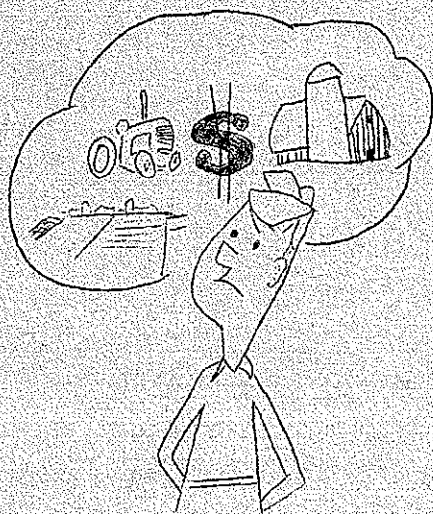
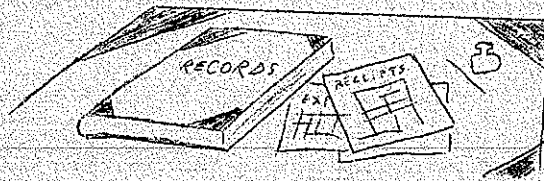


SAMPLE COST OF PRODUCTION Clarksburg Area 1977



An Enterprise Study On
Equipment Charges And Cost
Estimates Of Selected Crops
Grown In The Clarksburg Area

FARM & HOME ADVISORS OFFICE
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The authors are indebted to and wish to thank a group of growers from the Clarksburg area for their help in developing this enterprise study. These growers provided the basic information on machinery, operations and a farming unit. Their thinking and guidance was greatly appreciated.

We also wish to thank those in allied industries who provided information on costs of items and services.

Without the help of these growers and those in industry, the development of an enterprise cost study would have been much, much more difficult.

Again, thanks to all.

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INTRODUCTION

The Clarksburg area is located along the west side of the Sacramento River south of the city of Sacramento. The Clarksburg area is primarily located in the south-eastern portion of Yolo County. Three reclamation districts are considered to be included as part of the Clarksburg area--District 999, Hollandland; District 150, Merritt Island; and District 307, Lisbon Island.

The climate, soil, and farming practices are somewhat different than that for much of Yolo County. The outlying flat ground usually is a clay or clay loam soil and is associated with a high water table that varies from 20" to 40" below the soil surface. The other major soil, often referred to as a bench soil, is a sandy loam to loam and is located along the river and slough levees. Frequently seepage is a problem with these bench soils during periods of high river flows.

The use of sprinkler systems for irrigation is a standard practice for many crops. Sprinkler irrigation is used to avoid overly saturated soils and keep the soil salts in the lower soil layers. Furrow irrigation is frequently used on the bench soils.

The area is located within the sea breeze channel as the ocean air flows into the interior valley. Thus, evenings are cooler and humidities usually are higher. Windy conditions sometimes interfere with farming operations.

REASONS FOR STUDY

The business of farming has been operating within an increasingly tighter economic squeeze. Efficiency in the use of equipment is essential for economic production of crops. A grower needs to know the inputs, all the inputs, into a crop before the net returns can be determined. Too frequently, hidden costs are overlooked as costs of production.

Many questions are asked about economics of production for the area. What are the costs? Where are the costs? What comparative costs of production are for individual crops? What the essential production practices are? General information for the area.

Costs vary from farm to farm because of individual differences in management, in soil, in rotations, in equipment, in size of units. Growers are urged to use their own data to develop a true cost for their operations. This study should be used as a guide only.

BASIS FOR COSTS

This enterprise study presents information on costs of producing several crops that are important in the Clarksburg area. Average or expected yields for the area were used as a basis for unit costs of production. The cost figures represent a calculated estimate and not a specific or exact average figure. The figures are based on representative costs for 1976-77 and on minimal farming operations commonly used to produce the various crops.

In a few places, a recommended practice is used in place of the general practice when the general practice is in error with established information or the practice is excessive. Growers themselves often recognize that certain practices are excessive but are reluctant to cut back.

CROPS AND ACREAGE

It was necessary to select representative crops, assume certain acreages and estimate equipment usage for the acreage in order to determine costs of operation for equipment. Costs were developed on the basis of 150 acres of alfalfa, 300 acres of corn, 100 acres of sugar beets, 250 acres of tomatoes, 100 acres of safflower and 200 acres of grain--a total of 1100 acres. A more typical size of operation for the area would be 950 acres. The growers in the area specialize in specific crops and each grower does not grow all the crops shown in the study.

Since the growers specialize in certain crops, the efficiency of operation of equipment would be greater which would compensate for efficiency of usage on more acres as used in the study. Costs of operation would be similar.

Another influence of specialization would be crop rotation patterns. Each grower uses a different crop mix. To avoid the previous crop influences, costs of post crop operations are charged against the crop. Thus, each crop starts from the same base.

EQUIPMENT COSTS

Equipment costs which are determined by hours of usage are separated into cash costs and overhead costs. Cash costs include fuel, repairs, insurance and taxes. Overhead costs include depreciation and interest on investment. Generally the more a piece of equipment is used, the less it will cost per hour. Equipment costs change rapidly. The prices shown on Page 15 may be below current costs. Increased costs should be considered and adjusted for when using this cost study.

Costs of equipment operation (cash and overhead) are itemized in the detailed crop operation sheets under fuel and repairs. Equipment investment costs are pro-rated to the individual crop on the basis of usage of the equipment on that crop.

Irrigation equipment is shown as a separate item in investment cost because it is a sizable charge and cost. Irrigation equipment includes the pump, the rain machine, pipes and pipe trailer.

Harvest equipment is shown as a separate investment item for tomatoes. Harvest equipment is a sizable investment for tomatoes.

A few operations were shown as custom or contract work. Custom work was used when this is the common practice. Certain pieces of equipment were rented. Fertilizer equipment frequently is rented.

Many growers have more and different equipment. Some of that equipment is difficult to justify on a usage basis. Many were acquired for special conditions and have continued in ownership. For the purposes of this study and for efficiency, the listed machinery was considered sufficient.

EQUIPMENT TAXES AND INSURANCE

The tax rate used for this study was 7.8% of the assessed value. The assessed value was considered to be 25% of the average value. The average value was assumed to be the half life or 50% of the new cost. NOTE: In practice, the assessed value is more accurately determined by use of tables for this purpose. For this study, the short cut method used is sufficiently accurate for realistic figures.

New Price x 50% = Average Value
 Average Value x 25% = Assessed Value
 Assessed Value x 7.8% (tax rate) = Tax on equipment

The insurance - all risk - was charged at 50 cents per \$100 of average value. For this study, average value for insurance purposes was assumed to be 50% of the new cost. For example, if a piece of equipment originally cost \$2,000, the half life or current cost of a comparable replacement would be \$1,000. The insurable value would be \$1,000. The insurance charge would be $50¢ \times 1000 \div 100$ or \$5.00 for the piece of equipment.

LABOR CHARGES

Labor costs shown include the cash hourly wage plus a benefit package and were charged at the rate of \$4.37 per hour for tractor drivers, \$3.59 per hour for irrigators and \$3.54 for general labor. In addition, additional labor costs amount to 17% of the hourly cash wage. Additional labor costs are for Social Security, Workmen's Compensation Insurance, and other miscellaneous benefits.

In the Clarksburg area many foremen, supervisors, and tractor drivers are furnished transportation and quite a few are also furnished housing and utilities. Many also receive vacation with pay and an annual bonus. Allowances for some of these additional costs are included in the miscellaneous production costs. (These special benefits, often not considered as wages, amount to 15¢ per hour for bonuses, \$200 - \$250 per month for housing, utilities and transportation.)

For seasonal and part time labor--weeding crews, sorters, some irrigators, etc.--another additional labor cost is charged at the rate of \$1.00 per hour per man. This charge is paid to the labor supervisor to defray his costs which include recruiting, housing, bookkeeping, field supervision, supplies, transportation to fields, etc.

These less obvious costs for labor are frequently overlooked and often not considered. Only the cash wage is quoted.

RECLAMATION DISTRICT CHARGES

The reclamation districts charge a fee per acre to maintain levees for flood control and to maintain ditches for drainage and water supplies.

This charge varies from district to district, but it is based on the location within the district, probable maintenance required, productive ability of the soil, possible crops grown, potential production problems, etc.

A calculated overall average of \$11.00 per acre reclamation district charge is used in this study. (Based on the average for District 999).

MISCELLANEOUS OPERATING CHARGES

There are a number of cost and charges that are difficult to assign to any one place in the production schedule. These are definite costs. To cover these costs, a charge is made at the rate of 15% of the growing or cultural costs.

A few of the more important and sizable items included in the miscellaneous operating cost are interest on operating capital, use of pickup, transportation for full time labor, phone, bookkeeping, roadway maintenance, general weed control, vacations, etc. Some growers feel that a 15% charge is not enough when 8% is charged for borrowed operating capital but operating capital is usually a short term loan.

MANAGEMENT CHARGE

A management charge is shown. This is charged at 5% of the gross return for the individual crop. The management charge is shown separately so it can be deducted easily if an individual wishes to discount this item.

THE RENT OPERATOR

The grower who operates rented ground and is comparing his operations with this enterprise cost study, would deduct the land tax, the reclamation charges, the investment costs for land and buildings. He would and should include investment costs for tractors, equipment, and irrigation equipment.

In place of investment and overhead charges for land and facilities, the rent grower should include a charge for rental. Listed below are share rental rates commonly used in the Clarksburg area. Share rents are based on a percentage of the gross income for the crop.

Tomatoes	17½%
Corn	33%
Barley and Wheat	33%
Alfalfa	30% (27% to 33%)
Safflower	33%
Sugar Beets	25%
Grain Sorghum	33%
Onions	17½%

Rental rates will vary according to what the landlord supplies or equipment furnished or land preparation done. In many of the share rent agreements, the landlord shares in the drying costs and/or hauling costs. In some, the landlord also shares in the cost of fertilizers or insecticides.

Share rents are on the dry weight basis or marketable product basis. Drying is deducted before yields are calculated.

Cash rents are frequently in the \$75 per acre range depending on length of the rental term. Short term rents for tomato production are in the \$125 - \$150 range.

ALFALFA
Production Field
150 Acres @ 6.5 Tons/Acre
4 Year Life

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs Tractor	Implt.	Materials	
<u>GROWING COSTS</u>						
Gopher Control - 1#/ac						
Bait @ \$1.10/lb.					1.10	1.10
Borrow equipment	.15	.66	.33	--	--	.99
Weed Control						
Springtooth	.15	.66	.73	.32	--	1.71
Insect Control						
Weevil - 1½ X						
Air @ \$3.00/ac					4.50	4.50
Furadan - 8 oz/ai/ac @ \$28.00/gal.					5.25	5.25
Aphid - ground rig	.05	.22	.11	.07	--	.40
Pencap - 1½ pts/ac @ \$12.85/gal.					2.40	2.40
Other						
Worms - (½ acreage)						
Dylox - 12 oz/ai/ac @ \$2.90/lb.					1.45	1.45
Air - 1 X - ½ ac @ \$3.00/ac					1.50	1.50
Irrigation - 4X/12 hr/set						
(1 man - ½ time)	1.5	5.39	--	--	--	5.39
Sprinkler & pipe-14hr/ac	14.0	--	--	4.20	--	4.20
Pump-2.4ac/set-14hr/ac	14.0	--	--	21.84	--	21.84
Tractor for move & set	.04	.17	.09	--	--	.26
Move equip., setup & service						
@ 10% of operating time	.04	.17	--	--	--	.17
@ 20% for irrigation	.30	1.07	--	--	--	1.07
<u>Total</u>	2.23	8.34	1.26	26.43	16.20	52.23
<u>MISCELLANEOUS COSTS</u>						
Soc. Sec., comp. ins., bonuses, vac., etc. @ 17% of hourly wage						1.42
Misc. Production & Operation costs @ 15% of growing costs						<u>8.05</u>
<u>Total Miscellaneous</u>						9.47
<u>TAXES</u>						
Land						22.50
Reclamation District charges						<u>11.00</u>
<u>Total Pre-Harvest Costs Per Acre</u>						95.20
Pre-Harvest Costs Per Ton						14.65

ALFALFA - Continued

	Hours/ Acre	Cash & Labor Costs Per Acre			Total
		Labor	Fuel & Repairs Tractor Implt.	Materials	
<u>HARVEST COSTS</u>					
6X - Custom - 6.5 Ton @ \$16.50/ton, Cut, rake & bale					107.25
Cash Growing and Harvesting Costs					202.45
Cost Per Ton					31.15
Management charge @ 5% of gross income - 6.5 Tons @ \$75.00/ton					24.38
<u>INVESTMENT COSTS</u>					
Land - \$2000/ac @ 8.8%					176.00
Buildings					1.47
Irrigation equipment					25.54
Tractors and equipment					10.91
Stand Establishment Cost (Depreciation + interest -- \$24.33 + 3.89)					28.22
Total Investment Costs					242.14
Investment Cost Per Ton					37.25
TOTAL ALL COSTS					\$468.97
COST PER TON					\$72.15

```

* * * * *
*   Cost Per Ton At Various Yields   *
*   Yield/Acre      Cost/Ton         *
*   5.0              $87.72          *
*   6.0              76.47           *
*   6.5              72.15           *
*   7.0              68.44           *
*   8.0              62.42           *
* * * * *
    
```

ALFALFA - Establish
40 Acres/Year

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs Tractor	Implt.	Materials	
<u>Fall</u>						
Landplane - 2X	.40	1.75	3.35	.41	--	5.51
<u>Spring</u>						
Disc - 2X	.24	1.05	2.01	1.03	--	4.09
Balan @ 1.5#/ai/ac @ \$8.55/gal.					8.55	8.55
Rent Tag-a-long @ \$1.00/ac					1.00	1.00
Float, harrow & roll - 2X	.34	1.49	2.85	.23	--	4.57
<u>PLANT</u>						
Air @ \$#.00/ac					3.00	3.00
Seed - 25#/ac @ \$1.71/lb.					42.75	42.75
Harrow and Roll	.17	.74	.82	.06	--	1.62
Flat roll	.17	.74	.37	.31	--	1.42
Move equip., setup & service @ 10% of operating time	.13	.57	--	.06	--	.63
Total	1.45	6.34	9.40	2.10	55.30	73.14
<u>MISCELLANEOUS COSTS</u>						
Soc. Sec., comp. ins., bonusee, vac., etc. @ 17% of hourly wage						1.08
Misc. Production & Operation costs @ 15% of cultural costs						<u>11.13</u>
Total Miscellaneous Costs						<u>12.21</u>
Total Cost to Establish						\$85.35

ALFALFA - Destroy Stand

<u>Cost To Destroy</u>						
Disc - 2X	.20	.87	1.67	.58	--	3.12
Plow	.33	1.44	2.76	.42	--	4.62
Springtooth	.12	.52	1.00	.25	--	1.77
Move equip., setup & service @ 10% of operating time	.07	.31	--	.03	--	.34
Total	.72	3.14	5.43	1.28	--	9.85
Miscellaneous Costs						<u>2.10</u>
Total To Destroy						11.95
Total To Establish						<u>85.35</u>
Total Cost to Establish & Destroy						\$97.30

CORN
300 Acres - Yield 8,000 lbs/ac

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs		Materials	
			Tractor	Implt.		
<u>SEED BED PREPARATION</u>						
<u>Fall</u>						
Landplane	.20	.87	1.67	.20	--	2.74
<u>Spring</u>						
Springtooth	.12	.52	1.00	.25	--	1.77
Fertilize	.12	.52	1.00	--	--	1.52
125# N/ac @ 14¢/lb.					17.50	17.50
Rent Fertilizer Rig @ \$1.50/ac					1.50	1.50
Harrow & Roll - 2X	.34	1.49	1.65	.13	--	3.27
Bed	.33	1.44	.86	.07	--	2.37
Roll	.17	.74	.37	.03	--	1.14
Move equip., setup & service @ 10% of operating time	.12	.52	--	.02	--	.54
Total	1.40	6.10	6.55	0.70	19.00	32.35
<u>PLANTING</u>						
Plant & Fertilize	.50	2.19	1.31	.95	--	4.45
Seed - varies with variety & population desired					21.00	21.00
Rent Tag-a-long @ \$1/ac					1.00	1.00
30 gal. 4-10-10 @ \$100/ton					15.00	15.00
Move equip., setup & service @ 10% of operating time	.05	.22	--	--	--	.22
Total	0.55	2.41	1.31	0.95	37.00	41.67
<u>GROWING COSTS</u>						
Herbicide	.05	.22	.11	.07	--	.40
2,4-D amine @ 8 oz/ai/ac @ \$9.47 gal.					1.19	1.19
Cultivate & furrow	.33	1.44	.86	.07	--	2.37
Cultivate, furrow & sidedress	.33	1.44	.86	.07	--	2.37
75# N/ac @ 14¢/lb.					10.50	10.50
Rent Tag-a-long @ \$1/ac					1.00	1.00
Ditch - 2X	.10	.44	.83	.04	--	1.31
Irrigate-5X furrow 1 man 5ac/set - 12 hr/set	12.00	43.08	--	--	--	43.08
Pump	12.00	--	--	2.28	--	2.28
Irrig. equip.--tractor, pipe, trailer, etc.	12.00	--	--	1.08	--	1.08
Miticide	.05	.22	.11	.07	--	.40
Kelthane ^R @ 1 lb/ac @ \$23.00/4# gal.					5.75	5.75
Move equip., setup & service @ 10% of operating time	.09	.39	--	--	--	.39
Total	36.95	47.23	2.77	5.12	18.44	73.56

CORN - Continued

	Hours/ Acre	<u>Cash & Labor Costs Per Acre</u>				Total
		Labor	<u>Fuel & Repairs</u> Tractor Implt.		Materials	
<u>TAXES</u>						
Land						22.50
Reclamation District charges						<u>11.00</u>
Total						<u>33.50</u>
Total Growing Costs						181.08
Growing Cost Per Cwt						2.26
<u>HARVEST COSTS</u>						
Harvest	.50	2.19	--	5.21	--	5.21
Drying - 4 ton @ \$6.50/ton (custom)						26.00
Hauling - field (truck) @ \$5.00/ton						<u>20.00</u>
Total Harvest Costs	0.50	2.19	--	5.21	--	53.08
Cost Per Cwt						.66
<u>POST HARVEST COSTS</u>						
Chop stubble	.25	1.09	1.21	.85	--	3.15
Disc	.10	.44	.84	.29	--	1.57
Plow	.33	1.44	2.76	.42	--	<u>4.62</u>
Total	0.68	2.97	4.81	1.56	--	<u>9.34</u>
Total Growing and Harvesting Costs						243.50
Cost Per Cwt						3.04
<u>MISCELLANEOUS COSTS</u>						
Misc. Production & Operation costs @ 15% of cultural and harvest costs						33.05
Soc. Sec., comp. ins., bonuses, vac. etc. @ 17% of hourly wage						10.31
Management cost @ 5% of gross income 80 cwt @ \$5.00/cwt						<u>20.00</u>
Total						63.36
<u>INVESTMENT COSTS</u>						
Land - \$2,000 @ 8.8%						176.00
Buildings						1.47
Tractors and Equipment						50.37
Irrigation Equipment						<u>21.00</u>
Total Investment Costs						248.84
Investment Cost Per Cwt						<u>3.11</u>
						TOTAL ALL COSTS
						\$555.70
						COST PER CWT
						\$6.95

GRAIN - Barley or Wheat
200 Acres - Yield 6,000 lbs/ac

	Hours/ Acre	Cash & Labor Costs Per Acre			Materials	Total
		Fuel & Repairs				
		Tractor	Implt.			
<u>SEED BED PREPARATION</u>						
Float & roll	.17	.74	.82	.08	--	1.64
Disc	.12	.52	1.00	.35	--	1.87
Fertilize	.17	.74	.82	--	--	1.56
100# N @ 14¢/lb.					14.00	14.00
Rent Fertilizer Rig @ \$1.50/ac					1.50	1.50
Harrow & roll	.17	.74	.82	.06	--	1.62
Bed & roll	.33	1.44	.86	.13	--	2.43
<u>PLANTING</u>						
Drill	.22	.96	.48	.52	--	1.96
Seed @ 120#/ac @ 10¢/lb.					12.00	12.00
Move equip., setup & service @ 10% of operating time	.10	.44	--	.04	--	.48
Total - Bed & Plant	1.28	5.58	4.80	1.18	27.50	39.06
<u>GROWING COSTS</u>						
Herbicide - ground rig	.05	.22	.11	.07	--	.40
2,4-D amine @ 10 oz/ac @ \$9.47/gal.					1.50	1.50
Top Dress - air (custom) @ \$3.00/ac					3.00	3.00
30# NH ₄ NO ₃ @ 21¢/lb.					6.30	6.30
Ditch	.05	.22	.42	.02	--	.66
Irrigate, sprinkler - 2 men early-- .9 hr/ac/set x 2 = 1.8 hr/ac	1.80	6.48	--	--	--	6.48
Irrigation equipment--pipe, tractor, trailer	1.00	--	.20	.03	--	.23
Pump	.90	--	--	1.52	--	1.52
Irrigate (furrow late)	1.00	3.59	--	--	--	3.59
Pump	1.00	--	2.19	.19	--	2.38
Siphons, etc.	1.00	--	--	.02	--	.02
Insect Control - air @ \$3.00/ac @ ½ acreage					1.50	1.50
Insecticide					1.50	1.50
<u>MISCELLANEOUS (Inc. Seed bed preparation, planting & growing costs)</u>						
Misc. Production & Operation costs @ 15% of cultural cost						10.63
Soc. Sec., comp. ins., bonuses, vac., etc. @ 17% of hourly wage						2.74
Total Cultural	6.80	10.51	2.18	2.01	13.80	42.45

GRAIN (Barley or Wheat) - Continued

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs Tractor	Implt.	Materials	
<u>TAXES</u>						
Land						22.50
Reclamation District charges						<u>11.00</u>
Total						<u>33.50</u>
Total Cost Pre-Harvest						115.01
Pre-Harvest Cost Per Cwt						1.92
<u>HARVEST</u>						
Combine	.50	2.19	--	3.23	--	5.42
<u>POST HARVEST COSTS</u>						
Disc	.10	.44	.84	.29	--	1.57
Plow	.33	1.44	2.76	.42		4.62
Misc. Harvest and labor costs						<u>5.06</u>
Total Harvest and Post Harvest costs	.93	4.07	3.60	3.94	--	16.67
Management charge @ 5% of gross income - 60 cwt @ \$4.50/cwt						<u>13.50</u>
Total Growing, Harvest & Production Cost						145.18
Growing & Harvest Costs Per Cwt						2.42
<u>INVESTMENT COSTS</u>						
Land - \$2,000/ac @ 8.8%						176.00
Buildings						1.47
Tractors and Equipment						33.60
Irrigation Equipment						<u>5.64</u>
Total Investment Costs						216.71
Investment Cost Per Cwt						3.61
TOTAL ALL COSTS						<u>\$361.89</u>
COST PER CWT						\$6.03

SAFFLOWER
100 Acres - Yield 3,000 lbs/ac

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs		Materials	
			Tractor	Implt.		
<u>SEED BED PREPARATION</u>						
<u>Fall</u>						
Float	.15	.66	.73	.05	--	1.44
Disc & Spray Herbicide	.12	.52	.58	.68	--	1.78
Rent Tag-a-long @ \$1/ac					1.00	1.00
Herbicide (Treflan ^R) @ 3/4 lb/ac @ \$31.25/gal					5.86	5.86
<u>Spring</u>						
Disc & Fertilize	.12	.52	1.00	.51	--	2.03
Rent Fertilizer Rig @ \$1.50/ac 125# N @ 14¢/lb.					1.50 17.50	1.50 17.50
Harrow, float & roll-2X	.34	1.49	1.65	.24	--	3.37
Move equip., setup & service @ 10% of operating time	.07	.31	--	.03	--	.34
Total	0.80	3.50	3.96	1.56	25.86	34.86
<u>PLANTING</u>						
Plant - Grain drill	.22	.96	.48	.52	--	1.96
Seed - 32#/ac @ 30¢/lb.					9.60	9.60
Move equip., setup & service @ 10% of operating time	.02	.09	--	.01	--	.10
Total	0.24	1.05	0.48	0.53	9.60	11.66
<u>TAXES</u>						
Land						22.50
Reclamation District charges						11.00
Total						33.50
Total Costs Pre-Harvest						80.02
Pre-Harvest Cost Per Cwt						2.67
<u>HARVEST COSTS</u>						
Combine	.66	2.88	--	4.26	--	7.14
Haul @ 25¢/100 lbs.						7.50
Total	0.66	2.88	--	4.26	--	14.64
<u>POST HARVEST COSTS</u>						
Chop Stubble	.25	1.09	1.21	.85	--	3.15
Disc	.10	.44	.84	.29	--	1.57
Total	0.35	1.53	2.05	1.14	--	4.72
Total Growing and Harvest Costs						99.38
Growing and Harvest Cost Per Cwt						3.31

SAFFLOWER - Continued

	Hours/ Acre	Cash & Labor Costs Per Acre			Total
		Labor	Fuel & Repairs Tractor Implt.	Materials	
<u>MISCELLANEOUS COSTS</u>					
Misc. Production & Operation costs @ 15% of cultural costs					9.68
Soc. Sec., comp. ins., bonuses, vac. etc. @ 17% of hourly wage					1.52
Management charges @ 5% of gross income 30 cwt @ \$11.75/cwt					<u>17.63</u>
Total					28.83
<u>INVESTMENT COSTS</u>					
Land - \$2,000 @ 8.8%					176.00
Buildings					1.47
Tractors and Equipment					<u>39.73</u>
Total Investment Costs					217.20
Investment Cost Per Cwt					<u>7.24</u>
				TOTAL ALL COSTS	<u>\$345.41</u>
				COST PER CWT	<u>\$11.51</u>

SUGAR BEETS
100 Acres @ 25 Tons/Acre

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs Tractor	Implt.	Materials	
<u>SEED BED PREPARATION</u>						
<u>Fall</u>						
Float	.15	.65	.73	.05	--	1.43
<u>Spring</u>						
Springtooth	.12	.52	1.00	.25	--	1.77
Fertilize	.17	.74	.82	--	--	1.56
125# N/ac @ 14¢/lb					17.50	17.50
Rent Fertilizer Rig					1.50	1.50
Float, harrow & roll	.17	.74	1.42	.11	--	2.27
Bed	.33	1.44	.86	.07	--	2.37
Incorp. herbicide and plant	.40	1.75	1.94	2.44	--	6.13
Seed - 3#/ac @ \$3.05/lb.					9.15	9.15
Rent Tag-a-long @ \$1/ac					1.00	1.00
Move equip., setup & service @ 10% of operating time	.13	.57	--	.01	--	.58
Total	1.47	6.41	6.77	2.93	29.15	45.26
<u>GROWING COSTS</u>						
Roll	.17	.74	.37	.31	--	1.42
Thin (hand)	11.50	40.71	--	--	--	40.71
Hoe	8.50	30.09	--	--	--	30.09
Irrigate 6X (sprinkler 2 men - 0.9 hr/ac/set x 2 = 1.8 hr/ac x 6 = 10.8 hrs)	10.80	38.77	--	--	--	38.77
Irrigation equipment-- pipe, trailer, tractor	5.4	--	.43	13.34	--	13.77
Cultivate	.99	4.33	2.17	.71	--	7.21
Aphid Control	.10	.44	.22	.14	--	.80
Insecticide 2X-grd rig					7.20	7.20
Mildew Control	.10	.44	.22	.14	--	.80
Wettable Sulfur 2X - grd rig @ 10#/ac @ 54¢/lb					10.80	10.80
Move equip., setup & service @ 10% of operating time	.70	3.06	--	.12	--	3.18
Total	7.46	118.58	3.41	14.76	18.00	154.86
<u>MISCELLANEOUS OPERATING AND GROWING COSTS</u>						
Misc. Production & Operation costs @ 15% of cultural costs						37.83
Soc. Sec., comp. ins., bonuses, vac. etc. @ 17% of hourly wage						21.27
Additional charge for seasonal and part time labor @ \$1/hr/man (Inc. transportation, bookkeeping, crew supervision, etc.)						30.80
Total						89.90

SUGAR BEETS - Continued

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs Tractor	Implt	Materials	
<u>TAXES</u>						
Land						22.50
Reclamation District charges						<u>11.00</u>
Total						<u>33.50</u>
Total Pre-Harvest Costs						323.52
Pre-Harvest Cost Per Ton						12.94
<u>HARVEST COSTS</u>						
Contract						
Top and dig @ \$1.50 per ton - 25 ton						37.50
Haul @ \$1.15/ton + 4¢/mile (10 mile) - 25 ton						<u>38.75</u>
Total						76.25
Harvest Costs Per Ton						3.05
Management charge @ 5% of gross income - 25 Tons @ \$25.38/Ton						<u>31.72</u>
Total Growing and Harvesting Costs						431.49
Growing and Harvest Cost Per Ton						17.26
<u>POST HARVEST COSTS</u>						
Disc - 2X	.20	.87	1.67	.58	--	3.12
<u>INVESTMENT COSTS</u>						
Land - \$2,000 @ 8.8%						176.00
Buildings						1.47
Tractors and Equipment						28.57
Irrigation Equipment						<u>14.63</u>
Total Investment Costs						220.67
Investment Cost Per Ton						8.83
TOTAL ALL COSTS						<u>\$655.28</u>
COST PER TON						<u>\$26.21</u>

TOMATOES
250 Acres - Yield 25 Ton/Acre

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs Tractor Implt.	Materials		
<u>SEED BED PREPARATION</u>						
<u>Fall</u>						
Landplane	.40	1.75	3.35	.41	--	5.51
Rip	.33	1.44	2.76	.51	--	4.71
<u>Spring</u>						
Springtooth	.12	.53	1.00	.25	--	1.78
Harrow & roll - 2X	.24	1.05	1.16	.09	--	2.30
Bed	.33	1.44	.86	.07	--	2.37
Shape bed & Incorp. Herb.	.33	1.44	1.60	1.38	--	4.42
Rent Tag-a-long @ \$1.00/ac					1.00	1.00
Herbicide - 8# @ \$3.75/lb (½ acreage)					15.00	15.00
Move equip., setup & service @ 10% of operating time	.17	.74	--	.03	--	.77
Total	1.92	8.39	10.73	2.74	16.00	37.86
<u>PLANTING</u>						
Plant & fertilize (starter) 2 men	.40	3.17	1.94	2.15	--	7.26
30 gal. 4-10-10 @ \$100/ton					15.00	15.00
Rent Tag-a-long @ \$1.00/ac					1.00	1.00
Seed - 1# @ \$18/lb.					18.00	18.00
Move equip., setup & service @ 10% of operating time	.04	.17	--	--	--	.17
Total	.44	3.34	1.94	2.15	34.00	41.43
<u>GROWING COSTS</u>						
Thin	8.00	28.32	--	--	--	28.32
Fertilize--sidedress	.33	1.44	.86	.31	--	2.61
90# N @ 14¢/lb.					12.60	12.60
Rent Tag-a-long @ \$1.00/ac.					1.00	1.00
Hoe - 1½ X	12.00	42.58	--	--	--	42.58
Irrigate - 10X Sprinkler						
Labor (Inc. move time)	11.00	39.94	--	--	--	39.94
Irrigation Equip. - Inc. setup time	10.00	--	2.19	24.70	--	26.89
Cultivate - 4X	1.32	5.76	2.89	.95	--	9.60
Herbicide (Lilliston)	.40	1.75	1.05	.17	--	2.97
Layby - ½ gal. @ \$25/gal.					12.50	12.50
Rent Tag-a-long @ \$1.00/ac.					1.00	1.00

TOMATOES - Continued

	Hours/ Acre	Cash & Labor Costs Per Acre				Total
		Labor	Fuel & Repairs		Materials	
			Tractor	Implt.		
<u>HARVESTING COSTS</u>						
Machine - 7ac/day shift	1.43	--	--	11.71	--	11.71
Driver @ \$4.37/hr	1.71	7.47	--	--	--	7.47
Sorters - 14 @ \$3.54/hr	1.43	70.84	--	--	--	70.84
Trailers (3)	1.57	--	--	.57	--	.57
Tractors (3)	1.57	--	10.99	--	--	10.99
Drivers (3) @ \$3.81 - 11 hrs.	1.57	17.94	--	--	--	17.94
Forklift - 12 hrs.	1.71	--	--	3.49	--	3.49
Driver @ \$4.27/hr	1.71	7.30	--	--	--	7.30
Swamper - 1 @ \$3.54/hr	1.43	5.06	--	--	--	5.06
Other Labor @ \$5.10/hr 50% time (mech., super)	.86	4.39	--	--	--	4.39
Misc. equip., (loading area, headland work-- disc, scraper, and washing equip., pickup, etc.) @ \$3.61/acre	.12	.52	2.07	1.02	--	3.61
<u>MISCELLANEOUS HARVEST COSTS</u>						
Misc. supplies - drinking water, sodas, goggles, etc. @ .80/acre						.80
Toilet facilities - 2 units @ \$40/unit 2 Mo. - .64/ac						.64
PTAB, Leafhopper, etc.						2.75
Inspection @ 40¢/ton - 25 ton						10.00
Bin Rental @ 50¢/ton - 25 ton						12.50
Tomato Grower Assoc. dues @ 10¢/ton - 25 tons						2.50
Rejected loads - 2% of harvested (cost of harvest, hauling, dumping, etc.)						7.88
Soc. Sec., comp. ins., bonuses, etc. @ 17% of hourly wage						19.30
Additional charges for seasonal and part time labor (sorters, swamper, trailer man) @ \$1/day/man. Inc. bookkeeping, transportation, supervision, etc.						<u>21.45</u>
Total Harvesting Costs (cash)						214.09
Harvest Cost Per Ton (25 Ton)						8.56
Management charge @ 5% of gross income - 25 Ton @ \$55/ton						<u>68.75</u>
Total Growing & Harvesting Costs						773.27
Cost Per Ton (25 Ton)						30.93

TOMATOES - Continued

	Hours/ Acre	<u>Cash & Labor Costs Per Acre</u>				Total
		Labor	Fuel & Repairs Tractor	Implt.	Materials	
<u>POST HARVEST COSTS</u>						
Disc	.12	.52	1.00	.51	--	<u>2.03</u>
<u>INVESTMENT COSTS</u>						
Land - \$2,000 @ 8.8%						176.00
Buildings						1.47
Irrigation Equipment						27.10
Tractors and Equipment						31.40
Harvest Equipment						<u>74.28</u>
Total Investment						310.25
Investment Cost Per Ton (25 Ton)						<u>12.01</u>
						TOTAL ALL COSTS \$1085.55
						COST PER TON \$43.42