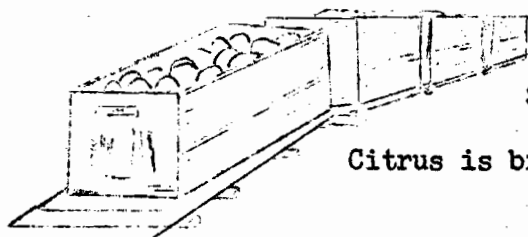


# ORANGE COUNTY CITRUS MANAGEMENT STUDY 1956

41,684 bearing acres

17,988,000 field boxes



\$38,396,300 f.o.b. value

Citrus is big business in Orange County

UNIVERSITY OF CALIFORNIA  
AGRICULTURAL EXTENSION SERVICE  
COUNTY OF ORANGE

UC Cooperative Extension

# introduction

This 1956 Citrus Management Study has been prepared by the University of California Agricultural Extension Service in Orange County.

The information on orchard operations was applied by local growers.

Yields, costs, and returns are computed and reported on a carton basis. All fruit picked is converted and included in total yield. Gross income includes harvesting charge.


Cultural costs include hired labor, value operators own labor, value or cost of field power and any contract cost, all materials such as fertilizer, water, pest control chemicals, new trees, tools, traps etc.

Cash overhead cost are all cash expenses other than for labor and materials--taxes, repairs, insurance, general expense, and depreciation other than trees.

The total costs of production subtracted from the gross income gives the profit or capital and management income. No charge is made for interest on the investment because of changing of land values.

This study is designed to serve as an analysis of typical costs and operator efficiency.

Many of the groves in the study are managed by the owner-operator. Others have a full-time professional manager. This accounts for variations in overhead cost.



J. E. Pehrson  
Farm Advisor

-WHAT DID IT COST TO CARE FOR CITRUS IN 1956?

CULTURAL COST PER ACRE

OVERHEAD COST PER ACRE

	<u>Valencias</u>		<u>Lemons</u>			<u>Valencias</u>		<u>Lemons</u>	
	Your Cost		Your Cost			Your Cost		Your Cost	
Water	\$21.31		\$23.97		Admin.**	\$31.93		\$ 9.80	
Irrigation Labor	21.80		32.15		Gen. Expense	28.28		8.55	
Spraying	36.80		35.20		Taxes	41.73		28.79	
Soil Management	22.59		20.91		Insurance	4.64		2.02	
Fertilization	36.36		44.46		Repairs	15.14		7.43	
Frost Protection	17.05		29.18		Deprec.***	<u>38.45</u>		<u>8.87</u>	
Rodent Control	2.97		.92		Total	\$160.17		\$65.46	
Disease Control	6.69		42.95						
Tree Care*	5.81		30.90						
Miscellaneous	<u>14.26</u>		<u>9.53</u>						
Total	\$185.64		\$270.17						

\*\*Supervision charge included

\*\*\*Depreciation is on farm buildings equipment, and irrigation system. Trees are not included.

\*Includes pruning and replants

INDIVIDUAL VALENCIA ORCHARD SUMMARY: Profit-determining factors for each grove

Serial Number	Yield Cartons per Acre	Average Price per Carton	Per cent Fresh	Total Per Acre Income	Total Cul. Cost L & M Per Acre	Overhead Costs	Harvest Costs	Total Costs	Capital & Management Income
368	1179	1.97	80	2326.82	358.12	138.11	256.76	752.99	1573.83
396	954	1.64	76	1569.90	247.35	47.92	182.24	477.51	1092.39
401	875	1.48	61	1298.29	173.20	53.00	163.54	389.74	908.55
238	671	1.58	62	1058.89	112.23	51.54	128.96	292.73	766.16
319	728	1.56	69	1134.19	188.67	71.69	126.10	386.46	747.73
400	685	1.37	59	938.47	184.96	47.21	128.11	360.28	578.19
292	812	1.10	49	896.44	151.88	39.56	136.25	327.69	568.75
360	774	1.19	54	922.45	148.68	89.91	143.66	382.25	540.20
304	796	1.20	53	955.49	187.12	90.29	158.87	436.28	519.21
366	693	1.27	63	882.55	199.19	64.89	118.01	382.09	500.46
318	517	1.49	63	770.12	134.99	62.53	91.34	288.86	481.26
405	412	1.60	72	657.06	65.62	47.72	74.08	187.42	469.64
372	621	1.45	67	900.19	195.78	105.50	135.23	436.51	463.68
357	976	1.21	56	1182.42	398.06	114.90	212.73	725.69	456.73
403	586	1.30	67	776.04	138.85	79.38	105.49	323.72	452.32
237	507	1.33	49	675.51	110.48	48.11	99.73	258.32	417.19

Capital and management income represents reimbursement for use of capital plus profit on management ability. Operators own labor income is charged as a cultural cost.

INDIVIDUAL VALENCIA ORCHARD SUMMARY: Profit-determining factors for each grove (cont.)

Serial Number	Yield Cartons per Acre	Average Price per Carton	Per cent Fresh	Total Per Acre Income	Total Cul. Cost L & M Per Acre	Overhead Costs	Harvest Costs	Total Costs	Capital & Management Income
283	582	1.25	53	726.67	171.30	49.42	103.81	324.53	402.14
410	443	1.31	68	580.06	79.92	32.98	84.52	197.42	382.64
399	808	1.00	43	808.44	223.49	47.95	156.76	428.20	380.24
404	648	1.23	59	797.77	167.82	134.43	126.07	428.32	369.45
393	681	1.20	65	816.84	209.33	98.32	143.92	451.57	365.27
9	498	1.35	71	677.11	176.53	46.23	94.92	317.68	359.43
364	482	1.21	56	583.06	83.78	62.35	87.28	233.41	349.65
301	413	1.49	64	615.62	155.13	42.66	75.19	272.98	342.64
373	373	1.58	67	589.12	54.56	145.14	82.48	282.18	306.94
384	612	1.18	59	723.83	211.16	87.07	126.41	424.64	299.19
411	452	1.59	63	719.63	199.01	122.69	107.57	429.27	290.36
325	387	1.25	69	484.37	120.26	72.73	73.71	266.70	217.67
351	515	1.13	52	580.63	190.07	106.35	105.40	401.82	178.81
408	618	1.30	67	801.31	211.94	287.50	140.86	640.30	161.01
369	497	1.17	66	581.72	257.13	75.61	96.46	429.20	152.52
284	243	1.43	75	349.72	85.50	39.62	97.49	222.61	127.11
326	279	1.27	63	353.48	179.96	95.93	53.16	329.05	24.43
Average	549	1.40	--	770.47	155.40	131.11	114.14	400.65	369.82

Capital and management income represents reimbursement for use of capital plus profit on management ability. Operators own labor income is charged as a cultural cost.

INDIVIDUAL LEMON ORCHARD SUMMARY: Profit-determining factors for each grove

Serial Number	Yield Cartons Per Acre	Average Price per Carton	Per cent Fresh	Total Per Acre Income	Total Cul. Cost L & M Per Acre	Overhead Costs	Harvest Costs	Total Costs	Capital & Management Income
388	1788	1.31	80	2351.06	320.26	62.63	675.73	1058.62	1292.44
387	753	1.39	71	1046.18	283.80	68.97	283.72	636.49	409.69
202	603	1.36	68	822.14	223.40	53.00	224.45	500.85	321.29
284-a	298	1.30	67	387.62	85.50	39.62	113.31	238.43	149.19
389	774	.96	36	741.68	262.70	98.73	267.34	628.77	112.91
318-a	219	1.21	61	265.79	134.99	62.53	79.03	276.55	- 10.76
292-a	131	1.26	68	164.48	104.40	37.53	49.93	191.86	- 27.38
240	220	.79	31	174.52	133.57	36.12	82.91	252.60	- 78.08
319-a	275	1.03	68	282.65	188.67	71.69	113.37	373.73	- 91.08
Average	425	1.18	--	499.80	172.95	49.14	166.82	388.91	110.89

Capital and management income represents reimbursement for use of capital plus profit on management ability. Operators own labor income is charged as a cultural cost.

## WHAT ARE GROWERS DOING?

They're becoming more efficient to meet rising costs. They have to. Overhead charges continue to creep upwards. Taxes take a big bite. Labor and material costs reflect the general increase in prices.

A good grove operator cares for his grove in a manner that gives high quality fruit. He tunes up his orchard just like he tunes up his truck or tractor. Most important he limits the non-essentials.

An example of this is in the careful and judicious use of fertilizers. Several growers are taking advantage of the storehouse of plant nutrients they've accumulated in the soil by years of excessive applications. Reduced application of nitrogen improves fruit quality. The fruit gets smoother, has thinner peel, more juice, doesn't regreen as much. Phosphate levels in soils are high naturally. Continued addition of this element aggravates zinc deficiency and makes it worse. Potash is also high. In some soils it pushes calcium off the clay particles. This reduces infiltration of water.

To prevent a serious nitrogen deficiency under low fertility the following program is used. A check block of trees, usually a drive of four rows is left unfertilized. After 3 years of no nitrogen on this group of trees the rest of the grove is put on a low level or none at all. When

the check row shows a deficiency the rest of the orchard is treated. This gives a safety factor of 3 years before the soil storehouse is depleted.

Yields maintain themselves and fruit quality improves under this system. Besides there's a saving of \$20 - \$30 per acre each year. Why does it work? Here are several reasons.

1. Nitrogen is still the only nutrient element that needs to be added. Leaf and soil analysis shows phosphate and potash levels up in the safe range on healthy trees. If trees are low in phosphate or potash it's because their root systems are diseased or damaged.
2. Nutritional requirement of citrus trees is less than most rates of fertilizer application.
3. Limited rainfall has not washed plant nutrients from the soil for many years.

How little nitrogen can be used on a minimum basis? If you're conservative and don't like to gamble, 50 pounds actual N per acre per year should ease your conscience and keep your fertilizer salesman happy. Actually there's a bank of fertility in your soil that's good for several years.

# acknowledgments

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