

1987 ORANGE PRODUCTION MANAGEMENT

This example of growing costs is calculated from the following assumptions. The farm is owner-operated, acreage of navel oranges and other fruit being large enough to warrant pickup, shop, tools, tractor, etc. It is located in a good citrus area. Frost hazard is moderate with 100 hours of frost protection required each winter. The cultural practices are for a grove with better-than-average yield of 500 boxes per acre. Capitalization values are \$4,000 for land plus \$7,700 tree development costs per acre.

Cultural costs itemized include labor at \$6.50 and \$7.50 per hour, including compensation and social security and fringe benefits. Wind machine operating costs at \$15/hr. including power, upkeep and repairs, and weed sprayer with tractor operating costs at \$9/hr. No provision is made for value of supervision or management.

The grove has a deep well with pump and is in an irrigation district receiving CVP water. Southern SJV water costs vary with pumping depth, district assessments and agency water source, values range from \$10 to over \$100/A ft. Application is by low volume emitter system with adequate filtration.

The method of soil management is non-tillage, fall and spring soil sterilant spray and two spot sprayings during the rest of the season.

The pest control problem includes worms, thrips, mites (partial), scale and brown rot. A growth regulator spray is applied to half the navel crop (late picks) but charged to entire acreage.

Frost protection is by wind machines and pumped irrigation water.

Nutrition program is nitrogen applied according to leaf analysis information. Zinc is applied in one of the pest control sprays.

Soil amendment, gypsum and manure - 3-5 tons/acre, every third year.

Pruning (machine + hand) is done on a five-year cycle, prorated at 20% of the cost each year.

Depreciation and interest on capital assets used on the entire farm (buildings, pickup, weed sprayer, irrigation system and tractor). Wind machines over the citrus acreage. Interest at 11% on one-half cost, except land.

Picking of fruit is done by the packinghouse and charges deducted at that point. This example is for on-tree expenses. Harvesting costs per field box were \$18.75 per bin (16 field boxes) for all harvest operations.

The tree development costs represent the cultural expense, cash overhead and investment charges for a five-year development time. The interest cost became substantial with this approach.

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Cost Analysis Work Sheet - Southern San Joaquin Valley - 1987

Yield: 500 Field Boxes Per Acre

	<u>Sample Costs</u>		<u>My Costs</u>	
	Per Acre	Per Fld. Box	Per Acre	Per Fld. Box
PRE-HARVEST CASH COST:				
Irrigate: Labor - 5 hrs.	\$33			
Water - 2.5 acre/ft.	100			
Pest Control: Worms, thrips, mites scale, L&M	207			
Disease Control - whitewash	49			
Growth Regulator Sprays: navels only, 1/2 acreage	44			
Prune, sucker, shred brush, 1/5 cost	66			
Nutrition: N, Zn, & testing, L&M	46			
Soil Amendments - 1/3 cost	58			
Weed Control: Soil treatment, 2X	35			
Spot spray, 2X	36			
Frost Protection: Wind machine, water drives	165			
Misc: Labor, materials	40			
Taxes	80			
Repairs & upkeep	25			
Office/business costs	39			
Interest on operating capital @ 12%	61			
TOTAL PRE-HARVEST CASH COSTS	\$1084	\$2.17		
DEPRECIATION:				
Pump and well: \$250, 25 yrs.	10			
Irrigation system: \$700, 10 yrs.	70			
Wind machine: \$1400, 15 yrs.	93			
Bldgs., other equip: \$560, 12 yrs.	47			
Trees, \$7000, 30 yrs.	257			
TOTAL DEPRECIATION	\$477	.95		
INTEREST ON INVESTMENT @11%				
Pump and well: 1/2 cost, \$125	14			
Irrigation system: 1/2 cost, \$350	38			
Wind machine: 1/2 cost, \$700	77			
Bldgs., other equip: 1/2 cost, \$280	31			
Trees: 1/2 cost, \$3850	424			
Land: \$4000	440			
TOTAL INTEREST ON INVESTMENT	\$1024	\$2.05		
TOTAL COST OF PRODUCTION	\$2585	\$5.17		

Sample Costs at Varying Yields

Yield: Field Boxes/A (50 lbs.)	300	400	500	600	700
On Tree Cash Costs	\$3.61	\$2.71	\$2.17	\$1.81	\$1.55
Total Costs of Production (on tree)	\$8.62	\$6.46	\$5.17	\$4.31	\$3.69