

AVOCADO ORCHARD DEVELOPMENT COSTSSANTA BARBARA COUNTY - 1980

By George E. Goodall, County Director and Farm Advisor
University of California, Santa Barbara County

These sample costs are based on records from cooperating growers whose practices are typical of the South Coastal area of Santa Barbara County. Great variations are found between different properties. The figures presented are median costs for budgeting purposes, when other data is not available. Add any special practices such as frost protection, flood protection, etc. Also, use specific local information when available and insert into this framework.

Assumptions: Hass variety, 120 trees per acre, planted 18' x 20', moderate slope hillside planting, permanent plastic pipe irrigation system with drip hoses and one emitter per tree, 20 acre size orchard for equipment needs, hired labor at \$7.00 per hour including fringe benefits, management charge of \$5.00 per acre per month, or if owner operated allowance at same rates, no frost protection, weed control by herbicides, and no deer fencing.

Footnotes:

a/ Water costs are based on District water at \$110 per AF. Other sources, booster pumps, and special equipment would vary. Irrigation system includes filters and fertilizer injector for the drip system.

b/ Orchard in Agricultural Preserve so assessed value is computed on potential agricultural income for mature orchard discounted back to the early years.

c/ Protection on young trees usually occurs in 4th and 5th years, but amounts vary widely. Assume: 4th year 10 lbs. per tree, 5th year - 30 lbs. per tree, an 40¢ per pound on-tree price.

d/ Initial capital outlay estimated to be: \$5,000 per acre assumed land cost; \$1,500 for irrigation system; \$500 for all other improvements.

e/ Interest on investment calculated at 12% interest. First year based on total cost (line 5) plus land value and undepreciated improvements; subsequent years are 12% of prior years total investment value (line 10).

COOPERATIVE EXTENSION

University of California, Santa Barbara County
260 N. San Antonio Road
Santa Barbara, CA. 93111
(805) 964-9869

Cooperative Extension work in Agriculture and Home Economics, U. S. Department of Agriculture, University of California, and County of Santa Barbara cooperating.

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AVOCADO ORCHARD DEVELOPMENT COSTS

SANTA BARBARA COUNTY - 1980

	Dollars per Acre				
	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.
<u>Labor and Field Power</u>					
Land Preparation	\$ 450	--	--	--	--
Orchard Layout	65	--	--	--	--
Plant - dig, stake, wrap	250	\$ 15	--	--	--
Irrigate	100	100	\$100	\$100	\$100
Fertilize	25	25	25	25	25
Weed Control - herbicide	120	100	90	80	60
Pest and Rodent Control	60	50	40	40	40
Tree Care and Pruning	50	50	40	30	30
Miscellaneous	80	60	55	45	45
(1) Labor and Equipment Subtotal	\$1,200	\$400	\$350	\$320	\$300

<u>Material and Supplies Costs</u>					
Trees - 120 @ \$7.00	840	35			
Stakes, Wraps	130	10			
Water <u>a/</u>	30	60	90	125	150
Fertilizer	20	30	40	50	60
Herbicides	90	80	70	65	60
Pesticides	20	20	20	20	20
Miscellaneous	70	35	40	20	30
(2) Materials Subtotal	\$1,200	\$270	\$260	\$280	\$320

<u>Cash Overhead Costs</u>					
General Expenses - office	125	35	35	35	35
Taxes - property <u>b/</u>	90	100	110	120	130
Maintenance and Repairs	25	35	35	35	35
Management Charge or Allowance	160	60	60	60	60
(3) Cash Overhead Subtotal	\$ 400	\$230	\$240	\$250	\$260
(4) Total Cash Costs	\$2,800	\$900	\$850	\$850	\$880
Fruit Credit <u>c/</u>	--	--	--	(480)	(1,440)
(5) Net Cash Costs	\$2,800	\$900	\$850	\$370	(\$560)
(6) Accumulated Cash Costs	\$2,800	\$3,700	\$4,550	\$4,920	\$4,360

<u>Investment Costs</u>					
Depreciation <u>d/</u>	160	160	160	160	160
Interest on Investment - 12% <u>e/</u>	1,175	1,335	1,600	1,900	2,170
(7) Investment Subtotal	\$1,335	\$1,495	\$1,760	\$2,060	\$2,330
(8) Total All Costs	\$4,135	\$2,395	\$2,610	\$2,430	\$1,770
(9) Accumulated Total Costs	\$4,135	\$6,530	\$9,140	\$11,570	\$13,340

INVESTMENT VALUE AT END OF YEAR

Land - assumed value	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Trees - from line (9)	4,135	6,530	9,140	11,570	13,340
Irrigation system, equipment	2,000	1,840	1,680	1,520	1,360
(10) Total Investment Value	\$11,135	\$13,370	\$15,820	\$18,090	\$19,700

AVOCADO PRODUCTION COSTS

SANTA BARBARA COUNTY - 1980

By George E. Goodall, County Director and Farm Advisor
University of California, Santa Barbara County

The costs presented here are based on records from successful growers who use practices typical of the South Coastal area of Santa Barbara County; we appreciate their cooperation. Practices and costs vary widely between growers. The figures presented here are about median. Individual groves may require from 50% less to 50% more costs. The costs shown here are most useful for budgeting purposes, or for comparisons, but actual figures are better when substituted into this framework.

Assumptions: Hass variety, 120 trees per acre, planted 18' x 20', 10 - 12 years old, permanent plastic pipe undertree sprinkler system, water supply from district, weed control by herbicides, no frost protection, 20 acre orchard size for equipment needs, hired labor at \$7.00 including fringe benefits or if owner operated, same rate allowed to add to income, management charge \$5.00 per acre per month or if owner operated, same rate allowed to add to income, in Agricultural Preserve so that taxes are based on income produced, not real estate market value and average yield of 10,000 pounds per acre.

Cultural Operations: Nitrogen fertilization ranges from 100 to 400 pounds of elemental nitrogen per acre per year, depending on variety, soil, and productivity. Leaf analysis is recommended as the means of deciding on amounts. Broadcasting in February and July is most common. Zinc foliage sprays are applied in June mostly by helicopter.

Irrigation practices vary widely depending on soil, tree size, water source, location, and method of application. Orchards are sprinkled 5 to 20 times per year; intervals range from 10 days to 40 days during the summer. The total water applied ranges from 1 to 2½ acre feet per acre depending on the year, with annual average use of 1.6 acre feet per acre in addition to rainfall.

Pest control is becoming increasingly necessary for greenhouse thrips, worms, and mites. Biological control is encouraged, especially by controlling ants. Control of rats, ground squirrels, snails, gophers, and deer is necessary.

Weed control is by herbicides: simazine for annual seedling weeds; glyphosate, paraquat, and/or weed oil for spot spraying and perennial weeds.

Maintenance pruning is to remove low limbs, cut out dead and broken limbs, and to eliminate those interfering with irrigation, hauling, or other operations. Crowded orchards need to be progressively thinned. The expensive removal of half the trees (\$1,365.00) is prorated over a 7 year period that is typical of the frequency.

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AVOCADO PRODUCTION COSTS

SANTA BARBARA COUNTY - 1980

<u>Cultural Operations Costs</u>	Man	Dollars per Acre			Total
	Hours	Labor	Material	Equipment	
Fertilizer - 200 lbs. N broadcast	3	\$ 21	\$ 70	\$ 4	\$ 95
Zinc Spray & Leaf Analysis	1	7	10	3	20
Irrigation - 15x, 1.6 AF	12	84	175	16	275
Pest Control - rats, gophers, thrips	8	56	30	19	105
Weed Control - spray herbicides	9	63	28	19	110
Prunig - skirts, dead wood, & dispose	8	56	8	6	70
Orchard Thinning - prorated over 7 years	22	154	5	36	195
Miscellaneous	2	14	29	17	60
Cultural subtotal	65	\$455	\$355	\$120	\$930
<u>Overhead Costs</u>					
General Expenses - office, phone, insurance, accounting					\$ 95
Taxes, Property - in Agricultural Preserve, income valuation					135
Maintenance and Repair - equipment, irrigation system					70
Management Charge or Allowance - \$5.00 per acre per month					60
Overhead subtotal					\$360
Total Preharvest Cash Costs					\$1,290
<u>Harvesting Costs</u>					
Picking - 10,000 lbs. per acre, 100 man hours, 7¢/lb.					700
Hauling - labor 5 man hours & truck or allowance					85
Harvesting subtotal					\$785
Total All Cash Costs					\$2,075
<u>Investment Costs</u>					
Depreciation - see schedule below					535
Interest on Investment - 12% - see schedule below					1,200
Investment subtotal					\$1,735
Total All Costs					\$3,810

INVESTMENT SCHEDULE

	Expected Life	Dollars per Acre		
		Investment	Depreciation	Interest
Land, assumed value	-	\$ 5,000	\$ 0	\$ 600
Trees, 120 per acre	20 yrs.	8,000	400	480
Irrigation System	20 "	1,000	50	60
Erosion Structures	25 "	500	20	30
Pick-up Truck	5 "	200	40	12
Weed Sprayers	10 "	150	15	9
Building, and Storage	20 "	100	5	6
Other Equipment & Tools	10 "	\$15, 50	5	3
Totals		\$15,000	\$535	\$1,200

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