

UNIVERSITY OF CALIFORNIA
AGRICULTURAL EXTENSION SERVICE
Stanislaus County - 1964

SAMPLE COSTS TO PRODUCE ALMONDS IN STANISLAUS COUNTY IN 1963

Vernon Patterson, Farm Advisor - Norman W. Ross, Farm Advisor

This cost study is based on sample or typical sets of conditions as to the size of business and include the operations of several farmers. The result of this study of typical operations is not the average cost of almond production or the cost of establishment of an orchard. Such a cost analysis would have to involve all growers in the county.

The Basis of Cost Calculations

Certain assumptions must be made as to size of orchard and yield per acre. This information is indicated on each sample cost.

Man labor is figured at varying rates depending on the work performed. Cost of tractor operation was based on a 40 H.P tractor at \$1.25 per hour cash cost, 70¢ per hour for depreciation and 25¢ per hour interest on the investment.

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.

It should be pointed out that no allowance is made for management cost. Growers, generally, must receive more than the total cost of production per ton for their fruit or nut crop, 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 per pound 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, bearing surface and tree stand. Study the cost range of these items and implications they may make. The real purpose of this study is to help you analyze your operation and improve it by comparing it with sample costs.

SAMPLE PRODUCTION COSTS - ALMONDS - STANISLAUS COUNTY - 1963

An average of 32 growers farming 831 acres with an average yield of 1178 pounds of meats per acre

M = Man Hours; T = Tractor Hours

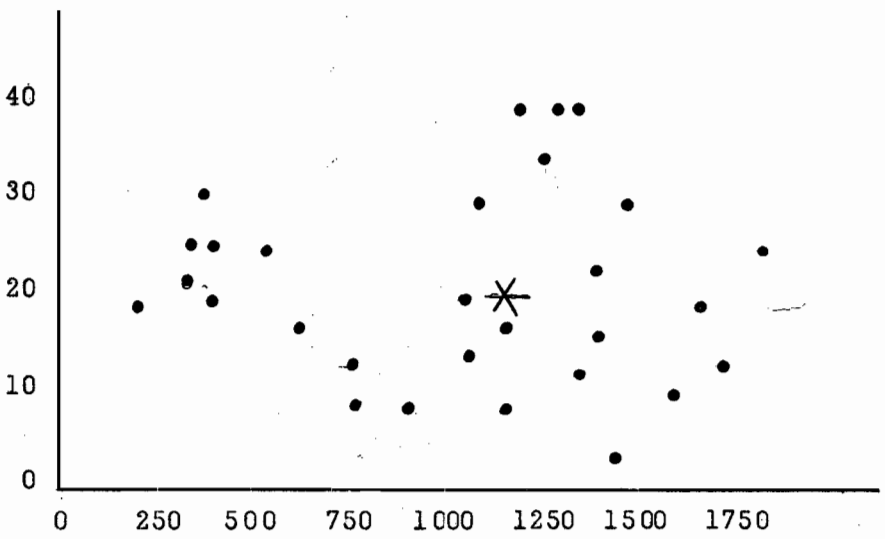
Vernon Patterson, Farm Advisor

Norman Ross, Farm Advisor

	Costs Per Acre	Cents Per Lb _a
<u>PRE-HARVEST CASH COSTS:</u>		
Pruning	\$ 12.72	* 1.08 ¢
Brush disposal: .8 M & T	2.28	.19
Fertilizer application: 2.4 M & 1.2 T	5.34	.45
Fertilizer	27.80	* 2.36
Spray materials	24.62	* 2.09
Spray application: 4 applications (1600 gal. @ .015)	24.00	2.04
Tillage and irrigation preparation: 3 M & 3 T	8.55	.73
Irrigate: 3.85 M	6.16	.52
Water: Irrigation district tax	1.10	.09
Miscellaneous labor: hoeing, tying, etc. 2 M	3.20	.27
Bees: 5 hives @ 2.00	10.00	.85
Frost protection: 5 M & 2 T	9.25	.79
Miscellaneous materials including heater	12.00	1.02
County taxes	27.75	2.36
Office, car, interest on operating	14.37	1.22
Repairs, except travel	10.00	.85
Total Pre-Harvest Cash & Labor Costs	\$ 199.14	16.91 ¢
<u>HARVESTING COSTS:</u>		
Preparation of land for harvest: 1.1 M & T	3.14	.27
Knock, pick and haul out @ .015/#	38.52	* 3.27
Hulling @ 2.5¢/#	53.55	4.55
Haul to market @ \$7/T	7.50	.35
Total Harvesting Costs	\$ 102.71	8.44 ¢
Total Harvesting & Pre-Harvest Costs	\$ 301.85	25.35 ¢
<u>DEPRECIATION COSTS:</u>		
Trees: \$934.55 (original cost) 40 year life	23.36	1.98
Irrigation facilities: \$100 cost/A - 25 year life	4.00	.34
Buildings on \$120 cost - 25 year life	4.80	.41
Equipment except tractor: \$260/A investment	27.50	2.33
Tractor: 8.3 hours @ .70	5.81	.49
Total Depreciation Costs	\$ 65.47	5.55 ¢
<u>INTEREST ON INVESTMENT @ 6%:</u>		
Trees: on ½ cost (\$467.28)	28.04	2.38
Irrigation facilities: on ½ cost (\$50/A)	3.00	.25
Buildings: on ½ cost \$120	3.60	.31
Equipment, except tractor: on ½ cost (\$130/A)	7.80	.66
Tractor: 8.3 hours @ .25	2.08	.18
Land: @ \$1500/A	90.00	7.64
Total Interest on Investment	\$ 134.52	11.42 ¢
TOTAL COST OF PRODUCTION	\$ 501.84	42.32 ¢

* See details of these average figures on following charts

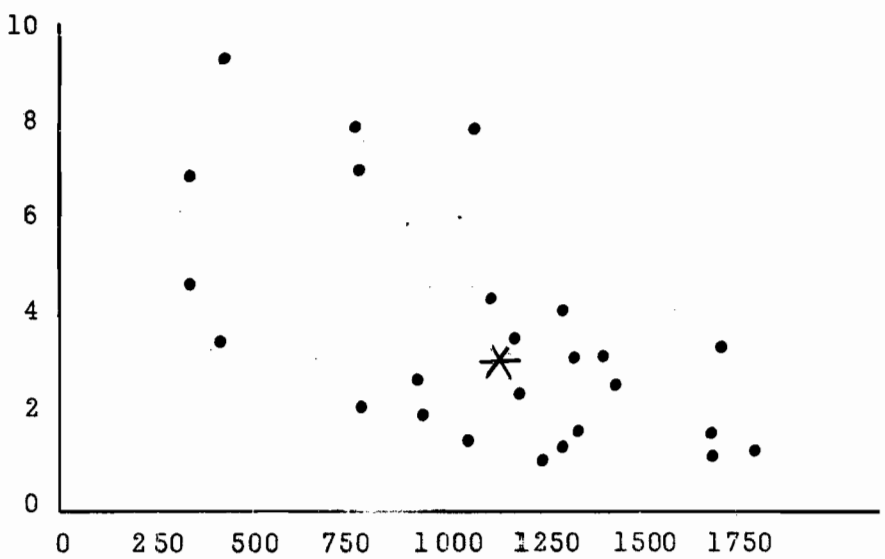
ALMOND
ACRES
FARMED



YIELD IN POUNDS OF MEATS PER ACRE

Management is more important than orchard size when yield is considered.

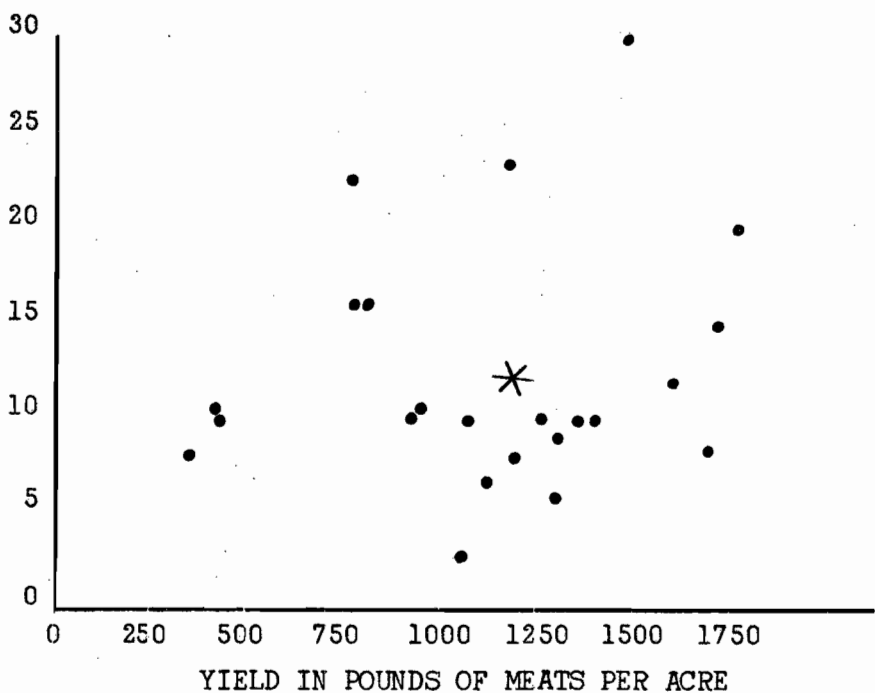
HARVESTING
COSTS IN
CENTS
PER POUND



YIELD IN POUNDS OF MEATS PER ACRE

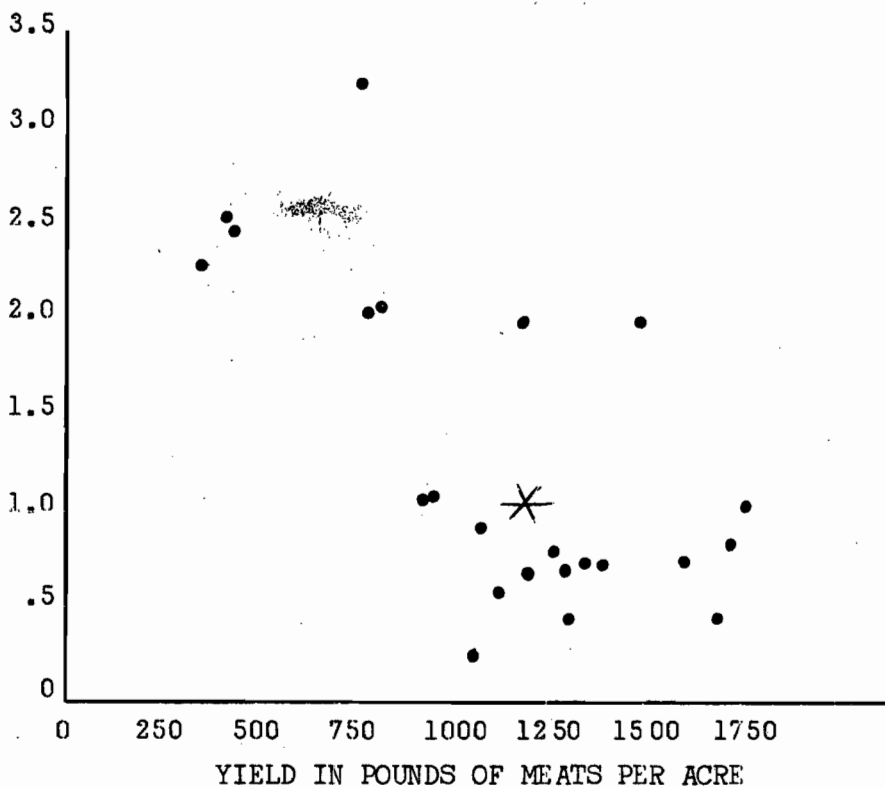
These costs are mostly typical where fixed costs are involved. Per pound costs should drop with yield increase.

ALMOND
PRUNING
COSTS IN
DOLLARS
PER ACRE



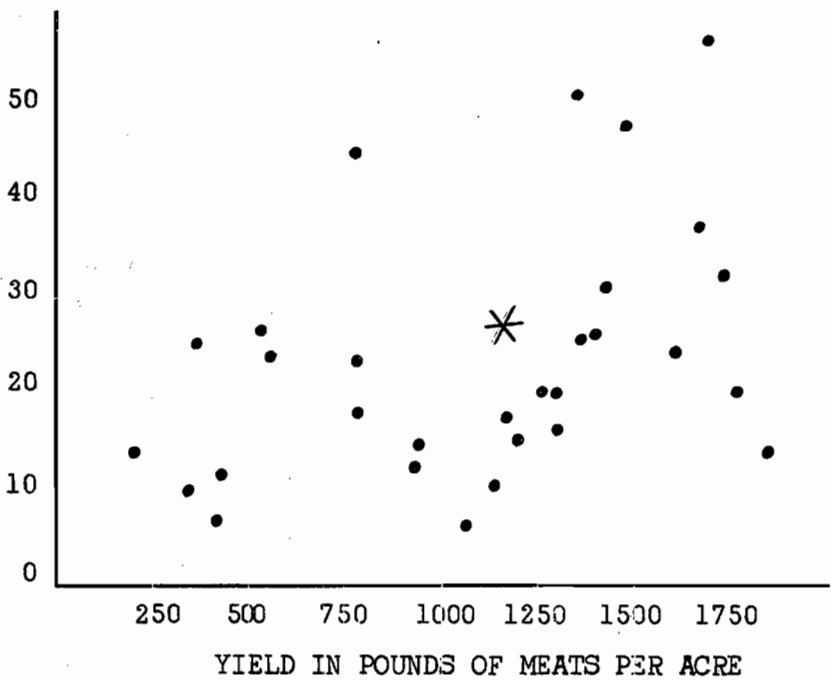
The three low yields are from young orchards. The remaining costs, while scattered, do indicate a need for pruning. Higher pruning costs, however, do not necessarily increase yields.

PRUNING
COSTS
IN CENTS
PER
POUND



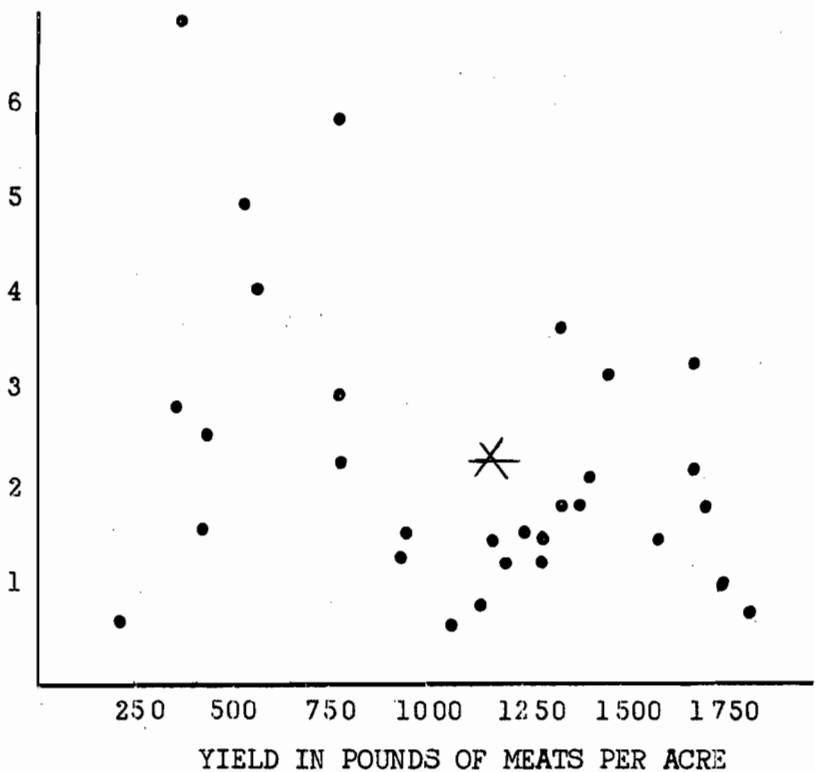
Excluding the young orchards, some of the costs are out of line. Management better reduce the cost spread.

ALMOND
FERTILIZER
COSTS IN
DOLLARS
PER ACRE



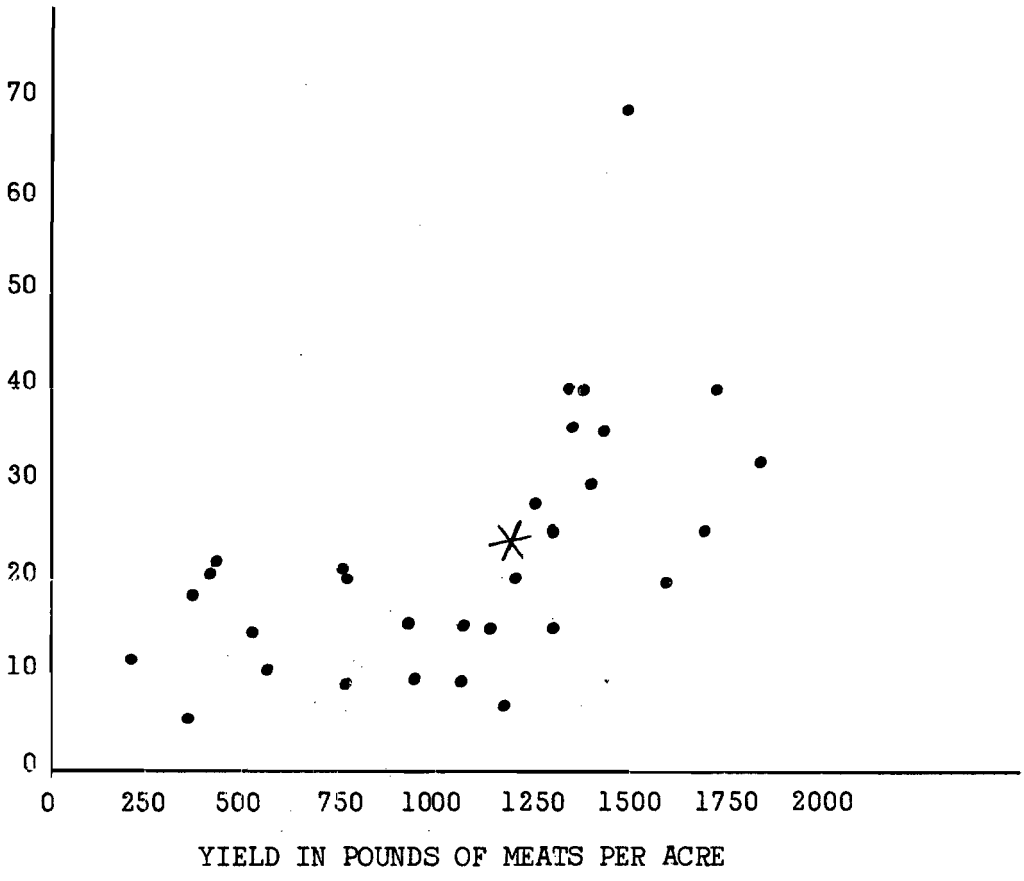
This chart indicates an increase in yield with an increase in fertilizer. Both increases and decreases seem indicated.

FERTILIZER
COSTS
IN CENTS
PER POUND



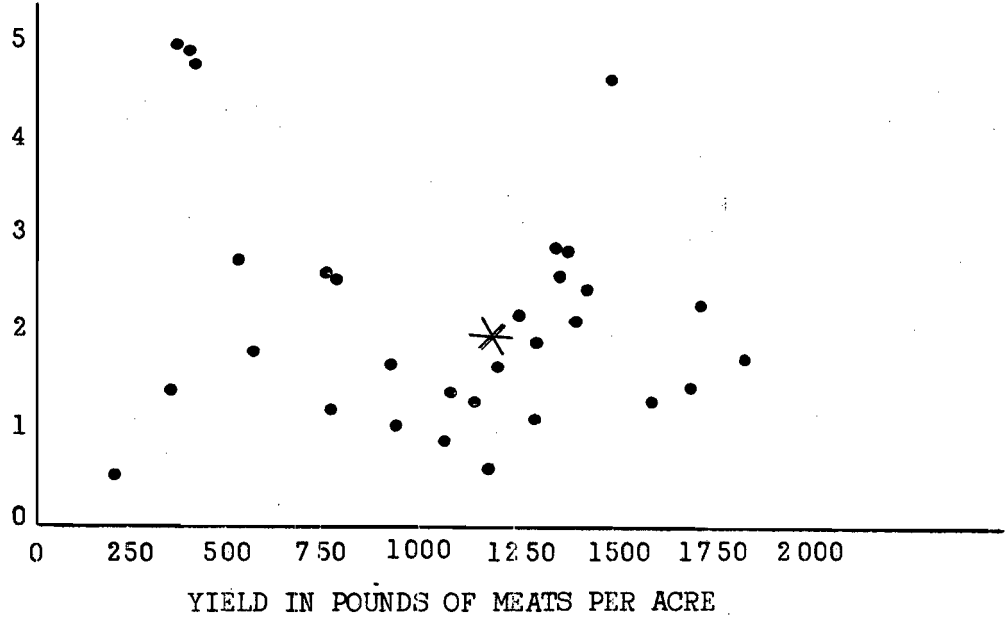
The costs per pound spread is too great. Fertilizer costs and amounts applied, or both, are in need of investigation.

ALMOND
 SPRAY
 MATERIAL
 COSTS IN
 DOLLARS
 PER ACRE



The indication here is that some growers would increase their yields by intensifying the spray program.

SPRAY
 MATERIAL
 COSTS IN
 CENTS
 PER POUND



The increased per acre cost (noted above) as yields increase did not increase the cost per pound. This justifies the more intensive programs of the higher per acre yield operators.

SAMPLE COSTS TO ESTABLISH AN ALMOND ORCHARD IN STANISLAUS COUNTY - 1964

Vernon Patterson, Farm Advisor

Norman Ross, Farm Advisor

Per Acre	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.
PRE-HARVEST CASH COSTS:				
Fumigation of soil	\$ 50.00	\$ -----	\$ -----	\$ -----
Land preparation: subsoil, disc, harrow, plane, etc.	44.00	-----	-----	-----
Layout and plant @ .20¢ per tree x 75 trees/A	15.00	1.00	1.00	-----
Trees: 75 x .70¢	52.50	2.10	2.10	-----
Irrigation: 5 times	5.00	5.00	5.00	5.00
Water: district tax	1.10	1.10	1.10	1.10
Tillage: irrigation preparation and hoe	16.00	16.00	16.00	16.00
Fertilizer: material, including manure	3.50	7.00	10.50	12.50
Fertilizer application	3.00	3.00	4.00	4.50
Spray materials	3.00	4.00	8.00	15.00
Spraying	3.00	4.00	5.00	7.00
Pruning and brush disposal	5.00	7.00	9.00	12.00
Miscellaneous labor and materials	3.00	5.00	7.00	15.00
County taxes	17.00	17.00	17.00	17.00
Office, car, interest on operating capital	11.40	3.96	4.64	5.60
Repairs, except tractor	7.00	7.00	7.00	7.00
Total Pre-Harvest Cash Costs	\$ 239.50	\$ 83.16	\$ 97.34	\$ 117.70
Total Harvesting Cost	-----	-----	-----	\$ 50.13
(Includes ground preparation, knocking,-- raking & picking up, hauling to huller, hulling and hauling to market - 563# meats)				
DEPRECIATION COSTS:				
Irrigation facilities (\$100 cost/A) 25 yr. life	4.00	4.00	4.00	4.00
Buildings and equipment	10.00	10.00	15.00	20.00
Tractor @ .70 per hour	5.60	4.20	6.30	7.00
Total Depreciation Costs	\$ 19.60	\$ 18.20	\$ 25.30	\$ 31.00
INTEREST ON INVESTMENT @ 6%:				
Irrigation facilities on 1/2 cost (\$50/A)	3.00	3.00	3.00	3.00
Buildings and equipment	5.00	5.00	5.00	10.00
Tractor @ .25 per hour	2.00	1.50	2.25	2.50
Land @ \$1500/A	90.00	90.00	90.00	90.00
Interest on accumulated costs	-----	21.55	34.89	50.36
Total Interest on Investment	\$ 100.00	\$ 121.05	\$ 135.14	\$ 155.86
TOTAL COST FOR YEAR	\$ 359.10	\$ 222.41	\$ 257.78	\$ 354.69
Credit for crop - 563# @ .46				\$ 259.43
TOTAL ACCUMULATED COST	\$ -----	\$ 581.51	\$ 839.29	\$ 934.55