

NAVEL ORANGE PRODUCTION COSTS - TULARE COUNTY

<u>CULTURAL OPERATIONS:</u>	<u>SAMPLE COSTS PER ACRE</u>
Irrigation: 3 ac. ft. water @ \$12/ac. ft. + \$6 assess. Labor, 14 hrs., pull hoses	\$ 42 22
Pest Control: Prebloom \$18, petal fall \$29, summer thrip \$9, fall mites \$26	82
Disease Control: Bordeaux-whitewash spray	19
Frost Protection: Wind machines, 100 hrs. prorated over entire acreage (1/2 cost) Labor, 100 hrs. (1/2 cost)	14 5
Gibb., 2,4-D Spray: Prorated over entire acreage (1/2 cost)	17
Nutrition: Nitrogen 150# @ 11¢/lb., leaf analysis and application \$3, zinc \$4	23
Soil Management: Fall sterilant treatment \$10 3 spot oil sprays \$13	23
Pruning: Every 5 yrs. (1/5 cost)	15
Misc., replanting, tree care, etc. (1 hr./mo.)	19
Misc. material, trees, etc.	10
Sub-total	\$291
<u>CASH OVERHEAD:</u>	
Taxes	56
Maintenance & Repairs (buildings, pickup, irrigation)	7
Office expense, transportation, phone, insurance	17
Sub-total	\$ 80
<u>TOTAL PRE-HARVEST CASH COSTS</u>	<u>\$371</u>
<u>INVESTMENT OVERHEAD:</u>	
Depreciation	94
Interest on Investment	146
Sub-total	\$240
<u>TOTAL PRE-HARVEST COSTS</u>	<u>\$611</u>

COST PER FIELD BOX AT VARYING YIELDS

Yield: field boxes per acre	200	315*	400	500	600
On tree cash cost	\$1.85	\$1.18	\$.93	\$.74	\$.62
Total on tree cost	\$3.06	\$1.94	\$1.53	\$1.22	\$1.02

*10-year yield average for Central California navel industry (NOAC)

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1967 NAVEL ORANGE PRODUCTION MANAGEMENT

This example of growing costs for navel oranges is calculated from the following assumptions. The farm is owner-operated, 40 acres of navel oranges and 40 acres of other fruit. 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 \$1200 for land plus \$1800 tree development costs per acre-- (assessed value \$800, tax rate \$7). These figures reflect agricultural values and not market prices which include alternate investment purposes.

Cultural costs itemized include labor at \$1.60 and \$1.80 per hour, inc. compensation and social security, wind machine operating costs at \$2.75/hr. inc. fuel, upkeep and repairs, and weed sprayer with tractor operating costs at \$2/hr. No provision is made for value of supervision or management.

The grove is in an irrigation district receiving CVP water at \$12/ac. ft. plus a \$6 assessment. The distribution is by 10-day dragline sprinkler system installed for \$250 per acre. The season requires 14 cycles, 1 man hr/acre. The method of soil management is non-tillage, fall soil sterilant spray and three spot sprayings with oil during the rest of the season.

The pest control problem includes thrips, mites, scale and brown rot. The mites require a separate fall treatment prior to the bordeaux-whitewash spray. A growth regulator spray is applied to half the grove (late picks) but charged to entire acreage of oranges.

Frost protection is by two wind machines covering half the acreage (late picks), but costs are prorated over the 40 acres of oranges.

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

A light pruning 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 and tractor) are calculated for 80 acres. Irrigation system is applied to citrus land. Wind machines serve half the acreage, but overhead is spread over all the citrus acreage. Interest at 6% 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 (1966-67) were about 28¢ picking labor, 9¢ hauling and 10¢ overhead for all harvest operations.

Investment, Depreciation and Interest Schedule (per acre)

	<u>Investment</u>	<u>Depreciation</u>	<u>Interest</u>
Land	\$1200	\$ --	\$ 72
Tree development costs	1800	45	54
Irrigation system	250	21	8
Buildings & Equipment	150	12	5
Wind machines	235	16	7
	<u>\$3635</u>	<u>\$ 94</u>	<u>\$146</u>