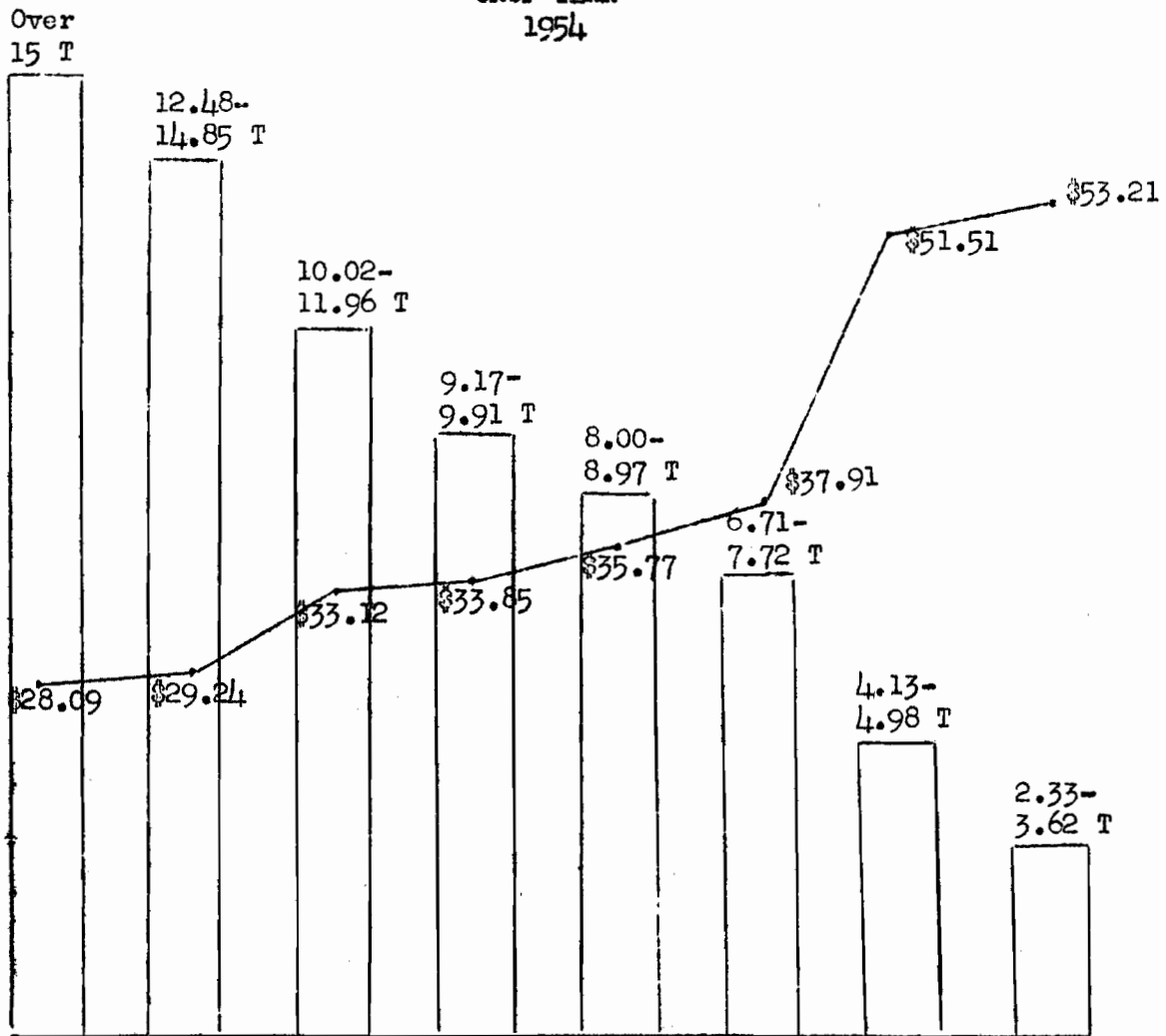


*Ad Reed*

# FREESTONE PEACH MANAGEMENT STUDY SOLANO COUNTY

FIFTH ANNUAL REPORT  
CROP YEAR  
1954



Bars = Tons per acre produced in orchards included in this study.  
Line = Cost per ton in these orchards

Study Conducted by  
University of California  
Agricultural Extension Service  
In Cooperation with  
Solano County Peach Growers

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## INTRODUCTION

The purpose of this study has been to learn the management practices which will enable Solano County Freestone peach growers to reduce their costs and improve their management income. In addition, the study should furnish the local industry with some information regarding current production costs.

This report presents the results of the fifth and final year of this study. In addition, it includes a four year summary for each of the 10 orchards which have cooperated in the study for the last four years.

The study has been based on monthly reports of labor costs made by the cooperators. These, combined with a record of expenses and income, and a final inventory, furnish the material from which each individual record is computed. These records are then averaged, and this average serves as a standard with which each individual grower may compare his yields, costs and returns. This furnishes a good opportunity to learn which management practices are most efficient.

The 1954 year was profitable year for most of the peach growers in this study. The management income varied however, from \$7.87 per acre up to \$400.97 per acre. This emphasizes the importance of studying the methods which will result in a satisfactory management income.

The Farm Advisor has found this study a very effective means of determining changes in management practices which will enable the individual cooperators to reduce their costs and improve their management income. It is more difficult to draw general conclusions regarding the management practices which, if generally adopted, would reduce the costs and improve the management income of all orchards. However, the following conclusions have been reached:--

High yield per acre usually results in low cost per ton. During the past 4 years, 47 grower accounts have been included in this study. Eight of these accounts showed an average production of over 15 tons per acre, four an average of 12 to 14.85 tons per acre, nine an average of 10 to 11.96 tons per acre, nine an average of 9 to 9.91 tons per acre, ten an average of 8 to 8.97 tons per acre, two an average of 6 to 7.72 tons per acre, three an average of 4 to 4.98 tons per acre. The bar graph on the front page of this report shows a bar for each of these group accounts, representing the average production for the group, and a line indicating the average cost of production per ton for the group. Without exception, the bar graph shows that when production per acre increased, cost per ton was lower. Most growers, therefore, should find it profitable to carry on these cultural operations which will result in a higher yield per acre.

It is profitable to produce a quality of fruit which the buyer will buy readily at going prices. Most growers in this study believe that the cannery market is more profitable than the dried fruit market. The 5 most profitable orchards sold an average of 65.4% of their crop to the cannery, while the 5 least profitable orchards sold only 60.4% of their crop to the cannery. This indicates that in the more profitable orchards, a larger part of the crop was of cannery grade.

Efficient production methods must be used in order to earn a management income above the average. The average total cultural costs for labor and materials in the 5 most profitable orchards was \$9.62 per ton. In the 5 least profitable orchards these costs were \$14.44 per ton.

Effective use must be made of the fruit which does not meet cannerly grade. In the 5 most profitable orchards, an average income of \$41.50 was secured for each fresh ton of peaches dried. In the 5 least profitable, this average was only \$37.50. This difference appears to be due to a lower drying ratio and a lower drying cost per fresh ton. The average price received per dried pound was also slightly higher for the 5 most profitable orchards, indicating that a good quality dried peach was produced.

The cooperation of progressive peach growers in Solano County made it possible to conduct this study. We very much appreciate their assistance.

We would like to point out that average costs and return figures presented in this report are not intended to be representative of county averages, since those who participated were better than average producers, and only a small percentage of Solano County peach growers took part in the study.

DEFINITION OF TERMS  
Peach Management Study

COSTS

CULTURAL LABOR COSTS are composed of the cost of hired labor and the value of the operator's actual labor at the going wage rates, and the value or cost of tractor and truck work for all orchard operations prior to harvesting. Tractor and truck work, termed field power, are charged at hourly rates figured to cover the overhead maintenance and operating costs.

CULTURAL MATERIAL COSTS are for pumping power, fertilizer, spray material and other materials used in producing the crop.

HARVESTING includes picking and hauling labor. This also includes field power equipment costs of tractors and trucks.

CASH OVERHEAD COSTS include all cash costs not listed under labor and material costs. They cover taxes, machinery repairs (other than tractors and trucks,) compensation insurance and general expense. The general expense item is computed at 5 percent of the total labor and material costs and covers miscellaneous unreported costs such as interest on operating capital, use of family car in conjunction with the enterprise and office expenses.

TOTAL CASH AND LABOR COSTS are a sum of all labor, material and cash overhead costs as indicated above.

DEPRECIATION is that part of the original cost of trees, improvements and equipment which is charged to each year of operation in order to absorb the cost of such facilities during their period of usefulness.

INTEREST on investment is figured at 5 percent of the average values ( $\frac{1}{2}$  of original costs) of trees, improvements and equipment. The land values used in calculating interest on investment charge were conservative and below current market values.

TOTAL COST includes all of the above costs.

INCOME

TOTAL INCOME PER ACRE OR AVERAGE NET RETURNS PER TON reflects the returns for the naked fruit at the first delivery point after the deduction of marketing expenditures. Costs of drying were deducted from returns for the dried fruit in order to show a comparable net income to the fruit which was sold fresh.

MANAGEMENT INCOME is the amount by which total income exceeds total costs, as indicated above. It represents the operator's income for management after he has already paid himself wages for his work and interest on invested capital at 5 percent. When total income fails to cover total costs, a loss occurs which is indicated by a minus sign (-).

TABLE 1 - GENERAL SUMMARY OF COSTS, INCOME AND EARNINGS PER ACRE - INDIVIDUAL ORCHARDS - 1954

Record Number	Average age of trees	Yield tons per acre	Average net return per ton	Costs per Acre								Total income per acre	Management income per acre
				Cultural labor	Harvest labor	Material	Cash overhead	Total cash & labor	Depreciation	Interest on Invest.	Total		
7	18	15.64	56.35	112.77	232.42	31.68	36.24	413.11	36.34	31.97	481.42	881.49	400.07
11	24	16.93	52.34	146.28	199.06	40.66	36.18	422.18	54.59	39.70	516.47	886.15	369.68
12	31	9.41	55.85	93.72	99.88	27.61	24.17	245.38	28.83	30.19	304.40	525.77	221.37
3	21	10.99	45.48	119.42	120.54	25.46	27.78	293.20	33.80	23.50	350.50	499.93	149.43
4	23	8.22	49.90	61.45	81.83	26.97	28.38	198.63	44.37	32.81	275.81	410.31	134.50
17	26	8.97	43.66	49.93	95.50	36.26	20.89	202.58	32.81	26.29	261.68	391.71	130.03
16	17	8.83	51.52	102.12	126.74	20.17	28.65	277.68	45.44	33.44	356.56	454.71	98.15
9	21	9.32	46.69	101.05	146.55	31.32	28.87	307.79	39.27	31.79	378.85	435.17	56.32
2	13	9.60	48.12	138.58	143.36	53.27	31.37	366.58	41.18	41.71	449.47	461.97	12.50
5	18	8.89	44.04	142.08	89.14	40.73	30.04	301.99	47.32	34.32	383.63	391.50	7.87
Av. 1954	21	10.16	49.77	99.65	103.21	29.85	29.33	285.03	40.85	31.74	357.62	505.76	148.14
Av. 1953	20	9.07	49.31	84.10	91.77	21.83	24.71	230.47	41.45	32.36	304.28	447.28	143.00
Av. 1952	19	9.64	48.81	91.65	113.30	22.98	26.92	261.85	38.39	30.76	331.00	470.43	139.43
Av. 1951	19	9.83	54.99	78.23	107.15	20.80	23.37	239.40	38.83	31.70	309.93	540.64	230.71
Av. 1950	16	8.50	57.31	87.70	90.28	16.19	22.44	216.67	38.89	26.76	282.32	487.17	204.85
5 Year Av.	19	9.44	51.93	88.27	110.73	22.33	25.35	246.68	39.68	30.67	317.03	490.26	173.23

A wide variation in yield, total costs per acre, and total income per acre, is shown by the above summary. Orchard No. 11, had the highest yield per acre, for the fourth consecutive year. Orchard No. 7, however, had the largest management income per acre for the second consecutive year, due to higher returns per ton, and lower costs per acre.

The 1954 year was more profitable on the average for these growers, than either the 1952 or 1953 year, but less profitable than the five year average. The increased management income was due to higher average yield per acre, and slightly higher average return per ton. The average costs per acre were higher than any of the other four years in this study.

Records are arranged in tables 1 to 5 inclusive, in decreasing management income per acre, as shown in the extreme right column above.

TABLE 2 - COSTS, RETURNS AND EARNINGS PER FRESH TON - INDIVIDUAL ORCHARDS - 1954

Record Number	Total yield tons per A.	Per cent of fruit			Av. net return per fresh ton				Picking costs per ton**	Hauling costs per ton	Total cash & labor costs	Deprec. and int. costs	Total Costs per ton	Mgt. income per ton
		Sold to can- nery	Fresh Sales 1/	Dried*	Cannery fruit	Fresh fruit 1/	Fruit* Dried	All Fruit						
7	15.64	31.4	-	68.6	50.03	-	59.24	56.35	12.92	1.93	26.41	4.36	30.77	25.58
11	16.93	64.5	-	35.5	49.90	-	56.77	52.34	8.63	3.13	24.94	5.56	30.50	21.84
12	9.42	51.8	17.3	30.9	50.16	117.74	30.74	55.85	9.12	1.49	26.07	6.27	32.34	23.51
3	10.99	41.6	-	58.4	50.00	-	42.27	45.48	9.10	1.87	26.68	5.21	31.89	13.59
4	8.22	70.2	-	29.8	48.90	-	52.24	49.90	7.74	2.21	24.15	9.39	33.54	16.36
17	8.97	100.0	-	-	43.66	-	-	43.66	8.86	1.78	22.58	6.59	29.17	14.49
16	8.83	58.1	1.0	40.9	50.00	79.30	53.01	51.52	12.16	2.20	31.46	8.94	40.40	11.12
9	9.32	77.1	-	22.9	50.00	-	35.55	46.69	13.19	2.54	33.03	7.62	40.65	6.04
2	9.60	93.7	-	6.3	50.00	-	19.94	48.12	12.08	2.86	38.18	8.64	46.82	1.30
5	8.89	54.6	.3	45.1	51.50	80.00	34.76	44.04	8.89	1.14	33.97	9.18	43.15	.89
Av. 1954	10.16	59.0	1.1	39.9	49.66	113.80	48.25	49.77	10.26	2.16	28.05	7.14	35.19	14.58
Av. 1953	9.07	62.6	5.0	32.4	49.82	64.58	45.98	49.31	9.13	1.87	25.41	8.13	33.54	15.77
Av. 1952	9.64	55.0	2.4	34.6	50.14	85.43	43.86	48.81	10.51	1.97	27.17	7.17	34.34	14.47
Av. 1951	9.83	61.3	1.1	37.6	65.26	94.54	37.09	54.99	9.44	2.47	24.35	7.17	31.52	23.47
Av. 1950	8.50	72.8	0.1	27.1	60.60	77.69	48.40	57.31	8.82	1.80	25.49	7.72	33.21	24.10
5 Year Av.	9.44	63.7	1.9	34.4	55.10	87.21	44.72	51.93	9.63	2.05	26.13	7.45	33.58	18.35

1/ Mostly local retail sales with some to wholesale market.

\* Includes fruit sold for drying as well as that dried by the grower.

\*\* Average for all fruit harvested, including that picked from the ground for drying in some cases. Also, includes some sorting in a few cases.

Average total costs per ton were higher in 1954 than in any of the four previous years, even though the average yield per acre was the highest for any year in this study. There was a wide variation in costs of individual growers, but with a few exceptions, growers who had the lowest cost per ton, also had the highest management income per ton.

The average price received for all fruit was slightly higher than last year, but was below the 5 year average. Prices received from canners by individual growers did not show much variation, but net returns per fresh ton for fruit dried varied from \$19.94 to \$59.24.

TABLE 3 - CULTURAL COSTS PER ACRE - INDIVIDUAL ORCHARDS - 1954

Record Number	Pruning	Brush disposal	Cover crop labor & seed	Fertilizing labor & material	Spraying		Cultivation furrow etc.	Irrigation		Thinning	Proping and tying	Other cultural labor & material	Total cultural labor & material
					Labor	Material		Labor	Power				
7	29.64	3.28	-	10.02	5.67	13.16	21.60	1.72	8.67	38.96	10.83	.90	114.45
11	48.00	3.84	-	16.42	6.51	12.87	16.33	16.15	10.80	42.49	9.86	3.67	186.94
12	18.39	4.77	-	10.28	9.07	6.89	9.13	6.97	9.24	32.30	11.64	2.65	121.33
3	45.68	.77	-	10.90	4.97	8.09	5.40	5.94	6.47	44.07	12.59	-	114.88
4	24.03	3.49	-	11.65	2.08	6.00	12.48	4.00	8.11	10.85	2.49	3.24	88.42
17	12.14	3.36	-	-	9.63	15.44	7.84	8.50	20.82	2.83	5.63	-	86.19
16	25.82	.38	-	12.51	5.42	4.51	11.91	12.93	4.99	39.53	4.29	-	122.29
9	24.81	2.40	1.68	7.70	6.69	16.64	14.45	12.95	4.36	16.77	16.34	7.58	132.37
2	28.72	1.71	-	10.58	17.19	28.71	16.96	8.00	9.30	43.65	18.60	-	191.85
5	38.64	1.14	-	11.88	6.14	14.13	31.81	15.80	10.50	14.91	6.09	31.77	182.81
Av. 1954	29.99	2.51	1.68	11.20	5.50	10.39	13.76	8.29	7.56	26.69	8.97	6.59	129.49
Av. 1953	28.16	2.89	1.47	8.72	5.47	8.77	12.10	5.61	5.20	22.01	5.98	4.95	105.99
Av. 1952	24.91	3.28	2.37	10.96	3.83	6.77	10.88	6.19	4.23	33.61	6.37	8.30	114.63
Av. 1951	23.16	2.70	1.96	7.97	6.16	7.76	12.48	7.94	5.61	20.71	5.14	4.87	98.93
Av. 1950	22.36	1.42	1.64	7.40	3.25	4.50	8.48	6.54	5.01	28.73	11.80	5.39	103.95
5 Year Av.	25.72	2.56	1.82	9.25	4.84	7.64	11.54	6.91	5.52	26.35	7.65	6.02	110.60

Average cultural costs per acre were higher this year than in any one of the preceding four years. Most cultural costs were higher, but the greatest increases were in irrigation costs, made necessary by deficient rainfall.

Costs of individual growers vary greatly. Some of these differences are due to conditions in the orchards themselves, some are due to management. Growers who cooperated in this study are urged to compare their costs with other costs shown in the study. Where costs are high, an effort should be made to reduce them.

Averages at the bottom of the table for the various items are based upon the acreage reporting such costs. Since all orchards did not report such costs for all items, the average total cultural, labor and material costs are less than a sum of the various items.



TABLE 4 - CASH OVERHEAD AND DEPRECIATION COSTS PER ACRE - INDIVIDUAL ORCHARDS - 1954

Record Number	Cash overhead costs per acre					Depreciation costs per acre							
	General Expense	County taxes	Repairs except field pr	Comp insur-ance	Total	Trees	Build-ings	Irrig-ation system	Tillage equip-ment	Spray equip-ment	Props etc.	Other equip-ment	Total ex. field power
7	18.84	8.57	1.25	7.58	36.24	20.00	2.91	4.36	.58	4.70	.67	3.12	36.34
11	19.30	9.03	1.67	6.18	36.18	20.00	3.64	11.98	2.59	10.51	3.70	2.17	54.59
12	11.06	7.99	1.22	3.90	24.17	20.00	.98	4.45	.47	-	1.05	1.88	28.83
3	13.27	7.10	1.18	6.23	27.78	20.00	3.53	2.75	.49	1.26	2.94	2.83	33.80
4	8.51	11.01	5.48	3.38	28.38	20.00	4.21	12.41	.94	2.70	1.02	3.09	44.37
17	9.09	7.99	1.90	1.91	20.89	20.00	1.07	6.46	1.55	.67	.77	2.29	32.81
16	12.45	7.16	3.33	5.71	28.65	20.00	3.53	1.91	.89	1.28	3.20	14.63	45.44
9	13.94	8.30	1.12	5.51	28.87	20.00	4.84	5.04	.84	2.22	.96	5.37	39.27
2	16.76	7.14	1.50	5.97	31.37	20.00	1.34	2.35	.45	1.67	1.67	13.70	41.18
5	13.60	9.41	2.84	4.19	30.04	20.00	3.55	14.17	5.36	1.97	-	2.27	47.32
Av. 1954	12.79	8.77	2.70	5.07	29.33	20.00	3.61	7.07	1.15	2.71	1.72	4.87	40.85
Av. 1953	10.29	7.73	2.86	3.83	24.71	20.00	3.46	6.85	.93	3.00	1.65	5.97	41.45
Av. 1952	11.75	7.65	1.96	5.56	26.92	20.00	3.33	6.32	.85	2.68	1.34	5.88	38.39
Av. 1951	10.80	7.89	.98	3.70	23.37	20.00	2.22	7.01	.82	1.68	1.35	7.52	38.83
Av. 1950	9.71	7.91	1.79	3.03	22.44	20.00	2.92	5.40	.57	1.25	1.82	7.01	38.89
5 Year Av.	11.07	7.99	2.06	4.24	25.36	20.00	3.11	6.53	.86	2.26	1.58	6.25	39.68

Cash overhead costs as shown above include all cash costs not classified under labor and material costs. Interest paid on mortgaged indebtedness is not included as a cash cost since an interest on investment charge, as shown in Table 5, is included for all orchards in the study and would normally cover any interest paid on indebtedness. Interest paid on operating capital is covered by the general expense item which is explained on the page "Definition of Terms" at the fore part of this report.

Depreciation on buildings and equipment varies considerably between orchards depending upon individual situations. The size of the farm unit on which such facilities are used is an important factor influencing depreciation costs per acre. Depreciation on trees was figured the same for all orchards at \$20 per acre. This is based upon an original cost to bring trees to bearing age of \$400 per acre and a productive life thereafter of 20 years. Depreciation of field power equipment is not included in the total depreciation cost in this table since it is included in the hourly rate charged for the use of such equipment in the labor record.

Averages at the bottom of the table for the various items are based upon the acreage reporting such costs. Since all orchards did not report investment in all items, the average total depreciation cost is less than a sum of the various items.

TABLE 5 - INVESTMENT PER ACRE - INDIVIDUAL ORCHARDS - 1954

Record	Trees	Buildings	Irrigation system	Tillage equipment	Spray equipment	Props etc.	Other equipment	Land	Total except field power	Field power equipment	Total investment	Interest at 5% ex. field power
7	200.00	51.00	47.60	6.30	21.50	5.00	7.95	300.00	639.35	56.50	695.85	31.97
11	200.00	33.39	101.87	19.01	47.70	27.78	14.14	350.00	793.89	59.17	853.06	39.70
12	200.00	16.91	64.28	5.26	-	7.89	9.45	300.00	603.79	34.21	638.00	30.19
3	200.00	17.65	29.53	2.45	6.28	7.35	6.77	200.00	470.03	32.90	502.93	23.50
4	200.00	32.62	79.88	8.07	13.52	5.10	17.05	300.00	656.24	56.07	712.31	32.81
17	200.00	13.40	73.58	8.60	6.67	5.00	18.48	200.00	525.73	35.40	561.13	26.29
16	200.00	14.19	12.43	5.76	12.84	32.00	91.47	300.00	668.69	59.25	727.94	33.44
9	200.00	34.57	59.38	5.16	8.20	4.82	23.82	300.00	635.95	52.61	688.56	31.79
2	200.00	10.66	25.74	3.12	7.11	12.50	75.02	500.00	834.15	26.13	860.28	41.71
5	200.00	35.48	96.50	28.71	14.81	-	10.85	300.00	686.35	41.62	727.97	34.32
Av. 1954	200.00	28.44	57.96	7.88	13.71	10.25	24.98	292.99	634.73	48.89	683.62	31.74
Av. 1953	200.00	23.87	54.57	6.86	14.79	19.47	35.27	303.79	647.10	42.64	689.74	32.36
Av. 1952	200.00	22.56	50.74	6.40	13.82	8.82	40.07	286.36	615.29	36.83	652.12	30.76
Av. 1951	200.00	17.49	59.64	6.14	10.43	8.25	52.81	293.97	634.07	27.40	661.47	31.70
Av. 1950	200.00	19.12	38.84	3.78	7.19	8.20	33.68	224.82	535.15	21.97	547.12	26.76
5 Yr. Av.	200.00	22.30	52.35	6.21	11.99	9.20	37.36	280.39	613.27	35.55	646.82	30.66

The investment figures shown in the above table are calculated at one-half of the original cost except for land values. Such values are maintained throughout the life of facilities and equipment as a basis for calculating an equitable interest on investment charge against each year's crop.

As pointed out in table 4, tree values were considered the same for all orchards with an original cost of \$400 per acre. Average tree values, thus, are shown at \$200 per acre. The land values used in this study are conservative agricultural values for the purpose of calculating a nominal interest on investment charge.

The above table should not be used as indicative of the amount of capital required to go into the peach growing business at the present time. Current values are considerably higher than those shown. Interest on investment in field power equipment is excluded from the interest charge shown above since this cost is included in the hourly rate charged for the use of this equipment in the labor record.

Averages at the bottom of the table for the various items are based upon acreages reporting such items.

TABLE 6 - DRYING COSTS PER FRESH TON - INDIVIDUAL ORCHARDS - 1954

Record Number	Total fresh tons dried	Drying ratio to 1	Costs per fresh ton								Per dried cwt.			
			Tray wash, store	Cutting	Shed & yard work	Total labor	Sulfur & other material	Other cash costs	Depreciation on eqt.	Interest on invest.	Total cost	Ave. price rec'd	Drying cost	Net returns
7	128.69	5.88	1.48	5.26	2.81	9.55	.44	.78	.55	.57	11.89	20.93	3.50	17.43
4	89.31	5.19	.47	5.71	2.85	9.03	1.54	.78	1.92	.80	14.07	17.22	3.65	13.57
5	35.30	6.57	.54	6.28	3.59	10.41	1.18	.90	1.47	.71	14.67	16.23	4.81	11.42
3	136.20	6.92	1.03	6.58	5.71	13.32	.45	1.07	.89	.32	16.05	20.17	5.55	14.62
11	43.27	5.76	1.31	7.03	4.25	12.59	.81	1.01	1.00	.78	16.19	21.00	4.66	16.34
9	47.53	6.34	1.96	6.06	4.72	12.74	1.22	1.09	1.61	1.10	17.76	16.89	5.63	11.26
16	54.21	5.85	1.58	6.58	6.30	14.46	.60	1.17	1.59	.79	18.61	20.94	5.44	15.50
12	23.83	6.86	3.33	5.82	6.07	15.22	.55	.98	1.49	.60	18.84	17.00	6.46	10.54
Ave. 1954	558	6.08	1.26	6.08	4.32	11.66	.78	.95	1.18	.64	15.21	19.33	4.62	14.71
Ave. 1953	409	5.81	2.07	5.99	5.00	13.06	.97	1.09	1.27	.73	17.12	18.12	4.81	13.31
Ave. 1952	451	5.76	1.86	6.51	5.34	13.71	.85	1.24	1.68	.92	18.40	18.93	5.30	13.63
Ave. 1951	648	6.15	1.74	6.35	5.11	13.20	.58	1.03	1.60	.81	17.22	16.11	5.25	10.86
Ave. 1950	130	6.15	2.66	5.45	4.61	12.72	.31	.94	1.94	.57	16.48	19.94	5.06	14.88
5 Year Ave.	4.35	5.99	1.92	6.08	4.88	12.88	.70	1.05	1.53	.73	16.89	18.49	5.01	13.48

Detailed drying cost data were obtained this year from 8 of the 10 growers in this study. In the above table, records have been arranged downward in order of increasing total drying costs per fresh ton. This is different from arrangements in preceding tables.

Total drying costs for records in this study varied from \$11.89 to \$18.84 per fresh ton. Greatest differences occurred in shed and yard work, tray washing and storing, and cutting. The average for all records shows total drying costs to be \$1.91 per fresh ton less than in 1953, and \$1.68 per fresh ton less than the five year average. The drying costs shown in this table were deducted from the gross returns received for the dried fruit to determine the net income per fresh ton dried, as shown in table 2.

Prices received for dried fruit this year averaged slightly higher than in the three preceding years, and 8 1/4¢ per cwt. more than the 5 year average. Final net returns for cooperators belonging to the California Prune and Apricot Growers' Association were estimated returns, since actual returns were not available at the time of publication of this report.

TABLE 7 - GENERAL SUMMARY OF COSTS, INCOME AND EARNINGS PER ACRE - 4-YEAR AVERAGES 1951 - 1954

Record	Average age of trees	Yield tons per acre	Average net return per ton	Costs per Acre								Total income per acre	Management income per acre
				Cult-ural labor	Har-vest labor	Mat-erial	Cash over-head	Total cash & labor	Depre-ciation	Inter-est on invest.	Total		
7	16	13.99	56.19	97.46	179.58	30.05	31.37	338.46	32.55	35.44	406.45	786.09	379.64
11	23	17.12	51.07	139.14	208.20	35.81	36.28	419.43	48.77	38.14	506.34	874.30	367.96
12	30	9.02	59.87	88.55	94.07	21.67	22.64	226.95	29.68	30.52	287.15	540.04	252.89
17	25	12.13	45.78	54.88	147.67	24.95	24.39	251.89	33.48	26.44	311.81	555.33	243.52
4	22	9.41	49.39	70.20	97.05	23.31	26.06	216.62	42.01	32.01	290.64	464.72	174.08
16	16	8.86	52.19	89.53	102.18	20.09	25.38	237.18	45.58	33.63	316.39	462.36	145.97
3	20	8.60	48.43	87.49	105.13	19.23	22.77	234.62	35.16	24.02	293.80	416.50	122.70
9	20	9.16	49.37	96.99	129.55	22.07	27.45	276.06	38.14	31.76	345.96	452.21	106.25
5	15	10.25	44.70	130.35	100.21	43.24	33.53	307.33	49.05	37.40	393.78	458.17	64.39
2	14	7.25	47.03	93.95	94.32	30.98	22.84	242.09	37.05	35.54	314.68	340.99	26.31
Ave.	20	10.58	50.58	94.85	125.80	27.14	27.27	275.06	39.15	32.49	346.70	535.07	188.37

Ton Solano County Freestone peach growers cooperated in this study continuously for the four year period 1951-1954. Averages for these 4 years are shown in table 7 for each of the orchards as well as averages for all 10 orchards. Records are arranged in order of decreasing management income per acre as shown in the extreme right column. The average at the bottom of each column is a simple average of the figures appearing in that column.

For this 4 year period, orchard No. 7 was the most profitable orchard, averaging \$379.64 management income per acre, while for orchard No. 2, the least profitable orchard, this average management income was \$26.31 per acre. All 10 orchards averaged \$188.37 management income per acre.

The 5 most profitable orchards in this group had an average production of 12.33 tons per acre, compared with an average of 10.58 for the whole group. They had an average net return per ton of \$52.48 while the average of the whole group was only \$50.58 per ton. On the other hand, their average total costs per acre were \$360.48, while the average for the whole group was only \$346.70. These figures indicate, that in the 5 more profitable orchards, more money was spent per acre for better care, which resulted in more yield per acre. This fruit was sold for a higher price than average.

TABLE 8 - COSTS, RETURNS AND EARNINGS PER FRESH TON - 4-YEAR AVERAGES 1951-1954

Record Number	Total yield tons per A.	Percent of fruit			Ave. net return per fresh ton				Picking costs per ton**	Hauling costs per ton	Total cash & labor costs	Deprec. and int. costs	Total cost per ton	Mgt. income per ton
		Sold to cannery	Fresh sales 1/	Dried*	Cannery fruit	Fresh fruit	Fruit dried	All fruit						
7	13.99	50.5	-	49.5	56.15	-	56.23	56.19	9.76	3.08	24.19	4.86	29.05	27.14
11	17.12	70.9	.8	28.3	53.11	65.00	45.57	51.07	8.86	3.30	24.50	5.08	29.58	21.49
12	9.02	60.6	17.2	22.2	54.33	107.54	38.08	59.87	8.55	1.88	25.16	6.67	31.83	28.04
17	12.13	76.9	.3	22.8	51.45	107.00	25.82	45.78	10.39	1.78	20.77	4.94	25.71	20.07
4	9.41	68.1	-	31.9	53.02	-	41.61	49.39	8.94	1.37	23.02	7.87	30.89	18.50
16	8.86	57.2	1.8	41.0	53.89	75.12	48.79	52.19	10.01	1.52	26.77	8.94	35.71	16.48
3	8.60	46.7	-	53.3	56.22	-	41.59	48.43	10.06	2.17	27.28	6.88	34.16	14.27
9	9.16	75.8	1.2	19.0	52.99	81.55	32.10	49.37	12.04	2.10	30.14	7.63	37.77	11.60
5	10.25	60.6	.9	38.5	53.44	80.45	30.14	44.70	8.14	1.64	29.98	8.44	38.42	6.28
2	7.25	57.9	.1	42.0	53.86	92.00	37.45	47.03	10.34	2.67	33.39	10.01	43.40	3.63
Ave.	10.58	62.9	3.2	34.9	53.85	86.67	39.74	47.64	9.73	2.16	26.00	6.77	32.77	17.81

This table compares the 10 orchards which were in this study continuously for 4 years. Records are arranged in the same order as in table 7. The average at the bottom of each column is a simple average of the figures appearing in that column.

Averages shown in this table show that the average net return per fresh ton was higher for cannery fruit than for fruit dried. They also show that in the 5 most profitable orchards, the return per fresh ton for fruit dried was \$51.46, much above the average of \$39.74 for all 10 orchards.

The average total cost per ton for the 5 most profitable orchards was \$29.41 while for all 10 orchards in the study, it was \$32.77. This lower cost was due chiefly to higher yield per acre.

Management income per ton varied from \$27.14 down to \$3.63. The larger management income, found in the more profitable orchards, was the result of both higher income per ton and lower costs per ton.

TABLE 9 - CULTURAL COSTS PER ACRE - 4-YEAR AVERAGES 1951-1954

Record Number	Pruning	Brush disposal	Cover crop labor & seed	Fertilizing labor & mater.	Spraying		Cultivation furrow etc.	Irrigation		Thinning	Proping and tying	Other cultural L & M	Total cult. labor & material
					Labor	Material		Labor	Power				
7	30.55	1.71	-	12.28	6.32	13.13	14.52	2.74	6.21	31.47	7.78	.80	127.51
11	44.18	5.86	-	15.27	5.84	12.08	16.29	9.66	9.29	43.95	9.98	2.55	174.95
12	19.82	4.69	-	7.97	7.97	6.28	13.10	6.62	6.99	27.44	6.58	2.76	110.22
17	11.91	2.81	-	-	5.38	11.72	13.28	6.71	13.23	5.72	9.07	-	79.83
4	20.18	3.19	-	10.03	4.49	6.52	11.77	3.09	6.90	21.99	4.33	1.02	93.51
16	22.43	2.43	-	10.76	5.26	6.21	11.19	9.69	3.95	35.78	1.92	-	109.62
3	36.38	.97	-	9.00	3.83	6.89	6.22	5.02	3.18	26.54	6.97	1.72	106.72
9	26.80	4.27	1.89	6.17	5.88	10.00	12.72	12.19	3.36	21.32	8.66	5.80	119.06
5	30.05	4.46	.69	8.41	6.89	12.36	26.05	19.08	6.17	18.97	7.41	33.05	173.59
2	26.45	1.83	-	11.88	7.07	11.63	12.50	5.04	5.43	25.48	12.62	5.00	124.93
Ave.	26.88	3.22	1.29	10.20	5.89	9.68	13.76	7.98	6.47	25.87	7.53	6.59	121.99

Average annual cultural costs for each of the 10 orchards which were in this study for 4 years, are shown in table 9. Records are arranged in the same order as in tables 7 and 8. The average at the bottom of each column is a simple average of the figures appearing in that column.

Cultural costs vary widely in these 10 orchards. The average total cultural labor and material cost for the 5 most profitable orchards is only slightly lower than the average for the 10 orchards. Apparently, the greater profit earned by these 5 orchards was the result of better yields and better income per ton rather than from reduced costs per acre.

This table is designed primarily, for use by the individual cooperators involved. It enables each cooperator to compare his average costs with those of others in the study.

TABLE 10 - CASH OVERHEAD AND DEPRECIATION COSTS PER ACRE - 4-YEAR AVERAGES 1951-1954

Record Number	Cash overhead costs per acre					Depreciation costs per acre							
	General expense	County taxes	Repairs except field pr.	Comp. insurance	Total	Trees	Buildings	Irrigation system	Tillage equipment	Spray equipment	Props etc.	Other equipment	Total ex. field power
7	15.35	8.40	1.63	5.99	31.37	20.00	2.63	4.36	.58	3.85	.72	3.30	35.44
11	19.16	8.73	1.46	6.93	36.28	20.00	2.87	11.89	2.30	7.64	1.85	2.22	48.77
12	10.21	8.02	1.06	3.37	22.66	20.00	.60	4.45	.47	-	1.05	3.11	29.68
17	11.38	8.02	1.50	3.49	24.39	20.00	1.07	6.46	1.28	.67	.77	3.23	33.48
4	9.53	8.95	3.66	3.92	26.06	20.00	3.21	12.46	.94	2.70	.87	1.83	42.01
16	10.59	7.03	3.37	4.39	25.38	20.00	3.53	1.91	.89	1.28	3.20	14.77	45.58
3	10.59	6.93	.79	4.46	22.77	20.00	3.53	2.81	.49	1.26	2.65	4.42	35.16
9	12.43	8.07	1.57	5.38	27.45	20.00	4.56	4.68	.73	2.06	.72	5.39	38.14
5	13.69	9.10	3.49	7.25	33.53	20.00	3.34	8.69	2.98	2.63	-	11.41	49.05
2	10.97	6.92	1.08	3.87	22.84	20.00	1.34	2.35	.45	1.40	1.67	9.84	37.05
Ave.	12.39	8.02	1.96	4.90	27.27	20.00	2.67	6.01	1.11	2.61	1.35	5.95	39.44

Average annual cash overhead and depreciation costs for each of the 10 orchards which were in this study for 4 years are shown in table 10. Records are arranged in the same order as in tables 7, 8 and 9. The average at the bottom of each column is a simple average of the figures appearing in that column.

Cash overhead costs as shown above include all cash costs not classified under labor and material costs. Interest paid on mortgaged indebtedness is not included as a cash cost since an interest on investment charge, as shown in Table 5, is included for all orchards in the study and would normally cover any interest paid on indebtedness. Interest paid on operating capital is covered by the general expense item which is explained on the page "Definition of Terms" at the fore part of this report.

Depreciation on buildings and equipment varies considerably between orchards depending upon individual situations. The size of the farm unit on which such facilities are used is an important factor influencing depreciation costs per acre. Depreciation on trees was figured the same for all orchards at \$20 per acre. This is based upon an original cost to bring to bearing age of \$400 per acre and a productive life thereafter of 20 years. Depreciation of field power equipment is not included in the total depreciation cost in this table since it is included in the hourly rate charged for the use of such equipment in the labor record.

TABLE 11 - INVESTMENT PER ACRE - 4-YEAR AVERAGES 1951-1954

Record Number	Trees	Buildings	Irrigation system	Tillage equipment	Spray equipment	Props etc.	Other equipment	Land	Total except field power	Field power equipment	Total investment	Int. at 5% ex. field power
7	200.00	46.00	47.60	6.30	19.37	5.36	26.30	300.00	650.93	56.50	707.43	32.55
11	200.00	22.16	100.94	16.85	40.52	13.89	18.40	350.00	762.76	60.05	822.81	38.14
12	200.00	13.11	64.28	5.26	-	7.89	19.80	300.00	610.34	34.21	644.55	30.52
17	200.00	13.40	73.58	7.27	6.67	5.00	22.76	200.00	528.68	35.40	564.08	26.44
4	200.00	22.97	80.90	8.07	13.52	4.37	10.37	300.00	640.20	36.07	676.27	32.01
16	200.00	14.19	12.43	5.76	12.84	32.00	95.38	300.00	672.60	49.07	721.67	33.61
3	200.00	17.65	28.66	2.45	6.28	6.62	18.78	200.00	480.44	24.05	504.49	24.02
9	200.00	33.14	55.77	4.83	7.72	3.61	30.10	300.00	635.17	46.95	682.12	31.76
5	200.00	33.38	77.48	17.14	19.75	-	100.17	300.00	747.92	55.49	803.41	37.40
2	200.00	10.66	25.74	3.12	6.44	12.50	52.43	400.00	710.89	25.73	736.62	35.54
Ave.	200.00	22.67	56.74	7.70	14.77	10.14	39.45	295.00	643.99	42.35	686.34	32.20

Average investment per acre is shown in table 11 for each of the 10 orchards which were in this study for 4 years. Records are arranged in the same order as in tables 7, 8, 9 and 10. The average at the bottom of each column is a simple average of the figures appearing in that column.

The investment figures shown in the above table are calculated at one-half of the original cost except for land values. Such values are maintained throughout the life of facilities and equipment as a basis for calculating an equitable interest on investment charge against each year's crop.

As pointed out in table 10, tree values were considered the same for all orchards with an original cost of \$400 per acre. Average tree values, thus, are shown at \$200 per acre. The land values used in this study are conservative agricultural values for the purpose of calculating a nominal interest on investment charge.

The above table should not be used as indicative of the amount of capital required to go into the peach growing business at the present time. Current values are considerably higher than those shown. Interest on investment in field power equipment is excluded from the interest charge shown above since this cost is included in the hourly rate charged for the use of this equipment in the labor record.