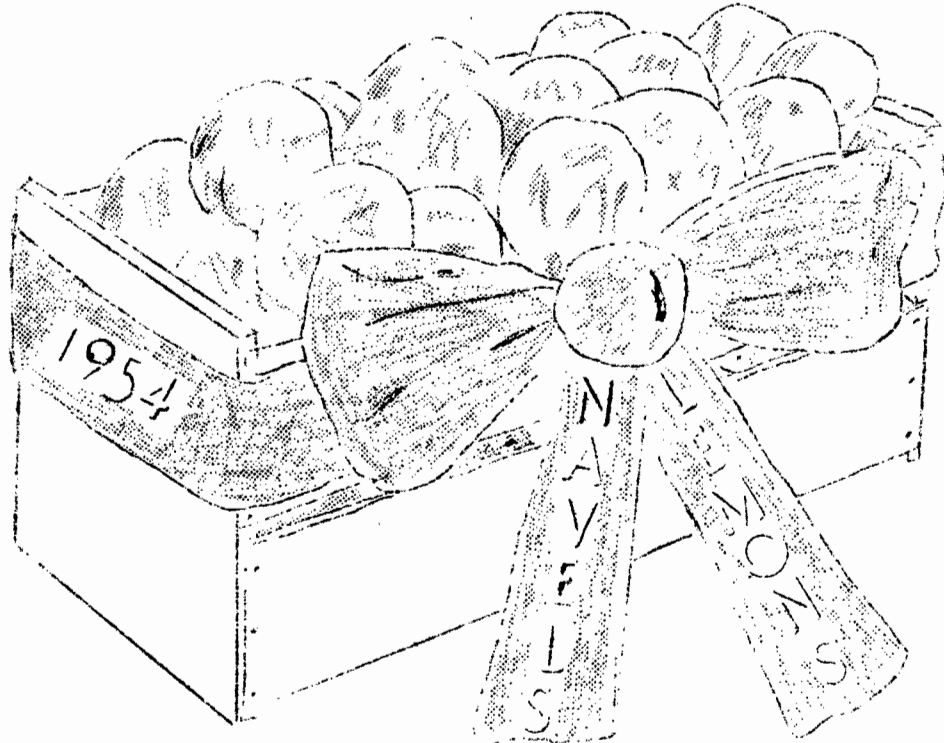


RIVERSIDE COUNTY
CITRUS PRODUCTION COST STUDY

University of California
Agricultural Extension Service
Room 7, Post Office Building
Riverside, California

CS-SI-54-1



I N T R O D U C T I O N

This is the sixth of a new series of citrus management studies in Riverside County. The last study was made on navel oranges in 1953.

This study was inaugurated at the special request of the leaders of the citrus industry. The information obtained in this and similar studies in other counties and special surveys made by the California Citrus League have come to be the basic source of information used by agencies considering tariff, freight rates, and other public matters relating to the general welfare of the citrus industry.

Records on 34 navel orchards -- 665.2 acres, and 21 lemon orchards - 367.4 acres, are included in

the statistical summary. Each record is given a serial number and a breakdown of yields, costs, income and profits, as shown in the series of tables that follow. Averages are shown for the high profit, low profit, and all records. Be sure to study the definition of terms.

Each cooperator in the study by means of his serial number can compare his own costs and returns with those of all other records in the study.

It is planned to continue the study and growers interested can participate by applying to the Farm Advisor's Office, Post Office Building, Riverside. Mr. George Ferguson, representing the California Citrus League did much of the field work in collecting the data.

Summarized and Analyzed by

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EXPLANATION OF TERMS

Averages shown in this report include mature orchards of the variety covered except for occasional trees of another variety. Mature orchards are those which are nine years old or over at the start of the record year, or younger orchards having reached full commercial bearing.

Yields, costs, and returns are computed in packed boxes regardless of whether all fruit was so packed. All fruit, including culls, is converted to this basis and included in total yield.

Income is computed for fruit delivered at the packing house where production stops and marketing begins; hence picking and hauling are shown as production costs and not deducted from gross income as are packing and marketing costs.

Labor cost is composed of the cost of hired labor, the value of the operator's own labor, the value or cost of field power, as horses, tractors, and trucks, and in some cases the total contract cost of the performance of operations.

Cultural labor is for cultural operations and does not include harvesting.

Harvesting cost is composed of picking and hauling the fruit to the packing house.

Material cost is composed of the expense for fertilizers, water, pest control materials, etc.

Cash overhead cost includes all cash costs other than for labor and materials - as taxes, repairs, insurance, and general expense.

Total cash cost is the sum of all above costs or is the total of all costs except depreciation and interest on investment, with the owner's own labor considered as though it were a direct cash cost.

Depreciation is the share of the original cost of facilities which should be charged to each year of operation. Depreciation on trees is not included as a cost.

Interest on investment is computed at 5 percent of the average value of facilities over their useful life.

Total cost of production includes all the above items and therefore covers wages for all labor performed and through depreciation and interest provides for the necessary replacement of facilities and the cost or reimbursement for the use of invested capital.

Management income is total income less total costs of production. It is the amount available to reimburse the operator for his management after all other costs are met. If income is insufficient to meet costs, the loss is shown by a minus sign (-) preceding the amount.

Capital and management income is management income plus the interest on investment. It may be considered as profit, if interest is not considered a cost.

Capital income is capital and management income less an allowance for management estimated at 5 percent of the total cost per acre. It may be considered as the earning of the money or capital invested.

Cultural cost is the total expense for cultural labor and materials used.

TABLE 1 - MAIN PROFIT DETERMINING FACTORS IN INDIVIDUAL ORCHARDS - PER ACRE

Ser. No.	Average Yield Packed Boxes	Average Income Per Pkd. Box	Total Income Per Acre	Cultural Labor & Field Power	Total Material cost	Cash Over-head costs	Total Cash Costs To Pick	Capital Over-head Costs		Total On Tree Cost	Harvesting Cost	Total all Costs	Capital & management income	Management income
								Depreciation	Int. On Invest.					
44	490	3.21	1575.80	108.53	134.10	67.82	310.45	6.72	79.10	396.27	188.35	584.62	1070.28	991.18
50	501	3.07	1538.75	110.99	109.27	68.22	288.48	6.72	79.10	374.30	181.97	556.27	1061.58	982.48
57	461	3.38	1560.62	113.32	175.48	52.96	341.76	1.00	88.50	431.26	168.15	599.41	1049.71	961.21
20	335	3.38	1132.31	56.02	72.10	31.86	159.98	2.00	76.25	238.23	150.84	389.07	819.49	743.24
60	372	3.35	1246.36	180.54	158.18	66.15	404.87	1.17	75.87	481.91	114.81	596.72	725.51	649.64
58	339	3.18	1075.90	91.65	108.00	66.00	265.65	5.22	77.44	348.31	101.99	450.30	703.04	625.60
17	360	3.19	1148.81	184.29	156.51	86.38	427.18	5.14	79.23	511.55	113.73	625.28	602.76	523.53
46	400	2.64	1058.61	104.83	143.76	54.69	303.28	10.61	91.69	405.58	144.24	549.82	600.48	508.79
63	298	3.33	994.13	87.55	164.33	48.09	299.97	1.93	67.41	369.31	124.33	493.64	567.90	500.49
12N	317	3.21	1019.19	97.72	126.06	54.30	278.08	14.12	95.74	387.94	131.41	519.35	595.58	499.84
59	335	2.77	926.79	91.65	108.00	65.95	265.60	5.77	77.86	349.23	100.14	449.37	555.28	477.42
48	314	2.87	903.83	104.83	96.68	65.89	267.40	6.72	79.10	353.22	110.19	463.41	519.52	440.42
40	313	3.07	960.67	147.55	150.46	55.42	353.43	4.32	71.91	429.66	111.99	541.65	490.93	419.02
52	236	4.06	957.35	159.48	164.80	58.33	382.61	10.61	91.69	484.91	88.38	573.29	475.75	384.06
36	254	3.49	886.23	117.89	164.03	82.22	364.14	6.31	78.11	448.56	75.84	524.40	439.94	361.83
11	365	2.28	833.55	110.26	79.75	59.81	249.82	4.48	89.73	344.03	132.62	476.65	446.63	356.90
53N	245	2.79	682.82	37.90	65.70	24.18	127.78	42.80	106.37	276.95	73.25	350.20	438.99	332.62
29	303	2.43	736.76	87.67	98.57	60.04	246.28	4.09	90.49	340.86	113.20	454.06	373.19	282.70
10	334	2.13	711.35	95.81	113.54	66.44	275.79	3.43	76.61	355.83	113.19	469.02	318.94	242.33
61	231	2.86	659.47	129.20	136.34	31.22	296.76	2.08	77.02	375.86	67.61	443.47	293.02	216.00

27	208	2.76	577.63	86.52	71.99	62.04	220.55	1.55	76.55	298.65	75.75	374.10	279.73	203.23
9N	247	3.07	757.35	157.33	151.68	61.57	370.58	9.45	90.80	470.83	88.55	559.38	288.77	197.97
25	237	2.50	716.81	81.88	120.11	65.68	267.67	50.72	101.93	420.32	102.69	523.01	295.75	195.80
23	274	2.64	723.69	79.25	139.43	48.90	267.58	77.78	101.03	446.39	97.73	544.12	280.60	179.57
19	265	2.39	633.11	122.96	86.90	70.48	280.34	42.42	94.65	417.41	68.06	485.47	242.29	147.64
62	291	2.15	625.68	123.92	114.12	66.67	304.71	4.84	78.41	387.96	100.60	488.56	215.53	137.12
49	200	3.11	621.77	146.57	125.25	69.48	341.30	6.72	79.10	427.12	77.23	504.35	196.52	117.12
31N	178	2.18	388.82	50.88	75.94	31.77	158.59	14.70	70.79	244.08	82.32	326.40	133.21	62.42
52A	152	2.35	357.92	41.07	82.95	43.20	167.22	2.90	89.27	259.39	50.83	310.22	136.97	47.70
56	132	2.80	369.37	99.70	92.64	36.37	228.91	7.81	74.21	310.93	52.47	363.40	80.18	5.97
47	196	2.58	505.89	128.04	161.61	50.78	340.43	10.61	91.68	442.72	69.31	512.03	85.54	-6.14
30	132	2.92	386.11	114.22	98.62	35.04	247.88	63.39	85.76	397.03	50.17	447.20	24.67	-61.09
51	92	2.79	256.91	82.08	91.00	48.37	221.45	2.90	89.27	313.62	33.46	347.08	- .90	-90.17
64	87	2.68	233.00	149.28	67.54	61.36	278.18	16.29	92.37	386.84	34.36	421.20	-95.83	-188.20
High 17	307	3.28	1006.52	121.37	148.41	69.17	338.95	7.44	81.17	427.56	102.72	530.28	557.41	476.24
Low 17	205	2.57	527.89	102.54	108.40	48.87	259.81	16.22	82.25	358.28	76.51	434.79	175.35	93.10
Avg. All	253	2.97	750.58	111.30	127.02	58.30	296.62	12.14	81.75	390.51	88.71	479.22	353.11	271.36

Table 1 presents the main items of yield, costs and income for 34 individual records in the Navel Orange Management Study in Riverside County for the crop year ending in 1954. The averages for all records and for the 17 high management income and the 17 low records are shown at the bottom of the table.

Each record is given a serial number and they are arrayed in decending order of management income. The records in subsequent tables are set up in the same order. All averages are weighted and are based on the total acres in the study unless otherwise indicated.

Subsequent tables will show a further break-down and analysis of these major factors.

TABLE 2 - YIELD, COST AND INCOME PER FIELD BOX AND PACKED BOX.

Serial Number	Average Yield per A.		% Crop Sold		Average Income		Total On-Tree Costs		Harvest Costs		Total Costs		Management Income per Pkd. Box
	Field Boxes	Packed Boxes	Fresh	Product Culls	Per Field Box	Per Packed Box	per Field Bx	per Pkd. Box	per Field Box	per Packed Box	per Field Box	per Packed Box	
44	681	490	84.6	15.4	2.31	3.21	.58	.81	.27	.38	.85	1.19	2.02
50	665	501	86.3	13.7	2.32	3.07	.57	.75	.27	.36	.84	1.11	1.96
57	619	461	87.1	8.1	2.52	3.38	.70	.93	.27	.37	.97	1.30	2.08
20	473	335	89.5	10.5	2.39	3.38	.50	.71	.32	.45	.82	1.16	2.22
60	475	372	88.8	11.2	2.62	3.35	1.01	1.29	.24	.31	1.25	1.60	1.75
58	478	339	86.5	13.5	2.25	3.18	.73	1.03	.21	.30	.94	1.33	1.85
17	529	360	81.8	18.2	2.17	3.19	.97	1.42	.21	.32	1.18	1.74	1.45
46	589	400	83.7	16.3	1.80	2.64	.69	1.01	.24	.36	.93	1.37	1.27
63	436	298	87.1	12.9	2.28	3.33	.85	1.23	.28	.42	1.13	1.65	1.68
12N	461	317	-	-	2.21	3.21	.84	1.22	.29	.41	1.13	1.63	1.58
59	469	335	85.7	14.3	1.98	2.77	.75	1.04	.21	.30	.96	1.34	1.43
48	398	314	81.7	18.3	2.27	2.87	.89	1.12	.27	.35	1.16	1.47	1.40
40	455	313	87.8	12.2	2.11	3.07	.94	1.37	.25	.36	1.19	1.73	1.34
52	361	236	87.2	12.8	2.65	4.06	1.34	2.06	.25	.37	1.59	2.43	1.63
36	353	254	86.3	13.7	2.51	3.49	1.27	1.77	.21	.30	1.48	2.07	1.42
11	530	365	-	-	1.57	2.28	.65	.94	.25	.36	.90	1.30	.98
53N	356	245	83.9	16.1	1.92	2.79	.78	1.13	.21	.30	.99	1.43	1.36
29	424	303	78.7	21.3	1.74	2.43	.80	1.13	.27	.37	1.07	1.50	.93
10	463	334	74.4	25.6	1.54	2.13	.77	1.06	.25	.34	1.02	1.40	.73
61	317	231	87.7	12.3	2.08	2.86	1.19	1.63	.21	.29	1.40	1.92	.94

27	283	208	82.2	17.8	2.04	2.78	1.05	1.44	.27	.36	1.32	1.80	.98
9N	360	247	77.9	22.1	2.11	3.07	1.31	1.91	.25	.36	1.56	2.27	.80
25	401	287	78.0	22.0	1.79	2.50	1.05	1.46	.26	.36	1.31	1.82	.68
23	384	274	75.4	24.6	1.89	2.64	1.16	1.63	.26	.36	1.42	1.99	.65
19	357	265	78.2	21.8	1.77	2.39	1.17	1.58	.19	.25	1.36	1.83	.56
62	388	291	84.7	15.3	1.61	2.15	1.00	1.33	.26	.35	1.26	1.68	.47
49	271	200	81.2	18.8	2.30	3.11	1.58	2.13	.29	.39	1.87	2.52	.59
31N	262	178	76.9	23.1	1.48	2.18	.93	1.37	.31	.46	1.24	1.83	.35
52A	227	152	78.9	21.1	1.58	2.35	1.15	1.71	.22	.33	1.37	2.04	.31
56	177	132	85.4	14.6	2.08	2.80	1.75	2.35	.30	.40	2.05	2.75	.05
47	283	196	72.9	27.1	1.79	2.58	1.57	2.26	.24	.35	1.81	2.61	-.03
30	190	132	92.7	7.3	2.03	2.92	2.09	3.00	.26	.38	2.35	3.38	-.46
51	137	92	84.2	15.8	1.88	2.79	2.29	3.40	.24	.36	2.53	3.76	-.97
64	123	87	78.9	21.1	1.90	2.68	3.15	4.45	.28	.39	3.43	4.84	-2.16
High 17	432	307	85.9	14.1	2.33	3.28	.99	1.39	.24	.34	1.23	1.73	1.55
Low 17	290	205	78.9	21.1	1.82	2.57	1.24	1.75	.26	.37	1.50	2.12	.45
Avg. All	356	253	82.7	17.3	2.11	2.97	1.10	1.55	.25	.35	1.35	1.90	1.40

The above table breaks down the yield, costs and income on a per packed box and field box basis. The yield in field boxes was the number delivered to the packing house. The weight of fruit per field box varied from 44 to 52 pounds with most of them being 50 to 52 pounds. The yield in packed boxes was based on the number actually packed out plus all loose fruit converted to 77 pounds packed box equivalent.

Note that "on tree costs" per field box and per packed box are shown as well as the total costs.

Table 3 - TILLAGE AND OTHER CULTURAL COSTS PER ACRE AND MANAGEMENT INCOME PER FIELD BOX

Serial Number	Tillage			Pruning	All Pest Disease L.&M.	Frost Protec- tion L.&M.	Tree Removal and Plant	Misc.*	Average Capital Invest. per A.	Capital Over-		Management Income F.B.
	Cult. and Furrow	Hoe and Misc.	Weed Spray							Inten- Invest.	Deprec. iation	
44	6.27	-	-	-	91.37	-	-	25.11	1532.00	79.10	6.72	1.46
50	6.08	-	-	-	93.32	-	-	25.53	1532.00	79.10	6.72	1.48
57	32.74	8.99	-	-	71.92	-	4.85	25.79	1770.00	88.50	1.00	1.55
20	-	-	28.00	-	37.70	-	-	-	1525.00	76.25	2.00	1.57
60	34.59	7.50	-	49.60	68.72	-	11.45	13.98	1517.50	75.87	1.17	1.37
58	17.75	1.25	-	3.38	70.06	-	5.25	5.20	1518.75	77.44	5.22	1.31
17	2.15	-	27.18	30.05	117.41	-	-	39.40	1584.61	79.23	5.14	.99
46	6.07	-	-	.35	90.45	1.03	-	42.77	1833.90	91.69	10.61	.87
63	-	-	7.81	-	75.50	-	-	25.94	1348.19	67.41	1.93	1.15
12N	-	5.28	6.94	-	54.17	28.34	-	23.61	1914.72	95.74	14.12	1.08
59	17.75	1.25	-	3.38	70.06	-	5.25	5.20	1557.25	77.86	5.77	1.02
48	10.64	-	-	-	82.23	-	-	28.99	1582.00	79.10	6.72	1.11
40	3.88	-	41.47	-	70.65	53.53	2.56	20.80	1438.25	71.91	4.32	.92
52	10.98	-	-	1.79	111.81	46.78	-	73.76	1833.90	91.69	10.61	1.06
36	1.98	-	15.04	4.65	75.96	2.92	-	40.51	1562.24	78.11	6.31	1.03
11	-	-	48.74	-	47.73	-	-	-	1794.77	89.73	4.48	.67
53N	-	10.10	-	-	42.60	-	-	7.50	2627.50	106.37	42.80	.93
29	-	-	30.86	-	91.93	-	3.00	-	1809.75	90.49	4.09	.67
10	-	21.67	3.44	-	75.68	30.82	4.09	.33	1532.17	51.50	3.43	.52
61	31.70	4.83	23.92	2.86	84.31	-	.33	-	1540.46	77.02	2.08	.68
27	25.64	-	-	-	77.27	-	-	-	1531.03	76.55	1.55	.72
9N	26.04	-	17.41	12.61	88.23	38.87	-	38.21	1815.95	90.80	9.45	.55
25	9.21	2.22	.78	-	95.38	26.94	2.17	3.32	2038.54	101.93	50.72	.48
23	-	.64	15.07	1.15	69.79	34.03	10.88	2.25	2020.65	101.03	77.78	.47
19	-	1.17	21.67	2.39	34.65	16.27	3.59	58.44	1893.02	94.65	42.42	.41

62	-	-	19.39	3.00	63.78	-	-	58.93	1568.29	78.41	4.84	.35
49	10.28	-	-	47.89	75.18	-	-	37.97	1582.00	79.10	6.72	.43
31N	24.50	-	1.33	-	3.87	-	2.26	3.16	1415.70	70.79	14.70	.24
52A	20.00	-	-	-	1.00	-	-	-	1785.42	89.27	2.90	.21
56	25.01	-	-	.73	30.52	2.46	-	26.78	1484.12	74.21	7.81	.03
47	12.19	-	-	14.35	85.81	-	-	57.91	1833.63	91.68	10.61	-.02
30	-	3.00	43.54	-	56.40	18.80	-	-	1715.09	85.76	63.39	-.32
51	25.00	-	-	-	57.94	-	-	-	1785.42	89.27	2.90	-.65
64	16.60	-	-	-	51.50	66.91	-	21.50	1887.31	92.37	16.29	-1.53
High 17	8.15*	5.89*	17.35*	10.71*	78.39	12.15*	6.82*	32.91*	1623.42	81.17	7.44	1.10
Low 17	22.50*	5.86*	11.69*	8.21*	50.38	23.79*	3.39*	23.59*	1645.02	82.25	16.22	.32
Avg. All	15.59*	5.87*	14.34*	9.48*	63.41	17.97*	4.34*	27.92*	1634.97	81.75	12.14	.76

The tillage costs are broken down into three items. Some of the records did not have a very good division of these costs in which case everything was totaled under cultivation. Weed spray cost included material as well as field power and man labor. Frost protection and pest and disease control include both labor and material. Miscellaneous includes supervision, administrative, office and other items of labor and material that could not be charged to any specific operation.

Note that management income per field box is shown in this table.

*Averages figured on acres actually reporting such costs.

TABLE 4 - IRRIGATION AND FERTILIZER PRACTICES

Serial Number	Average age of trees	Trees per acre	Irrigation costs per acre		Fertilizer Kind and amount applied per acre	Cost per acre		Pounds nit. per acre
			labor	Water		Labor	Material	
44	40	73	28.83	29.51	Steer 6.6 ton; AmS 2400#	.98	60.56	346
50	40	124	30.00	32.20	8-8-4-990#	1.00	32.14	79
57	25	115	20.92	52.98	- - -	2.13	68.48	-
20	47	90	17.50	27.42	CaN-600#	-	17.50	96
60	-	102	32.85	39.60	Steer 3.5ton; 8-8-4-650#, NH ₃ 68, AmN 600	2.05	78.38	449
58	24	104	19.00	37.17	NitHu. 4 ton, CaN-350#	2.59	38.00	216
17	46	114	25.94	43.56	Poul. 34 ft., NH ₃ 492#	-	55.11	425
46	43	100	12.13	42.33	Aqua 853#, AmS 367#, NH ₃ 178#	1.21	52.25	221
63	56	90	16.88	65.75	NH ₃ 594#	-	60.00	481
12N	63	111	28.78	23.33	NH ₃ 533#	-	53.33	432
59	25	102	19.00	37.17	Nit.Hu. 4 ton, CaN 350#	2.59	38.00	216
48	-	75	22.48	30.00	8-8-4-800#	1.00	26.17	64
40	47	96	23.50	33.68	CaN-1700#	-	47.94	272
52	44	100	14.47	19.58	AmS-433#, NH ₃ 250#, Urea 56#	1.29	43.82	317
36	42	103	15.54	70.75	Poul. 28 ft. NH ₃ 493#	-	54.57	421
11	62	105	46.74	23.54	NH ₃ 233#	-	23.26	188
53N	23	100	4.50	15.70	CaN-800#	.80	22.40	128
29	60	77	12.73	20.04	CaN-909#	.91	26.77	145
10	62	76	16.80	19.25	CaN-400#, NH ₃ 240#	-	37.27	258
61	-	90	29.91	47.67	Poul. 358 ft., 8-8-4-33#	14.07	25.94	280
27	63	91	13.00	14.25	NH ₃ 250#	-	28.35	203
9N	45	80	12.08	24.82	Aqua 1008#, AmS-583#, NH ₃ 140#	.78	49.96	236
25	49	100	10.11	24.00	CaN 889#	1.11	26.75	142
23	66	93	15.72	22.23	NH ₃ 449#	-	46.92	364
19	55	98	19.55	15.78	CaN-665#, NH ₃ 169#	-	36.35	243

62	51	92	27.00	49.03	CaN-533#	.67	16.24	85
49	35	106	20.81	30.00	Steer 5.4 ton, AmS-266#	.91	48.78	273
31N	24	105	19.75	46.37	AmN. 550#	.55	25.03	184
52A	48	75	20.07	37.80	Poul. 595 ft. NH ₃ 90#	-	45.15	534
56	37	110	25.63	70.78	CaN 342#	1.23	9.40	55
47	44	100	9.45	47.11	AmS-492#, NH ₃ -51#, 8-8-4-734#, Urea 28#	2.94	59.89	215
30	55	90	39.20	20.80	CaN-100 0#	1.50	29.60	160
51	33	74	22.31	37.80	Poul. 343 ft., NH ₃ -90#	-	30.03	339
64	34	97	19.99	9.14	CaN-1006#	-	31.18	161
High 17	43	105	19.44	50.42	- - -	1.64*	52.21	351
Low 17	42	98	18.81	39.68	- - -	1.51*	32.12	191
Avg. All	42	101	19.10	44.68	- - -	1.55*	41.47	266

* Average for acres reporting.

- Dash indicates data not available.

Irrigation and fertilization are two of the most important cultural operations.

Fertilizer abbreviations: NH₃ - Ammonia (liquid) 81% N; AmS - Ammonium Sulphate 20.5% N; Am.N. Ammonium Nitrate 33%N - CaN. Calcium Nitrate 15.5%N; Nu.gr. New Green; Poul. Poultry Manure; Steer - Steer Manure, Nit.Hu. - Nitro Humus; Aqua - Aqua Ammonia (20% Nitrogen)

TABLE 5 - MAIN PROFIT DETERMINING FACTORS IN INDIVIDUAL ORCHARDS - PER ACRE

Serial Number	Average Yield Per Pkd. Box	Average Income Per Pkd. Box	Total Income Per Acre	Cultural Labor & Field Power	Total Material Costs	Cash Over-head Costs	Total Cash Cost to Pick	Capital over-head Costs		Total on Tree Costs	Harvesting Costs	Total All Costs	Capital & Management Income	Management Income
								Depreciation	Int. on Invest.					
54	429	2.97	1276.66	185.03	145.50	54.76	385.29	7.27	80.45	473.01	321.52	794.53	562.58	482.13
42	424	2.50	1050.63	133.73	90.11	26.54	250.38	4.63	77.90	332.91	286.66	619.57	518.96	441.06
17	409	2.84	1160.87	201.41	177.22	58.21	436.84	2.41	77.41	516.66	304.10	820.76	417.52	340.11
19	342	2.84	972.05	177.73	163.76	51.27	392.76	1.71	76.71	471.18	254.64	725.82	322.95	246.24
27	353	2.82	994.27	170.16	137.95	51.78	359.89	15.41	82.49	457.79	294.60	752.39	324.37	241.88
55	276	2.95	815.25	128.97	136.10	31.17	296.24	2.08	77.02	375.34	236.09	611.43	280.84	203.82
20	311	2.69	836.48	158.04	125.31	53.13	336.48	4.72	90.87	432.07	204.01	636.08	291.27	200.40
25	363	2.45	889.52	202.18	132.96	54.99	390.13	16.41	82.49	489.03	306.58	795.61	176.40	93.91
24	305	2.28	694.99	123.62	100.85	49.84	274.31	18.41	82.49	375.21	245.70	620.91	156.57	74.08
23	452	1.85	838.45	225.72	105.26	60.12	391.10	18.41	82.49	492.00	317.61	809.61	111.33	28.84
29	229	2.45	562.33	120.29	92.16	42.97	255.42	18.41	82.49	356.32	178.71	535.03	109.79	27.30
53-L	146	2.70	395.61	43.65	107.31	25.31	176.27	30.39	88.87	295.53	107.57	403.10	81.38	-7.49
9-B	239	2.41	574.69	118.48	123.26	63.62	305.36	18.41	82.49	406.26	181.98	588.24	68.94	-13.55
9	259	2.44	632.08	157.55	157.47	55.95	370.97	12.41	83.52	466.90	199.30	666.20	49.40	-34.12
28	197	2.43	478.60	147.54	103.77	58.60	309.91	6.72	79.10	395.73	158.67	554.40	3.30	-75.80
57	335	2.56	856.09	202.30	237.62	61.86	501.78	54.22	90.13	646.13	286.77	932.90	13.32	-76.81
56	335	1.96	656.43	198.76	201.77	57.74	458.27	4.46	79.39	542.12	227.55	769.67	-33.85	-113.24
7	365	2.05	748.47	242.65	212.85	81.94	537.44	3.82	78.80	620.06	248.79	868.85	-41.58	-120.38
30	184	2.23	410.98	143.93	105.24	45.04	294.21	17.41	82.49	394.11	151.92	546.03	-52.56	-135.05
31	158	2.80	443.50	128.33	173.57	43.63	345.53	18.60	98.60	462.73	129.44	592.17	-50.07	-148.67
58	169	2.35	396.37	133.04	142.56	67.20	342.80	14.94	80.13	437.87	146.18	584.05	107.55	-187.68
High 11	349	2.65	928.13	167.02	131.44	50.11	348.57	9.27	81.88	439.72	263.51	703.23	306.78	224.90
Low 10	230	2.40	553.74	138.86	147.93	52.86	339.65	17.63	85.17	442.45	177.37	619.82	19.09	-66.08
Avg. All	280	2.54	709.56	150.58	141.06	51.72	343.36	14.15	83.80	441.31	213.22	654.53	138.83	55.03

Notes on navel orange tables apply in general to lemon tables.

TABLE 6 - YIELD, COSTS AND INCOME, PER FIELD BOX AND PACKED BOX

Serial Number	Average Yield Per Acre		% Crop Sold		Average Income Per		Total On-tree Costs Per		Harvest Costs Per		Total Costs Per		Management Income Pkd.Box
	Field Boxes	Packed Boxes	Fresh	Product Culls	Field Box	Packed Box	Per Field Box	Pkd. Box	Field Box	Packed Box	Field Box	Packed Box	
54	629	429	74.7	25.3	2.03	2.97	.75	1.10	.51	.75	1.26	1.85	1.12
42	649	424	52.2	47.8	1.63	2.50	.51	.78	.44	.68	.95	1.46	1.04
17	617	409	72.3	27.7	1.88	2.84	.84	1.27	.49	.74	1.33	2.01	.83
19	516	342	72.3	27.7	1.88	2.84	.91	1.38	.49	.74	1.40	2.12	.72
27	474	353	61.3	33.7	2.10	2.82	.97	1.29	.62	.84	1.59	2.13	.69
55	440	276	74.0	26.0	1.85	2.95	.85	1.36	.54	.85	1.39	2.21	.74
20	421	311	67.3	32.7	1.99	2.69	1.03	1.39	.48	.66	1.51	2.05	.64
25	580	363	47.7	52.3	1.53	2.45	.84	1.35	.53	.84	1.37	2.19	.26
24	475	305	41.1	58.9	1.46	2.28	.79	1.23	.52	.81	1.31	2.04	.24
23	703	452	20.4	79.6	1.19	1.85	.70	1.09	.45	.70	1.15	1.79	.06
29	356	229	44.0	56.0	1.58	2.45	1.00	1.55	.50	.78	1.50	2.33	.12
53-L	204	146	48.0	52.0	1.94	2.70	1.44	2.02	.53	.73	1.97	2.75	-.05
9-B	375	239	48.2	51.8	1.53	2.41	1.08	1.70	.49	.76	1.57	2.46	-.05
9	408	259	45.5	54.5	1.55	2.44	1.14	1.80	.49	.77	1.63	2.57	-.13
28	307	197	49.2	50.8	1.56	2.43	1.29	2.01	.52	.80	1.81	2.81	-.38
57	534	335	60.2	39.8	1.60	2.56	1.21	1.93	.53	.86	1.74	2.79	-.23
56	432	335	42.5	57.5	1.52	1.96	1.25	1.62	.53	.68	1.78	2.30	-.34
7	490	365	43.3	56.7	1.53	2.05	1.26	1.70	.51	.68	1.77	2.38	-.33
30	283	184	41.7	58.3	1.45	2.23	1.39	2.14	.54	.82	1.93	2.96	-.73
31	212	158	53.5	46.5	2.09	2.80	2.18	2.92	.61	.82	2.79	3.74	-.94
58	271	169	56.2	43.8	1.46	2.35	1.61	2.59	.54	.87	2.15	3.46	-1.11
High 11	521	349	60.1	39.9	1.78	2.65	.84	1.26	.51	.75	1.35	2.01	.64
Low 10	346	230	47.5	52.5	1.60	2.40	1.28	1.92	.51	.77	1.79	2.69	-.29
Avg. All	419	280	54.1	45.9	1.69	2.54	1.05	1.58	.51	.76	1.56	2.34	.20

All loose fruit converted to 79# packed box equivalent. Field boxes ranged in weight from 50 to 63#, mostly 50 to 52#.

TABLE 7 - TILLAGE AND OTHER CULTURAL COSTS PER ACRE AND MANAGEMENT INCOME PER FIELD BOX

Serial Number	Tillage			Pruning	All Pest Disease L. & M.	Frost Protection L. & M.	Tree Removal and Plant	Misc.*	Avg. Capital Invest. Per A.	Capital over-head Costs		Management Income Field B.
	Cult. and Furrow	Hoe and Misc.	Weed Spray							Interest Invest.	Depreciation	
54	-	1.25	24.95	-	142.56	-	-	48.18	1609.09	80.45	7.27	.77
42	30.53	.29	-	48.91	44.15	9.44	.55	-	1557.91	77.90	4.63	.68
17	15.10	-	-	48.73	97.14	-	27.89	41.96	1548.28	77.41	2.41	.55
19	16.13	-	-	30.96	93.49	-	6.67	47.71	1534.17	76.71	1.71	.48
27	5.42	-	-	42.65	86.52	48.61	-	24.87	1649.72	82.49	15.41	.51
55	31.64	4.83	23.88	2.86	84.16	-	.33	-	1540.46	77.02	2.08	.46
20	23.37	6.10	-	19.46	57.55	30.14	16.66	26.41	1817.48	90.87	4.72	.48
25	5.84	-	-	82.75	50.68	41.44	-	28.40	1649.72	82.49	16.41	.16
24	8.49	-	-	1.42	63.77	43.62	11.20	24.17	1649.72	82.49	18.41	.15
23	8.20	-	-	130.15	51.61	44.99	-	25.52	1649.72	82.49	18.41	.04
29	12.18	-	-	2.53	53.25	33.80	-	25.07	1649.72	82.49	18.41	.08
53-L	7.39	1.09	6.52	-	30.65	60.35	-	9.35	1777.34	88.87	30.39	-.03
9-B	16.58	-	-	11.51	30.80	52.22	4.19	22.06	1649.72	82.49	18.41	-.04
9	19.49	-	-	12.11	66.50	52.35	18.76	27.44	1670.47	83.52	12.41	-.08
28	8.16	-	-	21.28	49.80	40.88	16.50	25.52	1582.00	79.10	6.72	-.25
57	31.25	5.13	13.13	26.71	53.38	101.92	29.24	5.20	1802.60	90.13	54.22	-.14
56	34.57	12.00	-	14.29	130.24	30.59	12.42	5.02	1587.86	79.39	4.46	-.26
7	58.08	-	-	30.67	88.52	-	9.29	43.11	1575.94	78.80	3.82	-.24
30	14.10	-	-	3.42	51.42	40.01	34.72	26.14	1649.72	82.49	17.41	-.48
31	20.65	-	23.03	-	67.89	-	10.17	48.07	1972.02	98.60	18.60	-.70
58	29.09	-	-	29.63	51.74	23.28	9.03	5.00	1602.50	80.13	14.94	-.69
High 11	15.87*	3.67*	24.57*	36.35*	79.86	36.11	11.85	33.71*	1637.72	81.88	9.27	.43
Low 10	19.34*	5.67*	14.78*	13.54*	58.46	51.05	15.66	23.42*	1703.34	85.17	17.63	-.19
Avg All	18.03*	4.55*	18.40*	23.58*	67.37	46.88	14.50	27.39*	1676.03	83.80	14.15	.13

* Includes hired supervision, administrative and office expenses and other items of labor and material not included in other operations.

TABLE 8 - IRRIGATION AND FERTILIZER PRACTICES

Serial Number	Average Age of Trees	Trees Per Acre	Irrigation		Fertilizer	Costs Per Acre		Pounds Nit./A.
			Cost Per Acre			Labor	Material	
			Labor	Water	Kind and Amount Applied Per Acre			
54	52	75	32.73	64.36	Ca N - 500#	2.00	14.50	80
42	52	79	17.52	44.54	NH ₃ - 266#	-	27.91	215
17	42	69	26.17	76.72	Am S -207# Ca N 1241#	1.56	43.36	242
19	42	75	23.12	79.38	Am S - 205#, 1230#	1.03	43.00	240
27	38	75	25.73	20.93	Steer - 5.8 Ton, Am S - 228#	1.46	51.93	279
55	41	90	29.85	47.58	Poul. 358 ft., 8-8-4-33#	14.04	25.90	280
20	63	92	25.40	23.92	Poul. 285 ft., Ca N - 894#	1.42	52.92	364
25	38	105	34.29	33.33	Steer 7.8 ton	-	58.41	311
24	35	72	23.69	25.00	8-8-4-648#	2.01	21.08	52
23	38	80	22.50	22.53	8-8-4-908#	1.00	29.48	73
29	38	76	30.99	29.63	8-8-4-735#	1.11	23.89	59
53-L	42	87	5.22	15.00	Ca N - 522#	.78	14.61	83
9-B	40	72	14.64	50.00	Poul. 4182# 8-8-4-582#	3.07	36.68	132
9	35	77	21.67	51.68	Poul. 2570# 8-8-4-985	2.08	42.94	130
28	17	77	30.00	27.80	8-8-4-926#	1.30	30.07	74
57	42	77	29.47	60.00	Bryd. 1000 Ft. Ca N - 400#, NH ₃ 120#	2.50	82.00	411
56	39	110	36.57	85.71	Ca N -1314#	2.00	37.12	210
7	50	79	72.45	60.01	Dairy 1067 ft. Am N - 333, Am S 666#	3.05	90.32	518
30	38	76	26.50	30.00	8-8-4-673#	1.00	21.86	54
31	35	72	41.35	37.76	Ca N - 960#, Am N - 480#	-	52.98	314
58	31	83	30.00	54.00	Poul. 433 ft.	-	43.83	336
High 11	45	83	27.18	43.79	- - -	2.59*	36.19	206
Low 10	37	78	24.25	46.02	- - -	2.00*	39.37	168
Avg. All	40	80	25.47	45.09	- - -	2.25*	38.05	184

Fertilizer abbreviations: NH₃-Ammonia(liquid) 81% n.; Ca.N. Calcium Nitrate 15.5% N; Am.N. Ammonium Nitrate 20.5% N.; Poul. Poultry.