

NAVEL AND VALENCIA ORANGES  
SAMPLE COSTS OF PRODUCTION  
SAN BERNARDINO COUNTY

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Yields and costs for growing oranges in San Bernardino County vary considerably. This information is to serve as a guide for cost estimation and cost comparison. Sample costs in this report are based on a typical ten-acre orchard during a normal year. The non-tilled orchard would have 90 trees per acre, be 60 years old, irrigated by furrows, and protected by wind machine plus heaters.

Appreciation is expressed to the growers, farming companies, and pest control operators who provided representative cost figures for this study. I also wish to thank Robert C. Rock, economist, Agricultural Extension Service, who helped in its preparation.

University of California  
Agricultural Extension Service  
County of San Bernardino

# SAMPLE COSTS TO PRODUCE ORANGES

SAN BERNARDINO COUNTY 1968

## CULTURAL OPERATIONS

Cost per acre

Fertilization	\$ 30.00
Irrigation - labor	41.00
(17 x) - water	51.00
Pest Control	105.00
Disease Control	11.00
Weed Control	32.00
Pruning and Disposal	12.00
Frost Protection	65.00
Tree Replacement	12.00
Miscellaneous	5.00
Sub-total	\$ <u>364.00</u>

## CASH OVERHEAD

Taxes	110.00
Maintenance and Repair	10.00
General Expense	10.00
Sub-total	\$ <u>130.00</u>

<b>TOTAL ON-TREE CASH COSTS</b>	<b>\$ 494.00</b>
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## INVESTMENT OVERHEAD

Depreciation	215.00
Interest on Investment	367.50
Sub-total	\$ <u>582.50</u>

<b>TOTAL ON-TREE COSTS</b>	<b>\$1076.50</b>
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<b>TOTAL ON-TREE COSTS</b>	<b>\$ 709.00</b>
<b>(less interest)</b>	

## Fertilization

1 lb. nitrogen per tree @ 10.5¢ per lb. = \$9.45  
Application cost \$3.60 per acre

25 lbs. Z-M @ 28¢ per lb. = \$7

40 lbs. urea @ 9¢ per lb. = \$3.60

Cost of spray application if not included in a  
pesticide = \$8-\$10

## Irrigation

Labor - Most groves are irrigated 10 to 17 times per year depending upon soil type. Labor costs \$1.75 to \$2.50 per hour.

Water - Costs of stocks and shares vary considerably but total to an average of \$12.50 per acre foot of water for large water companies. Cost to small groups on a cooperative will average 30¢ per miners inch. 10 miners inches per acre for 17 irrigations = \$51.

## Pest Control

If oil @ \$44 to \$52 is used to control scale insects and citrus red mites, usually one additional mite control spray @ \$30 is necessary. One or two thrip sprays @ \$8.50 are necessary. Orange worms and other citrus pests may require \$15 to \$22 for control. Without an oil pesticide, 2 or 3 sprays for mites are often necessary. Gophers are trapped or poisoned.

## Disease Control

Brown rot control @ \$11 is necessary during wet cool winters.

## Weed Control

Grove is under non-tillage; application of a pre-emergence herbicide @ \$9.50 plus weed oil or paraquat twice @ \$11.25 = \$32.00. If cultivated, costs would be higher.

## Pruning and Disposal

Only dead wood, suckers and crossed branches need be removed from orange trees once every 4 or 5 years. However, hand pruning will cost \$1 to \$2 per tree. If mechanical topping and hedging machines are used to limit tree size, costs will range from \$20 to \$30 per acre.

## Frost Protection

Electric or gasoline powered wind machines, heater oil, and labor average about \$65. Costs vary with location and year.

## Tree Replacement

2 trees @ \$3 per tree = \$6

Planting and maintenance cost = \$3 per tree

## Taxes

Most taxes range from \$80 to \$150 or more depending on location.

## General Expense

Includes office, accounting, insurance, transportation, etc.

## Harvest

These total on-tree costs do not include harvest costs.

## Interest

Interest at current rate was calculated on land, trees, irrigation system, wind machines, and heaters.

## Investment Overhead

The trees and irrigation system were depreciated over 20 years; wind machines and heaters were depreciated on a 10-year schedule.

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