

*Asby Reed*

SAMPLE COSTS TO PRODUCE PEARS IN SONOMA COUNTY - SPRINKLER IRRIGATED - 1966

Based on an 80-acre orchard with a yield of 15 tons per acre. Man labor at \$1.50 plus Social Security and Compensation Insurance, .14 = \$1.64 per hour and \$1.75 plus Social Security and Compensation Insurance, .16 = \$1.91 per hour. Cash costs per hour: 30-40 HP wheel and crawler tractors \$1.20 and \$1.60, fork lift @ \$1.00 truck @ \$2.00 and sprayer @ \$4.00.

	Sample Costs		Your Cost	
	per acre	Per Ton	Per Acre	Per Ton
<b>PRE-HARVEST CASH COSTS:</b>				
Pruning: 108 trees @ \$1.25 + Soc. Sec. and Comp. Ins. = \$1.36		\$146.88		
Brush disposal: 3 man & 1 tractor hours	6.79			
Fertilize: once - 0.6 man & 0.5 tractor hours	1.95			
Fertilizer: 200 lbs. N @ 11¢	22.00			
Spray: 8 times - 5 hrs. man, tractor & sprayer	37.55			
Spray material	64.00			
Dust for blight: 6 times-1.5 hrs. man & tractor	4.67			
Dust: 180 lbs. @ 10¢	18.00			
Cut blight and inspect: 5 man hours	8.20			
Irrigate: 4 times - 6 man hours	9.84			
Water: power to apply 2 acre feet @ \$4	8.00			
Cultivate: 4.5 man, 1.5 crawler & 3.0 wh. trac hr	14.60			
Misc. labor: 8 man, 1 tractor & 2 truck hours	19.13			
Misc. material	8.00			
County taxes	32.50			
Office, car, int. on opr. capital, etc.	30.82			
Repairs, except tractor, truck & sprayer	6.00			
<b>TOTAL PRE-HARVEST CASH AND LABOR COSTS</b>	<b>\$438.93</b>	<b>\$ 29.26</b>		
<b>HARVESTING COSTS:</b>				
Picking at \$6 per 1200 lb. bin + Soc. Sec. and Comp. Ins. , 54¢	163.50	10.90		
Move & load bins, supervis: 9 man&8 fork lift	25.19	1.68		
Hauling: 5 hours man & truck hrs.	19.55	1.30		
<b>TOTAL HARVESTING COSTS</b>	<b>\$208.24</b>	<b>\$ 13.88</b>		
<b>TOTAL CASH AND LABOR COSTS</b>	<b>\$647.17</b>	<b>\$ 43.14</b>		
<b>DEPRECIATION COSTS: (per acre on 80 acres)</b>				
Trees: cost \$1,500 - 40 years	37.50			
Bldgs. for equip. \$50-25 yrs; housing \$100-30 yr	5.33			
Irrigation facil (sprinkler) cost\$240-Av.16 yrs	15.00			
Tractors, truck, pickup and fork lift: cost \$250 - 12½ years	20.00			
Sprayer and duster: cost \$90 - 14 yrs.	6.42			
Tillage & other equip.: cost \$110 - 10 yrs.	11.00			
<b>TOTAL DEPRECIATION COSTS</b>	<b>\$ 95.25</b>	<b>\$ 6.35</b>		
<b>TOTAL CASH AND DEPRECIATION COSTS</b>	<b>\$742.42</b>	<b>\$ 49.49</b>		
<b>INTEREST ON INVESTMENT @ 6%: (per acre on 80 acres)</b>				
Trees: on ½ cost(\$750)	45.00			
Bldgs. for equip. & housing: on ½ cost (\$75)	4.50			
Irrig. facil. (sprinkler): on ½ cost (\$120)	7.20			
Tractors, truck, pickup&fork lift: ½ cost (\$125)	7.50			
Sprayer and duster: on ½ cost (\$45)	2.70			
Tillage & other equip.: on ½ cost (\$55)	3.30			
Land at \$1,200	72.00			
<b>TOTAL INTEREST ON INVESTMENT</b>	<b>\$142.20</b>	<b>\$ 9.48</b>		
<b>TOTAL COST OF PRODUCTION 1/</b>	<b>\$884.62</b>	<b>\$ 58.97</b>		

1/ Does not include any cost for management. This is sometimes calculated a 5% of gross income.

## YIELD EFFECT ON COSTS

This cost study is based on 80 acres of orchard which uses the same type of equipment. A single crop or several types of fruit production share in costs proportionally to use, depending on the individual grower operation.

The 15-ton yield used in the study is typical of per-acre production of orchards studied. In the chart which follows, costs per ton at varying yields are compared when inputs or per-acre costs are held constant except for harvesting which is figured at \$13.88 per ton.

### COSTS PER TON AT VARYING YIELDS

(Inputs and costs per acre constant except harvesting at \$13.88 per ton)

	Yield, tons per acre				
	8	12	16	20	24
Total Cash & Labor Cost	\$68.75	\$50.46	\$41.31	\$35.83	\$32.17
Depreciation	11.91	7.94	5.95	4.76	3.97
Interest	17.77	11.85	8.89	7.11	5.92
Total Cost of Production	\$98.43	\$70.25	\$56.15	\$47.70	\$42.06

### PRACTICE EFFECT ON COSTS

Major changes in orchards are rare but sometimes necessary in order to maintain profitable operations. When major changes are initiated by a substantial group of growers, it becomes evident that to not plan and progress with such trends will mean a serious production handicap.

Problems develop in many forms. Pear Decline, high land values, the inability to produce competitive yields and show a profit, to mention a

## TYPES OF COSTS

Three input categories are included in this study: (1) Cash Costs, (2) Depreciation Costs, and (3) Interest on Investment Cost. Each must be a part of the total picture as they are a true part of the cost of a ton of pears.

Cash Costs are those annual expenditures sometimes called out-of-pocket costs-moneys paid for the fertilizer, pruning, spraying, etc., where a flow of capital is obvious.

Depreciation Costs. Trees get old and must be replaced, irrigation equipment, tractors, trucks and other equipment wear out and must be replaced. These costs (which do not include regular maintenance such as gas, oil, repairs, etc.) too, are a real expense and must be accounted for annually.

Interest on Investment is, all too often, ignored as a cost except when interest is actually paid on borrowed capital. However, all capital whether invested in bonds or stocks, in fruit growing or any other business commands a return which is an important part of total production costs. For purposes of this study, a fair rate of interest is considered to be 6%. This is figured on one-half the original cost of depreciable items and full value on land. Those using the cost table can substitute any interest rate which they think would be more appropriate for their purpose.

### PROFIT OR LOSS

Yield (tons) per acre times price per ton less costs per acre equals profit or loss per acre. At any given price, the higher the yield, the higher the gross income, the greater the opportunity for higher profit as long as costs of obtaining such yields are in line with good management practices.