

SAMPLE COSTS TO PRODUCE WALNUTS
OWNER-OPERATED 30 ACRE ORCHARD
SAN BENITO COUNTY - 1978

Based on a 30 acre, grower-owned orchard with a yield of 3000 lbs. per acre, trees 30' x 30' - 48 trees per acre. Assumes all labor except pruning and harvesting is done by grower. Hired labor at \$3.25 per hour including Social Security, Workers' Compensation and Unemployment Insurance. Assumes land is not under a Land Conservation Act agreement. LCA agreements would lower taxes 25-30%. A tax rate of \$8.50 per \$100 assessed value was used.

INVESTMENT & DEPRECIATION	TYPICAL COST	YOUR COST
Land and trees	\$150,000	
Equipment	31,000	
Buildings	5,000	
Irrigation system	20,000	
TOTAL INVESTMENT	\$206,000	
Equipment	3,533	
Buildings	250	
Irrigation system	1,000	
TOTAL DEPRECIATION	\$ 4,783	

CASH COSTS		
<u>Cash labor costs</u>		
Prune: 8 hrs./acre @ \$3.25/hr.	780	
Shake: custom - 2 hrs./ac. @ \$22/hr.	1,320	
Sweep & pick: custom - \$55/ton	2,475	
Hull & dehydrate: custom - \$60/ton	2,700	
Other cult. practices: 465 hrs. of grower labor	---	
Total	\$ 7,275	
<u>Cash cultural costs</u>		
Fuel and repairs	1,326	
Irrig. power costs: 24" water @ \$35/ac./ft.	2,100	
Spray materials	1,950	
Fertilizer materials: 200 lbs. N/ac. @ 28¢/lb.	1,680	
Misc. materials: replants, graft, tie	285	
Total	\$ 7,341	
<u>Cash overhead</u>		
Misc., office: (6% of labor & cult. costs)	877	
Taxes and insurance	4,323	
Interest on borrowed money (9% of ½ above cash costs for 6 months)	446	
Total	\$ 5,641	
TOTAL CASH COSTS	\$ 20,257	

GROSS RANCH INCOME @ 44¢/lb.	\$ 39,600	
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TOTAL CASH & DEPRECIATION COSTS	\$ 25,040	
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NET RANCH INCOME	\$ 14,560	
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EQUIPMENT	Cost	Life	Depreciation	Cash cost
				per hour
42 HP Diesel crawler tractor (used)	\$ 4,500	10	\$ 450	\$2.27
Orchard land plane	3,500	10	350	1.00
8' disk	3,500	10	350	.96
Buckrake	1,000	10	100	.18
300 gal. sprayer (used)	5,000	15	333	6.94
Forklift, tractor-mounted (used)	3,500	10	350	1.95
Pickup truck	6,000	5	1,200	8.2¢/mi.
Flatbed truck, 2 ton (used)	4,000	10	400	14.9¢/mi.
TOTAL	\$31,000		\$3,533	

(A) GROSS RANCH INCOME

		Pounds per acre				
		1,000	2,000	3,000	4,000	5,000
Price per pound	30¢	\$ 9,000	18,000	27,000	36,000	45,000
	37¢	11,100	22,200	33,300	44,400	55,500
	44¢	13,200	26,400	39,600	52,800	66,000

(B) CASH & DEPRECIATION COSTS*

Pounds per acre				
1,000	2,000	3,000	4,000	5,000
\$21,306	23,175	25,040	26,914	28,784

(C) NET RANCH INCOME (A - B = C)**

		Pounds per acre				
		1,000	2,000	3,000	4,000	5,000
Price per pound	30¢	-\$12,306	-5,175	1,960	9,086	16,216
	37¢	- 10,206	- 975	8,260	17,486	26,716
	44¢	- 8,106	3,225	14,560	25,886	37,216

* Cash costs may be calculated by deducting \$4,783 (depreciation) from figures in table B.

**Ranch income based only on cash costs may be calculated by adding \$4,783 (depreciation) to figures in table C.

ACTUAL PRICES RECEIVED BY GROWERS (per pound)	1974	1975	1976	1977
	21¢	25¢	37¢	44¢

UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

William W. Coates, Farm Advisor

Lee C. Benson, Extension Economist

SAMPLE COSTS TO PRODUCE WALNUTS
TENANT-OPERATED 30 ACRE ORCHARD
SAN BENITO COUNTY - 1978

Based on a 30 acre, rented orchard with a yield of 8 tons per acre, trees 30' x 30' - 48 per acre. Assumes all labor except pruning and harvesting is done by grower. Hired labor at \$3.25 per hour including Social Security, Workers' Compensation and Unemployment Insurance. Rent figured as 25% of gross income. Assumes land is not under a Land Conservation Act agreement. LCA agreements would lower taxes 25-30%. A tax rate of \$8.50 per \$100 assessed value was used.

INVESTMENT & DEPRECIATION	OWNER	TENANT	YOURS
Land and trees	\$150,000		
Irrigation system	20,000		
Buildings	5,000		
Equipment		\$31,000	
TOTAL INVESTMENT	\$175,000	\$31,000	
Irrigation system	1,000		
Buildings	250		
Equipment		3,533	
TOTAL DEPRECIATION	\$ 1,250	\$ 3,533	

CASH COSTS			
<u>Cash labor costs</u>			
Prune: 8 hrs./ac. @ \$3.25/hr.		780	
Shake: 2 hrs./ac. @ \$22/hr.		1,320	
Sweep and pick: custom - \$55/ton		2,475	
Hull and dehydrate: custom - \$60/ton		2,700	
Other cult. practices: 465 hrs. of grower labor		---	
Total		<u>\$ 7,275</u>	
<u>Cash cultural costs</u>			
Fuel and repairs		1,326	
Irrig. power costs: 24" water @ \$35/ac./ft.		2,100	
Spray materials		1,950	
Fert. materials: 200 lbs. N/ac. @ 28¢/lb.		1,680	
Misc. materials: replants, graft, tie	285		
Total	<u>\$ 285</u>	<u>\$ 7,056</u>	
<u>Cash overhead</u>			
Misc., office: (6% of labor and cultural costs)	17	860	
Taxes and insurance	3,528	794	
Interest on borrowed money (9% of ½ above cash costs for 6 months)		360	
Total	<u>\$ 3,545</u>	<u>\$ 2,014</u>	
TOTAL CASH COSTS	\$ 3,830	\$16,345	

GROSS RANCH INCOME @ 44¢/lb.	\$ 9,900	\$29,700	
TOTAL CASH & DEPRECIATION COSTS	\$ 5,080	\$19,878	
NET RANCH INCOME	\$ 4,820	\$ 9,822	

EQUIPMENT	Cost	Life	Depreciation	Cash cost per hour
42 HP Diesel crawler tractor (used)	\$ 4,500	10	\$ 450	\$2.27
Orchard landplane	3,500	10	350	1.00
8' disk	3,500	10	350	.96
Buckrake	1,000	10	100	.18
300 gal. sprayer (used)	5,000	15	333	6.94
Forklift, tractor-mounted (used)	3,500	10	350	1.95
Pickup truck	6,000	5	1,200	8.2¢/mi.
Flatbed truck, 2 ton (used)	4,000	10	400	14.9¢/mi.
TOTAL	\$31,000		\$3,533	

(A) GROSS RANCH INCOME - TENANT (LANDLORD IN PARENTHESIS)

		Pounds per acre				
		1,000	2,000	3,000	4,000	5,000
Price	30¢	\$6,750	13,500	20,250	27,000	33,750
		(2,250)	(4,500)	(6,750)	(9,000)	(11,250)
per	37¢	8,325	16,650	24,975	33,300	41,625
		(2,775)	(5,550)	(8,325)	(11,100)	(13,875)
Pound	44¢	9,900	19,800	29,700	39,600	49,500
		(3,300)	(6,600)	(9,900)	(13,200)	(16,500)

(B) CASH & DEPRECIATION COSTS - TENANT*

Pounds per acre						
		1,000	2,000	3,000	4,000	5,000
		\$16,138	18,008	19,878	21,747	23,618

Landlord cash and depreciation costs are a constant \$5,080.

(C) NET RANCH INCOME - TENANT (LANDLORD IN PARENTHESIS)**

		Pounds per acre				
		1,000	2,000	3,000	4,000	5,000
Price	30¢	-\$9,388	-4,508	372	5,253	10,132
		(-2,830)	(-580)	(1,670)	(3,920)	(6,170)
per	37¢	-7,813	-1,358	5,097	11,553	18,007
		(-2,305)	(470)	(3,245)	(6,020)	(8,795)
pound	44¢	-6,238	1,792	9,822	17,853	25,882
		(-1,780)	(1,520)	(4,820)	(8,120)	(11,420)

* Cash costs may be calculated by deducting \$3,533 (depreciation) from figures in table B. (Depreciation for landlord is \$1,250.)

** Ranch income based only on cash costs may be calculated by adding \$3,533 (depreciation) to figures in table C. (For landlord income add \$1,250 to figures in parenthesis in table C.)

ACTUAL PRICES RECEIVED BY GROWERS (per pound)	1974	1975	1976	1977
	21¢	25¢	37¢	44¢

UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

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SAMPLE COSTS TO PRODUCE WALNUTS
OWNER-OPERATED 80-ACRE ORCHARD
SAN BENITO COUNTY - 1978

Based on an 80 acre, grower-owned orchard with a yield of 3,000 lbs. per acre, trees 30' x 30' - 48 per acre. Assumes hired labor at \$3.25 per hour unskilled and \$3.55 per hour skilled. Labor costs include Social Security, Workers' Compensation and Unemployment Insurance. Assumes land is not under a Land Conservation Act agreement. LCA agreements would lower taxes 25-30%. A tax rate of \$8.50 per \$100 assessed value was used.

INVESTMENT & DEPRECIATION	TYPICAL COST	YOUR COST
Land and trees	\$320,000	
Equipment	52,000	
Buildings	8,000	
Irrigation system	22,000	
TOTAL INVESTMENT	\$402,000	
Equipment	4,834	
Buildings	400	
Irrigation system	1,100	
TOTAL DEPRECIATION	\$ 6,334	

CASH COSTS		
<u>Cash labor costs</u>		
Prune: 8 hrs./acre @ \$3.25/hr.	2,080	
Brush disposal: 1 hr./acre @ \$3.55/hr.	284	
Spray: 2 hrs./acre @ \$3.55/hr.	568	
Cultivate: 4 hrs./acre @ \$3.55/hr.	1,136	
Fertilize: ½ hr./acre @ \$3.55/hr.	142	
Irrigate: 4 hrs./acre @ \$3.25/hr.	1,040	
Landplane, pre-harvest: 1 hr./ac. @ \$3.55/hr.	284	
Shake: 2 hrs./acre @ \$22/hr.	3,520	
Sweep and pick: custom - \$55/ton	6,600	
Hull and dehydrate: custom - \$60/ton	7,200	
Misc. (replants, etc.): 4 hrs./ac. @ \$3.25	1,040	
Total	\$ 23,894	
<u>Cash cultural costs</u>		
Fuel and repairs	3,988	
Irrig. power costs: 24" water @ \$35/ac./ft.	5,600	
Spray materials	5,200	
Fert. materials: 200 lbs. N/ac. @ 28¢/lb.	4,480	
Misc. materials: replants, graft, tie	760	
Total	\$ 20,028	
<u>Cash overhead</u>		
Misc., office, etc. (6% of labor and cultural costs)	2,635	
Taxes and insurance	8,571	
Interest on borrowed money (9% of ½ above cash costs for 6 months)	1,240	
Total	\$ 12,446	
TOTAL CASH COSTS	\$ 56,368	

GROSS RANCH INCOME @ 44¢/lb.	\$105,600	
TOTAL CASH & DEPRECIATION COSTS	\$ 62,702	
NET RANCH INCOME	\$ 42,898	

EQUIPMENT	Life Cost (yrs.)	Depreciation	Cash cost	
			per hour	
65 HP Diesel wheel tractor	\$13,000 15	\$ 867	\$2.42	
10' disk	4,000 10	400	1.08	
Orchard landplane	3,500 10	350	1.00	
Buckrake	1,000 10	100	.18	
Fertilizer spreader	1,000 10	100	.72	
500 gal. sprayer	16,000 15	1,067	8.71	
Forklift, tractor-mounted (used)	3,500 10	350	1.95	
Pickup truck	6,000 5	1,200	8.2¢/mi.	
Flatbed truck, 2 ton (used)	4,000 10	400	14.9¢/mi.	
TOTAL	\$52,000	\$4,834		

(A) GROSS RANCH INCOME

		Pounds per acre				
		1,000	2,000	3,000	4,000	5,000
Price per pound	30¢	\$24,000	48,000	72,000	96,000	120,000
	37¢	29,600	59,200	88,800	118,400	148,000
	44¢	35,200	70,400	105,600	140,800	176,000

(B) CASH & DEPRECIATION COSTS*

Pounds per acre					
	1,000	2,000	3,000	4,000	5,000
	\$52,731	57,716	62,702	67,688	72,673

(C) NET RANCH INCOME (A - B = C)**

		Pounds per acre				
		1,000	2,000	3,000	4,000	5,000
Price per pound	30¢	-\$28,731	-9,716	9,298	28,312	47,327
	37¢	- 23,131	1,484	26,098	50,712	75,327
	44¢	- 17,531	12,684	42,898	73,112	103,327

* Cash costs may be calculated by deducting \$6,334 (depreciation) from figures in table B.

** Ranch income based only on cash costs may be calculated by adding \$6,334 (depreciation) to figures in table C.

ACTUAL PRICES RECEIVED BY GROWERS (per pound)	1974	1975	1976	1977
	21¢	25¢	37¢	44¢

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SAMPLE COSTS TO PRODUCE WALNUTS
BASED ON FIXED 8% INTEREST ON INVESTMENT
SAN BENITO COUNTY - 1978

Based on an 80 acre orchard with a yield of 3,000 lbs. per acre, trees 30' x 30' - 48 per acre. Labor at \$3.25/hr. unskilled and \$3.55/hr. skilled including Social Security, Workers' Compensation and Unemployment Insurance. Assumes land is not under a Land Conservation Act agreement. LCA agreements would lower taxes 25-30%. A tax rate of \$8.50 per \$100 assessed value was used.

Operation	Hours per acre	Cash and labor costs per acre			Typical Cost
		Labor	Fuel and repairs	Materials Kind and Quantity Cost	
Cultural costs					
Prune	8.0	\$26.00	\$.60		\$ 26.60
Brush disposal	1.0	3.55	2.60		6.15
Cultivate	4.0	14.20	14.00		28.20
Fertilize	0.5	1.78	1.57	200 lbs. N @ 28¢=\$56.00	59.35
Irrigate (4x)	4.0	13.00	2.40	24" water (power)=70.00	85.40
Spray (4x)	2.0	7.10	22.26	Materials= 65.00	94.36
Misc. (replants, graft, tie)	4.0	13.00	3.00	9.50	25.50
TOTAL CULT. COSTS	23.5	\$78.63	\$46.43	\$200.50	\$325.56
Harvest costs					
Landplane	1.0	3.55	3.42		6.97
Shake	2.0	Custom @	\$22/hr.	44.00	44.00
Sweep & pick		Custom @	\$55/ton	82.50	82.50
Hull & dehydrate		Custom @	\$60/ton	90.00	90.00
TOTAL HARVEST COSTS		\$3.55	\$3.42	\$216.50	\$223.47
Cash overhead					
Misc., office, etc. (6% of total cultural and harvest costs)					32.94
Taxes and insurance					107.14
Interest on borrowed money (9% of ½ above cash costs for 6 months)					15.50
TOTAL CASH OVERHEAD					\$155.58
TOTAL CASH COST					\$704.61
Management: 5% of 3,000 lbs. @ 44¢/lb.					66.00
INVESTMENT	Per acre	Depreciation	Interest		
Land and trees	\$4,000.00		\$320.00	\$320.00	
Irrigation system	275.00	\$13.75	11.00	24.75	
Buildings	100.00	5.00	4.00	9.00	
Equipment	650.00	60.42	26.00	86.42	
Total	\$5,025.00	\$79.17	\$361.00	\$440.17	
TOTAL COST PER ACRE					\$1,210.78
COST OF PRODUCTION AT VARYING YIELDS					
Yield in pounds	1,000	2,000	3,000	4,000	5,000
Cash cost/acre	\$579.97	642.29	704.61	766.94	829.26
Cash cost & depreciation/acre	659.14	721.46	783.78	846.11	908.43
Total cost/acre	1,042.14	1,126.46	1,210.78	1,295.11	1,379.43
Cash cost/lb.	58.0¢	32.1	23.5	19.2	16.6
Cash cost & depreciation/lb.	65.9	36.1	26.1	21.2	18.2
Total cost/lb.	104.2	56.3	40.4	32.4	27.6

EQUIPMENT	Cost	Life (yrs.)	Depreciation per acre	Cash cost per hour
65 HP Diesel wheel tractor	\$13,000	15	\$10.83	\$2.42
10' disk	4,000	10	5.00	1.08
Orchard landplane	3,500	10	4.38	1.00
Forklift tractor-mounted (used)	3,500	10	4.38	1.95
Buckrake	1,000	10	1.25	.18
500 gallon sprayer	16,000	15	13.33	8.71
Fertilizer spreader	1,000	10	1.25	.72
Pickup truck	6,000	5	15.00	8.2¢/mi.
Flatbed truck, 2 ton (used)	4,000	10	5.00	14.9¢/mi.
TOTAL	<u>\$52,000</u>		<u>\$60.42</u>	

Total Investment	\$52,000.00
Per acre on 80 acres	650.00
Depreciation	60.42
Interest per acre	26.00 @ 8% of half purchase price

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