

COSTS OF ESTABLISHING A CHERRY ORCHARD  
AND  
PRODUCTION, PACKING AND SHIPPING COSTS

SAN JOAQUIN COUNTY - 1983

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SAMPLE COSTS TO ESTABLISH A CHERRY ORCHARD AND PRODUCE A CROP IN SAN JOAQUIN COUNTY - 1983

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I. INTRODUCTION

This compilation of sample annual costs of establishing a cherry orchard and producing, packing, and shipping a crop of sweet cherries in San Joaquin County is based on the following assumptions:

- The trees are planted on 40 acres of land, valued at \$6,000 per acre, at the rate of 90 trees per acre.
- Labor costs, including Workmen's Compensation, Social Security, and fringe benefits, are \$4.50 for unskilled labor and \$5.50 for skilled labor.
- Interest on the investment or lost opportunity cost is 12%.
- Depreciation is calculated on a straight line basis.
- All equipment is considered new and at current value.
- All final calculations are rounded to the nearest dollar.

The following is a summary of the capital inventory, investments, and calculated non-cash fixed costs of interest and depreciation.

Table 1. CHERRY ORCHARD CAPITAL INVENTORY AND NON-CASH FIXED COSTS PER ACRE

INVENTORY	CAPITAL INVESTMENT	INVESTMENT PER ACRE	EXPECTED LIFE	FIXED COSTS PER ACRE		TOTAL COSTS PER ACRE
				INTEREST	DEPRECIATION	
LAND	\$240,000	\$ 6,000	--	\$720	--	\$ 720
IRRIGATION SYSTEM	30,000	750	20 years	45	\$38	83
SHOP BLDG & TOOLS	20,000	500	20	30	25	55
EQUIPMENT						
40-HP Wheel tractor	14,375	359.38	10	22	36	58
Disc - 10'	4,830	120.95	10	7	12	19
Cultipack - 10'	2,070	50.85	10	3	5	8
Float - 10'	1,400	35.00	10	2	4	6
Trailer sprayer - 200 gal.	2,875	71.88	10	4	7	11
Gopher baiter	920	23.00	10	1	2	3
Pickup truck	10,350	258.75	5	16	52	68
Lister - 4-row	1,840	46.00	10	3	5	8
Sprayer, 400-gal. PTO	15,000	375.00	15	23	38	61
TREES	504,800	10,582.00	20	757	631	1,388
<p>This tree value equals the total investment per acre in raising the trees up to the point when annual gross farm income approximates the total annual production cost. Non-cash fixed costs for trees during the developmental period were calculated annually and are shown in the detailed cost studies following.</p>						
TOTALS	\$848,460	\$19,172.81		\$1,633	\$855	\$2,488

II. HARVESTING, PACKING, AND SHIPPING COSTS - PER HARVESTED TON

HARVEST COSTS

Picking labor costs vary by crop size, but generally it runs 12¢ per pound -	-\$240.00
Labor supervision by a contractor, including insurance, etc., is about 35% of the cost of picking - - - - -	84.00
Boxing and hauling - - - - -	15.00
TOTAL HARVEST COST	<u>\$339.00</u> per ton

PACKING AND SHIPPING COSTS

<u>Packinghouse Costs</u> - These costs are calculated on a 90% packout basis; i.e., 100 packed, 18-pound Calax lugs of U.S. No. 1 fruit and 10% culls diverted to processing outlets - - - - -	\$367.00
<u>Shippers' Commission</u> - Predicated on 9% of the sale price, assumed to be \$15.00 per 18-pound lug of U.S. No. 1 fruit, f.o.b. Stockton- - - - -	135.00
TOTAL PACKING AND SHIPPING COSTS	<u>\$502.00</u>

TOTAL HARVESTING, PACKING, AND SHIPPING COSTS - - - - - \$841.00

(It should be noted that a line of interest-free credit is usually advanced to the producer by the shipper for harvest and packing costs.)



Table 2. SUMMARY OF COSTS PER ACRE TO ESTABLISH A CHERRY ORCHARD OR PRODUCE A CROP IN SAN JOAQUIN COUNTY - 1983

	Y E A R						
	1	2	3	4	5	6	7
PLANTING COSTS							
Land Preparation	\$ 100						
Trees	329						
Layout, plant and prune	75						
Tank irrigate	49						
TOTAL PLANTING COSTS	553						
CULTURAL CASH COSTS							
Fertilize	--	\$ 6	\$ 9	\$ 13	\$ 23	--	--
Dormant prune	--	22	39	50	33	\$ 33	\$ 33
Replant 5%	--	34	34	34	--	--	--
Cultivate	38	38	38	38	38	38	38
Irrigate	40	40	42	46	60	65	65
Hoe weeds	23	14	14	14	14	14	14
Spray	28	31	56	43	58	68	68
Poison gophers	4	4	4	4	4	4	4
Summer prune	--	28	28	--	--	--	--
Bee rental	--	--	--	--	25	25	25
Miscellaneous labor, equipment and materials	45	23	22	20	19	20	20
TOTAL CULTURAL CASH COSTS	178	240	286	262	274	267	267
OVERHEAD CASH COSTS							
Taxes	60	60	60	60	60	90	90
Pickup truck @10,000 miles per year	63	63	63	63	63	63	63
Office, telephone, bookkeeping, etc.	30	30	30	30	30	30	30
TOTAL OVERHEAD CASH COSTS	153	153	153	153	153	183	183
NON-CASH FIXED COSTS							
Interest	852	1,082	1,282	1,511	1,769	1,437	1,510
Depreciation	186	186	186	224	224	693	753
TOTAL NON-CASH FIXED COSTS	\$1,038	\$1,268	\$1,468	\$1,735	\$1,993	\$2,130	\$2,263
TOTAL CULTURAL COSTS	1,922	1,661	1,907	2,150	2,420	2,580	2,713
YIELD EXPECTATIONS IN TONS	--	--	--	--	1	2	4
TOTAL HARVEST COST	--	--	--	--	339	678	1,356
TOTAL PACKING AND SHIPPING COST	--	--	--	--	502	1,004	2,008
GROSS INCOME CREDIT FOR CROP	--	--	--	--	1,527	3,054	6,108
TOTAL COST PER ACRE	1,922	1,661	1,907	2,150	1,734	1,208	-31
ACCUMULATED TOTAL INVESTMENT	\$1,922	\$3,583	\$5,490	\$7,640	\$9,374	\$10,582	--

Several factors involved in the costs of establishing a cherry orchard become critical in respect to the calculated total accumulated investment and the orchard's profit expectations.

The largest single cost is the accumulated non-cash costs of interest and depreciation on the land, buildings, equipment and trees during the developmental years prior to the breakeven point. This can be 75% or more of the total accumulated pre-harvest costs. Obviously anything a producer can do to shorten this time interval by increasing yields or prices will markedly reduce the total investment. This cost study is predicated on yield expectations of one, two, and four tons per acre from the fifth through the seventh year specifically. Although these yield figures are higher than average, they are 30-40% below what some producers have accomplished. By the same token, the location and management of the orchard can make a difference of 10 days or more in fruit maturity and harvest dates, which could result in 40-50% higher f.o.b. price expectations (or more in some years) due to the early market price differential.

There are several unpredictable diseases of cherries associated with the "cherry dieback problem," which can not be totally controlled with current farming practices. These problems can be devastating to an orchard and are of such a risk nature that they make the long term productivity of an orchard highly speculative. To discount this risk, it could be argued that a higher interest rate should be used in calculations of this nature for purposes of decision making.