



SAMPLE

COST

OF

PRODUCTION

1985

WOODLAND AREA



U.C. COOPERATIVE EXTENSION
YOLO COUNTY
70 COTTONWOOD STREET
WOODLAND, CALIFORNIA 95695

ACKNOWLEDGEMENTS

This Sample Cost of Production Study, Woodland Area - 1985, is developed in consultation with a group of Yolo County farmer cooperators. Their advice and counsel on crops to be considered, acreages, equipment needs and usage, and production practices formed the foundation upon which the enterprise study was based. We are grateful to each of them for volunteering their time and knowledge for making the study as practical as possible.

We also wish to thank the many people from industries (equipment, chemical, energy, financial, etc.) for their help with equipment, money and material costs.

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INTRODUCTION

This 1985 cost study provides information on estimated costs of growing crops of major importance in Yolo County. Five field and vegetable crops commonly grown in the Woodland area were chosen for study. For purposes of the study, a hypothetical farming operation was developed based on the minimum acreage of each crop that might be considered an efficient unit, for that crop, as part of the total enterprise.

Hypothetical Farming Enterprise

<u>Crops</u>	<u>Acres</u>
Alfalfa	400
Corn	600
Sugar Beets	300
Tomatoes	700
Wheat	900
<hr/>	
Total	2,900

The study is aimed at answering questions on production costs and potential returns using local production practices. Figures given represent estimates, not actual costs. Actual costs will vary from farm to farm because of differences in soil, size of operation, equipment used, crop rotations, wage rates, water costs, etc. Growers are urged to use their own data in arriving at true costs for their own farming operations.

EQUIPMENT:

Tractors and implements used in this farming operation are listed on pages 25 and 26. Equipment costs are divided into cash and non-cash costs.

Cash costs include: Fuel and oil, repairs, insurance and taxes.

Non-cash costs include: Depreciation and interest on investment in equipment.

The equipment table includes: Original cost, hours of operation, cash, non-cash and total hourly charges for tractors and implements. Generally speaking, the more hours a piece of equipment is used, the lower will be its cost per hour of operation. Some farming operations (i.e. alfalfa harvesting) are done on a custom basis at prevailing custom rates in the Woodland area. A few pieces of rental equipment are utilized in the operation.

COUNTY EQUIPMENT TAX:

The tax rate used is 1.20% of the assessed value. For this cost study, assessed value is 55% of original cost.

Original cost x 55% x 1.12% = tax on equipment

Note: In practice, county assessed value is more accurately determined by the use of tables.

EQUIPMENT INSURANCE:

Insurance is charged at \$5.00 per \$1,000 of insured value. Insured value is estimated at 55% of original cost.

$$\text{Original cost} \times 55\% \times 0.5\% = \text{insurance cost}$$

INTEREST ON INVESTMENT IN EQUIPMENT:

Interest on equipment investment is charged at 12.0% simple annual interest. The study uses average interest over the life of equipment.

$$\frac{\text{Original cost}}{2} \times 12.0\% = \text{interest on equipment}$$

Interest charges are divided equally into cash and non-cash costs. Cash interest charges represent the operator's equipment loan costs; non-cash interest charges represent interest on the operator's equity or investment in equipment. Cash interest charges appear as "Equipment Loan Interest Cost"; non-cash interest charges appear under "Investment Costs" as interest and depreciation.

EQUIPMENT REPAIRS:

Repair costs are taken from University of California publication "Farm Machinery Costs" leaflet 2263 (revised May 1981). Costs are adjusted to 1985 prices. Average repair costs for machinery life are used. When available and appropriate, local grower repair costs are used.

FUEL COSTS:

Fuel requirements are calculated from University of California publication AXT 336, "Machinery Costs and Performance."

Type Tractor	Gallons Fuel Per Hour Per Drawbar Horsepower at 75% Maximum Rating
Diesel wheel engine	.065
Diesel tracklayer	.075

Flywheel HP x 86% = PTO HP (approximation)
PTO HP x 86% = drawbar HP

Fuel price + 10% (for lube & oil + filters) = fuel costs

Diesel \$.90 + \$0.09 = \$.99/gallon

Unleaded gasoline \$1.00 + \$0.10 = \$1.10/gallon

Example: 144 drawbar HP tracklayer:

$$144 \times 75\% \text{ max. pull} = 108 \text{ HP} \times \frac{0.075 \text{ gal.}}{\text{hr.} \times \text{HP}} = \frac{8.1 \text{ gal.}}{\text{hr.}} \times \$0.99 = \$8.02/\text{hr.}$$

150 HP wheel engine (PTO):

$$150 \times 86\% \times 75\% \times 0.065 = 6.29 \times \$0.99 = \$6.23/\text{hr}$$

Pickup and truck fuel requirements are taken from University of California leaflet 2263.

WATER COSTS:

Water costs for this 2,900 acre farm are computed on the basis of using 1/2 irrigation district water (canal delivery system) and 1/2 well water.

Irrigation district water - \$9.98/acre foot

Well water pumped - \$20.32/acre foot (power & standby charge)

The average cost is \$15.15 per acre foot on 1/2 canal and 1/2 well usage.

Power cost for pumped water is based on a 450' well, a 125' lift, and a 75 HP turbine operating at 65% efficiency.

In the study, no investment costs for the wells and pumps are charged because all land is rented (landowner cost).

Note: Total costs of pumping for an operator owning his own pumps and wells would be:

\$20.32 power (including demand charge)

1.42 taxes, insurance, and repairs

7.37 interest and depreciation (20 year life)

\$29.11 per acre foot

These costs are based on pumping 570 acre feet per year.

BUILDINGS:

A \$150,000 investment in farm buildings is assumed for the study. The primary building is a fully equipped farm shop with storage for chemicals, fertilizer and seed. A used \$5,000 forklift is included in the shop.

Building costs are equally distributed over 2,900 acres.

\$150,000 original cost:

\$ 7,500 - depreciation (20 year life)
9,000 - interest on average investment at 12%
990 - taxes: original cost x 55% x 1.20%
413 - insurance: original cost x 55% x 0.5%
1,500 - repairs and maintenance: 1% of original cost
\$19,403/2,900 acres = \$6.69/acre

\$5.69 fixed (depreciation and interest)

LAND RENT:

All ground is leased. No charges are made for land taxes, investment costs of land or pumps and wells.

Rental charges are listed as percent of gross income to the landlord:

<u>Crop</u>	<u>Percent</u>
Alfalfa	25
Barley	33 (30-33)
Beans	25 (20-25) single crop
Beans	20 double crop
Corn	25 (20-25) + 25% share drying costs single crop
Corn	20 double crop + share drying
Milo	25 single, 20 double crop
Safflower	25 (25-33)
Sugar Beets	20 (15-20)
Tomatoes	16 (13-18)
Wheat	33 (30-33)

Crop share rents shown here are approximate averages for the area. Individual share leases are negotiated between the landowner and tenant and may vary depending on soil classification, water cost and availability and crop economics. Share rents are changing for the first time since these studies were first initiated in 1958. Share rents to the landowner are decreasing because of depressed crop prices and increasing costs of producing and marketing crops.

LABOR COSTS:

The labor rates are estimated to be representative of the Woodland area. Actual labor rates vary from farm to farm. All labor costs, wages and benefits, are charged directly to operations.

	Wages + Benefits	Total Cost Per Hour
General labor	3.75 + 1.28	\$5.03
Type A tractor driver (precision work)	5.25 + 1.79	7.04
Type B tractor driver (general tractor skills)	4.75 + 1.62	6.37
Irrigators	4.10 + 1.39	5.49
Tomato harvester operator	5.25 + 1.79	7.04
Benefits:		
Social Security)	
Workman's Compensation)	
Holidays)	
Unemployment Insurance) Estimated at 34% of cash wages	
Health Insurance)	
Bonuses)	
Pensions)	

PRODUCTION LOAN INTEREST COST:

All cash costs are funded by production loans. Production loans are reduced, during the year, as income is received from crop sales. It is assumed that income is received 30 days after crop harvest. Loan interest is charged at 12% simple annual interest. Loan interest calculations are made on an independent, crop by crop basis. Production loan costs would be less (for the overall enterprise) if the cash flow among crops had been integrated and if a beginning cash reserve had been used. On the other hand, production loan costs will be much higher for those operators who store crops for later sale or for those operators whose crop income payments are withheld for several months.

COMMON COSTS:

The miscellaneous equipment, miscellaneous labor and supplies, trucks and pickups are needed for the overall farm operation. Costs are spread to specific crops on a percentage of gross income basis.

DEPRECIATION:

Depreciation (buildings and equipment) straight line depreciation is used in all cases. (Original cost divided by years of life.)

Crops	Yield	Price/ Unit	Acres	Gross Farm Income	% of Gross
Alfalfa	7 tons	x \$80.00	x 400 =	\$224,000	\$224,000/\$1,940,850 = 12%
Wheat	55 cwt	x \$ 5.50	x 900 =	\$272,250	\$272,250/\$1,940,850 = 14%
Corn	90 cwt	x \$ 5.50	x 600 =	\$297,000	\$297,000/\$1,940,850 = 15%
Sugar Beets	22 tons	x \$36.00	x 300 =	\$237,600	\$237,600/\$1,940,850 = 12%
Tomatoes	25 tons	x \$52.00	x 700 =	\$910,000	\$910,000/\$1,940,850 = 47%
TOTAL:				\$1,940,850	100%

Expenses that were distributed by this spread method were:

A. Supervisory labor and office expenses:

3 foremen (salaries and benefits)
 Bookkeeping and tax reports
 Office supplies, telephone, postage, etc.
 Liability insurance
 Attorney's fees and association fees, etc.

B. Miscellaneous Equipment:

Low bed and tractor (used)
 Equipment carrier
 Small "cleanup" disc
 Angle blade
 Sprayer system
 Fuel wagons
 Closed mixing spray system

C. Pickups and truck:

(2) 2-ton trucks
 (2) 3/4 ton pickups
 (2) Economy-size pickups

RETURN TO MANAGEMENT:

Return to management should be a consideration. However, costs may not be cash costs unless a professional manager was hired. Returns for management generally are figured at 5% of the gross income.

ALFALFA HAY (COST TO ESTABLISH AND DESTROY)
 100 acres/year - (following wheat)
 (Wheat straw baled or burned - One stubble discing charged to wheat)
 (50 acres sprinkled up in fall + 50 acres germinated by fall rains)

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
COSTS TO ESTABLISH:						
SEED BED PREPARATION:						
DISC 1X	.13	.83	1.96	.90	--	3.69
CHISEL 2X	.80	5.10	16.44	2.43	--	23.97
TRIPLANE 2X	.33	2.10	4.99	1.20	--	8.29
PULL CHECKS 1X (BG)	.25	1.59	1.92	.47	--	3.98
SHAPE CHECKS 2X (RENTED SHAPER)	.10	.64	1.16	1.00	--	2.79
PULL & CLOSE DITCH	.10	.64	1.51	.24	--	2.39
PRE IRRIGATE 8" WATER (1/2 SURFACE + 1/2 PUMP)	1.25	6.86			10.10	16.96
INCORPORATE HERBICIDE DISC 2X	.44	2.80	6.65	3.03	--	12.49
TRIPLANE MIDDLES 1X	.17	1.08	2.57	.62	--	4.27
HARROW & ROLL 1X	.08	.51	1.21	.21	--	1.93
PLANT BRILLION (PLANTER RENTED)	.25	1.59	1.92	.50	--	4.02
SEED 20# PER ACRE @ \$2.10/LB.	--	--	--	--	42.00	42.00
SPRINKLE UP 1/2 @ \$75.24/ACRE	1.56	8.56	--	23.98	10.16	42.70
WEED CONTROL						
PREPLANT HERBICIDE	--	--	--	--	15.43	15.43
2,4-DB POST EMERGENCE	--	--	--	--	7.88	7.88
AIRCRAFT (POST EMERGE)	--	--	--	--	5.50	5.50
MISC. EQUIPMENT USE	--	.53	.78	.47	--	1.78
MOVE EQUIP., SETUP & SERVICE 10% OF LABOR COST	--	1.74	--	--	--	1.74
PICKUP & TRUCK USE	--	--	--	2.54	--	2.54
TOTAL		<u>34.57</u>	<u>41.11</u>	<u>37.59</u>	<u>91.07</u>	<u>204.34</u>
SUPERVISORS SALARIES, ACCOUNTING						
OFFICE EXPENSE					24.33	24.33
EQUIP. LOAN INTEREST COST					3.84	3.84
TOTAL CASH COSTS TO ESTABLISH:						<u>232.51</u>

ALFALFA CONT.

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
<u>COSTS TO DESTROY:</u>						
STUBBLE DISC BORDERS 1X	.06	.38	.91	.57	-	1.85
PLOW 1X	.40	2.55	4.63	1.61	-	8.79
MOVE EQUIP., SET UP & SERVICE @ 10% OF LABOR COSTS	-	.29	-	-	-	.29
<u>CASH COSTS TO DESTROY:</u>	-	<u>3.22</u>	<u>5.54</u>	<u>2.18</u>	-	<u>10.94</u>
<u>TOTAL CASH COSTS TO ESTABLISH & DESTROY:</u>					\$	243.45
<u>INVESTMENT COSTS:</u>						
INTEREST & DEPRECIATION (tractors & implts.)	-	-	-	-	14.07	14.07
<u>TOTAL ALL COSTS TO ESTABLISH & DESTROY: (per acre)</u>					\$	257.52

ALFALFA HAY (4 YEAR LIFE)
 400 ACRES ON A 2,900 ACRE FARM
 LEASE BASIS - 25% OF GROSS SALES TO LANDLORD
 YIELD 7 TONS

	HOURS/ ACRE	CASH COSTS PER ACRE				TOTAL
		LABOR	TRACTOR	IMPLT.	MATERIAL	
CASH GROWING COSTS:						
IRRIGATE 8X @ \$5.49/HR.	5.00	27.45	-	-	-	27.45
WATER (CASH COST 4 AC.FT.) (1/2 PUMP @ \$20.32/AC.FT.) (1/2 SURFACE @ \$9.98/AC.FT.)	-	-	-	-	60.60	60.60
DITCH (OPEN & CLOSE) 2X	.10	.64	1.51	.48	-	2.63
INSECT CONTROL 2.5X						
MATERIALS	-	-	-	-	16.34	16.34
AIRPLANE	-	-	-	-	13.75	13.75
WINTER WEED CONTROL						
MATERIALS	-	-	-	-	24.66	24.66
GROUND APPLICATION (CUSTOM)	-	-	-	-	5.50	5.50
MISC. EQUIPMENT USE	-	.53	.78	.47	-	1.78
PICKUP & TRUCK USE	-	-	-	2.54	-	2.54
MOVE EQUIP., SET UP & SERVICE @ 10% OF LABOR COSTS	-	.12	-	-	-	.12
TOTAL GROWING COSTS:		<u>28.73</u>	<u>2.29</u>	<u>3.50</u>	<u>120.85</u>	<u>155.37</u>
SUPERVISORS SALARIES, ACCOUNTING, OFFICE EXPENSE	-	-	-	-	24.33	24.33
BUILDINGS (TAXES, INS., REPAIRS)	-	-	-	-	1.00	1.00
PRODUCTION LOAN INTEREST COST	-	-	-	-	11.04	11.04
EQUIPMENT LOAN INTEREST COST	-	-	-	-	3.84	3.84
TOTAL PRE HARVEST CASH COSTS:						<u>195.58</u>
HARVEST COSTS: (CONTRACT @ \$25/TON X 7 TONS/ACRE)					175.00	175.00
LANDLORD SHARE - 25% OF 7 TONS @ \$80/TON					140.00	140.00
TOTAL CASH COSTS PER YEAR:					\$	<u>510.58</u>

ALFALFA CONTINUED

TOTAL

INVESTMENT COSTS:

BUILDINGS (interest & depreciation)	5.69
TRACTORS & IMPLEMENTS (interest & depreciation)	14.07
STAND ESTABLISHMENT @ \$257.52 (depreciation over 4 years)	64.38
(interest on investment)	15.45
<u>TOTAL ALL COSTS PER ACRE:</u>	<u>\$ 610.16</u>

COSTS PER TON: \$ 87.17

COST PER TON AT VARIOUS YIELDS

5 TONS	104.03
6 TONS	94.19
7 TONS	87.17
8 TONS	81.90
9 TONS	77.80

MANAGEMENT FEE @ 5% OF GROSS INCOME:

(usual charge for management not included in this study)

\$ 28.00

FIELD CORN
 600 ACRES FOLLOWING WHEAT, CORN, ALFALFA OR SUGAR BEETS ON A 2900 ACRE FARM
 LEASE BASIS - 25% OF GROSS SALES TO LANDLORD (LANDLORD PAYS 25% OF DRYING COSTS)
 YIELD - 9,000 LBS/ACRE

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
<u>SEED BED PREPARATION:</u>						
FALL:						
PLOW (1/2 ACRES)	.20	1.27	2.31	.81	-	4.40
SUBSOIL & ROLL (1/2 ACRES)	.20	1.27	4.11	.94	-	6.33
TRIPLANE 2X	.34	2.17	5.14	1.23	-	8.54
LIST UP BEDS (1/2 ACRES)	.13	.83	1.23	.17	-	2.24
HERBICIDE (1/2 ACRES)	-	-	-	-	5.75	5.75
AIRPLANE (1/2 ACRES)	-	-	-	-	2.75	2.75
SPRING:						
SPRINGTOOTH 2X (1/2 ACRES)	.08	.51	1.21	.39	-	2.11
LIST UP BEDS (1/2 ACRES)	.13	.83	1.23	.17	-	2.24
INCORPORATE HERBICIDE (1/4 ACRES)	.05	.32	.38	.13	-	.83
HERBICIDE (1/4 ACRES)	-	-	-	-	5.45	5.45
ROLLING CULTIVATOR (ALL ACRES)	.20	1.27	1.54	.52	-	3.33
MOVE EQUIP., SET & SERVICE @ 10% OF LABOR COSTS	-	.85	-	-	-	.85
<u>TOTAL SEEDBED PREPARATION COSTS:</u>		<u>9.32</u>	<u>17.16</u>	<u>4.37</u>	<u>13.95</u>	<u>44.80</u>
<u>PLANTING:</u>						
PLANT	.33	2.32	2.63	1.68	-	6.63
SEED 18 LBS. @ \$1.27/LB.	-	-	-	-	22.86	22.86
STARTER FERTILIZER @ 15 GALS/ACRE (@ \$1.50/GAL. + \$1.75 ZINC)	-	-	-	-	24.75	24.75
MOVE EQUIPMENT SET UP & SERVICE @20% OF LABOR COSTS	-	.46	-	-	-	.46
<u>TOTAL PLANTING COSTS:</u>		<u>2.79</u>	<u>2.63</u>	<u>1.68</u>	<u>47.61</u>	<u>54.70</u>

CORN CONT.

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
<u>GROWING COSTS:</u>						
BREAK CRUST (10% ACRES)	.02	.13	.15	.05	-	.33
CUTWORM CONTROL (1/3 ACRES)						
MATERIAL	-	-	-	-	7.50	7.50
AIRPLANE	-	-	-	-	1.83	1.83
ROLLING CULTIVATOR	.17	1.08	1.31	.72	-	3.11
FURROW & SIDE DRESS	.29	1.85	2.75	.50	-	5.10
200 LBS. N @ 24c/LB.	-	-	-	-	48.00	48.00
DITCH & CLOSE 2X	.10	.70	1.51	.24	-	2.46
IRRIGATE 6X @ 1.25 HRS./ACRE	7.50	41.18	-	-	-	41.18
WATER 1.5 AC.FT. @ \$9.98/FT.	-	-	-	-	14.97	14.97
1.5 AC.FT. WELL @ \$20.32	-	-	-	-	30.48	30.48
HERBICIDE - GROUND RIG(1/2 ACRES)	.08	.51	.62	.05	-	1.18
2,4-D AMINE @ 8 OZ. (1/2 ACRES)	-	-	-	-	.69	.69
MITICIDE - CUSTOM	-	-	-	-	5.50	5.50
MATERIAL	-	-	-	-	14.75	14.75
MOVE EQUIP., SET UP & SERVICE @ 15% OF LABOR COST	-	6.82	-	-	-	6.82
<u>TOTAL GROWING COSTS:</u>		<u>52.26</u>	<u>6.34</u>	<u>1.57</u>	<u>123.72</u>	<u>183.89</u>
<u>MISCELLANEOUS COSTS:</u>						
SUPERVISORS SALARIES, ACCOUNTING, OFFICE EXPENSE	-	-	-	-	26.88	26.88
PRODUCTION LOAN INTEREST COST	-	-	-	-	20.94	20.94
PICKUP AND TRUCK USE	-	-	-	-	2.81	2.81
MISC. EQUIPMENT USE	-	.58	.86	.52	-	1.96
EQUIPMENT LOAN INTEREST COST	-	-	-	-	10.59	10.59
BUILDING (TAXES, INS., REPAIRS)	-	-	-	-	1.00	1.00
<u>TOTAL MISCELLANEOUS COSTS:</u>		<u>.58</u>	<u>.86</u>	<u>.52</u>	<u>62.22</u>	<u>64.18</u>

CORN CONT.

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
<u>HARVEST COSTS:</u>						
COMBINE	.22	1.55	5.77	2.00	-	9.31
BANKOUT WAGON	.22	1.40	1.69	.26	-	3.36
CHOP STUBBLE	.25	1.59	2.37	1.03	-	4.99
DRYING (1/2 CORN @ \$ 4.40/TON)	-	-	-	-	7.43	7.43
<u>TOTAL HARVEST COSTS:</u>		4.54	9.83	3.29	7.43	25.09
<u>POST HARVEST COSTS:</u>						
STUBBLE DISC	.22	1.40	4.52	2.07	-	8.00
<u>TOTAL CULTURAL AND HARVEST COSTS:</u>						380.67
SHARE RENT (25% of gross, less 1/4 of drying & dockage)		-		-	118.79	118.79
DOCKAGE, TENNANTS SHARE(2% OF 90 CWT.)		-		-	7.43	7.43
<u>TOTAL CASH COSTS:</u>						506.88
<u>INVESTMENT COSTS:</u>						
BUILDINGS (INTEREST & DEPRECIATION)		-		-	5.69	5.69
TRACTORS & IMPLT. (INT. & DEPREE.)		-		-	28.63	28.63
<u>TOTAL INVESTMENT COSTS:</u>					34.32	34.32
<u>TOTAL ALL COSTS PER ACRE:</u>						541.20
<u>COST PER CWT.</u>		-		-		6.01

(Management fee @ 5% of gross income - 90/cwt. @ \$ 5.50/cwt) -- (\$ 24.75)
(usual charge for management not includin this study)

SUGAR BEETS (22 TONS/ACRE - 15% SUGAR)
 300 ACRES FOLLOWING WHEAT
 SPRING PLANTING/FALL HARVEST

	HOURS/ ACRE	CASH COSTS PER ACRE				TOTAL
		LABOR	TRACTOR	IMPLT.	MATERIAL	
<u>FALL GROUND PREPARATION:</u>						
BALE STRAW(CUSTOM - NO CHARGE)						
V DITCH, OPEN & CLOSE	.05	.35	.76	.24	-	1.35
PRE-IRRIGATE	1.25	6.86	-	-	-	6.86
WATER	-	-	-	-	11.36	11.36
MISC(SHOVELS & DAMS)	-	-	-	-	.30	.30
DISC 2X	.26	1.66	3.93	1.79	-	7.38
TRIPLANE 2X	.34	2.17	5.14	1.23	-	8.54
LIST	.25	1.76	2.37	.34	-	4.47
MOVE EQUIP. SET UP & SERVICE @ 10% OF LABOR COSTS	-	.59	-	-	-	.59
<u>TOTAL GROUND PREP. COSTS:</u>		<u>13.39</u>	<u>12.20</u>	<u>3.60</u>	<u>11.66</u>	<u>40.85</u>
<u>PLANTING</u>						
FALL (150 ACRES)						
INCORP. HERB. 1X	.17	1.20	1.61	.63	18.36	21.80
APPLY FERT. & PLANT	.17	1.20	1.31	.86	-	3.37
SEED 2 LBS.	-	-	-	-	8.00	8.00
STARTER FERT, 10 GALS.	-	-	-	-	8.38	8.38
SPRING (150 ACRES)						
WINTER WEED CONTROL 2X AIR	-	-	-	-	16.89	16.89
LILLISTON 2X	.20	1.41	1.54	.52	-	3.47
PLANT WITHOUT FERTILIZER	.17	1.20	1.31	.86	-	3.37
SEED 2 LBS.	-	-	-	-	8.00	8.00
WEED CONTROL, BAND SPRAY	-	-	-	-	14.93	14.93
RECUITIVATE (30 ACRES)	.03	.21	.28	.04	-	.54
REPLANT (30 ACRES)	.03	.21	.23	.14	-	.58
SEED	-	-	-	-	1.60	1.60
MOVE EQUIP. SET UP & SERVICE @ 20% OF LABOR COSTS	-	1.08	-	-	-	1.08
<u>TOTAL PLANTING COSTS:</u>		<u>6.50</u>	<u>6.28</u>	<u>3.06</u>	<u>76.16</u>	<u>92.01</u>

SUGAR BEETS CONT.

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
<u>GROWING:</u>						
CULTIVATE	.33	2.32	3.13	.44	-	5.90
CUTWORM BAIT (1/3 AC.)					3.77	3.77
FLAT ROLL	.12	.76	.92	.14	-	1.83
THIN (ELECTRONIC)	.33	2.32	2.54	2.44	-	7.30
HOE					50.00	50.00
FERTILIZE 90 LBS. N	.33	2.32	3.13	.57	21.60	27.63
LAYBY HERBICIDE	.25	1.76	1.92	.75	9.51	13.94
ROLLING CULTIVATOR	.20	1.41	1.54	.52	-	3.47
V DITCH, OPEN & CLOSE 3X	.15	1.06	2.27	.72	-	4.05
IRRIGATE 7X	8.75	48.04	-	-	-	48.04
WATER	-	-	-	-	60.60	60.60
MISC. (SHOVELS, DAMS)	-	-	-	-	2.00	2.00
INSECT & DISEASE CONTROL						
AIRPLANE 3X	-	-	-	-	16.50	16.50
WORMS 1X	-	-	-	-	11.58	11.58
MILDEW 2X, SULFUR	-	-	-	-	9.47	9.47
MOVE EQUIP. SET UP & SERVICE @ 15% OF LABOR COSTS(-HOE, IRRIG.)	-	1.79	-	-	-	1.79
<u>GROWING COSTS:</u>		<u>61.79</u>	<u>15.46</u>	<u>5.59</u>	<u>185.02</u>	<u>267.86</u>
<u>MISCELLANEOUS COSTS:</u>						
PICKUP & TRUCK USE	-	-	-	-	4.49	4.49
SUPERVISORS' SALARIES, ACCOUNTING OFFICE EXPENSE	-	-	-	-	43.01	43.01
BUILDING (TAXES, INS., REPAIRS)	-	-	-	-	1.00	1.00
MISC. EQUIP. USE	-	.93	1.37	.84	-	3.14
PRODUCTION LOAN INTEREST COST	-	-	-	-	27.58	27.58
EQUIPMENT LOAN INTEREST COST	-	-	-	-	7.31	7.31
<u>MISCELLANEOUS COSTS:</u>		<u>.93</u>	<u>1.37</u>	<u>.84</u>	<u>83.39</u>	<u>86.54</u>
<u>TOTAL PRE-HARVEST CASH COSTS:</u>					\$	<u>487.26</u>

SUGAR BEETS CONT.		TOTALS
HARVEST COSTS: (CUSTOM) (top & dig, \$2/ton; haul, \$2.75/ton)		104.50
PRODUCTION & HARVEST CASH COSTS:	\$	591.76
LANDLORD SHARE (20% X 22 tons @ \$36/ton)		158.40
TOTAL CASH COSTS:	\$	750.16
INVESTMENT COSTS:		
BUILDING (interest & depreciation)		5.69
TRACTORS & IMPLTS. (int. & deprec.)		26.48
TOTAL INVESTMENT COSTS:		32.17
TOTAL ALL COSTS/ACRE:	\$	782.33
COST PER TON @ 22 TONS/ACRE:	\$	35.56

COST SUMMARY:		CASH	NON-CASH	TOTAL
COST PER ACRE (22 ton yield, 15% sugar)				
GROWING		487.26	32.17	519.43
HARVEST		104.50	-	104.50
LANDOWNER		158.40	-	158.40
TOTAL:	\$	750.16	32.17	782.33

COST PER TON (25 ton yield, 15% sugar)				
GROWING		19.49	3.01	22.50
HARVEST		4.75	-	4.75
LANDOWNER		7.20	-	7.20
TOTAL:	\$	31.44	3.01	34.45

COST PER TON (30 ton yield, 15% sugar)				
GROWING		16.24	1.07	17.31
HARVEST		4.75	-	4.75
LANDOWNER		7.20	-	7.20
TOTAL:	\$	28.19	1.07	29.26

MANAGEMENT FEE @ 5% OF GROSS INCOME:
 (usual charge for management not included in this study)

\$ 39.60

TOMATOES (25 TONS PER ACRE)
 700 ACRES IN ROTATION FOLLOWING WHEAT OR CORN (1/2 EACH)
 TWO HARVESTER OPERATION (BOTH ELECTRONIC)

	HOURS/ ACRE	CASH COSTS PER ACRE				TOTAL
		LABOR	TRACTOR	IMPLT.	MATERIAL	
<u>SEED BED PREPARATION:</u>						
<u>FALL WORK:</u>						
FLOW 1/2 ACRES @ .4 HR/ACRE	.20	1.27	2.31	.81	-	4.40
LASERPLANE 10% ACRES @ \$120/AC.	-	-	-	-	12.00	12.00
SUBSOIL 1/2 AC. 2X AFTER WHEAT	.40	2.55	8.22	1.89	-	12.65
SUBSOIL 1/2 AC. 1X AFTER CORN	.20	1.27	4.11	.94	-	6.33
TRIPLANE 2X	.34	2.17	5.14	1.23	-	8.54
DISC 1X	.13	.83	1.96	.90	-	3.69
LIST (ALL FALL BEDDED)						
WITHOUT NEMATICIDE (3/4 AC.)	.19	1.34	1.80	.25	-	3.40
W/NEMATICIDE (1/4 ACRES)	.09	.63	.85	.16	26.38	28.02
FLAT ROLL TO SHAPE	.12	.76	.92	.14	-	1.83
POWER INCORP. TO SHAPE (1/3 AC.)	.25	1.76	2.89	.83	-	5.48
FALL APPLIED HERBICIDE (3/4 AC.)	.09	.63	.69	.10	15.60	17.02
CONTACT HERB. BY AIR 1X	-	-	-	-	17.36	17.36
<u>SPRING WORK:</u>						
CULTIVATE (2/3 AC.) 1X	.09	.63	.85	.12	-	1.61
RE-CULTIVATE (1/3 AC.) 1X	.05	.35	.47	.07	-	.89
MOVE EQUIP. SET UP & SERVICE @ 10% OF LABOR COSTS	-	1.42	-	-	-	1.42
<u>TOTAL LAND PREPARATION COSTS:</u>		<u>15.63</u>	<u>30.24</u>	<u>7.44</u>	<u>71.34</u>	<u>124.64</u>

TOMATOES CONT.

CASH COSTS PER ACRE

	HOURS/ ACRE	CASH COSTS PER ACRE				TOTAL
		LABOR	TRACTOR	IMPLT.	MATERIAL	
PLANTING:						
PLANT 2 ROWS (2 PEOPLE)						
LIGHTWEIGHT TRACKLAYER 20%	.07	.84	.71	.36	-	1.92
WHEEL TRACTOR 80%	.26	3.14	2.07	1.34	-	6.55
SEED 2/3 HYBRID @ 1/2 LB.	-	-	-	-	60.00	60.00
1/3 O.P. @ 1 LB.	-	-	-	-	6.67	6.67
STARTER FERT. 18 GALS./AC.	-	-	-	-	24.61	24.61
HERB., SURFACE SPRAY 40% AREA	.12	.84	.92	.13	19.30	21.20
CRUST BREAKER FOR GERMINATION	.40	2.82	3.08	.54	-	6.43
REPLANT (SEED ONLY) 10% AC.	.03	.36	.24	.15	6.67	7.43
MOVE EQUIP., SET UP & SERVICE 20% OF LABOR COSTS	-	1.60	-	-	-	1.60
TOTAL PLANTING COSTS:		<u>9.61</u>	<u>7.02</u>	<u>2.52</u>	<u>117.25</u>	<u>136.40</u>
GROWING:						
SPRINKLE IRRIG. STAND ESTAB.						
1/6 AC. NATURAL RAINFALL	-	-	-	-	-	-
1/6 AC. EARLY, SPRINKLE 1X	.36	1.98	-	.94	.21	3.13
1/3 AC. MID-SEASON, SPRINK. 2.5X	1.80	9.88	-	4.61	1.05	15.54
1/3 AC. LATE, SPRINKLE 3X	2.16	11.86	-	5.54	1.26	18.66
CULTIVATE	.25	1.76	2.37	.34	-	4.47
THIN (ELECTRONIC) 1/3 AC.	.11	.77	.85	.81	-	2.43
HOE (HAND WEED)	-	-	-	-	70.00	70.00
FERT. 125 LB. @ 24c	.33	2.32	3.13	.57	30.00	36.03
V DITCH, OPEN & CLOSE 3X	.15	1.06	2.27	.72	-	4.05
IRRIGATE 7X @ 1.25 HR./AC.	8.75	48.04	-	-	-	48.04
WATER 4 AC. FT.	-	-	-	-	60.60	60.60
MISC. EQUIP. (SHOVELS, DAMS)	-	-	-	-	2.00	2.00
LAYBY HERBICIDE	.40	2.82	4.63	1.49	5.65	14.59
CULTIVATE	.29	2.04	2.75	.39	-	5.18
CULTIVATE WITH HI-CROP	.33	2.32	2.63	.44	-	5.40
VINE TRAINER 1/2 AC.	.20	1.41	1.59	.23	-	3.24
MOVE EQUIP., SETUP & SERVICE @ 15% OF LABOR COSTS	-	2.18	-	-	-	2.18
TOTAL GROWING COSTS:		<u>88.43</u>	<u>20.23</u>	<u>16.09</u>	<u>170.77</u>	<u>295.52</u>

TOMATOES CONT.	CASH COSTS PER ACRE					TOTAL
	HOURS/ ACRE	LABOR	TRACTOR	IMPLT.	MATERIAL	
<u>GROWING - INSECT CONTROL:</u>						
AIRPLANE APPLICATION 3.5X @ \$5.50	--	--	--	--	19.25	19.25
FLEA BEETLE 1/4 AC.	--	--	--	--	1.36	1.36
CUTWORMS, BAIT 1/4 AC.	--	--	--	--	5.65	5.65
WORM CONTROL 2X	--	--	--	--	27.46	27.46
SULFUR DUST 35 LBS.	--	--	--	--	4.14	4.14
MOLD CONTROL WITH INSECTICIDE 1/3 AC. 2X	--	--	--	--	9.92	9.92
ETHEPHON 1/5 AC.	.03	.21	.24	.03	7.25	7.73
WHITEWASH 1/5 AC. CUSTOM	--	--	--	--	6.40	6.40
MOVE EQUIP. SET UP & SERVICE 15% OF LABOR COSTS	--	.03	--	--	--	.03
TOTAL - INSECT CONTROL COSTS:		<u>.24</u>	<u>.24</u>	<u>.03</u>	<u>81.43</u>	<u>81.94</u>
<u>MISCELLANEOUS:</u>						
PICKUP & TRUCK USE	--	--	--	--	4.91	4.91
SUPERVISORS SALARIES, ACCOUNTING, OFFICE EXPENSE	--	--	--	--	47.07	47.07
MISC. EQUIP. USE	--	1.02	1.50	.92	--	3.44
BUILDING (TAXES, INS., REPAIRS)	--	--	--	--	.67	.67
PRODUCTION LOAN INTEREST COST	--	--	--	--	29.39	29.39
EQUIPMENT LOAN INTEREST COST	--	--	--	--	14.32	14.32
CROP INSURANCE, ALL ACRES	--	--	--	--	30.00	30.00
TOTAL - MISCELLANEOUS COSTS:		<u>1.02</u>	<u>1.50</u>	<u>.92</u>	<u>126.35</u>	<u>129.79</u>
TOTAL, PRE-HARVEST CASH COSTS:					\$	<u>768.29</u>

TOMATOES CONT.

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
HARVEST EXPENSE:						
NEW MACHINE 3/4 AC. (7 AC./SHIFT) (TWO 10 HR. SHIFTS)	1.07	-	33.72	-	-	33.72
OLD MACHINE 1/4 AC. (7 AC./SHIFT) (ONE 10 HR. SHIFT, PART SEASON)	.36	-	18.84	-	-	18.84
DRIVER, HARVESTER	1.43	10.07	-	-	-	10.07
6 SORTERS	8.58	43.16	-	-	-	43.16
4 DOLLIES (5TH WHEELS)	2.50	-	-	.80	-	.80
(2)TRACTOR & DRIVER 3/4 AC.	2.14	13.63	20.31	-	-	33.95
(1)TRACTOR & DRIVER 1/4 AC.	.36	2.29	4.17	-	-	6.46
AVENUE OPENER 7% OF ACRES (TRACTOR & DRIVER)	.10	.70	1.16	.35	-	2.21
LIGHTING SYSTEM	.54	-	-	2.42	-	2.42
MISC.EQUIP.\$40/DAY X 18 AC./DAY	-	-	-	-	2.22	2.22
MISC. SUPPLIES \$25/DAY	-	-	-	-	1.39	1.39
TOILET FACILITIES	-	-	-	-	.37	.37
INSPECTION FEES	-	-	-	-	4.50	4.50
MISC. (ASSN., CTRI, LF.HOP., 25c/TON)	-	-	-	-	6.25	6.25
REJECT LOADS 1% DIRECT HARV.COSTS	-	-	-	-	1.52	1.52
PICKUP & TRUCK USE	-	-	-	-	2.46	2.46
SUPERVISORS, SALARIES, ACCOUNTING, OFFICE EXPENSE	-	-	-	-	23.53	23.53
BUILDING (TAXES, INS., REPAIRS)	-	-	-	-	.33	.33
MISC. EQUIP. USE (LOW BED, ETC)	-	.51	.75	.46	-	1.72
EQUIP. LOAN INTEREST COST	-	-	-	-	14.32	14.32
MOVE EQUIP., SET UP, SERVICE & CLEAN @ 15% OF LABOR (-SORTERS)	-	4.08	-	-	-	4.08
TOTAL CASH HARVEST COSTS:		<u>74.45</u>	<u>78.95</u>	<u>4.03</u>	<u>56.88</u>	<u>214.31</u>

TOTAL HARVEST COSTS	
CASH HARVEST COSTS	214.31
EQUIP. (INT. & DEPREC.)	85.00
TOTAL:	\$ 299.31

TOMATOES CONT.

COSTS/ACRE

PRODUCTION AND HARVEST CASH COSTS:	982.60
LANDLORD SHARE (16% X \$52 X 25 TONS)	208.00
TOTAL CASH COSTS:	\$ 1190.60
INVESTMENT:	
BUILDINGS (interest & depreciation)	5.69
TRACTORS & IMPLTS. (int. & depreciation)	144.85
TOTAL INVESTMENT COSTS:	150.54
GRAND TOTAL ALL COSTS PER ACRE:	\$ 1341.14
TOTAL COST/TON @ 25 TONS/AC.	\$ 53.65

SUMMARY

DOLLARS PER ACRE @ 25 TONS PER ACRE

	CASH	NON-CASH	TOTAL
GROWING	\$ 768.29	65.54	833.83
HARVEST	214.31	85.00	299.31
LANDLORD	208.00	-	208.00
TOTAL COST PER ACRE:	\$ 1190.60	150.54	1341.14

COST PER TON @ VARIOUS YIELDS:	20 T/AC.	25 T/AC.	30 T/AC.
CASH GROWING COSTS	\$ 38.41	30.73	25.61
NON-CASH GROWING COSTS	3.28	2.62	2.18
CASH HARVEST COSTS	10.72	8.57	7.14
NON-CASH HARVEST COSTS	4.25	3.40	2.83
LANDLORD - 16% @ \$52/TON	8.32	8.32	8.32
TOTAL COST PER TON:	\$ 64.98	53.64	46.08

MANAGEMENT FEE @ 5% OF GROSS INCOME
(usual charge for management not included in this study)

(\$65/ACRE)

WHEAT
 900 ACRES FOLLOWING TOMATOES, CORN OR ALFALFA ON A 2,900 ACRE FARM
 LEASE BASIS - 1/3 OF GROSS SALES TO LANDLORD
 YIELD - 5,500 LBS/ACRE

	HOURS/ ACRE	CASH COSTS PER ACRE				TOTAL
		LABOR	TRACTOR	IMPLT.	MATERIAL	
<u>SEED BED PREPARATION</u>						
DISC 2X	.26	1.66	3.93	1.79	-	7.38
FERTILIZE (1/2 ACRES)	.05	.32	.76	-	-	1.07
RENT TAG A LONG @ \$3.00/ACRE	-	-	-	-	1.50	1.50
NITROGEN 100 LBS. N @ 24c/LB.	-	-	-	-	12.00	12.00
RIDGE FOR IRRIGATION (1/2 ACRES)	.03	.19	.28	.10	-	.57
LIST UP BEDS (1/2 ACRES)	.13	.83	1.23	.17	-	2.24
HARROW & ROLL	.08	.51	1.21	.41	-	2.13
MOVE EQUIP., SETUP & SERVICE @ 10% OF LABOR COSTS	-	.35	-	-	-	.35
<u>TOTAL SEED BED PREPARATION COSTS:</u>		<u>3.85</u>	<u>7.41</u>	<u>2.48</u>	<u>13.50</u>	<u>27.24</u>
<u>PLANTING</u>						
DRILL & FERTILIZE	.13	.83	1.00	.93	-	2.76
SEED 120 LBS. @ \$10/CWT.	-	-	-	-	12.00	12.00
STARTER FERT. (N + P 80 LBS.) @ 13.6c/LB.	-	-	-	-	10.88	10.88
MOVE EQUIPMENT., SETUP & SERVICE @ 20% OF LABOR COSTS	-	.17	-	-	-	.17
<u>TOTAL PLANTING COSTS:</u>		<u>.99</u>	<u>1.00</u>	<u>.93</u>	<u>22.88</u>	<u>25.81</u>
<u>GROWING:</u>						
HERBICIDE - GROUND RIG 1/4 ACRES	.04	.25	.31	.03	-	.59
AIRPLANE - 1/2 ACRES	-	-	-	-	2.75	2.75
(2,4-D @ 10 OZ/AC. - 3/4 AC.)	-	-	-	-	1.28	1.28
FERTILIZE - TOPDRESS (1/2 ACRES)	-	-	-	-	9.30	9.30
(60 LBS. N @ 31c/LB.)	-	-	-	-	2.25	2.25
AIRPLANE	-	-	-	-	-	-

WHEAT CONT.

	HOURS/ ACRE	CASH COSTS PER ACRE				
		LABOR	TRACTOR	IMPLT.	MATERIAL	TOTAL
GROWING CONT.						
DITCH (OPEN & CLOSE)	.05	.32	.76	.12	-	1.19
IRRIGATE @ 1.25 HRS./ACRE	1.25	6.86	-	-	-	6.86
WATER 1/4 ACRE FT. @ \$9.98	-	-	-	-	2.50	2.50
1/4 ACRE FT. WELL @ \$20.32	-	-	-	-	5.08	5.08
MOVE EQUIP., SETUP & SERVICE @ 15% OF LABOR COSTS	-	.05	-	-	-	.05
TOTAL GROWING COSTS:		<u>7.48</u>	<u>1.06</u>	<u>.15</u>	<u>23.16</u>	<u>31.85</u>
MISCELLANEOUS:						
SUPERVISORS SALARIES, OFFICE EXP.	-	16.43	-	-	-	16.43
PRODUCTION LOAN INTEREST COST	-	-	-	-	7.81	7.81
PICKUP & TRUCK USE	-	-	1.72	-	-	1.72
MISC. EQUIPMENT USE	-	.36	.52	.32	-	1.20
EQUIPMENT LOAN INTEREST COST	-	-	-	-	5.87	5.87
BUILDINGS (TAXES, INS., REPAIRS)	-	-	-	-	1.00	1.00
TOTAL MISCELLANEOUS COSTS:		<u>16.78</u>	<u>2.24</u>	<u>.32</u>	<u>14.68</u>	<u>34.02</u>
HARVEST:						
COMBINE	.23	1.62	6.03	-	-	7.65
BANKOUT WAGON	.23	1.47	.88	.28	-	2.63
TOTAL HARVEST COSTS:		<u>3.08</u>	<u>6.91</u>	<u>.28</u>	<u>-</u>	<u>10.28</u>
POST HARVEST COSTS:						
STUBBLE DISC	.22	1.40	4.52	2.07	-	8.00
TOTAL CULTURAL AND HARVEST COSTS:					\$	<u>137.20</u>
SHARE RENT (1/3 gross income)(55 cwt. @ \$5.50/cwt. x 1/3) (ASCS defic. payment not included)						100.83
TOTAL CASH COSTS:					\$	<u>238.03</u>

WHEAT CONT.

					<u>TOTAL</u>
<u>INVESTMENT:</u>					
BUILDINGS (INTEREST & DEPREC.)	-	-	-	-	5.69
TRACTORS & IMPLEMENTS (INT. & DEPRE.)	-	-	-	-	21.14
<u>TOTAL INVESTMENT COSTS:</u>					<u>26.83</u>
<u>TOTAL COSTS PER ACRE:</u>				\$	<u>264.86</u>
<u>COST PER 100 WEIGHT:</u>				\$	<u>4.82</u>

MANAGEMENT FEE @ 5% OF GROSS INCOME - 55 CWT. @\$5.50/CWT — (\$ 15.13)
 (usual charge for management not included in this study)

COSTS OF EQUIPMENT - YOLD C
(Annual & Hourly Costs)

EQUIPMENT	SIZE	TRACTOR USED	YEARS LIFE	ACRES PER HOUR	ORIGINAL COST	DEPRE- CIATION	INTERES COST
TRACTOR (USED) DRAWBAR HP	144 HP		15		47000	3133	282
TRACKLAYER (NEW)	125 HP		15		114000	7600	684
TRACKLAYER (NEW)	125 HP		15		114000	7600	684
TRACKLAYER, LIGHTWEIGHT	50 HP		15		12000	800	72
WHEEL TRACTOR - (PTO HP.)	165 HP		10		63700	6370	382
WHEEL TRACTOR	135 HP		10		54000	5400	324
WHEEL TRACTOR	135 HP		10		54000	5400	324
WHEEL (HIGH CLEARANCE)	110 HP		10		45700	4570	274
WHEEL TRACTOR (USED)	90 HP		10		5000	500	30
WHEEL TRACTOR (USED)	90 HP		10		5000	500	30
SUBSOILER (3 SHANK X 24")	8'	T144	15	2.50	8000	533	48
TRIPLANE	16 X 40'	T125	15	6.00	20000	1333	120
OFFSET DISC	26'	T125	15	8.00	18000	1200	108
STUBBLE DISC	14'	T144	15	4.50	24000	1600	144
SPRINGTOOTH	32'	T125	15	12.00	7000	520	46
SMED HARROW & CART	32'	T125	15	12.00	7600	507	45
RIMS ROLLER (AFTER HARROWS)	32'		15	12.00	5500	357	32
ROLLING CULTIVATORS (2)	16'	W90	15	5.00	3000	200	18
LARGE ROLLER (36" DIAMETER)	12'		15	2.50	7000	520	46
INCORPORATOR (2)	15'	W135-165	10	2.50	21000	2100	126
CULTIVATOR SLEDS (6)	16'	W90-135	15	3.50	16200	1080	97
CORN-BEET PLANTERS(6) ON SLED		W90-135	15	3.00	6900	460	41
TOMATO PLANTERS (6) ON SLED		W90-135	15	3.00	6900	460	41
V DITCHER (USED)		T125	15	20.00	4000	320	28
GRAIN DRILL	20'	W90	15	8.00	11400	760	66
PLOW 2 WAY X 5-16 BOTTOMS	5-16	W165	15	2.50	10150	677	60
SPRAYER SYSTEM		W90	15		500	33	3
SADDLE TANKS (4 SETS)		W135	15		6000	453	40
GRAIN COMBINE 20' HEADER	20'		10	4.50	84300	8430	582
CORN HEADER - 8 ROW	8 ROW	COMB.	10	5.00	21300	2130	127
TOMATO HARVESTER (NEW)			5	.70	140000	28000	844
TOMATO HARVESTER (USED)			5	.70	60000	12000	364
TRUCKS - 2 TON FLATBED (2 USED)			10		16000	1600	91
PICKUPS 3/4 TON (2)			5		20000	4000	124
PICKUPS, COMPACT (2)			5		15000	3000	91
LOWBED W/TRACTOR (USED)			15		15000	1000	91

COSTS OF EQUIPMENT CONT.

COSTS OF EQUIPMENT - YOLO COU
(Annual & Hourly Cost)

EQUIPMENT	SIZE	TRACTOR USED	YEARS LIFE	ACRES PER HOUR	ORIGINAL COST	DEPRECIATION	INTEREST COST
IMPLEMENT CARRIER		3/4 TON	15		5000	333	3
ELECTRONIC THINNERS (2)		W90	10	3.00	10000	1000	6
B. G. SCRAPER	10'	W90	10	4.00	2500	250	1
DOLLIES (4) (FOR BULK TRAILERS)		W90	15		3400	227	2
VINE DIVERTER		W135	15		5000	333	3
BANKOUT WAGON		W90	15		7000	520	4
DITCH CLOSER		T125	15	20.00	5800	387	3
ANGLE BLADE		W135	15		2600	173	1
SMALL DISC	9'	T125	15		6500	433	3
VINE TRAINER		W135	15	4.00	2500	167	1
GENERATOR, LIGHTS (USED)			15	.00	4500	300	2
FLAT ROLLER	16'	W90	15	8.00	2500	167	1
ALLOWAY	16'	W135	10	6.00	6000	600	3
FLAIL CHOPPER 15'	15'	W135	10	4.00	8100	810	4
DISC RIDGER		W135	15	17.00	4500	300	2
FUEL WAGONS		3/4 TON	10		2000	200	1
CLOSED MIX SPRAY SYSTEM			10		2000	200	1

TOTAL ORIGINAL COST OF EQUIPMENT:

\$ 1153850

SPRINKLER EQUIPMENT:

1/4 MILE WHEEL MOVES, COMPLETE (6)			10	2.4 ACRES/	81000	8100	48
1-1/2 MILES, 8" MAIN LINE			10	1/4 MI.	38016	3802	22
800 GPM PUMP WITH DIESEL ENGINE			10	LINE/SET	13000	1300	7
ADDITIONAL PIPE MOVERS (2 USED)			7		2000	286	1

IRRIGATION PUMPS & WELLS:

\$ 134816

(Not used in this cost study - listed only to show total cost of pumping as compared to irrigation with surfa

WELL, 450 DEPTH, 16" OD CASING (gravel pack)			20	1350 GPM	20000	1048	12
75 HP PUMP, HOOK-UP, WELL DEVELOPMENT			20		17400	870	10

ESTIMATED HOURLY EQUIPMENT COSTS
(adjusted for standard hours of use & based on original cost)

EQUIPMENT	SIZE	YEARS LIFE	ACRES/ HOUR	ORIGINAL COST	REPAIRS HOUR	HOURS YEAR	FUEL GALS/HR	TX, INS. REPAIR
TRACTOR (USED) DRAWBAR HP	144 HP	15		47000	11.82	1200	8.10	
TRACKLAYER (NEW)	125 HP	15		114000	7.83	1200	7.83	
TRACKLAYER (NEW)	125 HP	15		114000	7.83	1200	7.83	
TRACKLAYER, LIGHTWEIGHT	50 HP	15		12000	4.92	250	2.81	
WHEEL TRACTOR - (PTO HP.)	165 HP	10		63700	4.21	1200	6.92	
WHEEL TRACTOR	135 HP	10		54000	3.57	1200	5.66	
WHEEL TRACTOR	135 HP	10		54000	3.57	1200	5.66	
WHEEL (HIGH CLEARANCE)	110 HP	10		45700	3.81	1200	4.61	
WHEEL TRACTOR (USED)	90 HP	10		5000	3.92	1200	3.77	
WHEEL TRACTOR (USED)	90 HP	10		5000	3.92	1200	3.77	
SUBSOILER (3 SHANK X 24")	8'	15	2.50	8000	2.92	500		
TRIPLANE	16 X 40'	15	6.00	20000	3.31	500		
OFFSET DISC	26'	15	8.00	18000	6.57	500		
STUBBLE DISC	14'	15	4.50	24000	8.76	500		
SPRINGTOOTH	32'	15	12.00	7800	3.56	500		
SMEDE HARROW & CART	32'	15	12.00	7600	1.40	500		
RING ROLLER (AFTER HARROWS)	32'	15	12.00	5500	2.25	500		
ROLLING CULTIVATOR	16'	15	5.00	1500	2.54	250		
LARGE ROLLER (36" DIAMETER)	12'	15	2.50	7800	1.56	500		
INCORPORATOR	15'	10	2.50	10500	2.94	250		
CULTIVATOR SLED	16'	15	3.50	2700	1.28	400		
CORN-BEET PLANTERS(6) ON SLED		15	3.00	6900	4.47	300		
TOMATO PLANTERS (6) ON SLED		15	3.00	6900	4.47	300		
V DITCHER (USED)		15	20.00	4800	2.44	300		
GRAIN DRILL	20'	15	8.00	11400	6.28	250		
PLOW 2 WAY X 5-16 BOTTOMS	5-16	15	2.50	10150	3.72	300		
SADDLE TANKS		15		1700	.35	500		
GRAIN COMBINE 20' HEADER	20'	10	4.50	84300	18.86	500	6.81	
CORN HEADER - 8 ROW	8 ROW	10	5.00	21300	7.36	250		
ELECTRONIC THINNER		10	3.00	5800	6.86	250		
VINE DIVERTER		15		5000	2.86	100		
BANKOUT WAGON		15		7800	1.88	500		
DITCH CLOSER		15	20.00	5800	2.11	350		
VINE TRAINER		15	4.00	2500	1.88	150		
FLAT ROLLER	16'	15	8.00	2500	1.88	250		
ALLOWAY	16'	10	6.00	6000	3.65	250		
FLAIL CHOPPER 15'	15'	10	4.00	8100	3.60	250		