

NAVEL ORANGE PRODUCTION FOR A MATURE ORCHARD
 Cost Analysis Work Sheet - Southern San Joaquin Valley - 1982

	<u>Sample Costs</u>		<u>My Costs</u>	
	Per Acre	Per Fld. Box	Per Acre	Per Fld. Box
<u>Pre-Harvest Cash Costs:</u>				
Irrigate: labor	\$ 44.			
water: 3 ac. ft. @ \$20		60.		
Pest Control, including growth regulators				
thrips, scale, mites		141.		
whitewash		35.		
growth regulators: ½ acreage		21.		
Prune, sucker, brush disposal (1/5 cost)		28.		
Fertilizer: Nitrogen, zinc, leaf				
analysis and application		40.		
Weed Control: soil sterilants		19.		
spot treatments		46.		
Drive row maintenance		8.		
Frost protection: (w.m. + water)		145.		
Misc. labor, materials, power		40.		
Taxes		60.		
Repairs		22.		
Office and business costs		43.		
TOTAL PRE-HARVEST COSTS	\$ 752.	\$1.67		
<u>Depreciation:</u>				
Irrigation system, \$410/20 years	\$ 21.			
Wind machine: \$1300/15 years		87.		
Bldgs., other equipment: \$530/12 years		46.		
Trees: \$6600/30 years		220.		
TOTAL DEPRECIATION	\$ 374.	\$.83		
<u>Interest on Investment at 14%:</u>				
Irrigation system: ½ cost \$205	\$ 29.			
Wind machine: ½ cost \$650		91.		
Bldgs., other equipment: ½ cost \$265		37.		
Trees: ½ cost \$3300		462.		
Land: \$3000		420.		
TOTAL INTEREST ON INVESTMENT	\$1039.	\$2.31		
TOTAL COST OF PRODUCTION	\$2165.	\$4.81		

SAMPLE COSTS AT VARYING YIELDS

Yield: field boxes/acre (50 lbs.)	300	400	500	600	700
On-tree cash costs	\$2.51	\$1.88	\$1.50	\$1.25	\$1.07
Total all costs of production	\$7.22	\$5.41	\$4.33	\$3.61	\$3.09

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1982 NAVEL ORANGE PRODUCTION MANAGEMENT

This example of growing costs for navel oranges 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 \$3000 for land plus \$6600 tree development costs per acre.

Cultural costs itemized include labor at \$5.25 and \$6.25 per hour, including compensation and social security and fringe benefits. Wind machine operating costs at \$14./hr. including power, upkeep and repairs, and weed sprayer with tractor operating costs at \$8./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. Application is by pipeline to permanent furrows with a return flow system. The season requires 12 cycles.

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

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

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.

Pruning (machine + hand) is done every fifth year, 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 14% 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 up to harvesting. Harvesting costs per field box (1981-82) were \$15-\$16 per bin (16 fld. boxes) for all harvest operations.

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