

**U.C. COOPERATIVE EXTENSION**

**SAMPLE COSTS TO PRODUCE**  
***SUGARBEETS***  
**IN SHASTA AND LASSEN COUNTIES - 1992**

by

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The detailed costs for sugarbeet production in the Fall River Valley and Big Valley of Shasta and Lassen Counties are presented in this study. The hypothetical farm used in this report consists of 500 acres of which 120 acres are in sugarbeet production. The remainder of the farm is planted to different row and 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 blank *Your Costs* column is provided to enter your actual costs on **Tables 1 and 2, Costs Per Acre To Produce Sugarbeets and Costs And Returns Per Acre To Produce Sugarbeets.**

This study consists of **General Assumptions for Producing Sugarbeets** and seven tables.

Table 1.	<b>Costs Per Acre To Produce Sugarbeets</b>
Table 2.	<b>Costs And Returns Per Acre To Produce Sugarbeets</b>
Table 3.	<b>Monthly Cash Costs Per Acre To Produce Sugarbeets</b>
Table 4.	<b>Annual Equipment, Investment And Business Overhead</b>
Table 5.	<b>Hourly Equipment Costs</b>
Table 6.	<b>Ranging Analysis</b>
Table 7.	<b>Costs And Returns/Breakeven Analysis</b>

For an explanation of calculations used for the study refer to the attached **General Assumptions**, 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 SUGARBEETS

*Shasta and Lassen Counties - 1992*

U.C. Cooperative Extension

The following is a description of assumptions pertaining to sample costs of sugarbeet production in Shasta and Lassen Counties. 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 as annual costs per acre. *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 500 acre field and row crop operation of which 120 acres dedicated to growing sugarbeets. Other crops grown on the same acreage in rotation with sugarbeets might include small grains, alfalfa hay, wild rice, and strawberries.

## 2. RENT AGREEMENT:

The 120 acres used for sugar beet production is rented on a cash basis with the landowner receiving \$150 per acre. The tenant pays all cash costs to produce the crop. Interest cost for land and interest and maintenance costs for the irrigation system are incurred by the landowner.

## 3. CULTURAL PRACTICES AND PRODUCTION INPUTS :

The cultural practices and production inputs for growing sugarbeets vary considerably from grower to grower and field to field. The practices and inputs used in this cost study serve only as a sample or a guide. Primary tillage operations which include stubble discing and chiseling are done by a custom operator in September of the year preceding planting. In April, seedbed preparation begins by discing the fields twice with a finishing disc.

Following the last discing, nitrogen, in the form of urea, is spread at a rate of 100 pounds per acre and worked into the soil by with a disc.

Weed management is very important for growing sugarbeets and begins in the spring when the beds are prepared. A pair of pre-emergent herbicides, Roundup and Gramoxone, are applied and worked into the beds in April. Both Betamix and Herbicide 273 are sprayed on the stand soon after emergence in May to contain a broad spectrum of weeds. After the May irrigation, the first mechanical cultivation occurs followed by two more cultivations in both of the months of June and July. Also in June, a contract hand crew goes into the field to thin the stand and weed.

Planting at a rate of 2 lbs. of seed per acre occurs in April. It is assumed in this study that 25 % of the stand will not germinate and will have to be replanted at the end of April and beginning of May. Replanting requires an extra 1/2 pound of seed per acre.

The beets are irrigated up and through the growing season using sprinklers. The irrigation schedule used in this study is as follows; April - 2 acre inches, May - 6 acre inches, June - 9 acre inches, July - 9 acre inches, August - 6 acre inches.

Lorsban, an insecticide, is flown on in September, to control aphids and worms. The pesticides and rates mentioned in this cost study are a few of those that are listed in the UC IPM Sugarbeet Pest Management Guidelines. The practices and inputs used in this cost study serve only as a typical guide. Variations in cultural inputs can vary due to seasonal pest pressures, water availability and government regulations. Contact the Shasta/Lassen County farm advisor for additional information source.

#### **4. YIELDS & RETURNS:**

Percent sucrose and net selling price (NSP) of sugar determine the per ton return on sugar beets. This study assumes an average sucrose content of 16% and the NSP at \$24.00 per cwt. The crop yield used in this study is 22.7 gross tons per acre. Seven and one half percent of the gross tonnage is lost in screenings and tare, leaving a net yield of 21 tons of sugarbeets per acre. An estimated price of a \$39.38 per net ton of beets is used in this study. Returns for different tonnage and sugar percentage levels will vary with current market conditions. Consult contracting sugar companies should you have interest in the price outlook for sugarbeets.

#### **5. HARVEST:**

Sugarbeets are custom harvested and transported in this study. Topping and digging beets operations are charged at a rate of \$2.00 per gross ton. The beets are hauled from the field to Tulelake by truck for \$7.50 per gross ton. Rail carriers move the beets to the factories at an estimated price of \$4.80 per gross ton. Varying yields and distance to processing plants will generate differences in harvest costs per net ton. For more information on custom harvesting contact the farm advisor or company contracting for sugarbeets in the area of interest. If a grower is doing his own harvesting, equipment for the required operations should be added to investments on **Tables 1 and 4**. Labor, fuel, repairs, depreciation and interest on investment would need to be added to harvest operations and custom charges should be subtracted.

#### **6. RISK:**

The risks associated with the production of sugar beets should not be minimized. While this study makes every effort to model a production system based on typical, real world practices, it cannot fully represent financial, agronomic and market risks which affect the profitability and economic viability of sugarbeet production.

Because of the risk involved, access to a market is crucial. A grower must contract with a processor before any sugarbeet production begins in order to sell their crop. Interested parties should contact processors for more information on contracts or prices.

#### **7. LABOR:**

Basic hourly wages for workers are \$5.60 and \$3.73 per hour for machine operators and non-machine (irrigators) workers respectively. Adding 34% for SDI, FICA, insurance and other benefits gives the labor rates shown of \$7.50 per hour for machine operators and \$5.00 per hour for non-machine labor. The labor for operations involving machinery are 20% higher than the operation time to account for the extra labor involved in equipment set up, moving, maintenance and repair. Wages for managers are not included as a cash cost. Any return above total costs is considered a return to management.

#### **8. INVESTMENT:**

The investments shown in **Table 3** are those that are partially allocated to sugar beet production. Investments such as fuel tanks and pumps, shop buildings, tools, etc., can be

used by the whole farm so only a portion of the costs can be assigned to the sugar beet enterprise and the rest of the costs are distributed to the other farm enterprises. Annual investments shown in **Table 1** represent the depreciation and opportunity cost for each investment on an annual per acre basis.

#### **9. OVERHEAD:**

County taxes are calculated as 1% of the average of the equipment, buildings and improvements. Equipment and building insurance is charged at 0.5% of the average value of the equipment over its useful life. Liability insurance covers accidents on the farm and costs \$850 for the entire farm or \$1.10 per acre. Office and business costs are estimated at \$30 per acre for the ranch. These expenses include office supplies, telephones, bookkeeping, accounting, legal fees, road preparation and maintenance, etc.

#### **10. INTEREST:**

Interest on operating capital is based on cash costs and is calculated monthly until harvest at a rate of 9.00% per year. Real interest rates are used in this study, so no adjustments for inflation are included. Nominal interest rates would contain a factor for inflation which might run 3% to 4% higher than the real interest rate. 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.

#### **11. EQUIPMENT COSTS:**

Most of the equipment inventory on typical sugarbeet farms in Fall River Valley and Big Valley is purchased used and has a reduced value. This study shows current purchase price for new equipment with an adjustment of 40% of new value to indicate a mix of new and used equipment.

In allocating the equipment costs per acre, the following calculations were made and shown in **Table 4**: (a) **Original Cost** of equipment is the cost of the new equipment plus sales tax. (b) **Depreciation** is straight line with a 10% 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) The total investment costs of the depreciation and the interest reflect a mix of new and used equipment. These values are also used in **Table 1**. Hourly equipment costs are shown in **Table 5**. The equipment listed in **Tables 4 and 5** indicate only that equipment which is used in the sugarbeet enterprise and does not necessarily include all of the equipment that would be found on a typical farm growing sugarbeets.

#### **12. FUEL & REPAIR:**

The fuel and repair cost per acre for each operation in **Table 1**, is determined by multiplying the total hourly operating cost for each piece of equipment in **Table 5**, by the number of hours per acre for that operation. Prices for on-farm delivery of diesel and gasoline are \$0.71 and \$0.98 per gallon respectively.

Table 1.

U.C. COOPERATIVE EXTENSION  
 COSTS PER ACRE TO PRODUCE SUGARBEETS  
 SHASTA & LASSEN COUNTIES - 1992

Labor Rate: \$7.50/hr. machine labor  
 \$5.00/hr. non-machine labor

Interest Rate: 9.00%  
 Yield per Acre: 21.00 ton

Your Operation Cost	Operation Time	Labor	Fuel & Repairs	Cash and Labor Material	Costs per Acre Custom/ Rent	Total
	(Hrs/A)	Cost		Cost		Cost
<b>Cultural:</b>						
Chisel	0.00	0	0	0	50	50
Disc Stubble - Custom	0.00	0	0	0	8	8
Finish Disc 2X	0.20	2	3	0	0	5
Fertilize	0.32	3	3	11	3	20
Incorporate Fertilizer	0.20	2	3	0	0	5
List Beds	0.16	1	2	0	0	3
Apply Pre-emergent Herbicide	0.13	1	0	13	0	14
Plant	0.21	2	3	30	0	34
Replant 25% Of Stand	0.03	0	0	8	0	8
Irrigate	2.20	11	0	64	0	75
Apply Herbicide	0.16	1	1	41	0	44
Cultivate	0.67	6	7	0	0	13
Hand Thin & Weed - Contract	0.00	0	0	0	75	75
Apply Insect Control	0.13	1	0	6	0	8
Pickup Use	0.81	7	3	0	0	11
<b>TOTAL CULTURAL COSTS</b>	<b>5.22</b>	<b>38</b>	<b>25</b>	<b>173</b>	<b>136</b>	<b>372</b>
<b>Harvest:</b>						
Top And Dig Beets	0.00	0	0	0	45	45
Haul Beets To Tulelake	0.00	0	0	0	91	91
Transport Beets To Factory	0.00	0	0	0	170	170
<b>TOTAL HARVEST COSTS</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>306</b>	<b>306</b>
Interest on operating capital @ 9.00%						20
<b>TOTAL OPERATING COSTS/ACRE</b>		<b>38</b>	<b>25</b>	<b>173</b>	<b>442</b>	<b>698</b>
<b>TOTAL OPERATING COSTS/TON</b>						<b>33.25</b>
<b>CASH OVERHEAD:</b>						
Land Rent						150
Office Expense						30
Liability Insurance						1
Property Taxes						1
Equipment Insurance						1
Investment Repairs						1
<b>TOTAL CASH OVERHEAD COSTS</b>						<b>184</b>
<b>TOTAL CASH COSTS/ACRE</b>						<b>882</b>
<b>TOTAL CASH COSTS/TON</b>						<b>42.02</b>
<b>NON-CASH OVERHEAD:</b>						
Investment	Per producing Acres	Depreciation	Annual Cost Interest @ 4.00%			
Shop Building	40	2	1			3
Shop Tools	20	1	0			1
Sprinkler Pipe	40	2	1			3
Fuel Tanks & Pumps	16	1	0			1
Equipment	148	10	3			13
<b>TOTAL NON-CASH OVERHEAD COSTS</b>	<b>264</b>	<b>16</b>	<b>6</b>			<b>21</b>
<b>TOTAL COSTS/ACRE</b>						<b>904</b>
<b>TOTAL COSTS/TON</b>						<b>43.03</b>

Table 2.

U.C. COOPERATIVE EXTENSION  
 COSTS AND RETURNS PER ACRE TO PRODUCE SUGARBEETS  
 SHASTA & LASSEN COUNTIES - 1992

*Use of trade names does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products .*

Labor Rate: \$7.50/hr. machine labor                      Interest Rate: 9.00%  
 \$5.00/hr. non-machine labor

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                                     Quantity/Acre    Unit        Price or    Value or    Your
                                     -----         -----         Cost/Unit    Cost/Acre    Cost
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GROSS RETURNS
Sugarbeets                               21.00    ton            39.38            827
-----
TOTAL GROSS RETURNS FOR SUGARBEETS                              827
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OPERATING COSTS
Custom:
Chisel                               1.00    acre            50.00            50
Disc Stubble                          1.00    acre             8.00             8
Topping & Digging                      22.70    ton              2.00            45
Fertilizer:
Urea                               100.00    lb              0.11             11
Rent:
Spreader Rental                       1.00    acre             3.00             3
Herbicide:
Roundup                               0.50    qt             11.75             6
Gramoxone Extra                       1.00    pint             4.48             4
Betamix                               2.50    pint            12.31            31
Herbicide 273                         1.00    lb             10.21            10
Adjuvant:
Spreader                              0.50    qt              4.89             2
Seed:
Seed                               2.50    lb             15.00            38
Water:
Water                               32.00    AcIn             2.00            64
Contract:
Thin & Weed                           1.00    acre            75.00            75
Haul To Dump                          22.70    ton              4.00            91
Transport                              22.70    ton              7.50           170
Insecticide:
Lorsban 4                             1.00    pint             6.44             6
Labor (machine)                       3.62    hrs              7.50            27
Labor (non-machine)                   2.20    hrs              5.00            11
Fuel - Gas                             1.90    gal              0.98             2
Fuel - Diesel                          14.29    gal              0.71            10
Lube                                   1.00    gal              2.00             2
Machinery repair                       1.00    gal              1.00             1
Interest on operating capital @ 9.00% 1.00    gal              2.00            20
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TOTAL OPERATING COSTS/ACRE                              698
TOTAL OPERATING COSTS/TON                               33
-----
NET RETURNS ABOVE OPERATING COSTS                              129
-----
CASH OVERHEAD COSTS:
Land Rent                               1.00    gal              1.00            150
Office Expense                          1.00    gal              1.00             30
Liability Insurance                      1.00    gal              1.00             1
Property Taxes                           1.00    gal              1.00             1
Equipment Insurance                      1.00    gal              1.00             1
Investment Repairs                       1.00    gal              1.00             1
-----
TOTAL CASH OVERHEAD COSTS/ACRE                              184
-----
TOTAL CASH COSTS/ACRE                               882
TOTAL CASH COSTS/TON                                   42
-----
NON-CASH OVERHEAD COSTS (DEPRECIATION & INTEREST):
Shop Building                             1.00    gal              1.00             3
Shop Tools                               1.00    gal              1.00             1
Sprinkler Pipe                           1.00    gal              1.00             3
Fuel Tanks & Pumps                       1.00    gal              1.00             1
Equipment                               13.00    gal             13.00            13
-----
TOTAL NON-CASH OVERHEAD COSTS/ACRE                              21
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TOTAL COSTS/ACRE                               904
TOTAL COSTS/TON                                   43
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NET RETURNS ABOVE TOTAL COSTS                              -77
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Table 3.

U.C. COOPERATIVE EXTENSION  
 MONTHLY CASH COSTS PER ACRE TO PRODUCE SUGARBEETS  
 SHASTA & LASSEN COUNTIES - 1992

Beginning SEP 92	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Ending DEC 93	92	92	92	92	93	93	93	93	93	93	93	93	93	93	93	93	93
Cultural:																	
Chisel	50																50
Disc Stubble	8																8
Finish Disc 2X								5									5
Fertilize								20									20
Incorporate Fertilizer								5									5
List Beds								3									3
Apply Pre-emergent Herbicide								14									14
Plant								34									34
Replant								8									8
Irrigate								5	14	21	21	14					75
Apply Herbicide									44								44
Cultivate									5	5	3						13
Hand Thin & Weed										75							75
Apply Insect Control													8				8
Pickup Use	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11
TOTAL CULTURAL COSTS	59	1	1	1	1	1	1	95	63	101	25	15	9	1	1	1	372
Harvest:																	
Top And Dig Beets														45			45
Haul Beets To Tulalake														91			91
Transport Beets To Factory																170	170
TOTAL HARVEST COSTS														136		170	306
Interest on oper. capital	0	0	0	0	0	0	0	1	2	2	3	3	3	4			20
TOTAL OPERATING COSTS/ACRE	59	1	1	1	1	1	1	96	65	104	27	17	11	141	1	171	698
TOTAL OPERATING COSTS/TON	2.81	0.05	0.05	0.05	0.05	0.05	0.05	4.56	3.07	4.94	1.31	0.83	0.54	4.95	0.03	4.58	33.25
OVERHEAD:																	
Land Rent																150	150
Office Expense	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	30
Liability Insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Property Taxes					1						1						1
Equipment Insurance					0						0						1
Investment Repairs	0	0	0	0	0	0	0	0	0	0	0	0					1
TOTAL CASH OVERHEAD COSTS	2	2	2	2	3	2	2	2	2	2	3	2	2	2	2	2	184
TOTAL CASH COSTS/ACRE	61	3	3	3	4	3	3	98	66	106	30	19	13	143	3	323	882
TOTAL CASH COSTS/TON	2.91	0.15	0.15	0.15	0.20	0.15	0.15	4.65	3.17	5.03	1.45	0.92	0.63	6.79	0.12	15.37	42.02

Table 4. U.C. COOPERATIVE EXTENSION  
ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS  
SHASTA & LASSEN COUNTIES - 1992

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	- Non-Cash Over. -		- Cash Overhead -			Total
			Yrs Life	Depre- ciation	Interest	Insur- ance	Taxes	
92	120 hp 2wd Tractor	58710	17	3108	1292	161	323	4884
92	70 hp 2wd Tractor	39140	17	2072	861	108	215	3256
92	ATV & Sprayer	3502	5	630	77	10	19	736
92	Bed Shaper - 9 Row	3966	15	238	87	11	22	358
92	Cultivator - Rolling	7416	15	445	163	20	41	669
92	Cultivator Sled	4635	15	278	102	13	25	418
92	Disc - Offset 21'	27295	15	1638	600	75	150	2463
92	Pickup Truck - New	22660	7	2913	499	62	125	3599
92	Pickup Truck - Used	8755	5	1576	193	24	48	1841
92	Planter Sled 9 Row	10300	20	464	227	28	57	775
92	Saddle Tank	1545	20	69	34	4	9	116
92	Spray Boom - 25'	3605	20	162	79	10	20	271
TOTAL		191529		13594	4214	527	1053	19388
40% of New Cost *		76612		5437	1685	211	421	7755

\* 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	403	161	20	40	125	749
	Shop Building	20000	20	1000	400	50	100	100	1650
	Shop Tools	10000	20	500	200	25	50	100	875
	Sprinkler Pipe	19875	20	894	437	55	109	100	1596
TOTAL INVESTMENT		57925		2797	1198	150	300	425	4869

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Land Rent	120.00	acre	150.00	18000
Liability Insurance	500.00	acre	1.10	550
Office Expense	500.00	acre	30.00	15000

Table 5. U.C. COOPERATIVE EXTENSION  
HOURLY EQUIPMENT COSTS  
SHASTA & LASSEN COUNTIES - 1992

COSTS PER HOUR

Yr	Description	Actual Hours Used	- Non-Cash Over. -		- Cash Overhead -			Operating		Total Costs/Hr.
			Depre- ciation	Interest	Insur- ance	Taxes	Repairs	Fuel & Lube	Total Oper.	
92	120 hp 2wd Tractor	746.2	1.67	0.69	0.09	0.17	2.34	5.69	8.03	10.65
92	70 hp 2wd Tractor	877.4	0.94	0.39	0.05	0.10	1.56	2.81	4.37	5.85
92	ATV & Sprayer	435.8	0.58	0.07	0.01	0.02	0.56	1.13	1.69	2.37
92	Bed Shaper - 9 Row	165.2	0.58	0.21	0.03	0.05	0.76	0.00	0.76	1.63
92	Cultivator - Rolling	165.2	1.08	0.40	0.05	0.10	1.42	0.00	1.42	3.04
92	Cultivator Sled	166.0	0.67	0.25	0.03	0.06	0.89	0.00	0.89	1.90
92	Disc - Offset 21'	166.0	3.95	1.45	0.18	0.36	5.23	0.00	5.23	11.16
92	Pickup Truck - New	285.0	4.09	0.70	0.09	0.17	2.74	2.25	4.99	10.05
92	Pickup Truck - Used	200.0	3.15	0.39	0.05	0.10	0.80	2.25	3.05	6.74
92	Planter Sled 9 Row	59.7	3.10	1.52	0.19	0.38	3.44	0.00	3.44	8.63
92	Saddle Tank	59.7	0.47	0.23	0.03	0.06	0.52	0.00	0.52	1.30
92	Spray Boom - 25'	59.7	1.09	0.53	0.07	0.13	1.20	0.00	1.20	3.02



Table 6.

U.C. COOPERATIVE EXTENSION  
RANGING ANALYSIS  
SHASTA & LASSEN COUNTIES - 1992

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE SUGARBEETS

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	YIELD (TON/ACRE)						
	18	19	20	21	22	23	24
<b>OPERATING COSTS/ACRE:</b>							
Cultural Cost	372	372	372	372	372	372	372
Harvest Cost	263	277	292	306	321	336	350
Interest on operating capital	20	20	20	20	20	20	20
<b>TOTAL OPERATING COSTS/ACRE</b>	<b>654</b>	<b>669</b>	<b>684</b>	<b>698</b>	<b>713</b>	<b>728</b>	<b>742</b>
<b>TOTAL OPERATING COSTS/TON</b>	<b>36</b>	<b>35</b>	<b>34</b>	<b>33</b>	<b>32</b>	<b>32</b>	<b>31</b>
<b>CASH OVERHEAD COSTS/ACRE</b>	<b>184</b>	<b>184</b>	<b>184</b>	<b>184</b>	<b>184</b>	<b>184</b>	<b>184</b>
<b>TOTAL CASH COSTS/ACRE</b>	<b>838</b>	<b>853</b>	<b>868</b>	<b>882</b>	<b>897</b>	<b>912</b>	<b>926</b>
<b>TOTAL CASH COSTS/TON</b>	<b>47</b>	<b>45</b>	<b>43</b>	<b>42</b>	<b>41</b>	<b>40</b>	<b>39</b>
<b>NON-CASH OVERHEAD COSTS/ACRE</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>
<b>TOTAL COSTS/ACRE</b>	<b>860</b>	<b>874</b>	<b>889</b>	<b>904</b>	<b>918</b>	<b>933</b>	<b>948</b>
<b>TOTAL COSTS/TON</b>	<b>48</b>	<b>46</b>	<b>44</b>	<b>43</b>	<b>42</b>	<b>41</b>	<b>39</b>

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*NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR SUGARBEETS @ 16% SUGAR*

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PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	18	19	20	21	22	23	24
33.00	-60	-42	-24	-5	13	31	50
35.00	-24	-4	16	37	57	77	98
37.00	12	34	56	79	101	123	146
39.00	48	72	96	121	145	169	194
41.00	84	110	136	163	189	215	242
43.00	120	148	176	205	233	261	290
45.00	156	186	216	247	277	307	338

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*NET RETURNS PER ACRE ABOVE CASH COSTS FOR SUGARBEETS @ 16% SUGAR*

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PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	18	19	20	21	22	23	24
33.00	-244	-226	-208	-189	-171	-153	-134
35.00	-208	-188	-168	-147	-127	-107	-86
37.00	-172	-150	-128	-105	-83	-61	-38
39.00	-136	-112	-88	-63	-39	-15	10
41.00	-100	-74	-48	-21	5	31	58
43.00	-64	-36	-8	21	49	77	106
45.00	-28	2	32	63	93	123	154

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*NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR SUGARBEETS @ 16% SUGAR*

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PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	18	19	20	21	22	23	24
33.00	-266	-247	-229	-211	-192	-174	-156
35.00	-230	-209	-189	-169	-148	-128	-108
37.00	-194	-171	-149	-127	-104	-82	-60
39.00	-158	-133	-109	-85	-60	-36	-12
41.00	-122	-95	-69	-43	-16	10	36
43.00	-86	-57	-29	-1	28	56	84
45.00	-50	-19	11	41	72	102	132

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Table 7.

U.C. COOPERATIVE EXTENSION  
 COSTS AND RETURNS / BREAKEVEN ANALYSIS  
 SHASTA & LASSEN COUNTIES - 1992

COSTS AND RETURNS - PER ACRE BASIS

Crop	1. Gross Returns	2. Operating Costs	3. Net Returns Above Oper. Costs (1-2)	4. Cash Costs	5. Net Returns Above Cash Costs (1-4)	6. Total Costs	7. Net Returns Above Total Costs (1-6)
Sugarbeets	827	698	129	882	-55	904	-77

COSTS AND RETURNS - TOTAL ACREAGE

Crop	1. Gross Returns	2. Operating Costs	3. Net Returns Above Oper. Costs (1-2)	4. Cash Costs	5. Net Returns Above Cash Costs (1-4)	6. Total Costs	7. Net Returns Above Total Costs (1-6)
Sugarbeets	99238	83797	15440	105886	-6648	108432	-9194

BREAKEVEN PRICES PER YIELD UNIT

CROP	Base Yield (Units/Acre)	Yield Units	Breakeven Price To Cover		
			Operating Costs	Cash Costs	Total Costs
----- \$ per Yield Unit -----					
Sugarbeets	21.0	ton	33.25	42.02	43.03

BREAKEVEN YIELDS PER ACRE

CROP	Yield Units	Base Price (\$/Unit)	Breakeven Yield To Cover		
			Operating Costs	Cash Costs	Total Costs
----- Yield Units / Acre -----					
Sugarbeets	ton	39.38	17.7	22.4	22.9