

1967 COST TO PRODUCE AVOCADOS IN SAN DIEGO COUNTY

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In San Diego County the cost of producing avocados varies with the grower and the orchard. A recent study developed through the cooperative effort of growers, a University of California farm management specialist, irrigation company representatives, marketing groups' personnel, and the University of California farm advisor showed that the total operating costs, were \$1,168 per acre to produce avocados.

The study was based on a typical commercial Fuerte avocado orchard, ten acres, 10- to 15-year-old trees, 100 trees per acre, and utilizing a permanent, plastic irrigation system. The operating cost figure includes irrigation, fertilization, weed control, pest control, pruning, orchard thinning, maintenance and operation of equipment, taxes, insurance, management fee, general expense, interest on investment, and depreciation. Investment per acre included the sprinkler system, trees, building and equipment, and miscellaneous items such as hand and shop tools. Depreciation per acre was on the sprinkler system, trees (after 5 years of growth) and the miscellaneous items.

Irrigation constitutes the largest single expense of the agricultural operation totaling \$256. Water use averages $3\frac{1}{2}$ acre feet per acre at \$50 an acre foot for a cost of \$175. Labor required to irrigate approximately 36 times during the year cost \$81. Not only is irrigation the largest single expense, but the most important operation the grower must do in the orchard.

Fertilization with nitrogen totals \$29 per acre. Nitrogen applied in the chemical form at approximately \$.15 per pound costs \$23. Approximately 150 pounds of actual nitrogen per acre is used. Labor for applying the material is \$6.00, giving a total for material and labor of \$29. Zinc may be needed from time to time. This may be applied to the leaves by aerial spraying or ground spraying, or applied on the ground. Zinc is applied once every five years to the soil. Soil application requires a larger dosage than a foliage spray in order to supply the tree with an adequate amount of this material. A large dosage therefore lasts for the period up to five years. The foliage spray will probably have to be done once every year or two. Phosphate and potassium may be applied periodically but not regularly like nitrogen.

Other operational costs are: weed control at \$14, using oil and monuron on a spot-spraying basis and the use of tractor mower for mowing the weeds or grass; pest control, totals \$12 per acre, which is the cost of controlling ants, gophers, snails, and rodents; pruning costs, \$25 per acre, which consists of removing dead wood and lifting the skirts of the trees to permit better water distribution; orchard thinning, beginning between the 10th and 15th year, costs an average of \$30 an acre; maintenance and operation of equipment includes repairs, supplies, erosion control, etc. totaled \$65 per

acre. Breakdown of the total cultural costs are as follows: materials and equipment \$246 and \$185 for labor, giving a total of \$431 per acre.

Harvest costs were not included in this year's study for a number of reasons. The main reason for not including them is that all orchards are different in production and in the ability to pick the trees from a physical standpoint. It is therefore difficult to put down a poundage figure that would be realistic. The charge for picking fruit ranges from \$.01 up to \$.03 per pound, depending on the volume of crop, the age of the trees, and the labor used.

Operating overhead costs include: taxes at \$90 an acre, general expenses (insurance, office supplies, telephones, and management fee) of \$90 an acre. This gives a total of \$180 an acre overhead cost. The management fee is placed in the study since many growers are now using grove managers, marketing organizations, and grove management service. Whenever a grower utilizes an orchard management service he is paying a fee of so much a month per acre for supervision. The total operating cost (cultural and overhead costs) comes to a total cash pre-harvest cost of \$611 per acre. The non-cash cost, including depreciation at \$255 an acre and interest on investment of \$302, adds \$557 to the preharvest cost of \$611, giving a total of pre-harvest cost of \$1,168. For growers who do not want to charge interest on investment as a cost against the orchard, they may subtract the \$557 from the \$1,168 which will give a pre-harvest cost of \$866 per acre.

Significant variations that occur in yield per acre are due to different varieties, orchard location, cultural practices, type of tree, and climatic conditions. An average good commercial yield per acre for Fuertes should range from 5,000 pounds to 10,000 pounds, and for Hass, 7,000pounds to 12,000 pounds.

The accompanying table shows the breakdown of costs which should be given consideration in figuring the cost of producing an acre of avocados.

SAMPLE COSTS TO PRODUCE FUERTE AVOCADOS
San Diego County — 1967

SAMPLE COSTS PER ACRE

CULTURAL OPERATION	<i>Labor Cost</i>	MATERIALS & EQUIPMENT	<i>Cost</i>	<i>Total Cost/Acre</i>
Irrigation (36 Times)	\$ 81.00	3½-Acre-feet Water (\$50 ac/ft)	\$175.00	\$ 256.00
Fertilizer (2 Times)*	6.00	150# Actual Nitrogen/Acre	23.00	29.00
Weed Control (Spot Spraying & Mowing)	9.00	Oil	5.00	14.00
Pruning (Skirt, Deadwood)	25.00			25.00
Orchard Thinning (Tree Removal Between 10-15 Years)	30.00			30.00
Pest Control (Ants, Gophers, Snails)	9.00	Baits, Poisons, & Predators	3.00	12.00
Misc. (Repairs, Erosion Control, Supplies)	25.00	Tools, Rentals, Etc.	40.00	65.00
<i>Total Cultural Cost</i>	<i>\$185.00</i>		<i>\$246.00</i>	<i>\$ 431.00</i>
INVESTMENT	<i>Investment Per Acre</i>	<i>Overhead Costs</i>		
Sprinkler System (10 Yrs.)	\$ 650.00	Taxes		90.00
Trees (20 Years)	3000.00	General Expense and Management		90.00
Building & Equipment, Misc. (10 Years)	400.00	<i>Total Cash Overhead Cost</i>		<i>\$ 180.00</i>
	<i>\$4050.00</i>			
	<i>\$ 255.00</i>	<i>Total Cash Pre-Harvest Cost</i>		<i>\$ 611.00</i>
		Depreciation—See Investment Schedule		255.00
		Interest on Investment†		302.00
		<i>Total Non-Cash Costs</i>		<i>\$ 557.00</i>
		<i>Total Pre-Harvest Cost‡</i>		<i>\$1168.00</i>
		<i>Total Pre-Harvest Cost, less interest on investment</i>		<i>\$ 866.00</i>

* Zinc may be needed. This may be applied to leaves by aerial spraying or ground spraying; or applied on the ground. Phosphate and potassium may be applied periodically, but not regularly like nitrogen.

† A charge for investment in land, trees, sprinkler system, buildings and equipment. Land value assumed to be \$3,000/acre.

‡ Harvest costs vary from \$.01½-.03 per pound depending upon tree size, size of crop, terrain, etc.