

COOPERATIVE EXTENSION  
UNIVERSITY OF CALIFORNIA  
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## AN ANALYSIS OF BOYSENBERRY COST OF PRODUCTION

BY

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Our sample cost study is based on the costs as encountered by a number of growers for the operations particular to that crop. These are not averages. In order to be accurate, an average would have to involve all of the growers. The usefulness of a cost study is in being able to compare your costs with that of the sample in order that you can determine whether you are much higher or much lower than the sample.

### 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	\$7.00 per hour
Part-time help	5.40 per hour
Picking	2.10 per 14# crate or 3.25 per hour minimum
Wheel tractors	3.40 per hour
Truck	6.00 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 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 - 1981

Based on a Yield of 10,000 Pounds Per Acre

8 Rows per acre, Avg. 450' per row

All Values Are Rounded to the Nearest Dollar

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	Sample Costs		Your Costs	
	Per Acre	Per Cwt.	Per Acre	Per Cwt.
<b>Pre-Harvest Cash Costs:</b>				
Prune, put up, train, pin back	\$1,000.00			
Fertilizer application	20.00			
Fertilizer material (N only)	50.00			
Spray application (4 applications)	24.00			
Spray material (can vary quite considerably)	75.00			
Weed control	120.00			
Cultivate (irrigation prep.)	60.00			
Irrigation labor	40.00			
Irrigation water (Stanislaus Co. Irrig. District)	4.00			
Miscellaneous labor	30.00			
Miscellaneous material	50.00			
County taxes (\$350 @ \$7.65 per \$100) 6%	100.00			
Office, car, int. on operating cap., etc.	300.00			
Repairs	105.00			
<b>Total Pre-Harvest Cash Costs</b>	<b>\$1,978.00</b>	<b>\$19.78</b>		
<b>Harvesting Costs:</b>				
Picking, checking, supervision, etc.	\$2,000.00	\$20.00		
Hauling	130.00	1.30		
Harvest overhead	50.00	.50		
<b>Total Harvesting</b>	<b>\$2,180.00</b>	<b>\$21.80</b>		
<b>Total Cash Costs (excludes rent)</b>	<b>\$4,158.00</b>	<b>\$41.58</b>		
<b>Depreciation:</b>				
Vines: original cost - \$2792 - 6 yr. life	\$ 465.00			
Irrigation facilities: \$186 cost - 20 yr. life	9.00			
Buildings: \$107 cost - 20 yr. life	5.00			
Equipment: \$372 cost - 10 yr. life	37.00			
<b>Total Depreciation</b>	<b>\$ 516.00</b>	<b>\$ 5.16</b>		
<b>Interest on Investment @ 13%:</b>				
Vines: on $\frac{1}{2}$ cost (\$1396)	\$ 181.00			
Irrigation facilities: on $\frac{1}{2}$ cost (\$93)	12.00			
Buildings: on $\frac{1}{2}$ cost (\$54)	6.50			
Equipment: on $\frac{1}{2}$ cost (\$186)	24.00			
Land: @ \$6000	786.00			
<b>Total Interest on Investment</b>	<b>\$1,009.50</b>	<b>\$10.00</b>		
<b>TOTAL COST OF PRODUCTION</b>	<b>\$5,683.50</b>			
<b>Costs per Hundredweight at Varying Yields</b>				
Yield, pounds per acre	6,000	8,000	10,000	12,000
Total cost per 100#	\$94.65	\$71.00	\$57.00	\$47.33

The cultural operations for producing bushberries 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 foreman), (2) hauling.

Starting immediately after the ending harvest, 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. 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 dinitro 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. Generally, 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 WORKER includes 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	Regular	Temporary
June	Harvest	6	450
July	Prune and wrap		120 minimum
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, bushiness, 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.