

## WALNUT PRODUCTION IN SANTA BARBARA COUNTY - 1953

A brief review of the industry and suggestions on cultural practices, prepared to help those new to the business of producing walnuts.

### Industry Situation and Outlook

The first walnuts planted in California were at Goleta by Joseph Seaton in 1867. Since that beginning, walnuts have continued to be an important commercial crop, and in 1952 there was a total of 3044 acres, producing 1282 tons, for a farm value of \$719,247.

Most of the orchards in the Goleta Valley are mature and the least productive are being removed because of high costs. Nearly all the new plantings are to be found along the Santa Ynez River and in the Santa Ynez and Lompoc Valleys. The outlook for walnuts appears good for those planted on good irrigated land in the central part of the county.

### Varieties and Yields

The recommended variety is Payne on Northern California Black Walnut rootstock (except where lesion nematodes occur and then the Paradox Hybrid rootstock should be used). New groves are best set out at spacings of 25'x25' to 30'x30' depending on the soil. Every other tree is then removed when the grove becomes crowded. On well cared for groves, yields of 1 ton per acre can be expected by 10 to 12 years of age, with a mature average of 2500 lbs. per acre. However, many existing orchards average only 1500 lbs.

### Soils and Irrigation

The preferred soils are deep recent alluvial valley soils. On these soils 3 irrigations are usually sufficient: 1st - about June, 2nd - pre-harvest, and 3rd - post-harvest; sufficient waters should be applied to obtain 6 ft. penetration. On shallower soils more frequent applications should be made and under all conditions soil sampling should be used in deciding on irrigation practices.

### Fertilization

Usually 100 lbs. of actual nitrogen per acre per year is adequate for mature groves. This is best broadcast in the chemical form in November or December, so winter rains will carry it into the rootzone. To provide better water penetration and organic matter, a winter cover crop can be grown. It is usually seeded at rates of 30 lbs. purple vetch plus 20 lbs. oats or barley per acre just prior to the post harvest irrigation.

No benefits have been observed from the use of phosphate and potash. Little-leaf or mottle-leaf occurs on some trees and is caused by zinc deficiency; it can be corrected by driving zinc plates into the trunks.

### Pest Control

Common pests requiring annual sprays in the Goleta Valley are Codling Moth, Red Spider and Walnut Aphis.

These pests are occasionally found in the Santa Ynez Valley. Contact your Farm Advisor or Agricultural Inspector for pest control recommendations tailored to your particular orchard.

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# WALNUT

## ENTERPRISE DATA SHEET

An Estimate of Average Cultural Requirements, Costs, and Income.

Assumptions: Mature grove; average yield - 2000 lbs/acre; cultivated; furrow irrigated; hand harvested; 1953 costs and income; about 40 acre size; Santa Ynez Valley area.

Operations	Estimated Average Costs per Acre				Your Costs
	Labor	Equip.	Matrl.	Total	
<u>Cultural Costs:</u>	(1)		(2)		
Irrigation - 3x (18 A. in./A.)	\$ 6.50	-	\$ 9.00	\$15.50	
Cultivation - 3x & Furrowing 3x	7.00	\$ 7.00	-	14.00	
Fertilization & Cover Crop	2.00	1.00	18.00	21.00	
Pruning & Brush Disposal	5.50	.50	-	6.00	
Pest Control	3.00	2.00	10.00	15.00	
Miscellaneous	2.00	1.00	2.00	5.00	
Total Cultural	\$26.00	11.50	39.00	76.50	
<u>Harvesting Costs:</u>					
Knock, pick, and haul (3)	53.00	2.00	5.00	60.00	
Hull, dehydrate, & deliver	10.00	3.00	7.00	20.00	
Total Harvesting	\$63.00	5.00	12.00	80.00	
<u>Overhead Costs:</u>					
Taxes				\$15.00	
Repairs to equipment & facilities				5.00	
Insurance-compensation, liability, fire				2.50	
General Expense-phone, office, etc.				8.00	
Total Overhead				\$30.50	
<u>Total Cash Costs</u>				\$187.00	
Depreciation (on 1/2 original cost on trees, equip. & bldgs.)				25.00	
Interest on Investment (5% on total value of \$1000/acre)				50.00	
<u>Total All Costs</u>				\$262.00	
<u>Income</u> (orchard run-20¢/lb. & 2000 lbs./acre yield)				\$400.00	
<u>Management Income</u> (Profit)				\$138.00	

### Notes

- (1) An estimate of hours of labor required can be obtained by assuming labor costs \$1.00 per hour
- (2) Amounts of materials are shown on reverse side.
- (3) Mechanical harvesting can reduce this total to around \$20.00.