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University of California
Agriculture and Natural Resources
Making a Difference for California
Cooperative Extension Sutter-Yuba Counties

Orchard Notes

February, 2013

In This Issue

Submitted by:

Janine Hasey,
UC Farm Advisor,
Sutter-Yuba-Colusa Counties

Sutter-Yuba-Colusa

Walnut Day

Thursday, February 21, 2013,
1:00 p.m. – 4:30 p.m.
Veterans Memorial Hall, 1425 Veteran's Memorial Cir, Yuba City

12:15 p.m. **Registration**

1:00 p.m. **Welcome and Moderator**
Janine Hasey, UC Farm Advisor, Sutter/Yuba/Colusa Counties

Considerations when planting and pruning a new walnut orchard,
Janine Hasey, UC Farm Advisor, Sutter/Yuba/Colusa Counties

Optimum walnut canopies: spacing trees for both early and mature production, *Dr. Bruce Lampinen, Pomology Specialist, UC Davis*

Managing Anthracnose Blight and Botryosphaeria and Phomopsis Cankers of Walnut, *Dr. Themis Michailides, Plant Pathologist, UC Davis*

Laws and Regulation Update, *Jan Kendel, Sutter County AG Dept*

Break 2:45 ***Refreshments Courtesy of California Valley Nut Company***

Walnut Blight Session
Control Materials Update
Dr.Jim Adaskaveg, Plant Pathologist, UC Riverside
What happened in 2012? *Rick Buchner, UC Farm Advisor, Tehama County*
Q & A session on Walnut Blight

YOUR ASSESSMENT AT WORK: 2013 California Walnut State of the Industry
Dennis Balint, Executive Director/CEO, California Walnut Board/Commission
Jennifer Olmstead, Marketing Director, Domestic
Carl Eidsath, Technical Support Director

Adjourn 4:30 p.m.

Sponsored by: University of California Cooperative Extension, Sutter/Yuba and Colusa Counties
Co-Sponsored by: Sutter County Agricultural Department

2.0 hours PCA credit pending and 3.0 hours CCA Credit approved

Parking at Veterans Hall: Parking is limited at Veteran's Hall. There is spillover parking at the Sheriff's Office on Civic Center Blvd. Please do not park in patient parking at Health Dept.

Walnut Pruning Field Meeting

Tuesday, March 5th, 2013

10:00 am – 11:30 noon

Location: Nickels Soil Lab, Arbuckle (see map)

We will discuss the 5 year old
pruning vs. no pruning trial for Chandler planted in a hedgerow.
We will also look at different pruning treatments on Forde and Gillet

The workshop will be conducted by UC Farm Advisor & Specialist:

Janine Hasey, Sutter/Yuba/Colusa Counties;
Bruce Lampinen, Pomology Specialist, UC Davis

IN THE EVENT OF RAIN; MEETING WILL BE HELD ON MARCH 6th 10:00am

Walnut Training Field Meeting

Thursday, March 7th, 2013, 10:00am

Chima Farms
Between 5367 and 5439 Carlson Road, Yuba City
Between intersections Oswald Road to north, Hutchinson Road to south
Park along road. Look for UC signs.

UC Farm Advisor Janine Hasey, Sutter/Yuba/Colusa counties, will compare and demonstrate pruning one year old walnuts for standard spaced and hedgerow walnuts. She will also discuss the no-prune method of training walnuts.

IN THE EVENT OF RAIN; MEETING WILL BE HELD ON MARCH 8th 10:00am

Questions: UCCE Sutter-Yuba Office at 530-822–7515 or
look at the website for updated information at cesutter.ucanr.edu

Efficient Walnut Spraying

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

A properly setup and calibrated air-blast sprayer is a key part of effective and efficient pest management and reduces the risk of spray drift and environmental contamination. Here are the steps to proper air-blast sprayer setup/calibration in walnuts. Most of this information is applicable to most deciduous orchard spraying.

The air generated by the sprayer's fan carries the spray droplets to the target. Most sprayers have fixed fan pitches, so changes in ground speed are the most common tool for adjusting sprayer fan air -- and pesticide movement -- in the canopy. Drive too fast and the spray air doesn't reach the tree tops. Drive too slowly and you are wasting fuel and time and risking increased drift. Adding more spray volume won't fix the problem. The extra liquid will only go as far as the fan air.

To deliver sprayer fan air – and pesticide droplets – most efficiently throughout the tree canopy, determine the tractor + sprayer speed (driving through the orchard with the fan running) that will just cause a length of brightly colored surveyors tape, tied in the top of the tallest tree, to rustle nicely. If the tape doesn't move when the sprayer goes by, slow down and try again. If it stands straight up, speed up as more air than is needed is being delivered. When the tape moves significantly, but doesn't standing straight out, write down the tractor and sprayer settings and move on to the next step. Thanks to Kim Blagbourne at Slimline Manufacturing for the tip on the tape.

Decide what spray volume – gallons per acre – you will be spraying. Spray volume influences the type of coverage. For example, do you want a gentle coating of separate droplets on a leaf or a washing of the entire leaf surface? Refer to the label and/or your PCA or manufacturer's rep for spray volume per acre recommendation.

Next, park the sprayer in the orchard to be sprayed and designate for use the nozzles (tips and cores) on each spray boom to best target the tree canopy. Shut off the rest of the nozzles. Calculate total sprayer output volume per minute desired based on ground speed (Step 1) and desired spray volume (Step 2). Use manufacturer's specs for spray volume per minute per nozzle in selecting nozzles. More spray volume (bigger tips and cores or more nozzles) should be placed on the spray boom adjacent to and pointed at the thickest part of the canopy. The same nozzle tip and core should go on the same location on each side of the sprayer. For cover sprays for blight and codling moth, a general rule is that two thirds of the spray volume should be delivered from the top half of the open nozzles. For husk fly spraying when bait is in the tank use the top few nozzles that target the upper canopy. Don't use the nozzles pointing at the middle to lower canopy for husk fly spraying. Big drops and modest coverage in the tops of the trees are the goal in spraying for husk flies when using bait in the spray solution.

Field check the coverage delivered by the nozzles you have set up in Step 3. With the sprayer going, drive the tractor+sprayer down the row at the speed determined in Step 1. Use water sensitive paper or coloring agent in the tank (Surround™ clay, food coloring, etc.) to show the quality of spray coverage at different locations in the tree canopy. Use a pruning town to grab leaves from different locations in the canopy or poles to position the water sensitive papers up and down the tree canopy. If inadequate coverage is found anywhere in the canopy, adjust ground speed and/or nozzle placement to achieve good coverage of the desired type throughout the tree.

Calibrate the sprayer to determine if the desired spray volume (gallons per acre) is actually being delivered. The formula to determine gpa is The Spray Rate (gallons per minute) divided by the Land Rate (acres per

minute). Measure the acres sprayed per minute by multiplying distance the sprayer traveled in a minute at the proper speed for good coverage (Step 1) by the trunk to trunk distance across the row. Determine the actual gallons per minute sprayed at the settings determine in the earlier steps by filling the sprayer completely full of water and then running the sprayer -- using the selected nozzles -- motionless on a flat surface for several minutes. Refill the spray tank completely using a flow meter on a hose or graduated buckets. Divide gallons per minute sprayed by acres per minute covered and you will have spray volume per acre (gallons per acre). Since you know the sprayer tank size (good to check with the flow meter on the hose), when you spray you can accurately measure the concentrated pesticide into the tank to match the recommendation from your PCA. You have already made sure that excellent coverage will be delivered. Some growers measure the flow from each nozzle to make sure that the output of each one matches the manufacturer's specs and then add those volumes together to determine gallons per minute sprayed. This takes more time, but ensures that the output from each nozzles is accurate.

For the most efficient spray application throughout the season, repeat Steps 1-5 at different times of the year. The tractor speed should decrease through the season as the canopy fills in. With this approach, you will save money early in the year and ensure the best possible coverage throughout the season.

Lower Snake River Area Eligible for Conservation Funding

*Eligible producers are encouraged to apply for assistance by **February 15, 2013***

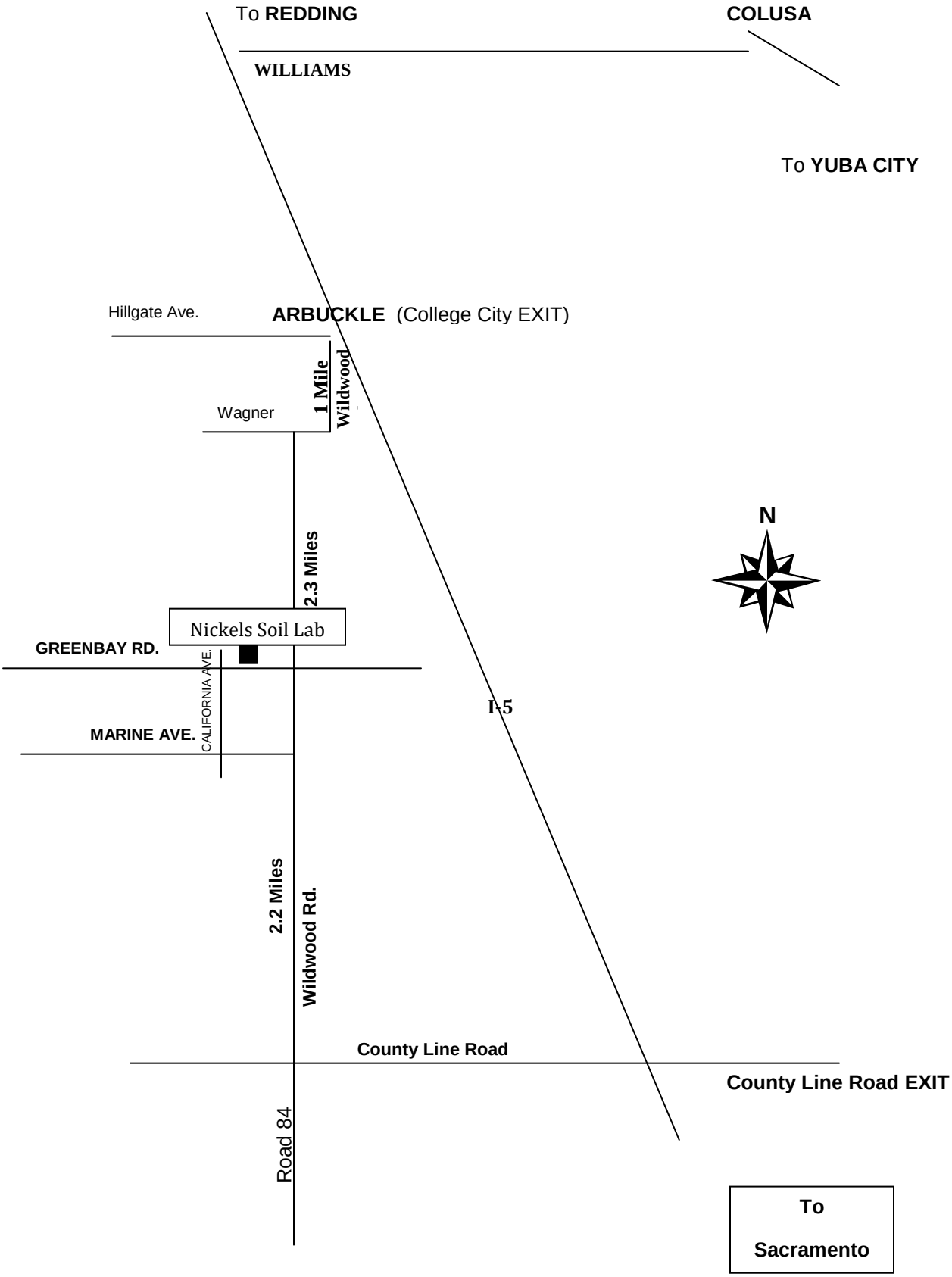
The Natural Resources Conservation Service (NRCS) in California is making $1.6 million available to agricultural producers in the Lower Snake River Watershed in Sutter County for water quality and water conservation projects. Applications are due by February 15, 2013.

The Lower Snake River focus area is within the Sutter County section of the Lower Feather River Watershed that drains to the Lower Snake River and Wadsworth Canal. The focus area boundaries are defined as east of the Sutter Buttes and north of Yuba City to the Butte County line. This initiative provides financial and technical assistance to agricultural producers who are willing to improve irrigation systems; implement irrigation water management; and adopt vegetative filtering practices on irrigated cropland.

The Lower Snake River - Sutter County Irrigated Cropland Water Quality and Conservation Management Program is targeted specifically to irrigated orchards with emphasis on 1) water conservation (improved irrigation systems and irrigation water management); 2) water quality improvements (pest management and erosion control).

The primary practices needed are irrigation conversions from flood to micro and/or sprinkler systems, irrigation water management, and vegetative orchard floor cover crops.

Eligible producers who submit applications and other required documents by close of business on February 15, 2013, will be considered for this Fiscal Year 2013 funding cycle. Funding decisions will be made according to the highest priority list of screened and ranked applications available at that time. Applications will continue to be accepted after this deadline, but ranking and funding decisions will be deferred until the next funding cycle. For additional information, eligible producers are encouraged to contact the NRCS Service Center in Yuba City, 1511 Butte House Road, Suite B, Yuba City, CA 95993 or call 530-674-1461.



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