

PISTACHIO ORCHARD

ESTABLISHMENT AND PRODUCTION COSTS

1983

COOPERATIVE EXTENSION SERVICE

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KERN COUNTY

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PISTACHIO ORCHARD

ESTABLISHMENT AND PRODUCTION COSTS

IN THE SOUTHERN SAN JOAQUIN VALLEY

- Orchard Size - Orchard size is 50 acres of which 2.5 acres are used for roads and burn areas. This leaves 47.5 producing acres.
- Spacing - Plantings are 151 trees per producing acre spaced 12' x 24'.
- Irrigation - A drip irrigation system is used in this sample study. Nitrogen is applied through the drip system.
- Labor - Labor rates are assumed to be \$7.50 per hour for skilled and \$4.50 per hour for unskilled labor including fringe benefits.
- Yield - Yield is assumed to be 2000 lbs per producing acre. However, pistachios are an alternate bearing crop and yields may be as low as 250 lbs per acre.
- Interest - An interest rate of 12% was assumed. Operating capital is assumed to be borrowed for 6 months of each establishment and producing year. Interest is also charged on accumulated cash costs in establishment years to reflect interest charged on a long-term establishment loan. Interest is also charged on investment capital to account for the income foregone by keeping money tied up in capital equipment.
- Depreciation - Depreciation is charged calculated on a straight line basis with no salvage value.
- Harvest costs - Harvest costs are calculated as \$1 per tree for shaking and catching and \$9 per ton for hauling to the processor. Hauling costs will vary depending on the location of the orchard. Hulling and drying costs are not included as a cost to the grower. They are subtracted from the price paid to the grower upon payment by the processor. The charge for custom drying is 27¢ per lb and for hulling is 18¢ per lb.
- Price Variation - Prices received by farmers for pistachios are not as volatile as for many other crops. The prices reported for 1982 ranged from \$1.40 per lb to \$1.50 per lb. A record high price of \$2.00 per lb was received in 1980. Prices reported are the price received after the cost of drying and hulling are subtracted.

PISTACHIO NUT ORCHARD ESTABLISHMENT COST

Southern San Joaquin Valley, 1983

Orchard size is 50 acres of which 2.5 acres are used for roads and burn areas. Planting is 151 trees per producing acre. The 47.5 producing acres are under drip irrigation. Labor rates are assumed to be \$7.50 for skilled and \$4.50 for unskilled labor. 12% annual interest rate.

	-----COSTS PER ACRE-----					
	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.	6th Yr.
<u>Pre-harvest cultural costs:</u>						
Subsoil, contract	160.00					
Disk & float (4 hours)	80.87					
Trees: 151 @ \$7.00 (+ 2 in 2nd yr. & 1 in 3rd & 4th yrs.)	1057.00	14.00	7.00	7.00		
Survey peg, plant & stake	75.50	2.00	1.00	1.00		
Stakes	113.00					
Train & sucker trees	20.00	20.00	20.00	20.00	40.00	40.00
Weed control (material; labor & fuel)	68.75	46.25	46.25	46.25	46.25	46.25
Irrigation labor	13.50	13.50	13.50	13.50	13.50	13.50
Water, \$50/ac. ft.	50.00	50.00	75.00	75.00	100.00	100.00
Nitrogen @ \$.22/lb. (applied through drip)	5.50	7.70	7.70	12.10	16.50	16.50
Tillage (1.5 hrs)	30.33	30.33	30.33	30.33	30.33	30.33
Misc. labor & tractor	10.00	10.00	10.00	10.00	10.00	10.00
Interest on operating costs (6 mo. @ 12% annual rate)	101.07	11.63	12.65	12.91	15.39	15.39
TOTAL CULTURAL COSTS	1785.52	205.41	223.43	228.09	271.97	271.97
<u>Overhead costs:</u>						
County taxes	50.00	50.00	50.00	50.00	50.00	50.00
Management contract	50.00	50.00	50.00	50.00	50.00	50.00
Office & business (8% of cultural costs)	142.84	16.43	17.87	18.25	21.76	21.76
TOTAL OVERHEAD COSTS	242.84	116.43	117.87	118.25	121.76	121.76
TOTAL CASH COSTS	2028.36	321.84	341.30	346.34	393.73	393.73
ACCUMULATED CASH COSTS	2028.36	2350.20	2691.50	3037.84	3431.57	3825.30
<u>Depreciation:</u>						
Drip irrigation	40.00	40.00	40.00	40.00	40.00	40.00
Tractor, equipment, bldgs.	166.74	166.74	166.74	166.74	166.74	166.74
TOTAL DEPRECIATION	206.74	206.74	206.74	206.74	206.74	206.74
<u>Interest on investment:</u>						
Land @ \$5000 per acre	600.00	600.00	600.00	600.00	600.00	600.00
Drip irrigation system	36.00	36.00	36.00	36.00	36.00	36.00
Tractor, equipment, bldgs.	94.86	94.86	94.86	94.86	94.86	94.86
Accumulated cash costs	243.40	282.02	322.98	364.54	411.79	459.04
TOTAL INTEREST	974.26	1012.88	1053.84	1095.40	1142.65	1189.90
TOTAL ANNUAL COST	3209.36	1541.46	1601.88	1648.48	1743.12	1790.37
ACCUMULATED ANNUAL COST	3209.36	4750.82	6352.71	8001.18	9744.30	11534.67

Southern San Joaquin Valley, 1983

Orchard size of 50 total acres with 2.5 acres used for roads and burn areas. Planting is 151 trees per producing acre. Labor rates are assumed to be \$7.50 per hour for skilled and \$4.50 for unskilled, including fringe benefits. A drip irrigation system is used. Yield is assumed to be 2000 lbs. of in-shell nuts per producing acre.

Operation	Quantity and cost	Total Cost	Your Cost
<u>Pre-harvest cash costs:</u>			
Pruning	151 trees @ \$.35 per tree	52.85	
Shake trees (for sanitation)	\$.25 per tree, custom	37.75	
Brush shredding	.5 hrs. per acre	5.75	
Fertilizer	151 lbs. N @ \$.22/lb.	33.22	
Disc 3*	1.5 hrs./acre	30.32	
Irrigation water	24 acre inches @ \$50/ac. ft.	100.00	
Irrigation labor	6 hrs. @ \$4.50/hr.	27.00	
Herbicide	pre-emerge-\$20. spot-\$15 1.5 hrs. application	35.00 12.08	
Insecticides	400 gal. @ .035/gal. custom application-\$14.00	18.00 14.00	
Misc. labor & tractor		10.00	
Interest on operating costs		22.56	
TOTAL PRE-HARVEST COSTS		398.52	
<u>Harvest costs:</u>			
Shake & catch	\$1.00 per tree	151.00	
Hauling (20 miles)	9.00 per ton	9.00	
TOTAL HARVEST COST *		160.00	
<u>Overhead:</u>			
Property taxes	1% of assessed value	50.00	
Office & business	8% of cultural costs	31.88	
TOTAL OVERHEAD COST		81.88	
TOTAL CASH COSTS		640.40	
CASH COST PER POUND		0.32	
<u>Investment costs:</u>			
	Depreciation	Interest	
Land		600.00	
Trees	384.49	692.08	
Drip irrigation system	40.00	36.00	
Tractor, buildings, equipment	166.74	94.86	
TOTAL INVESTMENT COST	591.23	1422.94	2014.17
TOTAL COST PER ACRE		2654.57	
TOTAL COST PER POUND		1.33	

* The cost of hulling and drying are deducted from the price paid to the grower by the processor.

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