

SAMPLE COSTS TO PRODUCE

PEARS

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MENDOCINO COUNTY

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UC COOPERATIVE EXTENSION

WHAT ARE SAMPLE COSTS?

The purpose of preparing sample production costs is to give pear growers a yardstick to compare with their own production costs and methods. 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.

MENDOCINO COUNTY FACTS

Pear acreage expansion began in the early 1950's and the county has led the state in non-bearing acreage since that time. Pear decline has taken a moderate toll in our orchards, the heaviest losses being sustained in 1964. Total production is expected to continue to rise, with a potential crop of 60,000 tons a distinct possibility. The poor yields of 1961 and 1963 are thought to be due to very poor weather at bloom time. The record crops of 1962 and 1964 reflect the potential of our young acreage.

<u>Year</u>	<u>Non-Bear.</u>	<u>Bear. Acres</u>	<u>Total Acres</u>	<u>Yield</u>	<u>Production</u>	<u>Per Unit</u>	<u>Value</u>	<u>Tons canned</u>	<u>Tons Fresh</u>	<u>Tons Other</u>
1950					17,111			10,925	5,866	320
1951					19,365			12,729	5,796	786
1952					20,992			12,280	8,030	609
1953	136		2,242		6,873			4,631	2,008	216
1954	153	2,098	2,251	9.7	20,261	88.40	1,791,597	15,179	4,453	629
1955	209	1,915	2,124	9.4	17,931	84.40	1,513,211	12,080	5,367	484
1956	226	1,941	2,167	11.6	22,540	76.10	1,714,874	17,739	4,441	360
1957	424	1,927	2,351	11.9	22,999	63.00	1,425,938	16,306	6,207	486
1958	657	1,934	2,591	12.4	23,913	88.80	2,122,723	18,854	4,866	193
1959	1263	2,027	3,290	10.7	21,672	60.50	1,312,876	16,485	4,768	419
1960	1664	2,063	3,727	13.0	26,821	82.40	2,210,000	21,787	4,681	353
1961	1988	2,117	4,105	7.4	15,608	96.90	1,513,701	12,929	2,450	229
1962	2170	2,125	4,295	14.9	31,702	71.80	2,276,192	25,879	4,804	1,019
1963	2204	2,190	4,394	5.3	11,639	110.56	1,286,810	10,835	702	102
1964*	2093	2,247	4,340	18.7	42,000+	86.00	3,612,000			

* 1964 figures are tentative

SAMPLE COSTS TO PRODUCE BARTLETT PEARS IN MENDOCINO COUNTY

Yield: 15 tons/acre; 108 trees/acre; 60 acre orchard. Labor @ \$1.75 & \$1.40 per hour

Operation	Hours			Cash and Labor Cost Per Acre		
	Per Acre	Labor	Fuel and Repairs	Materials		Total
Prune 108 trees @ 1.00	75.0	108.00				108.00
Brush Disposal	2.0	3.15	1.40			4.55
Fertilize	.5	.90	.75	Nitrogen, 100 lbs @ 12¢	12.00	13.65
Blight Control	5.0	7.00	2.00			9.00
Dust 6 times	2.0	3.50	2.10	Copper lime, 165 lbs @ 12¢	20.00	25.60
Spray 7 times	3.5	6.15	14.40	Material	50.00	70.55
Cultivate 4 times	2.0	3.50	3.70			7.20
Hoe & Sucker	6.0	8.40				8.40
Irrigate 4 times	4.0	5.60	3.00	Power, 2 ft. @ 4.25	8.50	17.10
Heaters (10 hours)	4.0	5.60	4.00	Oil, 100 gallons	13.00	22.60
Wind machine (20 hours)			66.00			66.00
Miscellaneous	6.0	8.40	2.00		4.00	14.40
TOTAL CULTURAL COSTS	110.0	160.20	99.35		107.50	367.05
Harvest Costs						
Pick, 30 bins @ 5.50	120.0	165.00				165.00
Supervision & Load	9.0	15.75	5.20			20.95
Haul bins and Fruit	9.0	15.75	7.20			22.95
TOTAL HARVEST COSTS	138.0	196.50	12.40			208.90
TOTAL CULTURAL & HARVEST	248.0	356.70	111.75		107.50	575.95
Taxes					35.00	
Miscellaneous Overhead					29.80	
Management, 5% of 15 tons @ 85.00					63.75	
TOTAL OVERHEAD COSTS						128.55
INVESTMENT						
	Per Acre		Depreciation	Annual Costs		
Land	1300.00				Interest	
Trees	3510.00		87.75		78.00	
Heating equipment	375.00		25.00		105.30	
Buildings	165.00		8.25		11.25	
Irrigation system	150.00		10.00		4.95	
Equipment	550.00		55.00		4.50	
TOTAL	6,050.00		186.00		16.50	
TOTAL COST PER ACRE						406.50
Cost per ton @ 15 ton yield						1,111.00
						74.05

MONTHLY CASH FLOW FOR BARTLETT PEARS
Mendocino County January 1965

<u>Operation</u>	<u>Total</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>Jul.</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Oct.</u>
<u>Cultural Costs:</u>												
Pruning	108.00		108.00									
Brush Disposal	4.55			4.55								
Fertilization	13.65			13.65								
Blight Cutting	9.00						9.00					
Dusting	25.60					17.00	8.60					
Spraying	70.55			10.00	20.00	10.00	10.00	10.55	10.00			
Cultivation	7.20					3.60	3.60					
Hoe & Sucker	8.40							8.40				
Irrigate	17.10						4.25	4.25	4.25		4.35	
Frost Protection	88.60					88.60						
Miscellaneous	14.40								14.40			
Harvest Costs	208.90									208.90		
<u>Cash Overhead</u>												
Miscellaneous	29.80							29.80				
Taxes	35.00	17.50				17.50						
Total Cash Cost	640.75	17.50	125.50	153.70	173.70	310.40	345.85	398.85	427.50	636.40	640.75	
Income	1,275.00										637.50	637.50
Net Cash Cost	+634.25										-3.25	634.25

WHY CASH FLOW IS IMPORTANT:

As many growers are operating on short term credit, a cash flow for Bartlett pear production has been prepared. This is simply a distribution of the cash costs over the year so that growers and credit sources can better plan their loans. The cash flow also serves as a calendar for cultural practices, and indicates the time of labor need.

NET INCOME AT VARIOUS YIELDS AND PRICES

Yield Tons	Price Per Ton				
	75.00	80.00	85.00	90.00	95.00
10.0	-279.75	-232.25	-184.75	-137.25	-89.25
12.5	-129.12	-69.25	-10.38	49.00	108.38
15.0	21.50	92.75	164.00	235.25	306.50
17.5	172.12	255.25	338.38	421.25	504.62
20.0	322.75	417.25	512.75	607.75	702.75

INCOME YIELD AND PRICE

There is no one factor which affects the cost of producing a ton of pears as much as the yield per acre. The above table illustrates this point in graphic fashion. For a practical example, we can take 1963, when our county average yield dropped to 5.3 tons per acre, compared to 18.6 tons per acre in 1964.

The price of \$110 in 1963, the best price in the last ten years, was not able to overcome the high cost of production brought about by the low yield. In 1963 many growers lost money.

In 1964, with a record crop, and in spite of a \$20 to \$24 drop in prices, we had a year which was very favorable to most growers.

EQUIPMENT & FACILITIES FOR OPERATING A
60 ACRE SAMPLE ORCHARD

Item	Cost New	Oper. Cost Per Hour
Pickup (2 @ \$2300)	\$4600.	
Track tractor, 40HP	11,000.	1.40
Wheel tractor, 30 HP	3750.	.95
Duster	300.	.10
Sprayer, 500 gal.	5500.	2.65
Disc, 10-foot	1500.	.45
Fork lift	500.	.20
Truck, 2-ton	3700.	
Miscellaneous	2150	
Total 60 acres	<u>33,000.</u>	
Per acre	550.	
Wind machines (per acre)	295.	3.30
Orchard heaters (10/acre)	70.	
Oil storage, \$450.	7.	
Filler rig, \$300.	5.	
Total per acre	<u>377.</u>	
Tool Shed	5000.	
Labor camp	5000.	
Total 60 acres	<u>10,000.</u>	
Per acre	165.	

DEPRECIATION AND INTEREST

Assuming land value of \$1300. per acre, and the cost of establishing an orchard at \$3510. with the above costs for equipment and facilities, the depreciation and interest on investment have been determined.

Depreciation is computed by using the straight line method; interest on investment is figured at 6 per cent; all costs used are current and generally higher, so that the values assigned, particularly to land and trees, do not fit our older orchards as well as they do the young orchards coming into bearing.