EBB4-SU-19 2019 Costs and Returns Estimate

Eastern Idaho: Bingham and Power Counties Sugarbeets

Ben Eborn and Terrell Sorensen

Introduction to Costs & Returns Estimates

The University of Idaho Extension produces crop costs and returns estimates every other year. The overall goal of this project is to provide the Idaho agricultural industry with an unbiased and consistently calculated estimate of the cost of producing various crops and to track the change in production costs per acre and per unit over time.

The University of Idaho's costs and returns estimates are based on economic costs, not just accounting costs. All resources are valued at a market rate or "opportunity cost". Input prices are taken from the U of I's annual survey of agricultural supply companies. The selling price is a historical average, not a current year's price. Production practices are based on data from growers, crop consultants, and extension personnel throughout Idaho. Although production practices may be similar for individual farms, each farm has a unique set of resources with different levels of productivity, different production problems, and therefore different costs. Farm size, crop rotation, age and type of equipment, and the quality and intensity of management are all crucial factors that influence costs. The cost of production estimates show the typical or representative production costs by region based on documented production practices. These production costs are not area averages, rather they are based on model farms for four areas of the state.

University of Idaho costs and returns estimates can be used as a management tool to help producers in three ways:

1. **Templates.** Excel spreadsheets have been created by the University of Idaho to make enterprise budgeting and record keeping an easy task. You can start by substituting our costs and returns estimates with your own numbers. You can also enter them in the "Your Cost" column.
2. **Marketing.** Estimating production costs on a per acre or per unit basis can help you calculate your farm's break-even prices. Knowing your break-even price to cover operating costs and total costs can help with contract negotiations and selling on the open market.
3. **Benchmarks.** The University of Idaho costs and returns estimates are based on a typical or model farm and are calculated annually using consistent methodology. You can use these estimates as benchmarks by comparing your own total costs or specific cost categories to our estimates. This is a good way to find strengths and weaknesses in your production practices.

It's important to remember, just because your production costs are similar to our estimates, that isn't necessarily a good thing. Our model farms are also typically unprofitable! Average producers usually don't make an economic profit (which includes opportunity costs and non-cash costs such as depreciation). Being profitable requires fine-tuned management and a competitive advantage that the average producer doesn't have. (Being average is not okay in farming)

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Background and Assumptions

The University of Idaho's costs and returns estimates are based on economic costs, not accounting costs. All resources are valued at a market rate or "opportunity cost". Input prices are based on the data collected annually by the University of Idaho from agricultural supply companies. The selling price for sugarbeets is the projected price for the current year. The cost estimate shown here is typical for growing Roundup Ready sugarbeets under irrigation in eastern Idaho. Production practices are based on data from farmers in Bingham and Power counties, crop consultants, and extension personnel in eastern Idaho. These aren't University of Idaho recommendations. Although production practices may be similar for individual farms, each farm has a unique set of resources with different levels of productivity, different production problems, and therefore different costs. Farm size, crop rotation, age and type of equipment, and the quality and intensity of management are all crucial factors that influence production costs.

The Model Farm

This costs and returns estimate models a 2,400-acre irrigated farm with 600 acres in sugarbeets, 600 acres in potatoes and 1,200 acres in grain. In the four-year rotation, corn may substitute for grain. Alfalfa hay may be grown in longer rotations.

The farm uses a center pivot irrigation system and surface water delivered to the farm from an irrigation district. The irrigation district charges a flat fee per acre for water. Irrigation power use is based only on pressurization (no lift). Power costs per acre-inch of water applied are calculated using 2019 Idaho Power Schedule 24 Agricultural Irrigation Service rates.

Production Practices

After straw from the preceding grain crop is removed, the ground is irrigated and moldboard plowed in the fall. In the spring, ground is roller harrowed twice before planting. Beets are planted in April to a 6-inch stand spacing using a 12-row planter and 22-inch row spacing. The base seeding rate is .55 units per acre. The technology fee is not charged on re-plants, however. Beets are cultivated once during the growing season with a basin tillage tool. Beets are mechanically topped in mid-October before being harvested by a 6-row lifter/loader. Beets are hauled to a local piling station (beet dump) in the farmer's seven 10-wheeler trucks, assuming a 15-mile roundtrip.

Most fertilizer is custom applied pre-plant in the fall with additional nitrogen fertilizer applied through the irrigation system during the growing season. Weeds are controlled using a combination of tillage, cultivation and Roundup herbicide. Roundup is applied twice, 22 ounces in May and 32 ounces in July. A third application may be needed in some situations. Ammonium sulfate is applied as a surfactant. A seed treatment is used for insect control. No additional insecticide is applied during the growing season. One fungicide application is made through the irrigation system in August. Additional fungicide or sulfur dust applications may be needed in some years based on disease pressure and environmental conditions. Sugarbeets receive 33 inches of water during the growing season, 1.0 inch in April, 4.0 inches in May, 6.0 inches in June, 8.0 inches in July, 9.0 inches in August, and 5.0 inches in September. An additional 2.0 inches of water applied to the grain stubble the preceding fall is also credited to the sugarbeets, for a total of 35 inches.

Machinery

Equipment used to produce sugarbeets is shown in Tables 4 and 5. Table 4 lists the equipment and their

hourly operating and ownership costs, while Table 5 lists the equipment and their annual ownership costs. Machinery ownership cost (capital recovery) is based on 75% of the replacement cost of a new piece of equipment, except for trucks. Truck prices are for a used vehicle with a new bed. Equipment capital recovery (depreciation and interest) is calculated as a cost per acre. This non-cash overhead is shown in the lower part of Table 1. It comes from the Budget Planner program and is automatically calculated using the information from Table 4, taking into account the hours used and the number of acres for each piece of machinery. To keep machinery prices current between years in which a comprehensive survey is conducted, machinery prices are adjusted using USDA's Farm Machinery Prices Paid Index. Equipment prices are collected approximately every five years.

The University of Idaho uses the budget generator program *Budget Planner* from the University of California-Davis to produce the various tables shown in this publication. Machinery operating and ownership costs are calculated based on engineering equations in this program. Machinery operating costs include fuel, lubricants and repairs.

Labor and Management

The cost of labor used in this study includes a base wage, plus a percentage to account for various payroll taxes (FICA, SUTA & FUTA), and workman's compensation, as well as benefits such as paid vacation/personal leave days, health insurance and bonuses. Labor is classified by the type of work performed. Labor classifications, labor rates and payroll overhead are shown below.

Labor Values

Labor Class	Base Rate	Payroll Overhead	Effective Rate
General Farm Labor	$14.00	15%	$17.55
Truck Drivers	$14.00	15%	$17.55
Equipment Operators	$18.00	25%	$22.50
Irrigation Labor			
Set Move: HL & WL	$14.00	30%	$17.55
Continuous Move: CP & L	$18.00	25%	$22.50

Set Move includes: handlines and wheellines
Continuous Move includes: center pivots and linear move
Payroll overhead for set move systems includes housing

Based on the speed, width and overall field efficiency, *Budget Planner* calculates equipment operator labor hours for all field operations except those performed on a custom basis. Custom operations are listed separately. General farm labor accounts for extra field labor used during planting or harvest. A management fee based on approximately 5% of the total production costs is included. Prior to 2013, the basis of the 5% charge was expected revenue.

Capital, Land and Overhead Costs

Interest on operating capital is charged from the time an input is applied until harvest and is calculated at a nominal rate of 7.00 percent. Interest on intermediate term capital, primarily equipment, is calculated using a nominal rate of 6.75 percent. A general overhead charge, calculated at approximately 2.5 percent of operating expenses, is included to cover unallocated whole-farm costs such as office expenses, legal and accounting fees, cell phones, internet service and utilities. Irrigation power is not included as part of general farm utilities.

Land rent is based on a one-year cash lease for sugarbeets and covers the ownership costs (depreciation, interest, and insurance) of the irrigation system. Because the charge for water, irrigation system repairs and irrigation power costs are listed separately, the land rent may appear low because the landowner in many circumstances pays some or even all these expenses.

Budget Format

In addition to the Background and Assumption pages, this publication has six tables presenting a variety of cost and returns information.

Table 1 shows both expected revenue, based on a specified yield and price, and expenses. Expenses are broken into two main categories: operating and ownership. Operating expenses are those that

typically vary with the level of production and involve inputs that are used in a single production cycle. Ownership expenses include a systematic cost recovery over the useful life for inputs used in the production process that have a useful life of more than one year. Machinery and land fall into this category. Operating inputs are organized by category. In addition to the cost per unit and cost per acre for each input, a total cost is given for each category. Table 1 also gives a total of all operating, ownership and total costs per acre, as well as these same categories on a yield basis (per bushel, cwt, ton, etc.).

Table 2 has most of the same cost information presented in Table 1 but the data is organized by operation for both pre-harvest and harvest costs. Operations can define a single activity, such as seed hauling, or multiple activities as in the case of tillage. The quantity of labor is shown for each operation. The cash costs per acre for labor, machinery costs, materials and custom are also specified. Cash overhead expenses are listed separately as are the non-cash overhead.

Table 3 is a monthly cash flow of expenses based on when the operation occurs and when inputs are applied. Field operations are classified as pre-harvest, harvest and post-harvest.

Table 4 lists the equipment used to produce this crop and the costs per hour to operate this equipment. Total annual hours of use for the current crop and for all crops on the farm is also shown.

Table 5 lists the purchase price and salvage value of equipment used to produce this crop, as well annual capital recovery and cash overhead expenses.

Table 6 provides a ranging analysis, sometime referred to as a sensitivity analysis. It shows how the costs and returns per acre will vary as the yield and/or price ranges above and below the base values from Table 1.

Author

Ben Eborn is a University of Idaho Extension agricultural economist. Terrell Sorensen is a University of Idaho Extension Educator in Power County.

Disclaimer

The practices and chemicals specified in the publication are not recommendations. Always read and follow the directions printed on the pesticide label. Due to constantly changing pesticide laws and labels, some pesticides may have been cancelled or had certain uses prohibited. The use of trade names for various products simplifies presentation of this material and should not be considered an endorsement, nor is any criticism implied of similar products not mentioned.

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TABLE 1. COSTS AND RETURNS PER ACRE TO PRODUCE ROUNDUP READY SUGARBEETS

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
GROSS RETURNS					
Sugarbeets	40.00	ton	48.50	1,940.00	
TOTAL GROSS RETURNS	40.00	ton		1,940.00	
OPERATING COSTS					
Seed:				**200.75**	
Roundup Ready Beet Seed: Raw	0.55	lb	365.00	200.75	
Fertilizer:				**131.80**	
Dry Nitrogen - Pre-plant	20.00	lb	0.42	8.40	
Dry P2O5	100.00	lb	0.41	41.00	
K2O	40.00	lb	0.31	12.40	
Micronutrients - Sugarbeets	1.00	acre	10.00	10.00	
Liquid Nitrogen	120.00	lb	0.50	60.00	
Pesticides/Chemicals:				**36.26**	
Poncho Beta Seed Treatment	0.48	unit	48.50	23.28	
Roundup Power Max 4.5	54.00	fl oz	0.15	8.10	
Ammonium Sulfate	2.40	lb	0.70	1.68	
Tilt	4.00	fl oz	0.80	3.20	
Custom:				**23.85**	
Custom Fertilize: 400 - 800 lbs	1.00	acre	7.85	7.85	
Consultants/Soil Testing - SB	1.00	acre	16.00	16.00	
Irrigation:				**136.80**	
Irrigation Power - Center Pivot	35.00	ac-in	1.93	67.55	
Irrigation Water Assessment - S	1.00	acre	50.00	50.00	
Irrigation Repairs - CP	35.00	ac-in	0.55	19.25	
Other:				**192.00**	
Crop Insurance	1.00	acre	0.00	0.00	
Sugarbeet Hauling Base Charge	40.00	ton	3.00	120.00	
Sugarbeet Hauling Loaded Mile	40.00	ton	1.80	72.00	
Labor				**183.59**	
Equipment Operator Labor	3.71	hrs	22.50	83.50	
Truck Driver Labor	2.64	hrs	17.55	46.33	
Irrigation Labor - CP	1.40	hrs	22.50	31.50	
General Farm Labor	0.55	hrs	17.55	9.65	
Irrigation Labor: Chem-Fert	0.56	hrs	22.50	12.60	
Machinery				**137.41**	
Fuel-Gas	3.36	gal	3.15	10.57	
Fuel-Diesel	17.84	gal	2.90	51.73	
Fuel-Road Diesel	5.13	gal	3.40	17.45	
Lube				11.96	
Machinery Repair				45.69	
Interest on Operating Capital @ 7.00%				31.14	
TOTAL OPERATING COSTS/ACRE				1,073.59	
TOTAL OPERATING COSTS/TON				26.84	
NET RETURNS ABOVE OPERATING COSTS				866.41	

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TABLE 1. CONTINUED

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
CASH OVERHEAD COSTS					
Co-op Stock				35.00	
General Overhead				26.00	
Land Rent				350.00	
Management Fee				83.00	
Property Taxes				0.00	
Property Insurance				5.13	
Investment Repairs				0.00	
TOTAL CASH OVERHEAD COSTS/ACRE				499.13	
TOTAL CASH OVERHEAD COSTS/TON				12.48	
TOTAL CASH COSTS/ACRE				1,572.72	
TOTAL CASH COSTS/TON				39.32	
NET RETURNS ABOVE CASH COSTS				367.28	
NON-CASH OVERHEAD COSTS (Capital Recovery)					
Equipment				186.87	
TOTAL NON-CASH OVERHEAD COSTS/ACRE				186.87	
TOTAL NON-CASH OVERHEAD COSTS/TON				4.67	
TOTAL COST/ACRE				1,759.59	
TOTAL COST/TON				43.99	
NET RETURNS ABOVE TOTAL COST				180.41	

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TABLE 2. COSTS PER ACRE TO PRODUCE ROUNDUP READY SUGARBEETS

Operation	Operation Time (Hrs/A)	Cash and Labor Costs per Acre						
		Labor Cost	Fuel	Lube &Repairs	Material Cost	Custom/ Rent	Total Cost	Your Cost
Preharvest:								
Irrigation	0.00	31.50	0.00	0.00	67.55	0.00	99.05	
Applying Fertilizer	0.00	0.00	0.00	0.00	71.80	7.85	79.65	
Tillage	0.41	10.98	14.30	9.10	0.00	0.00	34.37	
Crop Insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Irrigation Water Assessment	0.00	0.00	0.00	0.00	50.00	0.00	50.00	
Irrigation Repairs	0.00	0.00	0.00	0.00	19.25	0.00	19.25	
Planting	0.19	8.70	4.85	5.39	224.03	0.00	242.97	
Applying Herbicides	0.07	1.96	1.83	0.87	9.78	0.00	14.43	
Consultant	0.00	0.00	0.00	0.00	0.00	16.00	16.00	
Chemigation-Fertigation	0.00	12.60	0.00	0.00	63.20	0.00	75.80	
Basin Tillage/Cultivate	0.16	4.22	4.92	3.52	0.00	0.00	12.65	
Pickup Use	1.00	27.00	10.49	3.65	0.00	0.00	41.14	
4-Wheeler Use	0.10	2.70	0.08	0.06	0.00	0.00	2.84	
Service Truck Use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Fuel Truck Use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL PREHARVEST COSTS								
Harvest:								
Top Beets	0.37	10.11	11.79	9.33	0.00	0.00	31.23	
Lift Beets	0.36	15.79	14.05	11.96	0.00	0.00	41.79	
Crop Hauling	2.57	56.23	17.45	13.79	0.00	0.00	87.47	
Hauling Assessment	0.00	0.00	0.00	0.00	192.00	0.00	192.00	
TOTAL HARVEST COSTS	3.30	82.13	43.29	35.07	192.00	0.00	352.49	
Interest on Operating Capital at 7.00%							31.14	
TOTAL OPERATING COSTS/ACRE	5.23	181.79	79.75	57.65	697.61	23.85	1,071.79	

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TABLE 2. CONTINUED

Operation	Operation Time (Hrs/A)	Cash and Labor Costs per Acre Labor Cost	Fuel	Lube &Repairs	Material Cost	Custom/ Rent	Total Cost	Your Cost
CASH OVERHEAD:								
Co-op Stock							35.00	
General Overhead							26.00	
Land Rent							350.00	
Management Fee							83.00	
Property Taxes							0.00	
Property Insurance							5.13	
Investment Repairs							0.00	
TOTAL CASH OVERHEAD COSTS/ACRE							499.13	
TOTAL CASH COSTS/ACRE							1,570.92	
NON-CASH OVERHEAD:		Per Producing Acre		Annual Cost Capital Recovery				
Equipment		1,840.51		186.87			186.87	
TOTAL NON-CASH OVERHEAD COSTS		1,840.51		186.87			186.87	
TOTAL COSTS/ACRE							1,757.79	

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TABLE 3. MONTHLY COSTS PER ACRE TO PRODUCE ROUNDUP READY SUGARBEETS

	SEP 14	OCT 14	NOV 14	DEC 14	JAN 15	FEB 15	MAR 15	APR 15	MAY 15	JUN 15	JUL 15	AUG 15	SEP 15	OCT 15	Total
Preharvest:															
Irrigation	5.66							2.83	11.32	16.98	22.64	25.47	14.15		99.05
Applying Fertilizer	79.65														79.65
Tillage	17.07							17.30							34.37
Crop Insurance															0.00
Irrigation Water Assessment								50.00							50.00
Irrigation Repairs								19.25							19.25
Planting								242.97							242.97
Applying Herbicides									6.47	7.97					14.43
Consultant										16.00					16.00
Chemigation-Fertigation										35.40	40.40				75.80
Basin Tillage/Cultivate											12.65				12.65
Pickup Use	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	41.14
4-Wheeler Use	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	2.84
Service Truck Use															0.00
Fuel Truck Use															0.00
TOTAL PREHARVEST COSTS	105.52	3.14	3.14	3.14	3.14	3.14	3.14	335.49	20.93	79.49	78.83	28.61	17.29	3.14	688.16
Harvest:															
Top Beets														31.23	31.23
Lift Beets														41.79	41.79
Crop Hauling														87.47	87.47
Hauling Assessment														192.00	192.00
TOTAL HARVEST COSTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	352.49	352.49
Interest on Operating Capital @7.00%	0.62	0.63	0.65	0.67	0.69	0.71	0.73	2.68	2.80	3.27	3.73	3.90	4.00	6.07	31.14
TOTAL OPERATING COSTS/ACRE	106.14	3.78	3.79	3.81	3.83	3.85	3.87	338.18	23.73	82.76	82.56	32.51	21.29	361.71	1,071.79
CASH OVERHEAD															
Co-op Stock								35.00							35.00
General Overhead	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	26.00
Land Rent							350.00								350.00
Management Fee	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	83.00
Property Taxes															0.00
Property Insurance								5.13							5.13
Investment Repairs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CASH OVERHEAD COSTS	7.79	7.79	7.79	7.79	7.79	7.79	357.79	47.91	7.79	7.79	7.79	7.79	7.79	7.79	499.13
TOTAL CASH COSTS/ACRE	113.92	11.56	11.58	11.60	11.62	11.63	361.65	386.09	31.52	90.54	90.35	40.29	29.07	369.49	1,570.92

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TABLE 4. HOURLY EQUIPMENT COSTS

	ROUNDUP READY SUGARBEETS		Total		Cash Overhead		Operating			
Yr	Description	Hours Used	Hours Used	Capital Recovery	Insur-ance	Taxes	Lube& Repairs	Fuel	Total Oper.	Total Costs/Hr.
15	4-wheeler	60	90	7.35	0.19	0.00	0.59	0.79	1.38	8.91
15	Moldboard Plow 5b	129	150	10.38	0.27	0.00	7.14	0.00	7.14	17.79
15	Pickup 1 - 3/4 ton	240	800	8.74	0.16	0.00	3.65	10.49	14.14	23.04
15	Pickup 2 - 3/4 ton	240	800	8.74	0.16	0.00	3.65	10.49	14.14	23.04
15	Roller-harrow -24'	115	150	41.82	1.02	0.00	13.17	0.00	13.17	56.01
15	Tractor - 160hp	175	350	28.64	0.94	0.00	8.94	22.91	31.85	61.43
15	Tractor - 200hp	245	500	26.05	0.82	0.00	12.34	28.62	40.97	67.84
15	Tractor - 250hp	362	500	35.54	1.12	0.00	10.07	35.76	45.83	82.49
15	Tractor 2 - 200hp	247	500	26.05	0.82	0.00	12.34	28.62	40.97	67.84
15	Truck 1SB 10-Wheeler	220	300	26.49	0.77	0.00	5.39	6.80	12.18	39.44
15	Truck 2SB 10-Wheeler	220	300	25.93	0.76	0.00	5.30	6.80	12.10	38.78
15	Truck 3SB 10-Wheeler	220	300	26.49	0.77	0.00	5.39	6.80	12.18	39.44
15	Truck 4SB 10-Wheeler	220	300	26.49	0.77	0.00	5.39	6.80	12.18	39.44
15	Truck 5SB 10-Wheeler	220	300	26.49	0.77	0.00	5.39	6.80	12.18	39.44
15	Truck 6SB 10-Wheeler	220	300	26.49	0.77	0.00	5.39	6.80	12.18	39.44
15	Planter 12-Row SB	115	120	42.77	1.05	0.00	18.20	0.00	18.20	62.01
15	Sprayer - 50' 200 gal.	44	100	5.16	0.14	0.00	2.14	0.00	2.14	7.44
15	Basin Tillage Tool - 22' SB	94	95	45.79	1.20	0.00	8.92	0.00	8.92	55.92
15	Sugarbeet Defoliator 6-Row	225	225	32.62	0.58	0.00	11.32	0.00	11.32	44.52
15	Sugarbeet Harvester 6-Row	214	215	54.56	1.26	0.00	22.40	0.00	22.40	78.22
15	Pickup 3 - 3/4ton	120	375	12.60	0.31	0.00	3.65	10.49	14.14	27.05
15	Truck 7SB 10-Wheeler	220	300	26.49	0.77	0.00	5.39	6.80	12.18	39.44

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TABLE 5. WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS

ANNUAL EQUIPMENT COSTS

						Cash Overhead		
Yr	Description	Price	Yrs Life	Salvage Value	Capital Recovery	Insur-ance	Taxes	Total
15	4-wheeler	6,000.00	10	1,500.00	734.56	18.75	0.00	753.31
15	Moldboard Plow 5b	16,600.00	15	1,593.71	1,729.26	45.48	0.00	1,774.75
15	Pickup 1 - 3/4 ton	42,000.00	5	13,750.00	7,771.98	139.38	0.00	7,911.36
15	Pickup 2 - 3/4 ton	42,000.00	5	13,750.00	7,771.98	139.38	0.00	7,911.36
15	Roller-harrow -24'	59,900.00	12	8,296.54	6,970.70	170.49	0.00	7,141.19
15	Tractor - 160hp	135,000.00	25	11,416.65	11,137.65	366.04	0.00	11,503.69
15	Tractor - 200hp	162,000.00	20	20,786.46	14,474.76	456.97	0.00	14,931.72
15	Tractor - 250hp	221,000.00	20	28,356.84	19,746.43	623.39	0.00	20,369.82
15	Tractor 2 - 200hp	162,000.00	20	20,786.46	14,474.76	456.97	0.00	14,931.72
15	Truck 1SB 10-Wheeler	97,000.00	20	6,000.00	8,828.57	257.50	0.00	9,086.07
15	Truck 2SB 10-Wheeler	95,000.00	20	6,000.00	8,643.44	252.50	0.00	8,895.94
15	Truck 3SB 10-Wheeler	97,000.00	20	6,000.00	8,828.57	257.50	0.00	9,086.07
15	Truck 4SB 10-Wheeler	97,000.00	20	6,000.00	8,828.57	257.50	0.00	9,086.07
15	Truck 5SB 10-Wheeler	97,000.00	20	6,000.00	8,828.57	257.50	0.00	9,086.07
15	Truck 6SB 10-Wheeler	97,000.00	20	6,000.00	8,828.57	257.50	0.00	9,086.07
15	Planter 12-Row SB	49,000.00	12	6,786.82	5,702.24	139.47	0.00	5,841.71
15	Sprayer - 50' 200 gal.	5,500.00	15	528.04	572.95	15.07	0.00	588.02
15	Basin Tillage Tool - 22' SB	46,400.00	15	4,454.70	4,833.61	127.14	0.00	4,960.74
15	Sugarbeet Defoliator 6-Row	44,000.00	5	14,332.44	8,154.71	145.83	0.00	8,300.54
15	Sugarbeet Harvester 6-Row	102,000.00	10	18,037.82	13,034.11	300.09	0.00	13,334.20
15	Pickup 3 - 3/4ton	42,000.00	10	9,000.00	5,251.81	127.50	0.00	5,379.31
15	Truck 7SB 10-Wheeler	97,000.00	20	6,000.00	8,828.57	257.50	0.00	9,086.07
	TOTAL	1,812,400.00	-	215,376.49	183,976.36	5,069.44	0.00	189,045.80
	90% of New Cost*	1,631,160.00	-	193,838.84	165,578.73	4,562.50	0.00	170,141.22

*Used to reflect a mix of new and used equipment

ANNUAL INVESTMENT COSTS

					Cash Overhead			
Description	Price	Yrs Life	Salvage Value	Capital Recovery	Insur-ance	Taxes	Repairs	Total
INVESTMENT								
TOTAL INVESTMENT	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Co-op Stock	600	acre	35.00	21,000.00
General Overhead	600	acre	26.00	15,600.00
Land Rent	600	acre	350.00	210,000.00
Management Fee	600	acre	83.00	49,800.00

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TABLE 6. RANGING ANALYSIS - ROUNDUP READY SUGARBEETS

COSTS PER ACRE AND PER TON AT VARYING YIELDS TO PRODUCE ROUNDUP READY SUGARBEETS

	YIELD(TON)						
	33.00	34.00	35.00	36.00	37.00	38.00	39.00
OPERATING COSTS/ACRE:							
Preharvest	687.61	688.34	689.07	688.16	690.54	691.27	692.00
Harvest	342.22	345.64	349.06	352.49	355.90	359.32	362.74
Interest on Operating Capital @ 7.00%	31.14	31.14	31.14	31.14	31.14	31.14	31.14
TOTAL OPERATING COSTS/ACRE	1,060.97	1,065.12	1,069.27	1,071.79	1,077.57	1,081.73	1,085.88
TOTAL OPERATING COSTS/TON	32.15	31.33	30.55	29.77	29.12	28.47	27.84
CASH OVERHEAD COSTS/ACRE	499.13	499.13	499.13	499.13	499.13	499.13	499.13
TOTAL CASH COSTS/ACRE	1,560.10	1,564.25	1,568.40	1,570.92	1,576.70	1,580.85	1,585.01
TOTAL CASH COSTS/TON	47.28	46.01	44.81	43.64	42.61	41.60	40.64
NON-CASH OVERHEAD COSTS/ACRE	186.87	186.87	186.87	186.87	186.87	186.87	186.87
TOTAL COSTS/ACRE	1,746.97	1,751.12	1,755.27	1,757.79	1,763.58	1,767.73	1,771.88
TOTAL COSTS/TON	52.94	51.50	50.15	48.83	47.66	46.52	45.43

Net Return Per Acre Above Operating Costs For Roundup Ready Sugarbeets

PRICE ($/ton)	YIELD (ton/acre)						
Sugarbeets	33.00	34.00	35.00	36.00	37.00	38.00	39.00
40.00	259.03	294.88	330.73	368.21	402.43	438.27	474.12
41.00	292.03	328.88	365.73	404.21	439.43	476.27	513.12
42.00	325.03	362.88	400.73	440.21	476.43	514.27	552.12
43.00	358.03	396.88	435.73	476.21	513.43	552.27	591.12
44.00	391.03	430.88	470.73	512.21	550.43	590.27	630.12
45.00	424.03	464.88	505.73	548.21	587.43	628.27	669.12
46.00	457.03	498.88	540.73	584.21	624.43	666.27	708.12

Net Return Per Acre Above Cash Costs For Roundup Ready Sugarbeets

PRICE ($/ton)	YIELD (ton/acre)						
Sugarbeets	33.00	34.00	35.00	36.00	37.00	38.00	39.00
40.00	-240.10	-204.25	-168.40	-130.92	-96.70	-60.85	-25.01
41.00	-207.10	-170.25	-133.40	-94.92	-59.70	-22.85	13.99
42.00	-174.10	-136.25	-98.40	-58.92	-22.70	15.15	52.99
43.00	-141.10	-102.25	-63.40	-22.92	14.30	53.15	91.99
44.00	-108.10	-68.25	-28.40	13.08	51.30	91.15	130.99
45.00	-75.10	-34.25	6.60	49.08	88.30	129.15	169.99
46.00	-42.10	-0.25	41.60	85.08	125.30	167.15	208.99

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TABLE 6. RANGING ANALYSIS CONTINUED

Net Return Per Acre Above Total Costs For Roundup Ready Sugarbeets

PRICE ($/ton)	YIELD (ton/acre)						
Sugarbeets	33.00	34.00	35.00	36.00	37.00	38.00	39.00
40.00	-426.97	-391.12	-355.27	-317.79	-283.58	-247.73	-211.88
41.00	-393.97	-357.12	-320.27	-281.79	-246.58	-209.73	-172.88
42.00	-360.97	-323.12	-285.27	-245.79	-209.58	-171.73	-133.88
43.00	-327.97	-289.12	-250.27	-209.79	-172.58	-133.73	-94.88
44.00	-294.97	-255.12	-215.27	-173.79	-135.58	-95.73	-55.88
45.00	-261.97	-221.12	-180.27	-137.79	-98.58	-57.73	-16.88
46.00	-228.97	-187.12	-145.27	-101.79	-61.58	-19.73	22.12