

BB-VS-49

COST OF PRODUCTION SURVEY
ON
BOYSENBERRIES

FRESNO, CALIFORNIA

1949

Compiled by
THE AGRICULTURAL EXTENSION SERVICE
University of California
United States Department of Agriculture

UC COOPERATIVE EXTENSION

We wish to express our appreciation for the cooperation of the nine Fresno County berry growers who made this Survey a possibility.

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INTRODUCTION

As an answer to the requests of the berry growers of Fresno County, the Agricultural Extension Service conducted a survey on bushberry costs of production at the close of the 1949 season. This report represents the results of the survey.

Cooperating growers in the county supplied detailed cost, income, and management information for nine records, representing a total of sixty-eight acres. Individual cooperator costs are compared in the accompanying table along with a weighted average for all records.

There were approximately 812 bearing acres of bushberries in Fresno County according to the 1948 census. These 812 acres represented about 1/12 of the total value of all fruit varieties in the county in 1948, or about \$800,000.00.

Since the number of records obtained from growers was relatively few compared to the total, averages may or may not be truly representative of the industry in the county. Of particular significance, however, are the wide differences among the operational costs of the growers. Although some growers may of necessity have higher costs than others, it appears that in certain cases downward adjustments in costs might be made without affecting production or quality of fruit. In the table it will be noted that #2, the most profitable record, had the lowest cultural costs and at the same time the highest yield per acre.

The Survey showed that total costs of production averaged 9 cents per pound, which was about 1 cent per pound greater than the estimated price to be received.

EXPLANATION OF TABLE

Records are arranged from left to right in order of decreasing management income per acre, as shown at the bottom of the second page of the table.

Management income is income above total costs of production which include:

1. All cash costs.
2. Value of the operator's own labor.
3. Depreciation and interest on investment.

Only two records had a management income this past year. All others showed a management loss, as indicated by the minus (-).

Price received was estimated at 8 cents per pound for #1 fruit in calculating returns since most of the growers in this study sold their berries through the association and returns were not complete at the time of the survey.

Labor costs include hired labor, value of the operator's labor at going wage rates, and the cost of tractors, trucks, and horses charged in at an hourly rate to cover operating and overhead costs.

Average investment figures shown in the table are based upon one half of the original cost for all items except land. Land values are intended to approximate long-term agricultural values. Total average investment figures, therefore, are not intended to represent the amount of capital required to go into the berry growing business. They are set up for the purpose of calculating a nominal interest on investment charge against the berry enterprise.

Investment and depreciation on vines and trellises was set the same for all records since sufficient data was not available to calculate the

cost of establishing each planting. Information on a number of records indicated that first year costs averaged in the neighborhood of \$500 per acre. This figure was used as a basis for figuring a 10 per cent depreciation charge and an average investment over the life of the planting of \$250.

UC COOPERATIVE EXTENSION

Costs, Returns, and Earnings - Bushberry Records - Fresno County - 1949

Record number	2	9	5	8	10	3	4	1	6	avg. All
Number of Acres	7.3	18.0	14.0	2.0	12.0	1.25	7.0	5.0	1.5	68.05
Age of Planting, years	3	5	3	3	4	-	-	-	-	-
Yield, pounds per acre	13,699	10,000	8,571	10,287	3,333	11,239	12,020	4,400	7,392	8,697
Costs per hundred-weight:										
Pre-harvest labor	\$ 1.26	\$ 2.29	\$ 2.91	\$ 4.33	\$ 7.19	\$ 4.22	\$ 3.78	\$ 7.63	\$ 7.14	\$ 3.19
Picking and hauling	3.40	3.08	2.82	3.00	2.83	2.97	3.25	4.03	3.47	3.13
Total labor cost	4.66	5.37	5.73	7.33	10.02	7.19	7.03	11.66	10.61	6.32
Total material cost	.37	.63	.89	.58	1.61	1.62	1.58	.86	2.97	.91
Cash overhead cost	.32	.39	.52	.47	.88	.52	.51	.88	.83	.48
Depreciation cost	.43	.74	.97	.66	2.04	1.11	.67	1.51	.86	.85
Interest on investment	.22	.32	.42	.27	.90	.59	.28	.73	.38	.38
Total all costs	6.00	7.45	8.53	9.31	15.45	11.03	10.07	15.69	15.65	8.94
Average price received	8.00	8.00	8.19	7.55	8.00	8.49	7.58	8.00	8.00	7.97
Management income	2.00	.55	-.34	-1.76	-7.45	-2.54	-2.49	-7.69	-7.65	-.97
Labor Costs per Acre:										
Prune, put up vines, brush dis.	121.86	130.95	106.53	219.90	116.67	204.00	171.43	137.00	302.00	134.77
Fertilizer & cover crop	7.42	4.67	55.00	20.00	8.00	74.00	63.29	-----	92.67	25.26
Spray and dust	2.28	5.83	2.12	3.00	5.83	26.40	7.14	2.90	1.67	4.81
Hoeing	23.29	13.89	23.54	42.50	7.08	-----	17.14	17.00	17.33	16.91
Cultivate & weed spray	4.79	14.00	25.46	34.50	12.04	60.80	52.79	52.80	62.00	24.38
Irrigating	10.96	55.55	36.57	100.00	85.00	108.80	142.86	108.80	52.13	67.16
Pin back vines	2.47	4.17	-----	26.00	5.00	-----	-----	17.00	-----	4.26
Sub-total pre-harvest	173.07	229.06	249.22	445.90	239.62	474.00	454.65	335.50	527.80	277.55
Picking and hauling	465.77	308.21	242.19	308.17	94.17	333.70	390.01	177.50	256.30	271.91
Total labor cost	638.84	537.27	491.41	754.07	333.79	807.70	844.66	513.00	784.10	549.46
Material Costs per Acre:										
Irrigation water	10.28	9.55	14.74	24.91	11.17	12.40	35.00	34.80	56.00	16.98
Fertilizer & c. crop seed	38.06	48.73	59.15	32.00	40.50	152.80	127.86	108.80	52.13	67.16
Sprays and dusts	1.64	4.11	2.14	3.00	2.08	16.80	22.00	2.90	5.86	5.08
Misc., weed spray, etc.	-----	-----	-----	-----	-----	-----	5.00	-----	-----	.51
Total material cost	49.98	62.39	76.03	59.91	53.75	182.00	189.86	37.70	219.20	79.22
Total Labor & Material per Acre	688.82	599.66	567.44	813.98	387.54	989.70	1034.52	550.70	1003.30	628.68
Acre inches water applied per A.	72	114	91	50	91	89	127	64	---	96

Costs, Returns, and Earnings—Bashberry Records—Fresno County, 1949— (Continued)

Record number	2	9	5	8	10	3	4	1	6	Avg. all
Cash Overhead Costs per Acre:										
General expense	\$ 34.44	\$ 29.98	\$ 28.37	\$ 40.70	\$ 19.38	\$ 49.48	\$ 51.73	\$ 27.54	\$ 50.17	\$ 31.43
County taxes	2.06	5.89	8.93	7.50	5.00	9.60	10.00	6.06	4.67	6.47
Insurance & repairs	7.91	3.66	6.86	-----	5.00	-----	-----	5.12	6.67	4.54
	44.41	39.53	44.16	48.20	29.38	59.08	61.73	38.72	61.51	42.44
Depreciation Costs per Acre:										
Vines and trellis	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Buildings	2.90	8.33	13.75	.32	6.45	4.00	7.14	.33	-----	7.31
Irrigation facilities	.91	6.33	4.68	5.82	4.07	44.74	8.81	12.17	2.40	6.30
Tillage equipment	.28	2.78	3.34	2.86	1.34	5.60	4.29	-----	.21	2.32
Spray & dust equipment	.44	1.67	.63	-----	-----	-----	-----	-----	-----	.62
Harvesting equipment	2.28	2.78	6.93	3.17	3.40	5.07	3.47	1.00	4.00	3.71
Miscellaneous equipment	2.74	1.74	4.50	5.14	2.78	16.00	6.43	3.00	7.18	3.65
	59.45	73.63	83.83	67.31	68.04	125.41	80.14	66.50	63.79	73.91
Total Costs Except Interest:	791.78	712.82	695.43	929.49	484.96	1174.19	1176.39	655.92	1128.60	745.03
Average Investment per Acre:										
Vines and trellis	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
Buildings	28.75	41.67	68.75	4.00	79.10	20.00	17.86	5.00	-----	44.89
Irrigation facilities	9.40	64.95	54.25	72.80	55.00	671.20	96.43	167.50	18.25	76.14
Tillage equipment	1.33	13.89	16.70	14.29	5.13	28.00	21.43	-----	1.03	11.32
Spray & dust equipment	3.25	8.33	3.13	-----	-----	-----	-----	-----	-----	3.20
Harvesting equipment	3.42	4.17	12.88	6.75	7.29	10.80	15.00	5.00	5.67	7.84
Miscellaneous equipment	6.85	4.36	8.59	14.29	4.17	40.00	32.15	12.50	35.88	10.56
Land	300.00	250.00	300.00	200.00	200.00	300.00	250.00	250.00	250.00	256.28
Total average investment	603.05	637.37	714.30	562.13	600.69	1320.00	682.87	690.00	560.83	660.23
Interest on Average Investment at 5%	30.15	31.87	35.72	28.10	30.03	66.00	34.14	34.50	28.04	33.01
Total All Costs per Acre	821.93	744.69	731.15	957.59	514.99	1240.19	1210.53	690.42	1156.64	778.04
Total Returns per Acre	1095.92	800.00	701.79	776.40	266.67	954.74	911.44	352.00	591.36	693.58
Management Income per Acre	273.99	55.31	-29.36	-181.19	-248.32	-285.45	-299.09	-338.42	-565.28	-84.46

WHERE DOES THE MONEY GO?

\$100

\$200

\$300

\$400

\$500

\$600

Average Returns per Acre----\$693.00

Average Labor Costs per Acre----\$550.00

Average Material Costs----\$79.00

Total Material per Acre----\$74.00

Depreciation per Acre----\$42.00

Cash Overhead per Acre----\$33.00 (Interest on Investment)

SUMMARY OF 1949 SURVEY

Stable production costs coupled with declining prices have squeezed net earning to a point where some plantings which were profitable during and immediately following the war years operated at a loss in 1949.

Although bushberry prices may not decline appreciably in the next few years, it appears that they are more apt to decline than rise.

Where Can Costs be Checked?

The wise grower will endeavor to adjust his management practices to the most efficient level and still maintain high unit production.

Watch these Operations:

1. LABOR: You will note that about 79% of total returns per acre were immediately paid for labor. Each grower should do as much of his own pruning, irrigating, cultivating, and other labor items as is possible.
2. IRRIGATION: It costs money to irrigate. The average total acre inches applied per acre was 96. This figure represents an acre of land covered with water 8 feet deep. Most of the berries grown in Fresno County are on sandy and sandy loam soils where one acre inch of water will usually penetrate from 8 to 12 inches. If one were to irrigate to a depth of 3 feet every other week for an entire year on sandy loam soil, the total water needed would generally not exceed 75 acre inches per acre per year! WATCH IRRIGATION COSTS!
3. FERTILIZING: The Survey showed that the cost of fertilizing one acre of berries ranged from as low as zero to \$157.34 per acre.

If your acreage is lacking sufficient fertilizer elements:

A. Purchase wisely. Invest in a fertilizer which will bring best returns for least investment.

The University of California and the Agricultural Extension Service in Fresno County find Nitrogen to be the fertilizer element most usually needed. UC COOPERATIVE EXTENSION

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