JAVOCADO ORCHARD DEVELOPMENT COSTS

SANTA 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
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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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GEG:mc March 1980 500c

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1st yr.	2nd yr.	lars per A		
		3rd yr.	4th yr.	5th yr.
\$ 450				
65				
250	\$ 15			
100	100	\$100	\$100	\$100
25	25	25	25	25
120	100	90	80	60
60	50	40	40	40
50	50	40		30
				45
				\$300
Y 1 , 2 0 0	4700		4320	4300
840	35			
130	10			
30	60	90	125	150
20	30	40	. 50	60
90	80	70	65	60
20	20	20	20	20
70	35	40	20	30
\$1,200	\$270	\$260	\$280	\$320
			•	
125	35	35	35	35
90	100	110		130
				35
				60
				\$260
				\$880
Y = ,	7900			(1,440)
\$2.800				$\frac{(1,440)}{($560)}$
				\$4,360
92,000	\$3,700	\$4,550	34,740	34,300
160	160	160	160	160
1,175	1,335	1,600	1,900	2,170
\$1,335	\$1,495	\$1,760	\$2,060	\$2,330
		\$2,610	\$2,430	\$1,770
				\$13,340
AT 000	25 200	AF 000	45 000	45 000
				\$5,000
-		•		13,340
2.000	1,840	1,680	1,520	1,360
	\$13,370	\$15,820	\$18,090	\$19,700
-	65 250 100 25 120 60 50 80 \$1,200 840 130 30 20 90 20 70 \$1,200 125 90 25 160 \$ 400 \$ 2,800 \$ 2,800 \$ 2,800 \$ 2,800 \$ 3,135 \$ 4,135 \$ 4,135 \$ 4,135	65 250 \$ 15 100 100 25 25 120 100 60 50 50 50 80 60 \$1,200 \$400 840 35 130 10 30 60 20 30 90 80 20 20 70 35 \$1,200 \$270 125 35 90 100 25 35 160 60 \$2,800 \$900 \$2,800 \$900 \$2,800 \$900 \$2,800 \$900 \$2,800 \$3,700 160 160 1,175 1,335 \$1,335 \$1,495 \$4,135 \$6,530 \$5,000 \$5,000 4,135 6,530	250 \$ 15	250 \$ 15

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 BarbaraCounty; 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 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 heliocopter.

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

Hours Labor Material Equipment Total		Man		Dollar	s per Acr	e	
Zinc Spray & Leaf Analysis	Cultural Operations Costs	Hour	s Labor	Material	Equipmen	t Total	
Zinc Spray & Leaf Analysis	Fertilizer - 200 lbs. N broadcast	· 2	¢ 21	ė 70	¢ /	ė os	
Trigation - 15x, 1.6 AF			•	•	•	•	
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 Cultural subtotal 8 56 8 6 70 Overhead Costs 9 17 60 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 Harvesting Costs \$1,290 Harvesting subtotal \$5 Hauling - labor 5 man hours & truck or allowance 85 Harvesting subtotal \$785 Total All Cash Costs \$2,075 Investment Costs \$3,810 Depreciation - see schedule below 1,200 Investment subtotal \$3,810		_	•				
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Total All Costs \$3,810 INVESTMENT SCHEDULE		e per	ow .		•		
INVESTMENT SCHEDULE	investment subtotal					\$1,735	
INVESTMENT SCHEDULE	Total All Costs				-	\$3 810 -	
	INCEL MIT ONSES					42,010	
Pomostod Political Action	INVESTMENT SCHEDULE						
	Expected		D-11				

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	Life	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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Footnotes:

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- d/ Initial capital outlay estimated to be: \$5,000 per acre assumed land cost; \$1,500 for irrigation system; \$500 for all other improvements.
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•		Dollars per Acre			
Labor and Field Power	1st yr.	2nd yr.		4th yr.	5th yr.
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
(1) Navor and Equipment bubectar	41,200	Y400	4330	4720	9300
Material and Supplies Costs					•
Trees - 120 @ \$7.00	840	35	• ' -		•
Stakes, Wraps	130	10			
Water a/	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:,4	20	30
(2) Materials Subtotal	\$1,200	\$270	\$260	\$280	\$320
Can a whole a rest in rest of the fact of	71,200	72.0	- 4200	9200	9320
Cash Overhead Costs	• • •	*	* 7		
General Expenses - office	125	35	35	.35	35
Taxes - property b/	90	100	110	120	130
Maintenance and Repairs	25	35	35	¹ 35 ¹	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 c/				(480)	(1,440)
(5) Net Cash Costs	\$2,800	\$900	\$850	\$370	(\$560)
(6) Accumulated Cash Costs	\$2,800		\$4,550	\$4,920	\$4,360
The state of the s				¥13320	44,300
Investment Costs	•				
Depreciation d/	160	160	160	160	160
Interest on Investment - 12% e/	1,175	1,335	1,600	1,900	2,170
(7) Investment Subtotal	\$1,335	COLUMN TO A COLUMN	\$1,760	\$2,060	\$2,330
(8) Total All Costs	\$4,135		\$2,610	\$2,430	\$1,770
- (9) Accumulated Total Costs		\$6,530		\$11,570	\$13,340
		1	· · · · · · · · · · · · · · · · · · ·		
INVESTMENT VALUE AT END OF YEAR		•			
Land - assumed value		\$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
	-				