



Olive News



January 7, 2004
Vol. VI No. 1

IN THIS ISSUE

Olive Fly Pest Control District Meeting Reminder

California Olive Day

New Olive Cost Study

Suggestions for Reducing Costs

Bill Krueger
Farm Advisor

In accordance with applicable State and Federal laws and University policy, the University of California does not discriminate in any of its policies, procedures, or practices on the basis of race, religion, color, national origin, sex, marital status, sexual orientation, veteran status, age, medical condition, or handicap. Inquiries regarding this policy may be addressed to the Affirmative Action Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6th Floor, Oakland, CA 94612-3560. (510) 987-0097.



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

Olive Fly Pest Control District Meeting Reminder

If you grow olives in Glenn County, by now you should have received an announcement from the Glenn County Olive Pest Management District of a special district meeting which is being held to discuss possible EQIP funding for olive growers and the Olive Pest Management District for control of the Olive Fly. The meeting will be held at the Orland Memorial Hall on Thursday, January 15, 2004 at 10:00 a.m.

These monies could be used to help growers with Olive Fly control costs in their orchards and the Olive Pest Management District with costs associated with controlling the pest in abandoned and neglected orchards which will include a voluntary tree removal program.

If you are interested in this program, you will be able to sign up for it at the meeting. It is important that you attend to be involved in the process.

California Olive Day

The UCCE Statewide Olive Day will be held again this year in Sacramento at the Convention Center in conjunction with California League of Food Processors Convention on Feb. 4, 2004. The program will start at 9:00 a.m. and conclude at 1:00 p.m. The registration fee of \$30 includes the Olive Day, lunch and a 1 day pass to the Convention Exposition. Included in this mailing is the agenda and registration form.

New Olive Cost Studies

New cost studies for table olive establishment and production in the Sacramento Valley are available from our office or via the internet at <http://coststudies.ucdavis.edu>. Two studies are available. One covers costs for establishment and production of Manzanillo olives using microsprinkler irrigation and the other covers production of Manzanillo olives using flood irrigation. An example of the production costs for the flood irrigated study is included. While these will not be right for every situation, they give representative costs. A column is included in the table where you can put your costs. For the complete studies, contact our office or go online.

UC COOPERATIVE EXTENSION

Table 1. COSTS PER ACRE TO PRODUCE OLIVES
 SACRAMENTO VALLEY – 2004
 Flood Irrigation

Operation	Operation Time (Hrs/A)	Cash and Labor Costs per Acre					Total Cost	Your Cost
		Labor Cost	Fuel, Lube & Repairs	Material Cost	Custom/ Rent			
Cultural:								
Fertilizer: Nitrogen (UN32)	0.18	2 19	1	37	4	44		
Irrigate	2.00		0	104	0	123		
Mow Centers - 6X	2.09	27	19	0	0	45		
Pruning & Sucker 1X/2 Yrs	15.00	143	0	0	0	143		
Brush Disposal	0.37	14	3	0	0	17		
Disease: Peacock Spot/Olive Knot - 2X (Kocide)	0.50	6	4	58	0	68		
Weed: Spot Spray (Roundup)	0.67	8	5	12	0	26		
Thinning: 1X/2 Yrs (Liqui-Stik)	0.13	2	1	44	0	47		
Insect: Olive Fly - 8X (GF 120)	0.40	5	1	75	0	81		
Weed: Winter Strip (Princep)	0.25	3	2	5	0	10		
Pickup Truck Use	2.28	29	21	0	0	50		
ATV Use	2.86	36	6	0	0	43		
	0.06							
Leaf Analysis		1	0	0	2	2		
TOTAL CULTURAL COSTS	26.78	295	63	335	6	699		
Harvest:								
	0.00							
Pick Fruit		0	0	0	1,375	1,375		
TOTAL HARVEST COSTS	0.00	0	0	0	1,375	1,375		
Interest on operating capital @ 6.89%						28		
TOTAL OPERATING COSTS/ACRE		295	63	335	1,381	2,102		
CASH OVERHEAD:								
Office Expense						143		
Sanitation Fees						6		
Liability Insurance						15		
Property Taxes						68		
Property Insurance						46		
						26		
Investment Repairs								
TOTAL CASH OVERHEAD COSTS						301		
TOTAL CASH COSTS/ACRE						2,403		
NON-CASH OVERHEAD:								
		Per producing		-- Annual Cost --				
Investment		<u>Acres</u>		<u>Capital Recovery</u>				
Flood Irrigation System		450		31		31		
Land		3,429		214		214		
Orchard Establishment		3,551		248		248		
Fuel Tank: 1 - 100 Gallon		43		4		4		
Buildings		714		53		53		
Shop/Field Tools		86		11		11		
Equipment		1,309		153		153		
		9,581						
TOTAL NON-CASH OVERHEAD COSTS				715		715		
TOTAL COSTS/ACRE						3,118		

Cost Reduction Strategies

As can be seen from the previously mentioned cost studies, current returns to growers are well below cash costs of production, to say nothing of the total costs associated with table olive production. Table 2 shows costs from our recently completed cost study for flood irrigated olives for the more significant cultural practices calculated as a percentage of the total cash costs. The following discussion covers the more significant costs and some ideas for cost reduction.

Table 2. Significant Production Costs as a Percentage of Total Cash Costs

Activity	Cost \$/acre	% of Total
Total Harvest Cost	1,375	57
Pruning/Brush Disposal	160	8
Irrigation	123	5
Olive Fly	81	3
Disease Spray	68	3
Thinning	47	2
Mow Centers	45	2
Fertilizer	44	2
Weed Control	36	1
Other	424	17
Total Cash Cost	2,403	100

Harvest. By far the most significant cost is harvest, accounting for 57% of the total. It had been hoped that mechanical harvest could significantly reduce these costs. Unfortunately, there are currently no mechanical harvesters working in the Sacramento Valley. A few mechanical harvesters operated in the San Joaquin Valley last year with a minimum of 800 acres being harvested mechanically at a cost of approximately \$200 per ton. This is about 27% less than what is currently being paid for hand harvest. While there are still some concerns related to mechanical harvest such as fruit removal and fruit damage, harvest costs are such a large part of production costs it will be difficult to have much impact on costs without addressing this issue. We need to continue to work with mechanical harvest to solve or minimize the problems.

Pruning and Brush Disposal. In our study we used an alternate year pruning strategy and divided the total cost by two to get an annual cost. The cost of \$160 amounted to 8% of our total. Alternate year pruning is

the norm in this area and, if necessary, it may be possible to skip two years. Because pruning is used to control crop and improve fruit size, it will be more risky to skip pruning the year of expected large crops. Chemical thinning can be used as a backup to pruning if the crop set is larger than expected. Mechanical pruning does not appear to be a good option to hand pruning. In research that was done in the nineties, mechanical pruning resulted in reduced production and total crop value compared to hand pruning. Additionally, severe mechanical pruning can potentially reduce production for two years.

Irrigation. In our study we used a water cost of \$26 per acre foot for a total cost of \$123 or about 5% of the total. Research has shown that olives use about 75% as much water as well-watered grass. If they are given less, the result is less shoot growth and smaller fruit. Because the flowers and fruit are born only on the shoot growth from the previous year, this results in fewer smaller fruit which has dramatic impact on returns. Care should be taken when subjecting trees to water stress. Olive fruit growth slows from about the middle of July to about the beginning of September and then resumes rapid growth to harvest. It may be possible to subject trees to moderate water stress during this slower growth phase with minimal reduction in fruit size.

Olive Fly Control. If we are to stay in the olive business, this pest must be controlled. I would recommend that all other costs be reduced or eliminated before this one is neglected. If you are unwilling or unable to control this pest, then the responsible thing would be to remove the trees. Olive orchards of five acres or more can currently be removed at no cost by contacting a wood chipper. Contact me for contact information.

In our study we applied Spinosad (GF-120®) every two weeks from pit hardening through harvest for a total of 8 sprays at a cost of \$81 or 3% of the total costs. This program is preventative in nature and is not based on monitoring and treating only when necessary. It is hoped that ongoing research will provide information that will allow us to treat only when necessary and thereby reduce the number of sprays and associated costs

Disease Control. In our study we used two copper sprays to control Peacock spot and Olive Knot disease at a cost of \$68 or 3% of the total costs. Research has shown that the critical time for applying copper fungicides for controlling Peacock Spot is in the fall before significant rain occurs while spring applications in March or April are more effective for controlling Olive Knot. To reduce spray costs, decide which disease is of more concern in your orchard and apply your treatments accordingly.

Thinning. In our study, we used chemical thinning to control alternate bearing and improve fruit size. It was used every other year because it is usually not necessary every year. The cost was divided by two to get an annual cost of \$47 or 2% percent of the total. We used 72 ounces of the Liqui Stik 200® product per acre

because research has shown that this is what is required for adequate thinning. Research has shown that this practice can have a dramatic effect on grower returns and may be the difference between fruit that can be harvested at a profit and fruit that can not. To some extent, pruning can moderate alternate bearing and improve fruit size and it may not be necessary or advisable to use both practices in the same year.

OLIVE DAY 2004

Wednesday, February 4, 2004

Sacramento Convention Center

Sacramento, CA

- 8:00 a.m. Registration packet pick-up at registration desk.
- 9:00 **Welcome**
Louise Ferguson, Olive Extension Specialist
- Moderator *Joseph H Connell, Farm Advisor, Butte County*
- 9:15 **The Olive Fly: How to Detect It and How to Control It**
Marshall Johnson, Entomologist, UC Riverside
- 9:45 **Current Olive Fly Research Program**
Hannah Burrack, Graduate Student, and Frank Zalom, Professor, Entomology, UC Davis, Louise Ferguson, Olive Extension Specialist, UC Davis, and Donna Seaver, Program Representative, Fruit and Nut Research and Information Center
- 10:45 - 11:00 Break
- Moderator *William H. Krueger, Farm Advisor, Glenn County*
- 11:00 **Dispersal and Flight Capacity of Olive Fruit Fly in California**
Marshall Johnson and Hannah Nadel, Entomology Specialist, UC Riverside
- 11:30 **California Olive Committee Annual Update**
Jan Nelson, Manager, California Olive Committee
- 12:00 Lunch
- 1:00 p.m. **Self tour of the California League of Food Processors Convention - UCCE Statewide Olive Day**

Olive Day Registration Form

Print or Type Only

First Name:

Last Name:

Badge Name:

Job Title:

Company:

Address:

City:

State:

Zip:

Phone: ()

Fax No.: ()

Email:

Please remit no later than January 31, 2004: \$30.00/person includes lunch and one-day pass to Expo and Showcase of Processed Foods

Total Registration \$

Check Enclosed Payable to: California League of Food Processors

Credit Card (circle type) Amex Visa Mastercard

Account Number

Exp. Date

Signature

Print Name on Card

Complete Form and Return to:

California League of Food Processors

980 Ninth Street, Suite 230

Sacramento, CA 95814

Phone: (916) 444-9260

Fax: (916) 444-2746

Registration packets with event tickets and badges will be available on 2/4/04 in the west lobby of the Sacramento Convention Center.