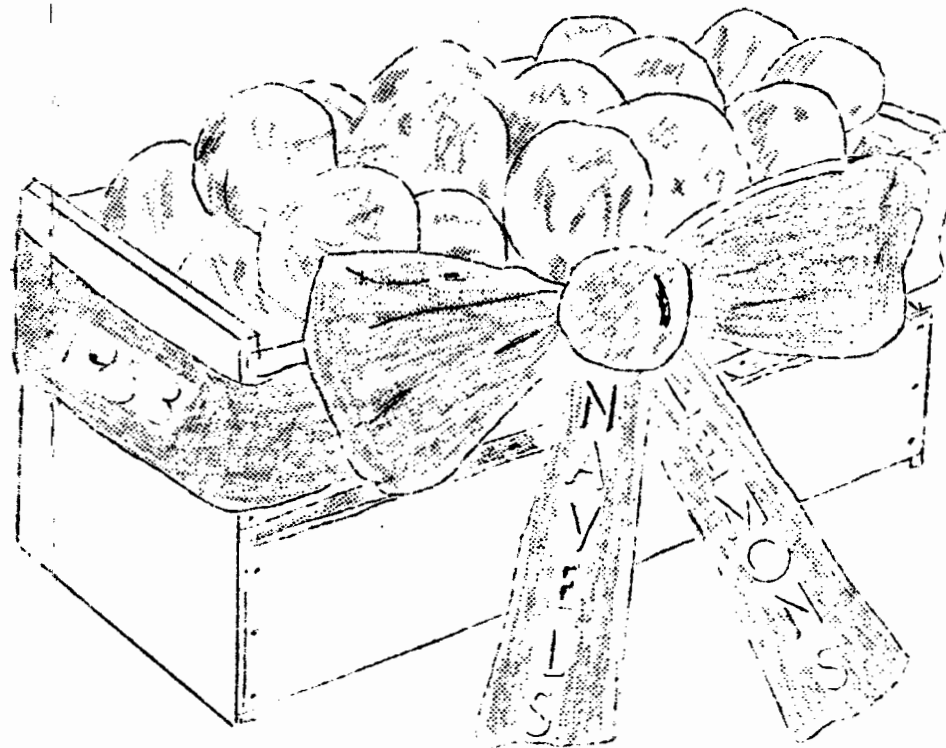


RIVERSIDE COUNTY
CITRUS PRODUCTION COST STUDY

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

CS-SI-53



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

This is the fifth of a new series of citrus management studies in Riverside County. The last study was made on navel oranges in 1952.

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 -- 665.4 acres, and 20 lemon orchards - 405.4 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.

NAVEL ORANGES - 1953

RIVERSIDE COUNTY

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.					
17	499	2.49	1243.50	154.93	111.14	79.19	345.26	5.14	79.23	429.63	160.21	589.84	732.89	653.66
44	611	1.84	1180.35	99.90	82.18	69.02	251.10	6.72	79.10	336.92	195.14	532.06	727.39	648.29
59	497	2.03	1009.54	62.15	99.12	46.71	207.98	5.77	77.86	291.61	157.30	448.91	638.49	560.63
58	419	2.32	969.99	62.15	99.12	46.71	207.98	5.22	77.44	290.64	128.27	418.91	628.52	551.08
50	603	1.84	1107.44	185.68	119.27	68.50	373.45	6.72	79.10	459.27	179.72	638.99	547.55	468.45
20	381	2.18	831.39	70.58	80.26	39.59	190.43	2.00	61.25	253.68	157.75	411.43	481.21	419.96
57	460	2.11	971.64	137.11	166.04	52.53	355.98	1.00	88.50	445.48	131.55	577.03	483.11	394.61
48	459	1.83	837.93	93.74	140.57	61.51	295.82	6.72	79.10	381.64	135.13	516.77	400.26	321.16
60	491	1.84	904.45	155.23	139.83	90.40	385.46	1.17	75.87	462.50	142.02	604.52	375.80	299.93
10	409	1.70	695.60	79.34	61.05	46.46	186.85	3.47	76.62	266.94	142.78	409.72	362.50	285.88
36	262	2.83	741.87	125.31	130.58	54.98	310.87	6.31	78.11	395.29	86.39	481.68	338.30	260.19
61	227	3.06	694.23	118.04	143.46	48.83	310.33	2.08	77.02	389.43	101.93	491.36	279.89	202.87
46	375	1.88	702.91	81.35	164.28	52.44	298.07	10.61	91.70	400.38	133.36	533.74	260.87	169.17
53N	217	2.12	458.81	37.17	46.07	32.36	115.60	28.53	87.58	231.71	64.93	296.64	249.75	162.17
49	260	2.14	554.62	87.33	78.84	55.12	221.29	6.72	79.10	307.11	87.29	394.40	239.32	160.22
52	364	1.80	654.36	82.10	149.25	51.92	283.27	10.61	91.69	385.57	131.23	516.80	229.25	137.56
9N	391	1.67	650.94	111.05	138.67	52.80	302.52	9.45	90.80	402.77	140.80	543.57	198.17	107.37
19	324	1.64	530.99	86.66	92.71	46.01	225.38	2.11	89.61	317.10	117.88	434.98	185.62	96.01
23	361	1.57	566.21	80.17	114.10	45.90	240.17	19.41	93.73	353.31	124.53	477.84	182.10	88.37
11	382	1.43	547.56	84.69	76.89	62.79	224.37	4.47	89.73	318.57	141.48	460.05	177.24	87.51
27	278	1.21	336.83	49.60	49.34	55.39	154.33	1.55	76.55	232.43	97.74	330.17	83.21	6.66
14	423	1.21	513.18	123.28	105.74	61.59	290.61	16.29	92.37	399.27	111.08	510.35	95.20	2.83

29	267	1.65	442.53	84.31	100.47	66.59	251.37	4.09	90.49	345.55	106.93	452.88	80.14	-10.35
7	372	1.37	509.52	135.94	129.40	67.48	332.82	2.74	61.72	397.28	138.12	535.40	35.84	-25.88
62	242	1.66	400.22	121.79	117.16	61.61	300.56	4.84	78.41	383.81	87.03	470.84	7.79	-70.62
52A	235	1.40	330.41	99.85	98.64	41.96	240.45	2.90	89.27	332.62	72.89	405.51	14.17	-75.10
12N	354	1.46	516.28	133.10	160.60	56.19	349.89	14.12	95.74	459.75	137.35	597.10	14.92	-80.82
25	310	1.33	411.13	72.50	101.38	58.03	231.91	50.72	101.94	384.57	109.93	494.50	18.57	-83.37
31N	145	1.54	222.83	65.26	75.40	33.01	173.67	14.70	70.79	259.16	59.42	318.58	-24.96	-95.75
33	262	1.04	273.27	91.61	80.01	35.87	207.49	2.50	88.75	298.74	83.17	381.91	-19.89	-108.64
30	237	1.59	376.97	131.90	129.75	36.18	297.83	11.39	79.25	388.47	100.69	489.16	-32.94	-112.19
47	237	1.60	378.22	124.79	146.44	49.36	320.59	10.61	91.68	422.88	85.10	507.98	-38.08	-129.76
56	156	1.68	261.84	77.70	138.19	32.02	247.91	7.81	74.21	329.93	67.89	397.82	-61.77	-135.98
51	122	1.39	170.19	91.88	88.88	44.45	225.21	2.90	89.27	317.38	45.29	362.67	-103.21	-192.48
High 17	355	2.20	780.00	112.40	123.68	56.44	292.52	7.33	81.69	381.54	117.45	498.99	362.70	281.01
Low 17	231	1.51	349.19	89.40	109.20	43.58	242.18	11.07	80.98	334.23	86.49	420.72	9.45	-71.53
Avg. All	297	1.95	578.47	101.64	116.90	50.43	268.97	9.08	81.36	359.41	102.97	462.38	197.45	116.09

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 1953. 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.

NAVEL ORANGES - 1953

RIVERSIDE COUNTY

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

Serial Number	Average Yield Per Acre		Average Income		Total On-Tree Costs		Harvest Costs		Total Costs		Mgt. Inc.
	Field Boxes	Packed Boxes	Per	Per	Per Field Box	Per Packed Box	Per	Per	Per Field Box	Per Packed Box	Per Packed Box
			Field Box	Packed Box			Field Box	Packed Box			
17	700	499	1.78	2.49	.61	.86	.23	.32	.84	1.18	1.31
44	897	641	1.31	1.84	.37	.53	.22	.30	.59	.83	1.01
59	696	497	1.45	2.03	.42	.59	.22	.31	.64	.90	1.13
58	584	419	1.66	2.32	.50	.69	.22	.31	.72	1.00	1.32
50	828	603	1.34	1.84	.55	.76	.22	.30	.77	1.06	.78
20	580	381	1.43	2.18	.44	.67	.27	.41	.71	1.08	1.10
57	650	460	1.50	2.11	.69	.96	.20	.29	.89	1.25	.86
48	626	459	1.34	1.83	.61	.83	.22	.30	.83	1.13	.70
60	664	491	1.36	1.84	.70	.94	.21	.29	.91	1.23	.61
10	586	409	1.19	1.70	.46	.65	.24	.35	.70	1.00	.70
36	383	262	1.94	2.83	1.03	1.51	.23	.33	1.26	1.84	.99
61	316	227	2.19	3.06	1.23	1.72	.32	.45	1.55	2.17	.89
46	544	375	1.29	1.88	.74	1.07	.24	.36	.98	1.43	.45
53N	354	217	1.30	2.12	.66	1.07	.18	.30	.84	1.37	.75
49	407	260	1.36	2.14	.76	1.18	.21	.34	.97	1.52	.62
52	538	364	1.22	1.80	.72	1.06	.24	.36	.96	1.42	.38
9N	570	391	1.14	1.67	.70	1.03	.25	.36	.95	1.39	.28
19	454	324	1.17	1.64	.70	.98	.26	.36	.96	1.34	.30
23	513	361	1.10	1.57	.69	.98	.24	.35	.93	1.33	.24
11	566	382	.97	1.43	.56	.83	.25	.37	.81	1.20	.23
27	300	278	1.12	1.21	.78	.84	.32	.35	1.10	1.19	.02
14	495	423	1.04	1.21	.81	.94	.22	.26	1.03	1.20	.01

29	403	267	1.10	1.65	.86	1.29	.26	.40	1.12	1.69	-.04
7	507	372	1.00	1.37	.78	1.07	.27	.37	1.05	1.44	-.07
62	369	242	1.08	1.66	1.04	1.59	.23	.36	1.27	1.95	-.29
52A	340	235	.97	1.40	.98	1.41	.21	.31	1.19	1.72	-.32
12N	503	354	1.03	1.46	.92	1.30	.27	.39	1.19	1.69	-.23
25	445	310	.92	1.33	.86	1.24	.25	.36	1.11	1.60	-.27
31N	199	145	1.12	1.54	1.30	1.79	.30	.41	1.60	2.20	-.66
33	388	262	.70	1.04	.77	1.14	.21	.31	.98	1.45	-.41
30	369	237	1.02	1.59	1.05	1.63	.27	.43	1.32	2.06	-.47
47	346	237	1.09	1.60	1.22	1.78	.25	.36	1.47	2.14	-.54
56	206	156	1.27	1.68	1.60	2.12	.33	.43	1.93	2.55	-.87
51	185	122	.92	1.39	1.71	2.59	.25	.37	1.96	2.96	-1.57
High 17	511	355	1.53	2.20	.75	1.08	.23	.33	.98	1.41	.79
Low 17	320	231	1.09	1.51	1.04	1.45	.27	.37	1.31	1.51	-.31
Avg. All	422	297	1.37	1.95	.85	1.21	.24	.35	1.09	1.56	.39

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 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.

NAVEL ORANGES - 1953

RIVERSIDE COUNTY

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 Protection L. & M.	Tree Removal and Plant	Misc.	Average Capital Invest. Per A.	Capital Over-head Costs		Management Income Field B
	Out. and Furrow	Hoe and Misc.	Weed Spray							Int. on Invest.	Depreciation	
17	.57	3.82	23.81	10.97	63.26	-	-	59.14	1584.61	79.23	5.14	.94
44	7.42	-	-	.56	50.77	-	-	25.13	1582.00	79.10	6.72	.72
59	13.60	.72	-	3.80	45.79	-	-	5.08	1557.25	77.86	5.77	.81
58	13.60	.72	-	3.80	45.79	-	-	5.08	1548.75	77.44	5.22	.94
50	7.33	-	-	1.33	65.01	-	-	98.61	1582.00	79.10	6.72	.57
20	-	-	40.00	-	41.64	-	-	-	1225.00	61.25	2.00	.72
57	26.60	2.07	-	-	119.04	-	-	3.90	1770.00	88.50	1.00	.61
48	7.30	-	-	-	61.96	-	-	17.58	1582.00	79.10	6.72	.51
60	33.49	7.50	-	12.50	70.57	-	6.20	25.00	1517.50	75.87	1.17	.45
10	-	12.46	8.75	-	22.49	12.93	-	17.96	1532.49	76.62	3.47	.49
36	4.18	3.41	14.29	-	59.01	1.65	-	42.31	1562.24	78.11	6.31	.88
61	32.51	4.06	15.09	5.55	48.44	-	-	-	1540.46	77.02	2.08	.64
46	4.03	-	-	4.74	67.23	4.18	-	33.73	1833.90	91.70	10.61	.31
53N	-	-	9.67	-	39.17	-	-	-	1751.67	87.58	28.53	.46
49	7.31	-	-	1.80	50.84	-	-	17.87	1582.00	79.10	6.72	.39
52	13.76	-	-	4.20	21.77	56.98	-	33.32	1833.90	91.69	10.61	.26
9N	26.17	-	-	2.89	26.45	11.21	-	53.79	1815.95	90.80	9.45	.19
19	-	2.35	23.78	.64	60.55	-	3.28	10.33	1792.25	89.61	2.11	.21
23	-	3.11	5.96	.77	66.98	35.51	-	3.17	1874.72	93.73	19.41	.17
11	-	-	43.50	-	47.56	-	-	1.63	1794.66	89.73	4.47	.16
27	23.10	-	-	12.50	3.50	-	-	-	1531.03	76.55	1.55	.02
14	-	3.01	60.21	-	67.67	8.61	-	21.85	1887.31	92.37	16.29	.01

29	-	4.55	35.66	-	74.75	-	-	-	1809.75	90.49	4.09	-.02
7	-	-	30.00	68.57	39.43	33.94	8.83	-	1234.29	61.72	2.74	-.05
62	-	-	17.14	19.71	61.94	-	37.94	15.78	1568.29	78.41	4.84	-.19
52A	20.65	6.73	7.70	-	61.08	-	1.34	-	1785.42	89.27	2.90	-.22
12N	-	4.75	6.39	-	66.37	61.59	3.22	49.99	1914.72	95.74	14.12	-.16
25	15.11	1.33	-	-	71.91	28.62	-	-	2038.78	101.94	50.72	-.19
31N	40.25	-	1.82	-	4.39	-	-	2.53	1415.70	70.79	14.70	-.48
33	25.15	5.65	8.83	1.82	43.08	-	5.14	1.00	1775.00	88.75	2.50	-.28
30	-	-	33.30	11.00	49.00	31.73	31.40	-	1585.09	79.25	11.39	-.30
47	24.98	-	-	13.84	74.45	-	-	41.98	1833.63	91.68	10.61	-.38
56	19.38	-	-	2.93	15.61	9.42	-	21.57	1484.12	74.21	7.81	-.66
51	20.65	12.17	7.59	-	39.98	-	2.50	-	1785.42	89.27	2.90	-1.04
High 17	12.09*	4.14*	15.02*	5.34*	51.52	9.08*	6.20*	38.47*	1633.73	81.69	7.33	.55
Low 17	28.57*	3.98*	13.23*	9.99*	36.77	24.00*	12.47*	16.56*	1619.58	80.98	11.07	-.22
Avg. All	18.52*	4.09*	14.11*	7.65*	44.61	14.39*	11.29*	28.63*	1627.11	81.36	9.08	.28

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.

*Average for acres reporting such costs. All other averages are spread over total acres in study.

NAVEL ORANGES - 1953

RIVERSIDE COUNTY

TABLE 4 - IRRIGATION AND FERTILIZER PRACTICES

Serial Number	Average Age of Trees	Trees Per Acre	Irrigation costs per acre		Fertilizers Kind and Amount Applied Per Acre	Costs Per Acre		Pounds Nit. Per Acre
			Labor	Water		Labor	Material	
					17			45
44	39	73	35.34	34.43	8-8-4, 844#	.98	27.45	68
59	24	104	14.40	27.36	CaN - 400#, Poul, 672 ft.	1.76	48.76	585
58	23	107	14.40	27.36	CaN - 400#, Poul, 672 ft.	1.76	48.76	585
50	39	124	38.40	30.00	AmN, 280#, Dairy - 588 ft.	1.00	63.27	239
20	46	90	24.00	14.80	NH ₃ - 360#	-	30.40	292
57	24	115	32.53	51.70	NH ₃ - 277#, AmN - 851#, Mag. Sul.	2.66	64.95	505
48	-	75	29.69	40.00	AmN - 360 #, Dairy 1000 ft.	2.00	75.78	371
60	-	102	29.90	65.25	NH ₃ - 58#, AmS--500#, Steer 5500#	-	44.65	263
10	61	76	21.89	16.67	NH ₃ - 256#	-	27.24	207
36	41	103	31.05	64.80	NH ₃ - 335#	-	35.19	271
61	-	90	34.70	50.05	CaN - 524#, Steer - 11,444#	1.99	69.11	313
46	42	100	10.67	40.23	NH ₃ - 290#, Nogr.- 500#	2.72	78.10	450
53N	22	100	4.33	15.67	CaN - 467#	.67	13.73	75
49	34	106	27.85	33.00	8-8-4, 572#	2.00	25.50	46
52	43	100	11.50	19.12	NH ₃ 166#, Am N-111#,Nogr.139# Dairy, 622 ft.	2.89	67.81	387
9N	44	80	17.57	21.79	NH ₃ 239# AmN-23#,Nogr.301#, Dairy 691 ft.	3.50	86.35	503
19	54	98	26.34	13.52	NH ₃ 338#, Dairy 51 ft.	-	38.58	287
23	65	73	15.40	16.16	NH ₃ 462#	-	46.67	374
11	61	105	22.04	22.84	NH ₃ 222#	-	24.01	188
27	62	91	10.50	10.50	NH ₃ 350#	-	35.84	284
14	33	97	20.00	9.14	CaN - 1355#	.81	37.63	217

29	59	77	14.73	17.18	CaN - 1091#, Dairy 36 ft.	2.73	35.18	184
7	52	100	20.69	27.42	CaN - 1143#	-	36.46	183
62	50	92	22.86	46.86	Am N - 194# Dairy 103 ft.	2.86	13.86	91
52A	47	75	29.78	37.80	NH ₃ 180#, Poul - 207 ft.	-	33.41	306
12N	62	111	28.06	20.00	NH ₃ 533#	-	53.33	432
25	48	100	9.78	25.33	Am S - 667#	1.80	20.00	140
31N	23	105	18.00	38.23	Am N - 750#	.54	34.90	251
33	49	75	25.42	35.00	NH ₃ - 150#, Poul, 54 ft.	-	19.53	163
30	54	90	51.20	22.60	CaN - 900#	5.00	26.42	144
47	43	100	13.40	40.98	NH ₃ -203#, AmN-169#, CaN-225, Nu.gr. 56#-D. 322 ft.	2.25	59.35	364
56	36	110	20.39	62.70	CaN - 2050#	1.13	62.76	355
51	32	74	29.57	37.80	NH ₃ - 140#, Poul. 233 ft.	-	30.50	294
High 17	40	101	24.64	44.02		2.44*	48.47	324
Low 17	41	101	20.00	36.63		1.35*	42.40	283
Avg. All	41	101	22.47	40.57		1.82*	45.63	304

*Average for acres reporting.

- Dash indicates data not available.

Irrigation and fertertilization 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.

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

Serial Number	Average Yield Packed Boxes	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.					
25	393	3.83	1505.54	200.30	97.27	47.98	345.55	16.41	82.49	444.45	289.56	734.01	854.02	771.53
17	358	3.62	1295.56	109.78	120.26	52.81	282.85	2.41	77.41	362.67	284.98	647.65	725.32	647.91
19	314	3.62	1134.48	112.94	133.07	43.64	289.65	1.71	76.71	368.07	249.55	614.62	593.57	516.86
58	321	3.59	1151.67	202.25	147.89	48.84	398.98	14.94	80.13	494.05	239.17	733.22	498.58	418.45
57	244	4.54	1107.43	143.88	205.18	43.99	398.05	54.22	90.13	542.40	182.26	724.66	472.90	382.77
54	217	4.43	960.95	140.62	113.91	57.82	312.35	7.27	80.46	400.08	179.41	579.49	461.92	381.46
29	207	4.54	941.45	141.53	121.06	53.71	316.30	18.41	82.49	417.20	148.10	565.30	458.64	376.15
24	215	3.82	819.54	114.40	110.67	48.80	273.87	18.41	82.49	374.77	159.03	533.80	368.23	285.74
9B	260	3.55	924.24	143.70	142.64	68.28	354.62	18.41	82.49	455.52	211.08	666.60	340.13	257.64
55	173	4.34	749.73	106.15	136.17	52.30	294.62	2.08	77.02	373.72	127.44	501.16	325.59	248.57
31	193	3.93	670.83	125.43	89.83	37.09	252.35	13.99	102.30	368.64	160.21	528.85	334.28	231.98
23	224	3.61	810.03	120.87	111.20	68.48	300.55	18.41	82.49	401.45	177.88	579.33	313.19	230.70
9	196	3.49	683.98	111.04	107.80	42.99	261.83	12.41	83.52	357.76	139.62	497.38	270.12	186.60
7	254	3.68	933.63	215.39	191.27	64.22	470.88	3.82	78.80	553.50	194.94	748.44	263.99	185.19
28	239	3.43	818.84	181.54	133.98	52.45	367.97	6.72	79.10	443.79	191.70	645.49	252.45	173.35
27	169	3.75	635.02	108.39	112.83	46.20	267.42	15.41	82.49	365.32	128.61	493.93	223.58	141.09
20	157	4.06	636.50	145.19	120.30	36.09	301.58	4.72	90.87	397.17	121.60	518.77	208.60	117.73
30	178	3.47	616.10	179.71	134.85	67.19	381.75	17.41	82.49	481.65	138.63	620.28	78.31	-4.18
56	156	3.71	578.16	178.15	169.06	55.73	402.94	4.46	79.39	486.79	111.23	598.02	59.53	-19.86
53L	81	4.46	359.98	65.22	107.77	35.32	208.31	30.39	88.87	327.57	82.64	410.21	38.64	-50.23
High 10	264	3.88	1025.48	138.59	131.79	55.40	325.78	14.54	81.16	421.48	205.84	627.32	479.32	398.16
Low 10	182	3.61	658.06	127.62	114.41	45.09	287.12	13.52	87.74	388.38	138.33	526.71	219.09	131.35
Avg. All	214	3.74	800.04	131.86	121.12	49.08	302.06	13.91	85.20	401.17	164.42	565.59	319.63	234.45

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

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

Serial Number	Average Yield		Average Income		Total On-Tree Costs		Harvest Costs		Total Costs		Management Income Per Packed Box
	Per Acre		Per Field Box	Per Packed Box	Per Field Box	Per Pkd. Box	Per Field Box	Per Packed Box	Per Field Box	Per Packed Box	
	Field Boxes	Packed Boxes									
25	625	393	2.42	3.83	.71	1.13	.47	.74	1.18	1.87	1.96
17	478	358	2.71	3.62	.76	1.01	.59	.80	1.35	1.81	1.81
19	418	314	2.71	3.62	.88	1.17	.60	.80	1.48	1.97	1.65
58	519	321	2.22	3.59	.95	1.54	.46	.74	1.41	2.28	1.31
57	380	244	2.91	4.54	1.43	2.22	.48	.75	1.91	2.97	1.57
54	343	217	2.80	4.43	1.17	1.84	.52	.83	1.69	2.67	1.76
29	323	207	2.91	4.54	1.29	2.02	.46	.71	1.75	2.73	1.81
24	349	215	2.35	3.82	1.07	1.75	.46	.74	1.53	2.49	1.33
9B	408	260	2.27	3.55	1.12	1.75	.52	.81	1.64	2.56	.99
55	257	173	2.92	4.34	1.45	2.16	.50	.74	1.95	2.90	1.44
31	277	193	2.75	3.93	1.33	1.90	.58	.83	1.91	2.73	1.20
23	350	224	2.31	3.61	1.14	1.79	.51	.79	1.65	2.58	1.03
9	305	196	2.24	3.49	1.17	1.83	.46	.71	1.63	2.54	.95
7	403	254	2.32	3.68	1.38	2.18	.48	.77	1.86	2.95	.73
28	372	239	2.20	3.43	1.22	1.90	.51	.80	1.73	2.70	.73
27	261	169	2.44	3.75	1.40	2.16	.50	.76	1.90	2.92	.83
20	245	157	2.60	4.06	1.62	2.54	.50	.77	2.12	3.31	.75
30	285	178	2.16	3.47	1.69	2.71	.49	.78	2.18	3.49	-.02
56	220	156	2.62	3.71	2.21	3.13	.50	.71	2.71	3.84	-.13
53L	129	81	2.80	4.46	2.55	4.06	.64	1.02	3.19	5.08	-.62
High 10	401	264	2.56	3.88	1.05	1.59	.52	.78	1.57	2.37	1.51
Low 10	273	182	2.41	3.61	1.42	2.13	.51	.76	1.93	2.89	.72
Avg. All	322	214	2.48	3.74	1.24	1.87	.51	.77	1.75	2.64	1.10

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

LEMONS - 1953

RIVERSIDE COUNTY

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	
25	7.41	-	-	59.79	62.90	41.74	-	21.44	1649.72	82.49	16.41	1.24
17	16.21	8.72	-	-	61.68	-	4.91	17.50	1548.28	77.41	2.41	1.36
19	16.74	-	-	-	57.30	-	24.12	28.54	1534.17	76.71	1.71	1.23
58	30.23	-	-	87.33	62.26	42.65	-	-	1602.50	80.13	14.94	.81
57	26.50	4.10	8.94	20.14	61.10	41.89	12.71	5.87	1802.60	90.13	54.22	1.00
54	8.05	1.77	37.73	29.18	80.23	-	-	4.21	1609.09	80.46	7.27	1.11
29	15.43	-	-	3.17	52.76	37.60	22.37	8.13	1649.72	82.49	18.41	1.16
24	9.45	-	-	4.06	49.51	37.66	-	18.13	1649.72	82.49	18.41	.82
9B	22.81	-	-	15.72	65.57	45.00	-	17.58	1649.72	82.49	18.41	.63
55	32.45	4.05	15.06	5.54	25.40	-	4.23	-	1540.46	77.02	2.08	.97
31	23.57	-	26.09	25.92	33.95	15.72	2.02	11.30	2045.92	102.30	13.99	.84
23	10.23	-	-	1.14	71.25	30.79	-	19.65	1649.72	82.49	18.41	.66
9	13.59	-	-	7.48	48.71	38.80	-	14.99	1670.47	83.52	12.41	.61
7	68.35	15.30	-	-	71.49	-	11.93	-	1575.94	78.80	3.82	.46
28	12.04	-	-	32.95	67.61	41.91	19.73	18.58	1582.00	79.10	6.72	.47
27	7.97	-	-	.25	58.45	46.70	-	17.79	1649.72	82.49	15.41	.54
20	27.44	6.10	.53	14.32	79.40	41.02	6.84	13.54	1817.48	90.87	4.72	.48
30	13.00	-	-	26.45	48.95	39.20	49.25	18.58	1649.72	82.49	17.41	-.02
56	33.43	12.00	6.61	-	72.17	31.29	24.63	22.23	1587.86	79.39	4.46	-.09
53L	14.78	4.39	3.96	-	21.73	93.13	-	-	1777.34	88.87	30.39	-.39
High 10	17.99	4.13x	25.00x	22.52x	60.39	42.08x	14.85x	15.32x	1623.13	81.16	14.54	.99
Low 10	18.58	7.44x	13.13x	15.07x	50.41	39.17x	15.44x	15.43x	1754.86	87.74	13.52	.48
Avg. All	18.35	5.96x	16.44x	17.93x	54.26	39.98x	15.24x	15.39x	1703.96	85.20	13.91	.73

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

x Average of acres reporting such costs. All other averages spread over total acreage.

TABLE 8 - IRRIGATION AND FERTILIZER PRACTICES

Serial Number	Average Age of Trees	Trees Per Acre	Irrigation		Fertilizers			
			Cost Per Acre		Kind and Amount Applied Per Acre	Costs Per Acre		Pounds Nit./A.
			Labor	Water		Labor	Material	
25	37	105	41.67	33.75	8-8-4, 833#	1.00	27.87	67
17	41	69	28.36	59.22	Ca N - 1121#	-	33.44	179
19	41	75	24.37	62.03	Ca N - 1139#	-	32.91	182
58	30	83	36.67	50.00	NH ₃ - 150#, Poul. 250 ft.	-	41.00	315
57	41	77	25.95	60.00	NH ₃ - 168#, Ca N - 200#, Bryd. 1028ft.	1.90	79.96	425
54	51	75	29.09	59.18	Dairy 150 ft.	.68	4.41	37
29	37	76	38.89	33.41	Am N - 207, Dairy 665 ft.	1.00	49.83	236
24	34	72	27.08	32.71	Am N - 168#, Dairy 626 ft.	.97	45.50	213
9B	39	72	13.75	63.85	8-8-4, 1225#	2.00	40.05	98
55	40	90	34.64	49.96	Ca N - 523#, Steer 11,417#	1.99	69.00	312
31	34	155	16.34	46.15	NH ₃ - 135 #	-	14.20	109
23	37	80	35.20	32.23	Dairy 528 ft.	-	31.68	132
9	34	58	18.00	45.85	8-8-4, 950#	.88	30.54	76
7	49	79	87.32	60.00	Am S - 667#, Am N - 333#, Dairy 1000ft.	-	92.27	502
28	16	77	35.00	32.99	Am N - 280#, Dairy 683 ft.	1.00	53.71	265
27	37	75	25.73	29.37	8-8-4, 1029#	1.00	33.96	82
20	62	92	18.29	25.36	Ca N - 1057#	2.03	30.62	354
30	37	76	33.80	35.01	Am N - 230, Dairy 654 ft.	1.00	49.32	241
56	38	110	30.86	64.85	Ca N - 914#, Am N - 457#	-	49.14	299
53L	41	87	8.48	14.78	Ca N - 370#	.61	11.13	124
High 10	40	78	26.76	53.49		1.44x	38.89	169
Low 10	38	91	41.57	39.81		1.04x	30.23	159
Avg. All	39	85	23.58	45.20		1.21x	33.58	163

x Average for acres reporting. - Data not available.

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