

CITRUS ORCHARD DEVELOPMENT COSTS

Description

The cost figures given in this sample are based on assumed conditions. The typical practices are listed, with sample costs given for the labor, materials, and equipment required. These are not presented as "standard" costs, but are intended as guidelines based upon growers' experience. Individual orchards may vary considerably from these figures in their cost and return experience. Particular items may vary from a grower's experience due to difference in conditions. Warm locations, for example, require no frost protection. Availability of adequate well water reduces the cost of irrigation water.

Orchards on steep slopes, with inadequate roadways and drives for fruit hauling and grove work, will cost considerably more to operate. Portable or drag-line irrigation systems may have lower initial costs, but higher labor requirements. Poor or untimely farming and management practices commonly cause costs to be higher than necessary and returns to be low.

Weed control is one operation that can be very costly if treatments are delayed or poorly done. If weed control has been neglected or weed control adjacent to the planted area is included, costs will be much higher. Elimination of a weed problem is more costly than maintenance of a normal weed control program. Delayed weed control is probably the most frequent cause of costs being higher than expected.

This study is based on expected costs for planting citrus trees on flat to gently sloping hillside land in the north part of the county. It is a 20-acre planting, using newly cleared soil. Tree spacing will vary depending upon variety planted, growers' personal preference, soil type, land topography, etc. Different spacings used are: 10' x 20', 11' x 22', 16' x 20', 18' x 22', 20' x 20', and 25' x 25' with tree in the middle. Closer spacings provide more fruit earlier, and tree cost is greater. Wider spacings result in less crowding as trees mature. Number of trees per acre with each spacing are: 10' x 20' = 218, 11' x 22' = 180, 16' x 20' = 136, 18' x 22' = 110, 20' x 20' = 108, 25' x 25' = 69. Varieties include: Valencia oranges, Navel oranges, summer Marsh grapefruit (white and red), Eureka and Lisbon lemons, and Bearss limes.

Sandy loam soil over decomposed granite is typical. Water obtained through the local water district is applied with a permanent sprinkler system, using revolving sprinklers. A wind machine and heaters sufficient to protect 10 acres of low ground are included. Other equipment includes a fuel tank, wheel tractor, weed sprayer, and mower.

Investment

The total investment value is given at the end of each year for the five-year period. This includes the cost of the land, water meter, and the undepreciated balance for the sprinkler system. It also includes the total cost of the trees which consists of the accumulated net annual costs of their care. The cost has been reduced by credits for fruit sold.

Thus, the final figure of \$17,058 is the net cost per acre of the total orchard investment at the end of the fifth year, under the assumed conditions.

(over)

Dollars Per Acre

	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.
Cash, Labor, and Power					
Land preparation	\$ 350	\$	\$	\$	\$
Layout and plant	300				
Trees, maximum 150 @ \$4.50	675				
Irrigate	100	100	100	100	100
Water	100	100	200	300	450
Wrapping (labor, materials, and mulch)	100				
Fertilize (labor and materials)	25	35	40	50	60
Weed control	125	130	100	100	100
Pest and disease control	75	80	80	110	120
Frost protection	Var. - depends on location			90	90
Miscellaneous (tree care, suckering, cover crop)	50	50	50	50	50
County taxes	75	75	75	100	150
Maintenance and repair	50	50	50	50	50
General expense	100	100	100	100	100
Management charge \$7/mo/ac	84	84	84	84	84
Total Cash Costs	\$2,209	\$ 804	\$ 879	\$ 1,134	\$ 1,354
Less credit for fruit sold	--	--	--	200	400
NET CASH COSTS	\$2,209	\$ 804	\$ 879	\$ 934	\$ 954
Investment Costs					
Depreciation	125	125	125	175	175
Interest on Investment @ 9%	750	829	976	1,143	1,330
Total Non-Cash Costs	875	954	1,101	1,318	1,505
Total Net All Costs	\$3,084	\$ 1,758	\$ 1,980	\$ 2,252	\$ 2,459
Accumulated Total Net Cost	\$3,084	\$ 4,842	\$ 6,822	\$ 9,074	\$11,533

INVESTMENT VALUE AT END OF YEAR

	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.
Land (Assumed value)	\$4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500
Trees	3,084	4,842	6,822	9,074	11,533
Irrigation system - \$1000, equipment and buildings - \$250, frost protection (end of 3rd year) - \$500 + 1750	1,625	1,500	1,375	1,200	1,025
Total Investment Value	\$9,209	\$10,842	\$12,697	\$14,774	\$17,058

NOTE: We acknowledge the fine cooperation and assistance of the growers and farm managers who participated in accumulation of cost data.

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