

PR-NC-69

**SAMPLE COSTS**



**CASH FLOW**



**COST ANALYSIS**

For Producing

**BARTLETT PEARS**

**IN**

**MENDOCINO COUNTY**

**1969**

*Apple*

SAMPLE COSTS TO PRODUCE BARTLETT PEARS IN MENDOCINO COUNTY 1969

Yield: 13 tons/acre; 108 trees/acre; 60 acre orchard. \*Labor cost @ \$1.80 and \$2.20 per hour

Operation	Hours/ Acre	Labor	Fuel & Repairs	Materials	Cost/ Acre	Cost/ Ton
Prune 108 trees @ 1.10	80.0	119.00	1.00		120.00	
Brush Disposal	2.0	4.40	1.80		6.20	
Fertilizer	.5	1.10	.75	Nitrogen, 200# @ 12¢	24.00	25.85
Blight Cutting	5.0	9.00	2.00		11.00	
Blight Dust 9 times	3.0	6.60	3.15	Copper lime dust	30.00	39.75
Spray 7 times	3.5	7.70	13.45	Spray material	60.00	81.15
Cultivate 4 times	2.0	4.40	4.40		8.80	
Hoe and Sucker	6.0	10.80			10.80	
Irrigate 4 times	4.0	7.20	3.00	Power, 2 A ft. @ 5.00	10.00	20.20
Heating	4.0	7.20	4.00	Oil, 50 gal. @ 13¢	6.50	17.70
Wind Machine	5.0		16.50	100 hrs. operation on 20 acres		16.50
Cultural Supervision	12.0	26.40	9.00			35.40
Miscellaneous	6.0	10.80	3.00		5.00	18.80
<b>TOTAL CULTURAL COSTS</b>		<b>214.60</b>	<b>62.05</b>		<b>135.50</b>	<b>412.15</b>
Pick - 26 bins @ \$6.		156.00				156.00
Harvest Supervision	6.0	13.20				13.20
Spot Bins & Load	8.0	19.20	12.85			32.05
Haul Fruit	5.0	11.00	1.80			12.80
<b>TOTAL HARVEST COSTS</b>		<b>199.40</b>	<b>14.65</b>			<b>214.05</b>
Taxes			80.00			
Interest on Operating Capital			10.95	(7% on \$313.00 for 6 months)		
Miscellaneous Overhead			35.00			
<b>TOTAL CASH OVERHEAD</b>			<b>125.95</b>		<b>125.95</b>	<b>9.65</b>
<b>TOTAL CASH COSTS</b>					<b>752.15</b>	<b>57.85</b>
Management				5% of 13 tons @ \$90.	58.50	4.50
<b>Investment</b>	<b>Per Acre</b>		<b>Depreciation</b>	<b>Interest</b>		
Land	1200.00			72.00		
Trees	2400.00		60.00	72.00		
Irrigation	150.00		10.00	4.50		
Buildings	566.00		18.85	17.00		
Equipment	652.00		65.20	19.55		
Frost Protection	429.00		42.90	12.85		
<b>TOTAL</b>	<b>5,397.00</b>		<b>196.95</b>	<b>197.90</b>	<b>394.85</b>	<b>30.35</b>

\* Labor cost includes \$1.65 and \$2.00 wage rates plus 10% to cover Social Security, Workmens Compensation, and recruiting costs.

Total Cost/Acre 1,205.50  
Total Cost/Ton 92.70 (@ 13 T.)

SAMPLE COSTS

EQUIPMENT & FACILITIES FOR OPERATING A  
60 ACRE SAMPLE ORCHARD

<u>Item</u>	<u>Total Cost</u>	<u>Cost Per A.</u>	<u>Oper. Cost Per Hour Fuel &amp; Repair</u>
Pickup	\$2,500		
Truck, 2½ ton	4,000		
Tractor, 55 HP wheel	7,200		1.20
Tractor, 40 HP wheel	5,700		.90
Speed Sprayer	7,000		2.65
Duster	600		.15
Disc, 10 ft.	1,500		1.00
Harrow, 10 ft.	250		.10
Pipe Wagon	300		.05
Fork Lift	5,000		2.00
Fork Lift Attach (2)	300		.10
Ladders, 20 @ \$45.	900		
Misc. Equipment: (Welder, tools, bins)	3,850		
<b>TOTAL</b>	<b>39,100</b>	<b>651.66</b>	
Wind Machines: (4 @ \$5,000)	20,000		3.30
Orchard Heaters: (600 @ \$7.50)	4,500		
Oil Storage	450		
Heater Filler Rig	300		
Misc. Heating	500		
<b>TOTAL</b>	<b>25,750</b>	<b>429.16</b>	
Foreman's House	8,000		
Equip. Shed & Wkshop	10,000		
Labor Camp	12,000		
Domestic Water Syst.	1,000		
Misc. Furniture & Equip. for Housing	3,000		
<b>TOTAL</b>	<b>34,000</b>	<b>566.66</b>	

WHAT ARE SAMPLE COSTS?

The purpose of developing sample production costs is to provide pear growers with a yardstick to measure their own costs with. The cultural operations represented are a composite of actual practices in wide-spread use by

Mendocino County pear growers. These sample costs represent a high level of cultural care, and a better than average yield.

LABOR

Pear growers provide a significant percentage of their help with housing. This added labor cost is estimated in the COST ANALYSIS which is included in this study. Basic wage rates used were \$1.65 and \$2.00 for common labor and tractor drivers respectively, plus 10% for Social Security, Workmens Compensation, and recruiting costs.

CULTURAL SUPERVISION

Most growers provide day to day field supervision, or employ a permanent man who would be described as a working foreman, who provides orchard supervision. The value used for cultural supervision represents one third of a working foreman's time.

MANAGEMENT

The normal charge for professional farm management is 10% of the gross. We have estimated half of the charge for professional management as overhead, and half is for management skills. It seems only reasonable to put a value on the all-important management function.

MISCELLANEOUS

Costs which are covered under this category include: cover crop, drainage, bees, riverbank protection, tree replacement, mouse and gopher control, chemical weed control, tree tying, etc.

MISCELLANEOUS OVERHEAD

Typical items would be: pickup and truck licenses and insurance, fire insurance, telephone, accountant, lawyer, interest and depreciation on deer fence or drain tile, membership and participation in marketing organization, maintenance and repair on labor housing.

MONTHLY CASH FLOW FOR BARTLETT PEAR PRODUCTION

Most pear growers operate on short term credit. This cash flow is a distribution of the cash costs over the year so that growers and credit sources can better plan their loans.

<u>OPERATION</u>	Total	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.
<u>Cultural Costs</u>													
Pruning	120.00		40.00	40.00	40.00								
Brush Disposal	6.20				6.20								
Fertilize	25.85				12.90		12.95						
Blight Cutting	11.00							4.00	4.00	3.00			
Blight Dusting	39.75						13.25	13.25	13.25				
Spraying	81.15			11.60	11.60	11.60	11.60	11.60	11.60	11.55			
Cultivation	8.80						2.20	2.20	2.20	2.20			
Hoe & Sucker	10.80							10.80					
Irrigation	20.20							5.05	5.05	5.05	5.05		
Heating	17.70						10.00	7.70					
Wind Machines	16.50						10.00	6.50					
Cultural Superv.	35.40	2.70	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.70
Miscellaneous	18.80	1.55	1.55	1.55	1.55	1.60	1.60	1.60	1.60	1.55	1.55	1.55	1.55
<u>Harvest Costs</u>													
Pick 26 bins	156.00										78.00	78.00	
Harvest Superv.	13.20										6.60	6.60	
Spot bins & Load	32.05										16.05	16.00	
Haul fruit	12.80												
<u>Cash Overhead</u>													
Taxes	80.00		40.00				40.00						
Interest on oper. capital	10.95												10.95
Miscellaneous	35.00	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	3.10
<b>TOTAL CASH COST</b>	<b>752.15</b>	<b>7.15</b>	<b>87.45</b>	<b>59.05</b>	<b>78.15</b>	<b>19.10</b>	<b>107.50</b>	<b>68.60</b>	<b>43.60</b>	<b>29.25</b>	<b>119.55</b>	<b>114.45</b>	<b>18.30</b>
<b>ACCUMULATED CASH COST</b>			<b>94.60</b>	<b>153.65</b>	<b>231.80</b>	<b>250.90</b>	<b>358.40</b>	<b>427.00</b>	<b>470.60</b>	<b>499.85</b>	<b>619.40</b>	<b>733.85</b>	<b>752.15</b>

There is a rule of thumb for determining the operating cash required and its cost. This estimate is obtained by figuring 7% on half of the cash operating costs for six months.

**COST ANALYSIS FOR GROWING PEARS IN MENDOCINO COUNTY**

<u>INVESTMENT</u>	<u>TOTAL</u>	<u>LAND</u>	<u>EQUIP.</u>	<u>IRRIG.</u>	<u>FROST PROT.</u>	<u>LABOR</u>	<u>SPRAY &amp; DUST</u>	<u>PEARS</u>
Land	\$1200	1200						
Trees	2400							2400
Irrigation	150			150				
Buildings	566		166			400		
Equipment	1081		526		429		126	
<b>Total</b>	<b>5397</b>	<b>1200</b>	<b>692</b>	<b>150</b>	<b>429</b>	<b>400</b>	<b>126</b>	<b>2400</b>
<u>INCOME</u>	<b>1170</b>							<b>1170</b>
Transfers		101.50	108.60	37.35	95.85	450.40		
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<u>EXPENSE</u>								
Wages	414.00					414.00		
Fuel & Repair	76.70		36.60	3.00	20.50		16.60	
Fertilizer	24.00							24.00
Dust	30.00						30.00	
Spray	60.00						60.00	
Power for Irrig.	10.00			10.00				
Heater Oil	6.50				6.50			
Misc. Material	5.00							5.00
Taxes	80.00	29.10	6.90	1.85	5.20	4.85	3.00	29.10
Inter. Oper.	10.95	.40	.80	.20	.10	6.25	.35	2.85
Misc. Overhead	35.00							35.00
Rent (land)								101.50
Equipment								108.60
Irrigation								37.35
Frost Protection								95.85
Spray & Dust								155.25
Labor				7.80	7.80		14.30	420.50
<b>TOTAL CASH</b>	<b>752.15</b>	<b>29.50</b>	<b>44.30</b>	<b>22.85</b>	<b>40.10</b>	<b>425.10</b>	<b>124.25</b>	<b>1015.10</b>
Management	58.50							58.50
Depreciation	196.95		47.75	10.00	42.90	13.30	23.00	60.00
Inter. on Invest.	197.90	72.00	16.55	4.50	12.85	12.00	8.00	72.00
<b>TOTAL COST/ACRE</b>	<b>1205.50</b>	<b>101.50</b>	<b>108.60</b>	<b>37.35</b>	<b>95.85</b>	<b>450.40</b>	<b>155.75</b>	<b>1205.60</b>
<b>NET</b>	<b>-35.50</b>							<b>-35.50</b>

The cost analysis is an attempt to show the complete cost of the more important orchard operations. For instance, spraying and dusting includes the cost of fuel and repairs, dust, spray, taxes, interest on operating capital, labor, depreciation on spray equipment, and interest on investment in equipment.

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