

WHAT DOES IT COST TO DEVELOP A GRAPEFRUIT ORCHARD?
COACHELLA VALLEY

by

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The purpose of this table is to serve as a guide for you in estimating what it would cost you to bring an orchard up to profitable production. It is assumed that the yield of fruit beginning with the sixth year will cover the annual costs or more.

Wide variation - Cost will vary widely with the price paid for trees, number of trees per acre, wage rates, quantities and price of materials used. Cultural operations will vary according to soil type, weeds and pest control requirements. Some costs in the first two or three years may be offset by a judicious use of inter-planted crops.

Sample costs - No credit is given for intercrops. All labor and material is charged at current costs. Interest on investment is charged at 5% and depreciation is calculated on improvements and facilities.

Notes on Cost Items

Orchard layout - The survey costs to stake tree locations will differ considerably depending upon the method used. In practice some have a surveyor set all stakes while others locate the trees in the outside rows by a rough measurement and then ~~set stakes by sight from those points.~~ Spacing is usually about 24 x 24 although recent plantings tend to be a little closer with a wider spacing every 4th or 6th row to haul out fruit.

Irrigations - Frequent applications of water are beneficial to young trees, particularly on light soil. Flooding is recommended for the first few years. Cover a strip 4 or 5 feet wide down the tree row.

Sun and frost protection - A heavy newspaper wrapping will protect the trunk from sunburn and is helpful for frost protection.

Cover crops should be grown to control blowing of sand and to reduce reflected heat.

Pest control - Thrips are the principal pest and if not controlled may materially reduce growth. Inspect frequently in the spring and whenever growth flushes start. For maximum growth, treat whenever thrips are found.

Ants sometimes eat the bark on the trunk under the wrappings. They may be controlled with chlordane or D.D.T.

In heavy soil, paint the trunks at the ground level with the bordeaux paste or fungicide to protect against brown rot gummosis.

Fruit credits - Credits are based upon returns for marsh seedless grapefruit. Many new plantings are red fleshed varieties and per box credits have been higher than for marsh seedless. Some growers report a little fruit the third year.

Estimated Cost of Establishing an Orchard

Assume, Land \$750.00 per acre, leveled and irrigation system installed.
Planting - 24 x 24 - 75 trees per acre - Medium soil.

| Items | 1st yr. | 2nd yr. | 3rd yr. | 4th yr. | 5th yr. | Total |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Labor and field power | | | | | | |
| Land preparation - 6x | \$ 15.00 | | | | | |
| Orchard layout - survey | 6.00 | | | | | |
| Digging holes) | | | | | | |
| Planting trees) @ 25¢ | 25.00 | | | | | |
| Irrigations 25 x 20 - 20 | 25.00 | \$ 20.00 | \$ 20.00 | \$ 20.00 | \$ 20.00 | |
| Tillage - fur., cult., weeds | 9.00 | 9.00 | 12.00 | 20.00 | 20.00 | |
| Tree care - wraps | 9.00 | - | - | - | - | |
| Pruning | - | 2.00 | 2.00 | 2.00 | 10.00 | |
| Frost protection-palm leaves | 3.00 | - | - | - | - | |
| Cover crops | 1.25 | 1.25 | - | - | - | |
| Fertilizing | 1.00 | 2.00 | 4.00 | 4.00 | 4.00 | |
| Pest control | 5.00 | 5.00 | 10.00 | 15.00 | 15.00 | |
| Miscellaneous | 10.00 | 5.00 | 5.00 | 5.00 | 5.00 | |
| Total Labor and Field Power | \$109.25 | \$ 44.25 | \$ 53.00 | \$ 66.00 | \$ 74.00 | \$ 346.50 |
| Materials | | | | | | |
| Trees - 75 @ \$3.00 | \$225.00 | - | - | - | - | |
| Water @ \$3.00 per Acre ft. 4'-5'-6' | 12.00 | \$ 15.00 | \$ 18.00 | \$ 18.00 | \$ 18.00 | |
| Windbreak | - | - | - | - | - | |
| Tree protectors @ 3¢ | 2.25 | - | - | - | - | |
| Cover crop seed | 4.00 | 4.00 | - | - | - | |
| Fertilizers | 3.75 | 5.00 | 6.00 | 12.00 | 25.00 | |
| Pest control | 2.00 | 2.00 | 4.00 | 6.00 | 8.00 | |
| Miscellaneous | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | |
| Total material costs | \$254.00 | \$ 31.00 | \$ 33.00 | \$ 41.00 | \$ 56.00 | \$ 415.00 |
| Cash overhead costs | | | | | | |
| General expense - 5% above | \$ 18.16 | \$ 3.76 | \$ 4.30 | \$ 5.35 | \$ 6.25 | |
| Taxes | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | |
| Insurance | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | |
| Repairs and miscellaneous | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | |
| Total cash overhead costs | \$ 35.66 | \$ 21.26 | \$ 21.80 | \$ 22.85 | \$ 23.75 | \$ 125.32 |
| Sub total cash costs | \$398.91 | \$ 96.51 | \$107.80 | \$129.85 | \$153.75 | \$ 886.82 |
| Depreciation | \$ 7.50 | \$ 7.50 | \$ 7.50 | \$ 7.50 | \$ 7.50 | \$ 37.50 |
| Interest on investment 5% | \$ 37.50 | \$ 59.70 | \$ 67.50 | \$ 77.00 | \$ 85.25 | \$ 326.95 |
| Grand Total | \$443.91 | \$163.71 | \$182.80 | \$214.35 | \$246.50 | \$1251.27 |
| Fruit credits @ \$1.00 per box | - | - | - | \$ 50.00 | \$225.00 | \$ 275.00 |
| Total net costs | \$443.91 | \$163.71 | \$182.80 | \$164.35 | \$ 21.50 | \$ 976.27 |
| Accumulated costs | | \$607.62 | \$790.42 | \$954.77 | \$976.27 | |