIONAL PRUNE NEWSLETTER

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Full color articles and photos are available on our Website: cetehama@ucanr.edu

Prune Orchard Activities February – May

Katherine Pope, UCCE advisor Sacramento, Solano & Yolo Cos
Franz Niederholzer, UCCE advisor Colusa, Sutter, & Yuba Cos

Upcoming Meeting:

South Sacramento Valley Prune Grower Meeting, Wednesday, March 4, Yuba City

February:

Post San Jose scale pheromone traps by the end of February.

Order bee hives. The general rule is one hive/acre. Talk about fungicide sprays plans with your beekeeper (see article in this newsletter).

March:

Get orchard floor ready to minimize frost risk -- a closely mowed orchard is warmer than an orchard with tall weeds/cover crop. Considering frost risk, a loose, freshly disked soil is the coldest.

If you have sprinkler (impact or micro-jet) irrigation, maintain the system for frost control/orchard cooling. (See article in this newsletter.)

Protect newly planted trees (replants and new orchards) from sunburn and herbicides with white interior latex paint diluted 2:1 water to paint, plus tree wraps. If tree wraps are used without painting trees, the boxes should be flattened (◊ from the top, not □) to avoid "wrapper burn".

Get air-blast sprayer ready to apply bloom fungicides. Check calibration and do general maintenance (check sprayer filters, replace nozzles as needed, etc.)

Plan for brown rot if bloom time weather is wet. Flowers are susceptible beginning at green bud. Alternate fungicide classes when planning a two-spray program. Check that FRAC numbers on the label are different to ensure appropriate rotation (see FRAC numbers on tables in this newsletter.)

Consider spraying captan or chlorothanil (Bravo/Echo) at full bloom to reduce russet scab on fruit at harvest but pay attention to honey bee safety (see article in this newsletter). Russet scab develops when there is significant rainfall during and immediately after bloom.

Place order for peach twig borer traps. Traps should be up by April 1, at minimum of 2 traps per block. Obliquebanded leafroller (OBLR) traps should be up by April 15.

If you did not spray for aphids during the dormant season, bloom sprays can provide some control. Spraying 4 gallons of oil per acre at 1.5 mph twice during bloom, 7-10 days apart, generally provides adequate control. Oil should not be applied if captan, chlorothalonil or sulfur are applied because the combination can be phytotoxic.

April:

Evaluate crop load (mid-April) **before** applying nitrogen or potassium fertilizer. Crop load is THE major factor deciding nutrient needs in a mature orchard. The more fruit, the more nutrients required.

For foliar potassium nitrate applications, begin spraying in late April and make additional applications every 2-3 weeks.

Roots can take up nitrogen from early April through September. For optimal nitrogen uptake, apply multiple applications avoiding a single heavy spring application when rains may leach nitrate from the root zone.

May:

Monitor for prune rust starting May 1. Survey 40 trees every 1-2 weeks, paying close attention to non-bearing replants, exceptionally vigorous trees, and previous hot spots. Treat when the first leaf with rust is found.

Continue monitoring for mealy plum aphid. Oil sprays anytime from petal fall to May 15 can reduce mealy plum aphid to acceptable levels. Oil is not effective against leaf curl aphid at this stage.

Monitor for peach twig borer shoot strikes and fruit feeding 400 degree days after the first biofix. New larvae can be easily found at this time. UC IPM recommends sampling 1,200 fruit (15 fruit from 80 trees). Treat if 2% or more (24+ of 1,200) of the fruit have damage.

Monitor for oblique banded leaf roller 930 degree days after the biofix identified in April with pheromone traps. As with peach twig borer, collect 1,200 fruit and treat if 2% or more of the fruit have damage.

For more details on any pest management, visit www.ipm.ucdavis.edu/PMG/selectnewpest.prune.html

Heat at Bloom Update

Franz Niederholzer, UC Farm Advisor, Colusa/Sutter/Yuba Counties

Excessive heat, sustained temperatures above 80°F at bloom, can cause virtual crop failure in prunes. How bad can it be? In Sutter County, average prune yield per acre is in the range of 2.5 dry tons per acre over the last decade in good crop years. In 2004, 2005, and 2007, when temperatures reached above 80°F for 5-10 hours over several days at bloom, the Sutter County crop was 0.5, 0.7, and 0.6 dry ton per acre, respectively. In 2014, west of I-5 up and down the Sacramento Valley, max temperatures were above 80°F for several days. I believe these temperatures through bloom contributed to the low crop yield in many orchards in that region. In the Sutter/Yuba region, warm temps at early bloom were followed by a drop in temperature immediately following full bloom.

Prune production losses due to heat at bloom cost growers dearly in several ways. First, there is the obvious loss of income in those hot bloom years. Second and longer lasting, catastrophic losses force local and international packers to find other sources of prunes, fruit not grown in California, to fill their orders. Recovering that market share can be difficult, even with a high quality product such as California prunes.

What hot temperatures and weather patterns are most damaging to prune fruit set? In the three years of crop disasters in Sutter County, the bloom weather was similar:

- Early to normal bloom timing (March 10-15) with no rain from first flower to full bloom.
- Warm temperatures (70+°F daily maximum) begin early, even before any flowers open, and continue as bloom begins. These conditions help make a short, compact bloom period that can be more vulnerable to a spike in temperatures at the wrong time.
- Excessive heat (83+°F) occurs around full bloom and is sustained for at least two days. Extreme heat (85 -87°F max) right around full bloom seems to have a big role in damaging the crop set. Appearance of extreme heat early in bloom followed by cooler temperatures doesn't appear to harm the crop as much as heat at full bloom or closely after.

What can growers do if these conditions appear as bloom approaches? Run water. Even though running water has not dropped orchard temperatures dramatically in recent research, it does provide some small relief, usually just a degree (°F) or two lower temperatures, and may have some benefits we have not been able to measure in our recent research. Just the orchard surface foot of soil needs to be wet, so deep watering is not necessary. Run water when temperatures reach 70-75°F and shut off when they drop below those temps. The goal of running water is to drop orchard temperatures by evaporation. Evaporation is greatest when it is hot. When temperatures cool off in the evening, there is no need to keep running water. Is there anything else growers can do to save the crop if it gets hot at bloom? Not that research has shown to date. We will continue to look at possible spray options at bloom.

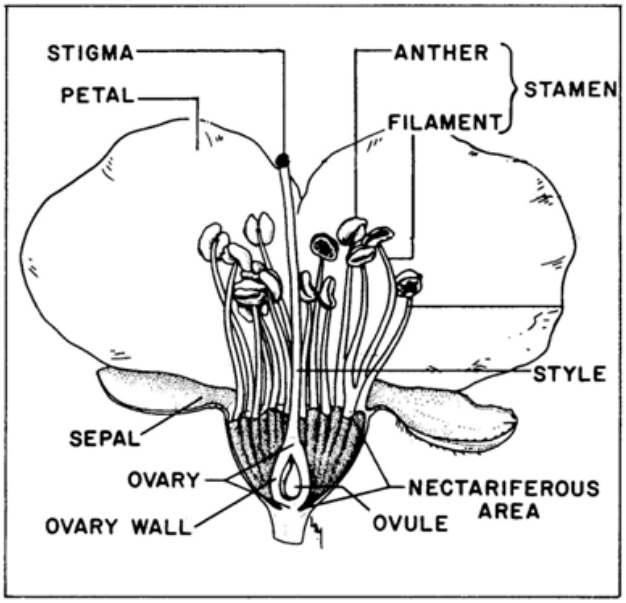
Honey Bee Safety During Prune Bloom

Franz Niederholzer, UCCE Farm Advisor, Colusa/Sutter/Yuba Counties
Emily J. Symmes, UCCE Area IPM Advisor, Sacramento Valley

Prune growers grow prunes. Beekeepers keep bees. Why should prune growers be concerned about long-term bee hive health? Because strong honey bee activity in prune orchards is key to producing a large, profitable prune crop. Prunes are self-fertile, but require bees (or other insects) to move pollen within flowers to set a crop. It is hard to manage native insects, but honey bee activity in an orchard can be guaranteed by renting healthy hives from beekeepers as long as the beekeepers can keep healthy hives and stay in business. The beekeeping business is very challenging, including rising input costs and risks to hive health. Prune growers should do all they can to maintain a strong, healthy bee supply by providing a safe working environment for bees in their orchards.

The single most important thing growers can do to maintain bee health in their orchards is to KEEP THE POLLEN CLEAN. Pollen is collected by foraging bees and taken to the hive where it is used as a source of proteins, fats, vitamins and other required nutrients for the brood (the young bees growing in the hive frames). Pesticide contaminated pollen – pollen directly sprayed with pesticides – can damage hive health when fed to the growing brood by worker bees. Pollen is released by some of the anthers in each flower in the morning as relative humidity drops and the orchard warms (see Figure 1). Strong bee activity usually strips all pollen available that day from the flowers by early to mid-afternoon. More anthers will "pop" each day to provide pollen for several days from the same flower. For this reason, fungicides sprayed the previous afternoon or evening will not contaminate pollen that pops the following morning.

Figure 1. Cross-section of a prune flower, showing different flower parts.



Of particular concern to prune growers and hive health is the full bloom scab spray. Chlorothanil and captan, the materials used for scab control, are toxic to bee brood. To avoid contaminating pollen with these materials while bees are active in the area, spray in the late afternoon or night when the day's pollen has been stripped from the flowers by bees or arrange with your beekeeper to have hives removed for the season just before your full bloom application. Note: Spraying in the evening and into the night is preferable to starting early in the morning, as it is important to ensure that the fungicide spray has time to dry before new flowers open, anthers shed pollen, and bees begin foraging. Delaying your "full bloom spray" into the beginning of petal fall may give the beekeeper time to remove the hives before you have to spray. Communication with beekeepers is key to pulling off this arrangement.

Additional practices for bee health in orchards include:

Communicate with beekeepers, bee brokers, PCAs, PCO's, employees and the county Ag Commissioner's office regarding field activities, especially spray timings and materials.

During bloom, spray only fungicides. Additional research is needed to determine the impact of newer "soft" insecticides on bee hive (adult bees AND brood) health. To be safe, keep all other pesticides out of the tank for now. Very little research has been done on the impact of adjuvants and nutrients on hive health. If dry weather occurs at bloom, only one spray – applied between 30-100% bloom – is needed. Full bloom is the most important timing for disease protection.

Check for bee activity before spraying, even if your rented hives haven't yet been delivered. Bees can fly miles to a good pollen source like prune flowers. Treat all bees the same in your orchard, no matter the source.

Provide clean water for bees. A 5-gallon bucket containing clean water and a burlap bag hung over the edge of the bucket or partially submerged in the water provide bees with safe access to water. Cover or remove water sources prior to any pesticide application.

Keep spray off hives. Do not spray hives directly with any pesticide.

Avoid, as much as possible, spraying flying bees. Aside from toxicity concerns, bees will not be able to fly because of the weight of spray droplets on their wings.

Avoid pesticide application or drift onto blooming weeds in or adjacent to the orchard.

Know the impacts of particular fungicides on honey bees and choose materials accordingly. The following fungicides have significant negative impacts on hive health and should be avoided or used with caution during bloom: chlorothanil (Bravo®, etc.), iprodione (Rovral®, etc.), captan, and ziram.

Agree on proper hive removal timing. Bees should be removed from the orchard when 90 percent of flowers are at petal fall. Past this point, no pollination is taking place. If the weather looks good for prune pollination and crop set, some growers remove hives early – before 90% petal fall – to try to reduce excessive fruit set that will stress trees and require thinning later in the season.

After removal of bees from an orchard, communication with neighbors remains important because other bees may still be foraging nearby.

If you suspect pesticide-related damage to honey bees, immediately report this to your county agricultural commissioner. Preserving some adult bees, brood, pollen, honey, nectar, and/or wax by immediately collecting and freezing in clean, labeled containers may be helpful for follow-up on the incident. Signs to look for:

- Excessive numbers of dead or dying adult honey bees in front of hives
- Dead newly-emerged workers or brood (developing larvae) at the hive entrance
- Lack of foraging bees on a normally attractive blooming crop
- Adult bees exhibiting stupefaction (dazed, unconscious, etc.); paralysis; jerky, wobbly, or rapid movements; spinning on the back
- Disorientation and reduced efficiency of foraging bees
- Immobile or lethargic bees unable to leave flowers
- Bees unable to fly and crawling slowly as if chilled
- Queenless hives

PRUNE (DRIED PLUM): FUNGICIDE EFFICACY

Fungicide	Resistance risk (FRAC#)[1]	Brown rot		Russet scab	Rust
		Blossom	Fruit[2]		
Adament	medium (3/11)	++++	++++	----	+++
Bumper/Tilt[2]	high (3)	++++	++++	----	+++
Distinguish**	medium (9/11)	++++	++	----	++
Elite/Tebuzol[2,7]	high (3)	++++	++++	----	+++
Indar[2]	high (3)	++++	++++	----	+++
Inspire Super	high (3/9)	++++	++++	----	+++
Luna Sensation*[2]	medium (7/11)[4]	++++	++++	ND	ND
Pristine[2]	medium (7/11)[4]	++++	++++	ND	ND
Quash [2]	high (3)	++++	++++	----	+++
Luna Experience*	medium (3/7)[4]	++++	++++	ND	++++
Quadris Top[2]	medium (3/11)[4]	++++	++++	ND	++++
Quilt Xcel[2]	medium (3/11)[4]	++++	++++	ND	++++
Rovral + oil[2,5]	low (2)	++++	NR	----	NR
Scala[6]	high (9)[3,4]	++++	+++[6]	----	ND
Topsin-M /T-Methyl/Incognito+ oil[2,4]	high (1)[4]	++++	++++	----	----
Vangard[6]	high (9)[3,4]	++++	+++[6]	----	ND
Fontelis	high (3)	++++	+++	----	+++
Elevate[2,7]	high (17)[4]	+++	+++	ND	----
Rovral/Iprodione /Nevado[2]	low (2)	+++	NR	----	NR
Topsin-M/T-Methyl/Incognito [2,3]	high (1)[4]	+++	+/-	----	----
Abound	high (11)[4]	++	+	----	+++
Botran	medium (14)	++	++	ND	ND
Bravo/Chlorothalonil/Echo/Equus[8,9,10]	low (M5)	++	++	++	----[9]
Captan[7,8,10]	low (M4)	++	++	+++	----
Gem[7]	high (11)[4]	++	+	----	+++
Rally[2]	high (3)	++	++	----	----
Sulfur[10]	low (M2)	+/-	+/-	----	++

Rating: ++++= excellent and consistent, +++= good and reliable, ++= moderate and variable, += limited and erratic, +/- = often ineffective, ---- = ineffective, ? = insufficient data or unknown, NR=not registered after bloom, and ND=no data

*** Registration pending in California.**

****Not registered, label withdrawn or inactive**

[1] Group numbers are assigned by the Fungicide Resistance Action Committee (FRAC) according to different modes of actions (for more information, see http://www.frac.info/). Fungicides with a different group number are suitable to alternate in a resistance management program. In California, make no more than one application of fungicides with mode of action Group numbers 1, 4, 9, 11, or 17 before rotating to a fungicide with a different mode of action Group number; for fungicides with other Group numbers, make no more than two consecutive applications before rotating to fungicide with a different mode of action Group number..

[2] Fruit brown rot treatments for fungicides in FRAC Groups 1,2, 3, 17, 7/11 are improved with the addition of 2% light summer oil. The oil is "light" summer oil (1-2% vol/vol). If applied in summer, fruit will loose their waxy bloom and look red. They will dry to normal color.

[3] Strains of *Monilinia fructicola* and *M. laxa* resistant to Topsin-M and T-Methyl have been reported in some California prune orchards. No more than two applications of Topsin-M or T-Methyl should be made each year. Resistant strains of the jacket rot fungus, *Botrytis cinerea*, and powdery mildew fungi have been reported in California on crops other than almond and stone fruits and may have the potential to develop in prune with overuse of fungicides with similar chemistry. Subpopulations of both *Monilinia* spp. have been shown to be resistant to AP (FRAC 9) fungicides on prune in CA.

[4] To reduce the risk of resistance development start treatments with a fungicide with a multi-site mode of action; rotate or mix fungicides with different mode of action FRAC numbers for subsequent applications, use labeled rates (preferably the upper range), and limit the total number of applications/season.

[5] Blossom blight only; not registered for use after petal fall.

[6] High summer temperatures and relative humidity reduce efficacy.

[7] Registered for use on fresh prunes only.

[8] Do not use in combination with or shortly before or after oil treatment.

[9] Do not use after jacket (shuck) split.

[10] Do not use sulfur, captan, or chlorothalonil in combination with or shortly before or after oil treatment.

[11] Quash, Elite, Tebuzol, Gem, Scala and Pristine are registered for plums and prunes (dried plum) in California.

PRUNE (DRIED PLUM): TREATMENT TIMING

Note: Timings listed are effective but not all may be required for disease control. Timings used will depend upon orchard history of disease, length of bloom, and weather conditions each year.

Disease	Green bud	White bud	Full bloom	May	June	July
Brown rot[1]	+++	+++	+++	----	+	++
Russet scab[2]	----	----	+++	----	----	----
Rust[3]	----	----	----	+	++	+++

Rating: +++ = most effective, ++ = moderately effective, + = least effective, and ---- = ineffective

[1] Flowers are susceptible beginning with the emergence of the sepals (green bud) until the petals fall but are most susceptible when open.
[2] A physiological disorder; no pathogens involved.
[3] More severe when late spring rains occur.

Pesticide Safety Train-the-Trainer Workshops being offered by UC IPM

March 12, 2015: Davis

Training run from 8 am to 5 pm and include continental breakfast and lunch.

Participants who complete this training will become qualified to provide pesticide safety training to fieldworkers and pesticide handlers, as required by California state regulations. Hands-on training techniques and group activities will be used to demonstrate ways to extend pesticide safety information in an interactive and effective manner. This training is approved by the California Department of Pesticide Regulation (CDPR).

All classes will be conducted in English with option to purchase course materials in Spanish.

Registration is online only (http://www.ipm.ucdavis.edu/events). Cost is $150. Space in these trainings is limited to 30 people.

South Sacramento Valley Prune Grower Meeting

Co-sponsored by University of California Cooperative Extension & the Sutter Co Ag Commissioner's office

March 4, 2015

Veterans Memorial Community Building, 1425 Veterans Circle Dr., Yuba City

PCA and CCA CE hours requested

Morning Refreshments and Lunch courtesy of Farm Credit West. Thank you!

8:00 **Sign-in and refreshments**

8:30 **Dried plum nutrition research and marketing outlook.**
Donn Zea, Executive Director, California Dried Plum Board

9:00 **Development of Nutrient Management Tools for Prunes**
Ignacio Sepúlveda Hidalgo, Plant Sciences Department, UC Davis

9: 30 **Plum pox virus review and update**
Joe Turkovich, grower

Please RSVP for lunch to mlsearcy@ucanr.edu or

10:00 **Break**

10:15 **Wood rot disease review**
Bob Johnson, UC Davis Plant Pathology Department

10:45 **Flower, leaf and fruit disease control in dried plums**
Jim Adaskaveg, Professor, UC Riverside Department of Plant Pathology

11:30 **Ag Commissioner's report**
Jan Kendel, Sutter County Ag Commissioner's Office

Hosted lunch and Speaker

(Mexican and Punjabi dishes, vegetarian options available)

Lunch speaker: **Dr. Katherine Pope,** *UCCE Farm Advisor, Sacramento/Solano/Yolo Counties*
Topic: **Chilling Effects on Prune**

Cooperative Extension Sutter-Yuba Counties ¨ 142A Garden Highway, Yuba City, CA 95991-5512
Office (530) 822-7515 ¨ Fax (530) 673-5368 ¨ http://cesutter.ucanr.edu/

A Celebration of Science and Service

Food Safety Workshop for Small Farms

Thursday, March 5, 2015

9:00-5:30 pm

Northern Valley Catholic Social Services, Rooms A and B

2400 Washington Avenue, Redding, CA

- Are you interested in learning about the new food safety law and what it means for your farming operation?
- Do you want to develop a food safety program for your farm?
- Do you want to sell your product in new markets (to local schools, retailers, etc.), but are constrained by food safety requirements?

The University of California Cooperative Extension, UC Berkeley and Community Alliance with Family Farmers invite you to participate in a full day **FREE** workshop followed by phone consultation or on-farm follow up support, where you will learn about:

- What food safety is and why it's important,
- What food safety laws may affect your farming operation,
- How to assess food safety risks and your farm,
- What steps you need to take to develop a food safety program for your farm, and resources that are available to help you to get started. We will focus specifically on the farm and will not be covering food safety for food processing. Stay tuned for classes on that topic!

Upon completion of the training, you will receive:

- A California Small Farm Food Safety Guidebook that provides detailed guidelines on specific GAPS Policies and Procedures that comply with USDA and other industry food safety standards and requirements. Included are various standard operating procedures, worker training guides and record-keeping forms.
- A simple Food Safety Manual/ Self-Audit template that you can use or tailor to your farming operation.
- A more detailed on-farm food safety risk assessment tool, which helps you identify risks on your farm and can also serve as a self-audit.
- A resource guide, with additional food safety resources, and where to obtain lab tests, etc.

For more information, or to sign up contact: Linda Vazquez, Shasta UC Cooperative Extension Call 530-224-4900 or email lmvazquez@ucanr.edu

Free Lunch Provide by the organizers. Please RSVP so we can plan for the Lunches and reserve your spot!

It is the policy of the University of California (UC) and the UC Division of Agriculture & Natural Resources not to engage in discrimination against or harassment of any person in any of its programs or activities (Complete nondiscrimination policy statement can be found at http://ucanr.edu/sites/anrstaff/files/187680.pdf)

Inquiries regarding ANR's nondiscrimination policies may be directed to Linda Marie Manton, Affirmative Action Contact, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1318.

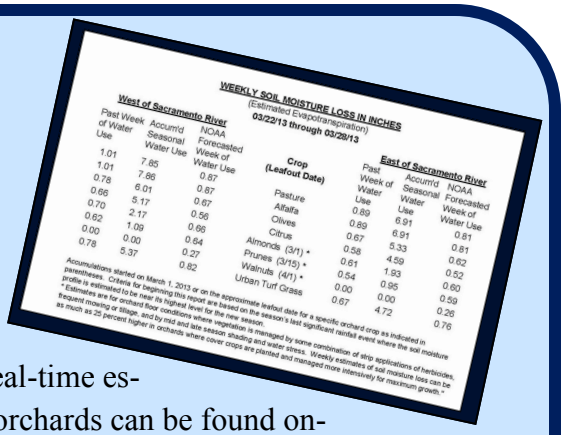
2015 Pest Updates starting soon

Be looking for the updates to begin in mid-March

Go to - Tehama UC Cooperative Extension's website:
http://cetehama.ucanr.edu/Orchard_Crops/Insect_Updates/

2015 Crop ET Reports

Are now available online



WEEKLY SOIL MOISTURE LOSS IN INCHES
(Estimated Evapotranspiration)
03/22/13 through 03/28/13

West of Sacramento River			Crop (Leafout Date)	East of Sacramento River		
Past Week of Water Use	Accum'd Seasonal Water Use	NOAA Forecasted Week of Water Use		Past Week of Water Use	Accum'd Seasonal Water Use	NOAA Forecasted Week of Water Use
1.01	7.85	0.87	Pasture	0.89	6.91	0.81
1.01	7.85	0.87	Alfalfa	0.89	6.91	0.81
0.78	6.01	0.67	Olives	0.67	5.33	0.62
0.66	5.17	0.56	Citrus	0.58	4.59	0.52
0.70	2.17	0.66	Almonds (3/1) *	0.61	1.93	0.60
0.62	1.09	0.64	Prunes (3/15) *	0.54	0.95	0.59
0.00	0.00	0.27	Walnuts (4/1) *	0.00	0.00	0.26
0.78	5.37	0.82	Urban Turf Grass	0.67	4.72	0.76

Accumulations started on March 1, 2013 or on the approximate leafout date for a specific orchard crop as indicated in parentheses. Criteria for beginning this report are based on the season's last significant rainfall event where the soil moisture profile is estimated to be near its highest level for the new season.
* Estimates are for orchard floor conditions where vegetation is managed by some combination of strip applications of herbicides, frequent mowing or tillage, and by mid and late season shading and water stress. Weekly estimates of soil moisture loss can be as much as 25 percent higher in orchards where cover crops are planted and managed more intensively for maximum growth.

Another irrigation season is underway and many almond, walnut and prune orchards have already been irrigated to recharge tree root zones. A convenient source of weekly, real-time estimates of crop ET and in-season rainfall for orchards can be found online at **http://cetehama.ucdavis.edu**. Select the "Water/Irrigation Program" option from the menu on the left. Then, select "Weekly Soil Moisture Loss Reports".

SAVE THE DATE

Nickels Field Day

May 2015

Location - Nickels Soil Lab

Arbuckle, CA

For more information call .....UCCE Colusa Office at (530) 458-0570.

HEALTHY FOOD SYSTEMS • HEALTHY ENVIRONMENTS • HEALTHY COMMUNITIES • HEALTHY CALIFORNIANS

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UC COOPERATIVE EXTENSION
TEHAMA COUNTY

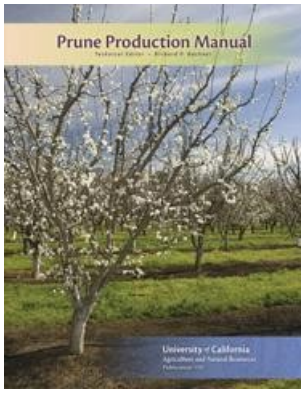
1754 Walnut St, Red Bluff, CA 96080 — (530) 527-3101

Publications

Find these publications and more at the **UC Cooperative Extension Offices** or the UC Publication Website:

http://anrcatalog.ucdavis

Prune Production Manual



Pub #3507 $45.00

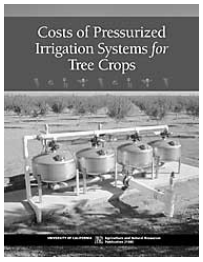
The breadth of expertise and knowledge contained in the 320 pages of this manual, along with the more than 300 photos and 56 color illustrations make this one of the most comprehensive prune production manuals in the world.

Weed Pest Identification and Monitoring Cards

Pub #3541 — $ 25.00

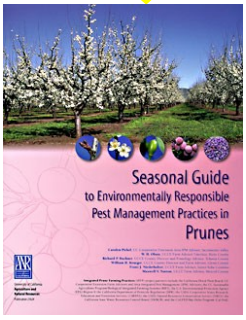
These 48 cards cover the most common weeds, grouped into 8 categories for easy identification.

- Broadleaf annuals, erect
- Broadleaf annuals, low growing
- Broadleaf annual, scrambling
- Broadleaf perennials, not viney
- Broadleaf perennials, viney
- Grass annuals
- Grass perennials
- Sedges



Pub #21585 $5.00

This handy reference guide (**Costs of Pressurized Irrigation Systems**) presents capital costs and annualized costs estimates for four of the most common types of pressurized systems. Includes details about the design of each system and explains how to adapt these estimates to your orchard.



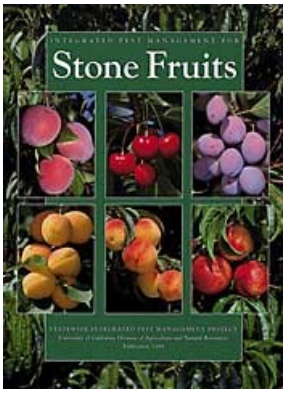
Pub #21624—$7.00

This easy to use decision guide is packed with information to help prune growers make environmentally responsible pest management decisions year-round.

Pub #3383— $7.00

This manual covers information essential for anyone using pesticides on California farms, including growers, managers and employees. The book covers pesticide labels, worker safety (handlers and fieldworkers), how to mix and apply pesticides, calibration, the hazards of pesticide use.

Integrated Pest Management for Stone Fruits



Pub #3389 $35.00

An indispensable guide to establishing a pest management program, diagnosing pest problems, identifying and using beneficial insects, and establishing new orchards.

Tree Fruit Pest Identification and Monitoring Cards

Pub# 3426 - $ 15.00

Carry these pocket-sized laminated cards in the field to identify and monitor major insect and mite pests and several important diseases.

"FREE" On-Line Information & Resources

Cost Study Guides
http://coststudies.ucdavis.edu

Prune: UC IPM Pest Management Guidelines

These official UC-approved guidelines for pest monitoring techniques, pesticide use, and nonpesticide alternatives for agricultural crops are essential tools for anyone making pest management decisions in the field. This guideline covers prunes.

Website address:
http://www.ipm.ucdavis.edu/PDF/PMG/

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FRUIT & NUT NOTES

SACRAMENTO VALLEY REGIONAL PRUNE NEWSLETTER

The "SACARAMENTO VALLEY REGIONAL PRUNE NEWSLETTER" is a collaborative effort of prune research specialists working together to provide Sacramento Valley growers and industry leaders the latest research and information effecting prune production in today's changing environment. This newsletter will be published quarterly, be sure to look for upcoming issues!

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To simplify information, trade names of products may have been used but no endorsement of named product is intended, nor is criticism implied of similar products, which are not mentioned.

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