

COST ANALYSIS WORK SHEET
 SAMPLE COSTS TO PRODUCE ORANGES IN TULARE COUNTY - 1964

Based on a yield of 400, 53-lb. field boxes per acre. Man labor at \$1.30 and \$1.50 per hr. light wheel tractor: cash cost \$1.20 per hr., depreciation \$1.00, and interest 45¢.

	Sample Costs		Your Costs	
	Per Acre	Per Field Box	Per Acre	Per Field Box
PRE-HARVEST CASH COSTS:				
Soil management (nontillage)	\$ 19.00			
Irrigate: 7 times - 24 M hrs.	31.20			
Water: power to pump 3 ac. ft. @ \$6	18.00			
Fertilize: 1 hr. M & T	2.70			
Fertilizer: 105# N. @ 12¢	12.60			
Pest control: 3 times - contract	85.00			
Frost protection: power \$45, heater oil \$10	55.00			
Frost protection: labor 6 M hrs + 1 T hr.	9.20			
Pruning & brush disp. - contract every 4 yrs.	18.00			
Misc. labor: 4 M & 1 T hrs.	6.60			
Misc. material	5.00			
County taxes	40.00			
Office, car, operating capital, etc.	16.00			
Repairs: irrig. system, equip. except trac.	5.00			
TOTAL PRE-HARVEST CASH AND LABOR COST	\$323.13	\$.81		
HARVESTING COSTS:				
Picking @ 28¢ per field box	112.00	.28		
Hauling @ 3¢ " " "	32.00	.08		
TOTAL HARVESTING COST	\$144.00	\$.36		
TOTAL CASH AND LABOR COSTS	\$467.13	\$1.17		
DEPRECIATION COSTS:				
Trees: (\$1076 cost - 40 yrs. life)	26.90			
Irrigation facilities - \$360 cost	19.50			
Wind machine and heaters: \$620 cost	41.50			
Tractor: 5 hrs. @ \$1	5.00			
Buildings and equipment: \$150 cost	12.00			
TOTAL DEPRECIATION COST	\$104.90	\$.26		
TOTAL CASH AND DEPRECIATION COST	\$572.03	\$1.43		
INTEREST ON INVESTMENT @ 6%				
Trees: on 1/2 original cost (\$538)	32.28			
Irrigation facilities: on 1/2 cost (\$180)	10.80			
Wind machine & heaters: on 1/2 cost (\$310)	18.60			
Tractor: 5 hrs. @ 45¢	2.25			
Buildings & equipment: on 1/2 cost (\$75)	4.50			
Land @ \$1000	60.00			
TOTAL INTEREST ON INVESTMENT COST	\$128.43	\$.32		
TOTAL COST OF PRODUCTION	\$700.46	\$1.75		

COST PER FIELD BOX AT VARYING YIELDS

Yield - field boxes per acre	300	400	500	600	700	800
Cash and depreciation cost	\$1.79	\$1.43	\$1.22	\$1.07	\$.97	\$.90
TOTAL COST PER BOX	2.21	1.75	1.47	1.29	1.15	1.06

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1964 ORANGE COSTS
AND MANAGEMENT DATA

Orange acreage totals more than 55,000 acres in Tulare County. This places Tulare County first in acreage and production in California.

Cost data presented herein represents the best available current estimates. Each individual grove will vary according to its special situation relating to location, soil, water, tree and management factors.

Location: Oranges are generally adapted to the so-called "thermal belt" located roughly in a 10 to 15-mile strip along the Sierra foothills. Temperatures vary according to air drift and relative elevation. Usually as density of plantings increase, areas become colder.

Soil requirements and management: Oranges grow on a wide variety of soils. Deeper, well-drained soils are preferred. Alkali ground should be avoided. Nontillage is preferred where it can be employed. Costs are usually less after the first year or two after tillage ceases.

Water requirements: Adequate, but not excessive, moisture should be available to the trees at all times. The most critical period is during flowering and fruit setting. Heaviest water use comes during hot weather--June, July, August, and September. Total water applied through irrigations varies according to season and soil--about 3-acre feet per acre per year is usual.

Bud lines: Selection of virus-free strains is important. Nucellar bud lines and certified psorosis (scaly bark) and ecocortis (scaly butt) free budwood generally give best results.

Rootstocks: Troyer citrange, trifoliate orange, Cleopatra mandarin and possibly sweet orange and grapefruit rootstocks appear best under most conditions. Soil conditions, bud lines used, and management practices determine the best rootstock for a given situation.

Planting distances: Spacing depends on variety, rootstock, soil type and local climatic factors. The most usual planting distances are 22 x 22 or 20 x 20. Double setting (22 x 11 or 20 x 10) is widely practiced. The interset should be cut back and eventually removed to avoid crowding and loss of production in later years.

Fertilization: Nitrogen is generally applied once a year in February at the rate of 1 pound to about 1½ pounds per tree. Trees grow poorly and crops are light when nitrogen is lacking. Excessive fertilization affects fruit quality adversely.

Pest and disease control: All serious pests and diseases must be controlled to maintain the grove in economical fruit production.

Harvesting and marketing: Under controlled marketing, navel oranges are harvested from October to May. Valencias are harvested from mid-March through June. Highest quality fruit is grown on trifoliate orange rootstock.

Outlook: Citrus production costs will remain high and relatively "fixed." Costs per unit will go down with increasing production. Top quality commands the best prices. Successful orange growers increase production per acre and grow high-quality fruit.