

AGRICULTURAL EXTENSION
UNIVERSITY OF CALIFORNIA
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AN ANALYSIS OF BOYSENBERRY COST OF PRODUCTION

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Sample cost studies are based on a sample or typical set of conditions as to the size of business and include the operations of good farmers doing things necessary to get good yields. The result of such studies of a typical operation is not the average cost of production of the crop in Stanislaus County. Such a cost analysis would have to involve all growers in the county. Furthermore, an average cost would not serve to assist a grower who desires to improve his operation cost-wise.

The Basis of Cost Calculations

It is assumed that the operation is an economical unit of production, however, some operations such as spraying, pruning and harvesting may be based on a piecework basis or at a commercial rate when done by a contract operator.

In this study the following cost factors were observed:

Year-round workers	\$2.50 - \$3.00 per hour
Part-time help	2.25 per hour
Picking - women & minors	1.50 per 14# crate, or 1.65 per hour minimum
Wheel tractors	2.25 per hour
Truck	3.00 per hour

It should be pointed out that no allowance is made for management costs. Growers generally must receive more than the total cost of production per ton for their fruit, excluding management, to make a living.

How These Costs May Be Helpful to You

It is suggested that you set up a similar set of costs for your operation opposite the various costs listed here. As a result, you can compare your costs with these as a guide. In operations where your costs exceed those of the study, there may be adjustments that you can make to reduce your costs. Should your yield per acre be less with correspondingly higher costs, look for places in your operation that influence tonnage such as pruning, fertilization, irrigation procedure and number of plants per acre. Conversely, if your costs are considerably less in some operations, perhaps you are not spending enough to get the full advantage of your other costs. For example, your fertilizer applications may be less than others, and by increasing them you could also increase your yield.

The real purpose of this study is to help you analyze your operation and improve it by comparing it with a sample cost.

SAMPLE COSTS TO PRODUCE BOYSENBERRIES IN STANISLAUS COUNTY - 1974
Based on a Yield of 10,000 Pounds Per Acre

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	Sample Costs		Your Costs	
	Per Acre	Per cwt.	Per Acre	Per cwt.
Pre-Harvest Cash Costs:				
Prune, put up, train, pin back	\$ 650.00			
Fertilizer application	18.00			
Fertilizer material	75.00			
Spray application	30.00			
Spray material	75.00			
Hoe and weed control	26.00			
Cultivate (irrigation prep.)	60.00			
Irrigation labor	20.00			
Irrigation water	4.00			
Miscellaneous labor	10.00			
Miscellaneous material	30.00			
County taxes (\$350 @ \$7.65 per \$100)	90.00			
Office, car, int. on operating cap., etc.	125.00			
Repairs	30.00			
Total Pre-Harvest Cash Costs	\$1,243.00		\$12.43	
Harvesting Costs:				
Picking, checking, supervision, etc.	\$1,280.00		\$12.80	
Hauling	50.00		.50	
Harvest overhead	36.00		.36	
Total Harvesting	\$1,366.00		\$13.66	
Total Cash Costs (excludes rent)	\$2,609.00		\$26.09	
Depreciation:				
Vines: original cost - \$1400 - 6 yr. life	\$ 233.00			
Irrigation facilities: \$140 cost - 20 yr. life	7.00			
Buildings: \$50 cost - 20 yr. life	2.50			
Equipment: \$166 cost - 10 yr. life	16.50			
Total Depreciation	\$ 259.00		\$ 2.59	
Interest on Investment @ 8%:				
Vines: on ½ cost (\$700)	\$ 56.00			
Irrigation facilities: on ½ cost (\$70)	5.60			
Buildings: on ½ cost (\$25)	2.00			
Equipment: on ½ cost (\$83)	6.64			
Land: @ \$2,500	200.00			
Total Interest on Investment	\$ 270.24		\$ 2.70	
TOTAL COST OF PRODUCTION	\$3,138.24		\$31.38	

Yield, pounds per acre	Costs per Hundredweight at Varying Yields			
	6,000	8,000	10,000	12,000
Total cost per 100#	\$42.00	\$36.00	\$31.00	\$28.00

The cultural operations for producing bush berries include:* (1) pruning, (2) trellising (wrapping), (3) winter pruning, (4) cultivation, (5) irrigation (6) fertilization, (7) trellis maintenance, (8) disease and insect control.

The harvest operations include: (1) picking and supervision (checkers plus crew boss plus foremen), (2) hauling.

Starting immediately after harvest, which traditionally is on July 4th in this area, the wood which has produced the fruit is removed, having served its function, and the wood, or canes, which have grown the current season are trellised or wrapped. These will provide the fruit for the following season. This operation is called pruning and wrapping. Irrigation is applied until September. If conditions warrant, irrigations will be applied in November and December. Fertilizer is applied after pruning.

November through January the operation called winter pruning is conducted. During this operation the laterals are shortened and any windows (open areas in the trellis) are filled in with strong laterals or canes formerly too short to trellis. Some growers are doing the pruning with mechanical aids such as electric pruning shears or a vertical type mower mounted on a tractor. Fertilizer is again applied in January, April and in some instances again in June.

Weed control is by disk cultivation and by a berry hoe, which is similar to a grape plow but does not go as deep.

Most local growers engage in the new practice of base lateral removal by chemical means. A combination of di-nitro and oil is sprayed on the lower 18" of the vine when the new shoots are out about 2". This spray burns the succulent growth without harming the canes and serves also to remove most of the small weeds under the vines.

In mid-March a spray of liquid lime sulfur is applied for red berry mite. In June, one or two sprays or dusts are applied for thrip control. When necessary, controls for Omniverous Leaf Roller and Raspberry Horntail must be applied.

Harvest generally starts around June 1. Generally three pickings are made. If the price warrants, a scrap picking or fourth picking is made. In it everything which resembles a berry is harvested for juice purposes. The berries are picked into crates which hold 14 pounds of berries. In Stanislaus County the berries are frozen in these crates.

* For additional information on growing boysenberries see "Growing Boysenberries and Olallie Blackberries", by Paul D. La Vine, Farm Advisor, Stanislaus County. This is available at your local Agricultural Extension office.

ESTIMATED REGULAR AND TEMPORARY LABOR REQUIREMENTS
MAN HOURS PER ACRE BY MONTHS, BY TASK

Regular farm workers include the farm operator, his family and workers employed on a more or less permanent position.

Temporary farm worker includes those employed on a temporary basis to do seasonal labor.

Month	Task	1974	
		Regular	Temporary
June	Harvest	6	450
July	Prune and wrap		120 min.
Nov - Feb	Winter prune Fill windows		120 - 140
Jan - Dec	Cultivation, irrigation, spread fertilizer, trellis maintenance, pest control	1 man per 15 acres	

The number of temporary farm workers for pruning and wrapping and the winter pruning varies quite considerably from one field to the next. The variables are yield, brushiness, number of mechanical aids used, how many windows, and age of the planting. Adequate training of the workers and good supervision also have a considerable effect on the total hours for these operations.