

COOPERATIVE EXTENSION

UNIVERSITY OF CALIFORNIA

NAVEL ORANGE GROVE DEVELOPMENT - FRESNO COUNTY

Cost Analysis Work Sheet - 1980

Purchased 40 acres bare, unlevel land, graded for 660' irrigation runs. Irrigation well (7½ h.p. pump) supplies water for frost protection and supplements water from irrigation district. Pipeline system is return flow with optional waste drainage. Tree spacing is 20'x22' with 100 trees per acre. Nontillage after the first growing season. Total labor costs per hour are \$5.50 for equipment operator, and \$4.50 for other labor. No provision for management fees -- orchard is owner operated. Total and Net Costs are "on-tree" values and do not include harvesting costs.

	1st Year	2nd Year	3rd Year	4th Year	5th Year
YIELD: 50 lb. FIELD BOXES PER ACRE			90	180	250
PRE-HARVEST CASH COSTS					
Level	\$ 220.00				
Rip (5' deep)	300.00				
Trees - 100 @ \$4.50 2 second year	450.00	9.00			
Layout and plant, 75¢/tree	75.00	3.00			
Irrigate: labor	18.00	27.00	36.00	45.00	45.00
water \$12/ac.ft.	12.00	18.00	24.00	30.00	30.00
Weed Control: Disc, Chemical	75.00	75.00	75.00	75.00	75.00
Fertilization	15.00	24.00	35.00	44.00	54.00
Pest Control, inc. growth regulators	35.00	45.00	87.00	122.00	191.00
Frost Protection - wrap, water, power	48.00	48.00	57.00	57.00	57.00
Misc. (tree care and suckering)	25.00	25.00	25.00	25.00	25.00
County taxes	30.00	30.00	30.00	30.00	30.00
Repairs	10.00	10.00	15.00	15.00	15.00
Business & Office Costs	118.00	28.00	35.00	40.00	47.00
Management	---	---	---	---	---
TOTAL PRE-HARVEST CASH COSTS	\$1431.00	342.00	419.00	483.00	569.00
DEPRECIATION					
Irrigation system: \$500/20 yrs	25.00	25.00	25.00	25.00	25.00
Tractor: \$2.70/hour	12.60	9.45	10.50	10.50	12.60
Bldgs, other equip.: \$150/12 yrs	12.50	12.50	12.50	12.50	12.50
TOTAL DEPRECIATION	50.10	46.95	48.00	48.00	50.10
INTEREST ON INVESTMENT @ 15%					
Irrigation system: ½ cost \$250	37.50	37.50	37.50	37.50	37.50
Tractor: \$1.20/hr	7.20	5.40	6.00	6.00	7.20
Bldgs., other equip.: ½ cost \$75	11.25	11.25	11.25	11.25	11.25
Land: \$3200/acre	480.00	480.00	480.00	480.00	480.00
Interest on accumulated costs	---	302.56	486.41	682.63	890.89
TOTAL INTEREST ON INVESTMENT	\$ 535.95	836.71	1021.16	1217.38	1426.84
TOTAL COST FOR THE YEAR	\$2017.05	1225.66	1488.16	1748.38	2045.94
CREDIT FOR FRUIT, \$2.00/fl d box	\$ ---	---	180.00	360.00	500.00
NET COST FOR THE YEAR	\$2017.05	1225.66	1308.16	1388.38	1545.94
ACCUMULATED NET COST	\$2017.05	3242.71	4550.87	5939.25	7485.19

Prepared by: J.H. Connell & E.A. Yeary, Farm Advisors

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Issued in fulfillment of Cooperative Extension Unit, Act of May 8 and June 28, 1954, in cooperation with the United States Department of Agriculture, James B. Sandwith, Jr., Director, Cooperative Extension, University of California.

NAVEL ORANGE PRODUCTION FOR A MATURE ORCHARD

Cost Analysis Work Sheet - Fresno County 1980

Costs are based on a planting of 90 trees per acre, yielding 450 field boxes (50 lbs) of fruit per acre. Equipment Operator, \$5.50 per hour total, and other labor, \$4.50 per hour. Tractor costs per hour: Cash costs \$3.90, depreciation \$2.10, and interest \$1.20 (land and tree costs are less than on a new planting).

	Sample Costs		My Costs	
	Per Acre	Per Fld Box	Per Acre	Per Fld Box
PRE-HARVEST CASH COSTS:				
Prune, sucker, brush disposal	28.00			
Irrigate: 7 times, labor	45.00			
water: 2½ ac.ft at \$12.00	30.00			
Fertilizer:Nitrogen,zinc,leaf analysis and application	54.00			
Pest Control, including growth regulators				
thrips,scale,mites	130.00			
whitewash	30.00			
growth regulators:½ trt.ac.	31.00			
Weed Control: chemical, annual	22.00			
spot treatment	13.00			
Drive row, maintenance	7.00			
Frost protection:water and labor	57.00			
Wind Machine:(electric:100 h.p.-100 hrs)	145.00			
Misc.labor, materials,power	40.00			
Taxes	75.00			
Repairs	15.00			
Office and business costs	65.00			
TOTAL PRE-HARVEST COSTS	787.00	1.75		
DEPRECIATION:				
Irrigation system \$500/20 yrs	25.00			
Tractor: \$2.10/hr	12.60			
Wind machine: \$1500/15 yrs	100.00			
Bldgs other equipment, \$150/12 yrs	12.50			
Trees \$7000/30 yrs	233.33			
TOTAL DEPRECIATION	383.43	.85		
INTEREST ON INVESTMENT AT 15%:				
Irrigation system, ½ cost \$250	37.50			
Tractor: \$1.20/hr	7.20			
Wind machine: ½ cost, \$750	112.50			
Bldgs other equipment, ½ cost \$75	11.25			
Trees: ½ cost \$3500	525.00			
Land: \$2800	420.00			
TOTAL INTEREST ON INVESTMENT	1113.45	2.47		
TOTAL COST OF PRODUCTION	2283.88	5.07		

SAMPLE COSTS AT VARYING YIELDS

Yield: field boxes/acre (50 lbs)	300	400	500	600	700
On-tree cash costs	\$ 2.62	\$ 1.97	\$ 1.57	\$ 1.31	\$ 1.12
Total all costs of production	\$ 7.61	\$ 5.71	\$ 4.57	\$ 3.80	\$ 3.26

Prepared by: J.H.Connell & E.A.Yeary, Farm Advisors

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914 in cooperation with the United States Department of Agriculture, James R. Hendrix, Jr., County Cooperative Extension University of California

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