

U.C. COOPERATIVE EXTENSION
SAMPLE COSTS TO PRODUCE TOMATOES
Processing
IN THE SAN JOAQUIN VALLEY - 1992

by

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The detailed costs for processing tomato production in the San Joaquin Valley are presented in this study. The hypothetical farm used in this report consists of 1200 acres of which 600 acres are used to grow processing tomatoes. The remainder of the farm is planted to different field crops.

Practices described are based on those production procedures considered typical for this crop and area. Sample costs given for labor, materials, equipment and contract services are based on current figures. Some costs and practices detailed in this study may not be applicable to your situation. This study is only intended as a guide and can be used in making production decisions, determining potential returns, preparing budgets and evaluating production loans. A column for **Your Cost** is provided on **Tables 1 and 2, Costs Per Acre To Produce Tomatoes and Detail Of Costs Per Acre To Produce Tomatoes**, respectively.

This study consists of **General Assumptions for Producing Processing Tomatoes** and six tables.

Table 1.	Costs Per Acre To Produce Tomatoes
Table 2.	Detail Of Costs Per Acre To Produce Tomatoes
Table 3.	Monthly Cash Costs Per Acre To Produce Tomatoes
Table 4.	Annual Equipment, Investment And Business Costs
Table 5.	Hourly Equipment Costs
Table 6.	Ranging Analysis

For an explanation of calculations used for the study refer to the attached **General Assumptions** or call the Department of Agricultural Economics, Cooperative Extension, University of California, Davis, California, (916) 752-3589 or call the farm advisor in the county of interest.

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**GENERAL ASSUMPTIONS FOR PRODUCING
PROCESSING TOMATOES**
San Joaquin Valley - 1992
U.C. Cooperative Extension

The following is a description of some general assumptions pertaining to sample costs of processing tomato production in the San Joaquin Valley. The costs are based on typical cultural practices used by growers in this region, some of which may not be used during every production year. Costs are presented on an annual per acre basis. *The use of trade names in this report does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products .*

1. LAND:

This cost of production study is based on a 1,200 acre field and row crop operation of which 600 acres dedicated to growing processing tomatoes. Other crops grown on the same acreage in rotation with tomatoes might include cotton, cantaloupes, lettuce, onions, garlic, melons, sugar beets, broccoli, small grains, etc.

2. RENT AGREEMENT:

The 600 acres used for processing tomato production in this study is rented on a per acre basis. Under this agreement the landowner receives \$200 per acre. Interest costs for land and interest, depreciation and the maintenance for the irrigation system is incurred by the landowner.

3. CULTURAL PRACTICES:

The cultural, pesticide and fertilizer inputs for the production of processing tomatoes vary considerably from grower to grower and field to field. Land preparation operations such as discing, land planing, subsoiling and listing, are done with a 270 hp (horsepower) crawler tractor and occurs in November. After listing the beds, successive operations are performed with either an 85 hp, 95 hp or 130 hp wheel tractor.

When the beds are shaped, 35 pounds of N (nitrogen) and 120 pounds of P (phosphorus) is applied as a liquid, preplant fertilizer. The remaining 165 pounds of N is sidedressed into the rows in March.

An open pollinated, hybrid variety of tomatoes is seeded directly into the beds at a rate of 1 pound per acre. Plants are thinned to stand by a hand thinning crew in February.

In January after shaping the beds and spreading the fertilizer, a preemergent herbicide is applied and incorporated. Weed control for the remainder of the season consists of hand hoeing and mechanical cultivations. The 2 mechanical cultivation occurs in February and is supplemented with 2 contract hand weeding during the months of March and May.

The irrigation water is supplied by a water district at \$30 per acre foot. A plant establishment irrigation of 6 acre inches is sprinkled in February followed by nine subsequent irrigations in March, April, May and June. A total of 30 acre inches is applied to the crop.

Pest management techniques are used to manage several different species of worms and mites. Armyworms (*Spodoptera sp.*) and russet mites (*Aculops lycopersici*) can be controlled by insecticides and miticides. These worms are controlled in mid to late June with 1 application of Lannate. Sulfur is applied once to control mites. These applications are put on by air.

The pesticides and rates mentioned in this cost study are a few of those that are listed in the [UC IPM Tomato Pest Management Guidelines](#). Cultural practices for the production of processing tomatoes vary from grower to grower and region to region. The practices and inputs used in this cost study serve only as a sample or guide. Variations can be significant. Contact your local farm advisor for advice on production practices.

4. HARVEST, YIELDS & RETURNS:

Harvesting is done by the grower who owns his harvesting equipment. Two tomato harvesters are used in order to complete the harvest in timely manner. Three tractors and trailer dollies are used to haul the tomatoes from the field to the trucks at the roadside. If a grower contracts his harvest operations, then all harvest equipment and its appropriate costs should be subtracted from the harvest and investment costs in **Tables 1 and 4**. A custom charge would then be added to harvest costs in **Table 1**.

Harvest costs in **Table 1** represent the cash operating costs only. Cash and non-cash overhead costs make up the rest of the total harvest costs and are located in **Table 4**. The overhead costs in **Table 4**, for harvesters, generators and lights, trailer dollies and tractors used in the harvest operation would need to be calculated on a per acre basis and added to the harvest cash costs in **Table 1** in order to determine the total harvest costs.

Average crop yields for the last 5 years in the San Joaquin Valley have ranged from 27 to 35.5 tons per acre. The crop yield used in this study is 33 tons per acre.

Prices in the last 5 years ranged from an average of \$46.40 to \$55.20 per ton for growers in the San Joaquin Valley. No specific return price is assumed in this study. Contact tomato processors for information on contracts or prices received by growers. **Table 6**, Ranging Analysis, shows the net returns above operating costs, cash costs and total costs for various price and yield levels.

5. LABOR:

Basic hourly wages for workers are \$5.97 and \$4.48 per hour for skilled and field workers respectively. Adding 34% for SDI, FICA, insurance and other benefits gives the labor rates shown of \$8.00 per hour for skilled labor and \$6.00 per hour for field labor. The labor for operations involving machinery are 10% higher than the machine hours to account for the extra labor involved in equipment set-up, moving, maintenance and repair.

6. INVESTMENT:

The investments shown in **Table 4** are those that can be partially or completely allocated to the processing tomato enterprise. Costs of investments such as tomato harvesters are attributed only to processing tomatoes and cannot be spread over the rest of the farm enterprises. Other investments including shop buildings, shop tools, gated pipe, fuel wagon and the rest of the equipment can be used by the whole farm so only a portion of their costs can be assigned to the processing tomato enterprise and the rest of the costs are distributed to the other farm enterprises. Annual investments shown in **Table 1** represent depreciation and opportunity cost for each investment on an annual per acre basis.

7. OVERHEAD:

County taxes are calculated as 1% of the average of the equipment, buildings and improvements. Insurance is charged at 0.5% of the average value of the equipment over its useful life. Office and business costs are estimated at \$20 per acre for the ranch. These expenses include office supplies, phone, bookkeeping, accounting, legal fees, road preparation and maintenance, etc.

8. INTEREST:

Interest on operating capital is based on cash costs and is calculated monthly, for nine months, until harvest at the rate of 9.00% per year. Adjustments for inflation have not been included in these interest rates. Interest is also charged on investment at 4.00% per year to account for income foregone that could be received from an alternative investment (opportunity cost) and is based on the average value of the buildings and equipment.

9. EQUIPMENT COSTS:

In allocating the equipment costs per acre, the following calculations were made and shown in **Table 3**: (a) **Original Cost** of equipment is the cost of the new equipment plus sales tax. (b) **Depreciation** is straight line with a ten percent salvage value. (c) **Interest** on investment is calculated as the average value per acre of the equipment during its useful life, multiplied by an interest rate of 4.00%. Average value equals new cost plus salvage value divided by 2 on a per acre basis. (d) **Total investment costs** are also calculated as 60% of the depreciation and the interest costs for all new equipment to reflect a mix of the new and used equipment. These values are also used in **Table 1**. Most of this equipment is used on the entire 1200 acre ranch.

10. FUEL & REPAIR:

The fuel and repair cost for each operation in **Table 1** is determined by multiplying the total hourly operating cost for each piece of equipment by the number of hours per acre for that operation. Prices for on-farm delivery of gasoline and diesel are \$0.71 and \$0.98 per gallon respectively.

U. C. COOPERATIVE EXTENSION
COSTS PER ACRE TO PRODUCE TOMATOES
PROCESSING
SAN JOAQUIN VALLEY - 1992

Labor Rate: \$8.00/ hr. machine labor Interest Rate: 9.00%
\$6.00/ hr. non-machine labor Yield per Acre: 33 ton

Your Operation Cost	Oper at i on	Cash and Labor Costs per Acre				
	Time (Hrs/ A)	Labor Cost	Fuel & Repai r s	Mat er i al Cost	Cust om/ Rent	Tot al Cost
Cultural :						
Disc 2X	0.29	2.75	8.30	0.00	0.00	11.05
Chisel	0.29	2.75	7.21	0.00	0.00	9.96
Land Plane Field 2X	0.28	2.65	7.11	0.00	0.00	9.76
Disc	0.10	0.95	3.07	0.00	0.00	4.03
List Beds	0.14	1.37	3.44	0.00	0.00	4.81
Shape Beds & Fertilize	0.14	1.37	3.48	45.93	0.00	50.79
Apply & Incorporate Herbicide	0.15	1.47	2.66	32.60	0.00	36.73
Plant	0.27	2.63	2.67	135.00	0.00	140.30
Plant Establishment	0.21	1.26	0.00	15.00	31.25	47.51
Cultivate 2X	0.40	3.84	3.37	0.00	0.00	7.21
Thin	0.00	0.00	0.00	0.00	50.00	50.00
Fertilize	0.20	1.92	1.47	40.88	5.00	49.27
Apply Layby Herbicide	0.18	1.74	3.30	9.68	0.00	14.72
Make Ditches	0.02	0.19	0.31	0.00	0.00	0.50
Irrigate	1.89	11.34	0.00	60.00	0.00	71.34
Hand Weeds 2X	0.00	0.00	0.00	0.00	100.00	100.00
Close Ditch & Drag	0.02	0.19	0.16	0.00	0.00	0.36
Train Vines	0.21	2.02	3.10	0.00	0.00	5.12
Spray Insecticide	0.00	0.00	0.00	23.50	6.75	30.25
Apply Miti cide	0.00	0.00	0.00	6.80	6.75	13.55
Pickup Truck Use	0.22	2.13	1.42	0.00	0.00	3.55
TOTAL CULTURAL COSTS	5.01	40.56	51.10	369.39	199.75	660.80
Harvest :						
Harvest	1.18	82.12	55.78	0.00	0.00	137.90
In Field Hauling	1.77	16.98	15.38	0.00	0.00	32.35
TOTAL HARVEST COSTS	2.95	99.10	71.16	0.00	0.00	*170.26
*Note: Harvest costs represented here are the cash operating costs only. See "Harvest, Yields & Returns" section in General Assumptions.						
Post harvest :						
Disc Crop Residue 2X	0.20	1.92	5.71	0.00	0.00	7.63
TOTAL POSTHARVEST COSTS	0.20	1.92	5.71	0.00	0.00	7.63
Interest on operating capital @ 9.00%						28.27

TOTAL OPERATING COSTS/ ACRE	141.58	127.97	369.39	199.75	866.95
TOTAL OPERATING COSTS/ TON					26.27

CASH OVERHEAD:	
Office Expense	30.00
Land Rent	200.00
Property Taxes	0.46
Equipment Insurance	2.32
Investment Repairs	0.56
TOTAL CASH OVERHEAD COSTS	233.35

TOTAL CASH COSTS/ ACRE	1100.30
TOTAL CASH COSTS/ TON	33.34

NON-CASH OVERHEAD:		Annual Cost		
	Per producing Acre	Depreciation	Interest @ 4.00%	
Investment				
Shop Building	30.83	1.54	0.62	2.16
Storage Building	6.25	0.31	0.13	0.44
Fuel Tanks & Pumps	6.71	0.34	0.13	0.47
Shop Tools	8.33	0.42	0.17	0.58
Fuel Wagon	1.25	0.11	0.03	0.14
Tool Carrier	10.17	0.46	0.22	0.68
Gated Pipe	4.76	0.21	0.10	0.32
Equipment	781.42	144.87	17.19	162.06
TOTAL NON-CASH OVERHEAD COSTS	849.72	148.26	18.59	166.85

TOTAL COSTS/ ACRE	1267.16
TOTAL COSTS/ TON	38.40

CASH OVERHEAD COSTS:	
Office Expense	30.00
Land Rent	200.00
Property Taxes	0.46
Equipment Insurance	2.32
Investment Repairs	0.56

TOTAL CASH OVERHEAD COSTS/ ACRE	233.35

TOTAL CASH COSTS/ ACRE	1100.30
TOTAL CASH COSTS/ TON	33.34

NON-CASH OVERHEAD COSTS (DEPRECIATION & INTEREST) :	
Shop Building	2.16
Storage Building	0.44
Fuel Tanks & Pumps	0.47
Shop Tools	0.58
Fuel Wagon	0.14
Tool Carrier	0.68
Gated Pipe	0.32
Equipment	162.06

TOTAL NON-CASH OVERHEAD COSTS/ ACRE	166.85

TOTAL COSTS/ ACRE	1267.16
TOTAL COSTS/ TON	38.40
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Table 3.

U. C. COOPERATIVE EXTENSION
 MONTHLY CASH COSTS PER ACRE TO PRODUCE TOMATOES
 PROCESSING
 SAN JOAQUIN VALLEY - 1992

Beginning OCT 91	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Ending OCT 92
11.05	11.05											11.05
9.96	9.96											9.96
9.76	9.76											9.76
4.03	4.03											4.03
4.81	4.81											4.81
50.79			50.79									50.79
36.73			36.73									36.73
140.30				140.30								140.30
47.51				47.51								47.51
7.21				7.21								7.21
50.00				50.00								50.00
49.27					49.27							49.27
14.72					14.72							14.72
0.50					0.25			0.25				0.50
71.34					7.93	15.82	23.78	23.80				71.34
100.00					50.00		50.00					100.00
0.36								0.18	0.18			0.36
5.12								5.12				5.12
30.25								30.25				30.25
13.55								13.55				13.55
3.55	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	3.55
TOTAL CULTURAL COSTS	39.96	0.35	87.88	245.38	122.53	16.17	74.13	73.51	0.53	0.35		660.80

Harvest :											
Harvest											137.90
137.90											
In Field Hauling											32.35
32.35											

TOTAL HARVEST COSTS											170.26
170.26											

Post harvest :											
Disc Crop Residue 2X											7.63
7.63											

TOTAL POSTHARVEST COSTS											7.63
7.63											

Interest on oper. capital	0.68	0.68	0.96	2.80	3.72	3.84	4.40	4.95	6.23		
28.27											

TOTAL OPERATING COSTS/ ACRE	40.64	1.04	88.84	248.18	126.25	20.02	78.53	78.45	177.02	7.99	
866.95											
TOTAL OPERATING COSTS/ TON	1.23	0.03	2.69	7.52	3.83	0.61	2.38	2.38	5.36	0.24	
26.27											

OVERHEAD:											
Office Expense											30.00
30.00											
Land Rent											200.00
200.00											
Property Taxes				0.23							0.23
0.46											
Equipment Insurance				1.16							1.16
2.32											
Investment Repairs	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
0.56											

TOTAL CASH OVERHEAD COSTS	0.06	0.06	0.06	1.45	0.06	0.06	0.06	0.06	231.45	0.06	
233.35											

TOTAL CASH COSTS/ ACRE	40.64	1.09	88.90	249.63	126.31	20.07	78.59	78.51	408.47	8.04	
1100.30											
TOTAL CASH COSTS/ TON	1.23	0.03	2.69	7.56	3.83	0.61	2.38	2.38	12.38	0.24	
33.34											
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U. C. COOPERATIVE EXTENSION
WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS
SAN JOAQUIN VALLEY - 1992

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	- Non-Cash Over.		- Cash Overhead -			Total
			Yrs Life	Depre- ciation	Interest	Insur- ance	Taxes	
92	130 hp 2wd Tractor	77359	12	5801.92	1701.90	212.74	42.55	7759.11
92	270 hp Crawler	151940	12	11395.50	3342.68	417.84	83.57	15239.59
92	85 hp 2wd Tractor	43964	12	3297.33	967.20	120.90	24.18	4409.61
92	95 hp 2wd Tractor	47959	12	3596.92	1055.10	131.89	26.38	4810.29
92	Bed Shaper - 3 Row	4004	15	240.27	88.08	11.01	2.20	341.56
92	Cultivator Sled	3745	15	224.67	82.40	10.30	2.06	319.43
92	Disc - Offset 18'	20230	15	1213.80	445.06	55.63	11.13	1725.62
92	Disc - Offset 26'	27310	15	1638.60	600.82	75.10	15.02	2329.54
92	Disc - Stubble 16'	18622	15	1117.33	409.68	51.21	10.24	1588.46
92	Ditcher - V	12706	15	762.33	279.54	34.94	6.99	1083.80
92	Generator & Lights	3600	7	462.86	79.20	9.90	1.98	553.94
92	Generator & Lights	3600	7	462.86	79.20	9.90	1.98	553.94
92	Harvester - Tomato	192600	3	57780.00	4237.20	529.65	105.93	62652.78
92	Harvester - Tomato	192600	3	57780.00	4237.20	529.65	105.93	62652.78
92	Incorporator - 15'	19260	15	1155.60	423.72	52.96	10.59	1642.87
92	Lister - 3 Row 16'	2838	15	170.27	62.44	7.81	1.56	242.08
92	Mulcher - 3 Row	19260	15	1155.60	423.72	52.96	10.59	1642.87
92	Pickup Truck - 1/2 Ton	17655	7	2269.86	388.42	48.55	9.71	2716.54
92	Planter & Sled 3 Row	5700	10	513.00	125.40	15.67	3.13	657.20
92	Saddle Tank - 300 Gal	1650	10	148.50	36.30	4.54	0.91	190.25
92	Scraper - Drag 10'	2884	15	173.07	63.44	7.93	1.59	246.03
92	Subsoiler - 8'	6955	12	521.58	153.02	19.13	3.83	697.56
92	Trailer Dollie	1200	10	108.00	26.40	3.30	0.66	138.36
92	Trailer Dollie	1200	10	108.00	26.40	3.30	0.66	138.36
92	Trailer Dollie	1200	10	108.00	26.40	3.30	0.66	138.36
92	Triplane - 16'	17527	15	1051.60	385.60	48.20	9.64	1495.04
92	Vine trainer	4800	10	432.00	105.60	13.20	2.64	553.44
TOTAL		902368		153689.47	19852.12	2481.51	496.31	176519.41
60% of New Cost *		541421		92213.68	11911.27	1488.91	297.79	105911.65

* Used to reflect a mix of new and used equipment.

ANNUAL INVESTMENT COSTS

Yr	Description	Price	- Non-Cash Over.		- Cash Overhead -			Total	
			Yrs Life	Depre- ciation	Interest	Insur- ance	Taxes		Repairs
INVESTMENT									
	Fuel Tanks & Pumps	8050	20	402.50	161.00	20.13	4.03	125.00	712.66
	Fuel Wagon	1500	10	135.00	33.00	4.13	0.83	50.00	222.96
	Gated Pipe	5712	20	257.05	125.66	15.71	3.14	100.00	501.56
	Shop Building	37000	20	1850.00	740.00	92.50	18.50	100.00	2801.00
	Shop Tools	10000	20	500.00	200.00	25.00	5.00	100.00	830.00
	Storage Building	7500	20	375.00	150.00	18.75	3.75	100.00	647.50
	Tool Carrier	12200	20	549.00	268.40	33.55	6.71	100.00	957.66
TOTAL INVESTMENT		81962		4068.55	1678.06	209.77	41.96	675.00	6673.34

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Land Rent	600.00	acre	200.00	120000.00
Office Expense	1200.00	acre	30.00	36000.00

U. C. COOPERATIVE EXTENSION
 HOURLY EQUIPMENT COSTS
 SAN JOAQUIN VALLEY - 1992

		----- COSTS PER HOUR -----								
Total	Yr	Description	Actual Hours Used	- Non-Cash Depreciation	Over Interest	- Cash Insurance	Overhead Taxes	Operating Fuel & Lube	----- Total Operating -----	
Costs/Hr.							Repairs		Oper.	
15.35	92	130 hp 2wd Tractor	1023.1	3.40	1.00	0.12	0.02	4.64	6.16	10.80
30.20	92	270 hp Crawler	1005.2	6.80	2.00	0.25	0.05	7.60	13.51	21.11
8.89	92	85 hp 2wd Tractor	1004.1	1.97	0.58	0.07	0.01	2.64	3.61	6.25
9.42	92	95 hp 2wd Tractor	1058.2	2.04	0.60	0.07	0.01	2.88	3.81	6.69
2.39	92	Bed Shaper - 3 Row	165.8	0.87	0.32	0.04	0.01	1.15	0.00	1.15
1.74	92	Cultivator Sled	286.0	0.47	0.17	0.02	0.00	1.07	0.00	1.07
11.85	92	Disc - Offset 18'	171.6	4.24	1.56	0.19	0.04	5.81	0.00	5.81
16.29	92	Disc - Offset 26'	165.4	5.94	2.18	0.27	0.05	7.84	0.00	7.84
11.09	92	Disc - Stubble 16'	166.0	4.04	1.48	0.19	0.04	5.35	0.00	5.35
7.43	92	Ditcher - V	172.0	2.66	0.98	0.12	0.02	3.65	0.00	3.65
3.35	92	Generator & Lights	389.1	0.71	0.12	0.02	0.00	0.86	1.63	2.49
3.35	92	Generator & Lights	389.1	0.71	0.12	0.02	0.00	0.86	1.63	2.49
137.14	92	Harvester - Tomato	389.1	89.10	6.53	0.82	0.16	36.44	4.08	40.52
137.14	92	Harvester - Tomato	389.1	89.10	6.53	0.82	0.16	36.44	4.08	40.52
11.48	92	Incorporator - 15'	165.8	4.18	1.53	0.19	0.04	5.53	0.00	5.53
1.69	92	Lister - 3 Row 16'	165.8	0.62	0.23	0.03	0.01	0.82	0.00	0.82
14.61	92	Mulcher - 3 Row	108.6	6.38	2.34	0.29	0.06	5.53	0.00	5.53
12.51	92	Pickup Truck - 1/2 Ton	267.0	5.10	0.87	0.11	0.02	3.12	3.29	6.41
5.26	92	Planter & Sled 3 Row	164.4	1.87	0.46	0.06	0.01	2.86	0.00	2.86
1.88	92	Saddle Tank - 300 Gal	108.6	0.82	0.20	0.03	0.01	0.83	0.00	0.83
1.69	92	Scraper - Drag 10'	172.0	0.60	0.22	0.03	0.01	0.83	0.00	0.83
4.01	92	Subsoiler - 8'	207.6	1.51	0.44	0.06	0.01	2.00	0.00	2.00
0.32	92	Trailer Dollie	499.7	0.13	0.03	0.00	0.00	0.15	0.00	0.15

0.32	92 Trailer Dollie	499.7	0.13	0.03	0.00	0.00	0.15	0.00	0.15
0.32	92 Trailer Dollie	499.7	0.13	0.03	0.00	0.00	0.15	0.00	0.15
7.96	92 Triplane - 16'	165.6	3.81	1.40	0.17	0.03	2.54	0.00	2.54
5.52	92 Vine Trainer	126.0	2.06	0.50	0.06	0.01	2.88	0.00	2.88

U. C. COOPERATIVE EXTENSION
RANGING ANALYSIS
SAN JOAQUIN VALLEY - 1992

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE PROCESSING TOMATOES

	YIELD (TON/ ACRE)						
	20	25	30	35	40	45	50

OPERATING COSTS/ ACRE:							
Cultural Cost	661	661	661	661	661	661	661
Harvest Cost	142	153	164	175	185	196	207
Post harvest Cost	8	8	8	8	8	8	8
Interest on operating capital	28	28	28	28	28	28	29
TOTAL OPERATING COSTS/ ACRE	839	850	860	871	882	893	904
TOTAL OPERATING COSTS/ TON	41.94	33.99	28.68	24.89	22.05	19.84	18.07
CASH OVERHEAD COSTS/ ACRE	233	233	233	233	233	233	233
TOTAL CASH COSTS/ ACRE	1072	1083	1094	1105	1115	1126	1137
TOTAL CASH COSTS/ TON	53.61	43.32	36.46	31.56	27.89	25.03	22.74
NON-CASH OVERHEAD COSTS/ ACRE	167	167	167	167	167	167	167
TOTAL COSTS/ ACRE	1239	1250	1261	1271	1282	1293	1304
TOTAL COSTS/ TON	61.95	49.99	42.02	36.33	32.06	28.74	26.08

NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR PROCESSING TOMATOES

PRICE (DOLLARS PER TON)	YIELD (TON ACRE)						
	20	25	30	35	40	45	50
35.00	-139	25	190	354	518	682	846
40.00	-39	150	340	529	718	907	1096
45.00	61	275	490	704	918	1132	1346
50.00	161	400	640	879	1118	1357	1596
55.00	261	525	790	1054	1318	1582	1846
60.00	361	650	940	1229	1518	1807	2096
65.00	461	775	1090	1404	1718	2032	2346

NET RETURNS PER ACRE ABOVE CASH COSTS FOR PROCESSING TOMATOES

PRICE (DOLLARS PER TON)	YIELD (TON ACRE)						
	20	25	30	35	40	45	50
35.00	-372	-208	-44	120	285	449	613
40.00	-272	-83	106	295	485	674	863
45.00	-172	42	256	470	685	899	1113
50.00	-72	167	406	645	885	1124	1363
55.00	28	292	556	820	1085	1349	1613
60.00	128	417	706	995	1285	1574	1863
65.00	228	542	856	1170	1485	1799	2113

NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR PROCESSING TOMATOES

PRICE (DOLLARS PER TON)	YIELD (TON ACRE)						
	20	25	30	35	40	45	50
35.00	-539	-375	-211	-46	118	282	446
40.00	-439	-250	-61	129	318	507	696
45.00	-339	-125	89	304	518	732	946
50.00	-239	0	239	479	718	957	1196
55.00	-139	125	389	654	918	1182	1446
60.00	-39	250	539	829	1118	1407	1696
65.00	61	375	689	1004	1318	1632	1946