Southcentral Idaho: Magic Valley

Spring Feed Barley

Ben Eborn, Steven Hines and Juliet Marshall



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 data collected annually by the University of Idaho from agricultural supply companies. The selling price for the commodity is an historical average, not a current year's forecast price. The cost estimate shown here is typical for growing spring feed barley under irrigation in the Magic Valley of southcentral Idaho. Production practices are based on data from farmers, crop consultants, and extension personnel. These aren't University of Idaho recommendations. Production practices most closely represent those in Cassia, Minidoka, Jerome, Gooding, and Twin Falls counties. 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 2,200-acre farm with 550 acres in spring feed barley or other grain crops, 550 acres in potatoes, 550 acres in sugarbeets, 150 acres in dry beans, and 400 acres in corn or alfalfa.

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 2017 Idaho Power Schedule 24 Agricultural Irrigation Service rates.

Production Practices

Barley acreage is disk-ripped in the fall, and roller harrowed and planted in the spring in a single-pass operation. Wheat is harvested by the farm operator in August and hauled to a grain elevator and sold. Storage costs are not included. Harvest cost prior to 2013 was based on a custom rate.

All fertilizer is custom applied in March before planting. A 2-way herbicide mix is ground applied post emergence to control wild oats and broadleaf weeds. While a foliar fungicide is applied by air, it may not be needed every year. An insecticide may be needed in some years, but none is included because treatment is infrequent and unpredictable. Spring barley receives 20 inches of water during the growing season; 2 inches in April, 6 inches in May, 7 inches in June, and 5 inches in July. The two inches of water applied in the previous fall are also credited to spring barley, for a total of 22 inches.

Machinery

Equipment used to produce irrigated spring barley is shown in Tables 4 and 5. Table 4 lists equipment and their hourly operating costs and ownership costs, while Table 5 lists the equipment and their annual 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. Capital recovery combines depreciation and interest into a single value. 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 publication 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 on the following page.

Labor Values

Labor	Base	Payroll	Effective
Class	Rate	Overhead	Rate
General Farm	\$9.85	15%	\$11.35
Labor			
Truck Drivers	\$13.35	15%	\$15.35
Equipment	\$15.75	25%	\$19.70
Operators			
Irrigation Labor			
Set Move: HL &	\$10.75	30%	\$14.00
WL			
Continuous Move:	\$15.75	25%	\$19.70
CP & L			

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 6.25 percent. Interest on intermediate term capital, primarily equipment, is calculated using a nominal rate of 6.0

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 grain and covers the irrigation system ownership costs (depreciation, interest, and insurance). Since charges for irrigation water, repairs and power costs are listed separately, land rent may appear low because land owners pay some or even all these expenses in many cash leases.

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.



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

<u>Table 4</u> 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.

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

<u>Table 6</u> 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.

Authors

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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 SPRING FEED BARLEY

GROSS RETURNS Feed Barley 145.00 bu 3.00 435.00		Quantity/		Price or	Value or	Your	
Feed Barley 145.00 bu 3.00 435.00 TOTAL GROSS RETURNS 145.00 bu 435.00 OPERATING COSTS Seed: 24.20 Feed Barley Seed - Spring 110.00 lb 0.22 24.20 Fertilizer: 71.00 Dry Nitrogen 130.00 lb 0.38 19.00 Pesticide: 44.68 Axial Star Axial St		Acre	Unit	Cost/Unit	Cost/Acre	Cost	
TOTAL GROSS RETURNS OPERATING COSTS Seed: Feed Barley Seed - Spring Fertilizer: Dry Nitrogen Axial Star Axial Star Headline Custom Fertilize: 0 - 400 lbs Custom Haul: barley Turgation: Turgation Repairs - CP Crop Insurance Labor Labor Crop Insurance Labor Crop Insurance Labor Labor Crop Insurance Labor Labor Starley Axial Star 1.00 acre 47.50 42.68 42.68 43.50 Axial Star 1.00 acre 47.50 47.50 11.66 Cother: 1.00 acre 1.00 a	GROSS RETURNS						
OPERATING COSTS Seed:	Feed Barley	145.00	bu	3.00	435.00		
Seed: 24.20 Feed Barley Seed - Spring	TOTAL GROSS RETURNS	145.00	bu		435.00		
Feed Barley Seed - Spring 110.00 lb 0.22 24.20 Fertilizer: 71.00 Dry Nitrogen 130.00 lb 0.40 52.00 Dry P2O5 50.00 lb 0.38 19.00 Pesticide: 44.68 Axial Star 16.40 fl oz 0.95 15.58 Starane NXT 20.00 fl oz 0.60 12.00 Headline 6.00 fl oz 0.55 17.10 Custom: 33.35 Custom Fertilize: 0 - 400 lbs 1.00 acre 7.25 7.25 Custom Fertilize: 0 - 400 lbs 1.00 acre 7.25 7.25 Custom Fertilize: 0 - 400 lbs 1.00 acre 7.25 7.25 Custom Fertilize: 0 - 400 lbs 1.00 acre 7.25 7.25 Custom Fertilize: 0 - 400 lbs 1.00 acre 7.25 7.25 Custom Haul: barley 145.00 bu 0.18 26.10 Irrigation: <th c<="" td=""><td>OPERATING COSTS</td><td></td><td></td><td></td><td></td><td></td></th>	<td>OPERATING COSTS</td> <td></td> <td></td> <td></td> <td></td> <td></td>	OPERATING COSTS					
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Dry P2O5 50.00 lb 0.38 19.00 Pesticide: 44.68 Axial Star 16.40 fl oz 0.95 15.58 Starane NXT 20.00 fl oz 0.60 12.00 Headline 6.00 fl oz 2.85 17.10 Custom: 33.35 33.35 33.35 33.35 Custom Fertilize: 0 - 400 lbs 1.00 acre 7.25 7.25 Custom Haul: barley 145.00 bu 0.18 26.10 Irrigation: 101.84 11.84 <td< td=""><td>Fertilizer:</td><td></td><td></td><td></td><td>71.00</td><td></td></td<>	Fertilizer:				71.00		
Pesticide:	Dry Nitrogen	130.00					
Axial Star 16.40 fl oz 0.95 15.58	Dry P2O5	50.00	lb	0.38	19.00		
Starane NXT	Pesticide:						
Headline							
Custom: 33,35 Custom Fertilize: 0 - 400 lbs 1.00 acre 7.25 7.25 Custom Haul: barley 145.00 bu 0.18 26.10 Irrigation: Intrigation Power - CP 22.00 ac-in 1.94 42.68 Water Assessment 1.00 acre 47.50 47.50 Irrigation Repairs - CP 22.00 ac-in 0.53 11.66 Other: 14.00 14.00 14.00 Crop Insurance 1.00 acre 14.00 14.00 Labor 55.44 Equipment Operator Labor 1.64 hrs 19.70 32.26 General Farm Labor 0.52 hrs 11.35 5.85 Irrigation Labor: CP 0.88 hrs 19.70 17.34 Machinery 33.43 Fuel-Gas 2.51 gal 2.45 6.16 Fuel-Boad Diesel 5.01 gal 2.15 10.78 Fuel-Road Diesel 0.1	Starane NXT	20.00	fl oz	0.60	12.00		
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Custom Haul: barley 145.00 bu 0.18 26.10 Irrigation: 101.84 Irrigation Power - CP 22.00 ac-in 1.94 42.68 Water Assessment 1.00 acre 47.50 47.50 Irrigation Repairs - CP 22.00 ac-in 0.53 11.66 Other: 14.00 Crop Insurance 1.00 acre 14.00 14.00 Labor 55.44 Equipment Operator Labor 1.64 hrs 19.70 32.26 General Farm Labor 0.52 hrs 11.35 5.85 Irrigation Labor: CP 0.88 hrs 19.70 17.34 Machinery 33.43 Fuel-Gas 2.51 gal 2.45 6.16 Fuel-Diesel 5.01 gal 2.15 10.78 Fuel-Road Diesel 0.12 gal 2.75 0.34 Lube 13.57 Machinery Repair 13.57 Interest on Operating Capital @ 6.25% 59.51	Custom:						
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Machinery Repair 13.57 Interest on Operating Capital @ 6.25% 9.51 TOTAL OPERATING COSTS/ACRE 387.46 TOTAL OPERATING COSTS/BU 2.67		0.12	gal	2.75			
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TOTAL OPERATING COSTS/ACRE 387.46 TOTAL OPERATING COSTS/BU 2.67							
TOTAL OPERATING COSTS/BU 2.67	Interest on Operating Capital @ 6.25%				9.51		
	TOTAL OPERATING COSTS/ACRE				387.46		
NET RETURNS ABOVE OPERATING COSTS 47.54	TOTAL OPERATING COSTS/BU				2.67		
	NET RETURNS ABOVE OPERATING COSTS				47.54		

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TABLE 1. CONTINUED

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
CASH OVERHEAD COSTS					
General Overhead				10.00	
Land Rent				250.00	
Management Fee				37.00	
Property Taxes				0.00	
Property Insurance				1.56	
Investment Repairs				0.00	
TOTAL CASH OVERHEAD COSTS/ACRE				298.56	
TOTAL CASH OVERHEAD COSTS/BU				2.06	
TOTAL CASH COSTS/ACRE				686.02	
TOTAL CASH COSTS/BU				4.73	
NET RETURNS ABOVE CASH COSTS				-251.02	
NON-CASH OVERHEAD COSTS (Capital Recovery)					
Equipment				59.16	
TOTAL NON-CASH OVERHEAD COSTS/ACRE				59.16	
TOTAL NON-CASH OVERHEAD COSTS/BU				0.41	
TOTAL COST/ACRE				745.18	
TOTAL COST/BU				5.14	
NET RETURNS ABOVE TOTAL COST				-310.18	

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TABLE 2. COSTS PER ACRE TO PRODUCE SPRING FEED BARLEY

	Operation Cash and Labor Costs per Acre							
	Time	Labor	Fuel	Lube	Material	Custom/	Total	Your
Operation	(Hrs/A)	Cost		&Repairs	Cost	Rent	Cost	Cost
Preharvest:								
Tillage	0.15	5.56	4.51	5.32	0.00	0.00	15.39	
Irrigation	0.00	17.34	0.00	0.00	42.68	0.00	60.02	
Applying Fertilizer	0.00	0.00	0.00	0.00	71.00	7.25	78.25	
Crop Insurance	0.00	0.00	0.00	0.00	14.00	0.00	14.00	
Irrigation Water Assessment	0.00	0.00	0.00	0.00	47.50	0.00	47.50	
Irrigation Repairs	0.00	0.00	0.00	0.00	11.66	0.00	11.66	
Seed Hauling	0.02	0.39	0.04	0.04	0.00	0.00	0.48	
Roller Harrow & Plant	0.11	4.07	2.55	3.49	24.20	0.00	34.31	
Applying Pesticides	0.04	1.35	0.53	0.23	44.68	0.00	46.79	
General Pickup Use	0.88	20.69	6.16	2.54	0.00	0.00	29.39	
Service Truck Use	0.02	0.51	0.15	0.06	0.00	0.00	0.72	
Fuel Truck Use	0.02	0.51	0.15	0.07	0.00	0.00	0.73	
TOTAL PREHARVEST COSTS	1.23	50.42	14.09	11.76	255.72	7.25	339.24	
Harvest:								
Combine	0.13	5.02	3.19	4.40	0.00	0.00	12.61	
Crop Hauling	0.00	0.00	0.00	0.00	0.00	26.10	26.10	
TOTAL HARVEST COSTS	0.13	5.02	3.19	4.40	0.00	26.10	38.71	
Interest on Operating Capital at 6.25%		·		·	·	·	9.51	·
TOTAL OPERATING COSTS/ACRE	1.36	55.44	17.27	16.16	255.72	33.35	387.46	

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TABLE 2. CONTINUED

	Operation _			Cash an	d Labor Cos	ts per Acre		
	Time	Labor	Fuel	Lube	Material	Custom/	Total	Your
Operation	(Hrs/A)	Cost		&Repairs	Cost	Rent	Cost	Cost
CASH OVERHEAD:								
General Overhead							10.00	
Land Rent							250.00	
Management Fee							37.00	
Property Taxes							0.00	
Property Insurance							1.56	
Investment Repairs							0.00	
TOTAL CASH OVERHEAD COSTS/ACRE							298.56	
TOTAL CASH COSTS/ACRE							686.02	
NON-CASH OVERHEAD:		Per Producing		Annual	Cost			
		Acre		Capital Re	ecovery			
Equipment		538.92		59.16			59.16	
TOTAL NON-CASH OVERHEAD COSTS		538.92		59.16			59.16	
TOTAL COSTS/ACRE							745.18	

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TABLE 3. MONTHLY COSTS PER ACRE TO PRODUCE SPRING FEED BARLEY

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	Total
	14	14	14	15	15	15	15	15	15	15	15	
Preharvest:												
Tillage	15.39											15.39
Irrigation	5.46						5.46	16.37	19.10	13.64		60.02
Applying Fertilizer						78.25						78.25
Crop Insurance							14.00					14.00
Irrigation Water Assessment							47.50					47.50
Irrigation Repairs							11.66					11.66
Seed Hauling							0.48					0.48
Roller Harrow & Plant							34.31					34.31
Applying Pesticides								46.79				46.79
General Pickup Use	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	29.39
Service Truck Use	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.72
Fuel Truck Use	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.73
TOTAL PREHARVEST COSTS	23.65	2.80	2.80	2.80	2.80	81.05	116.21	65.96	21.90	16.44	2.80	339.24
Harvest:												
Combine											12.61	12.61
Crop Hauling											26.10	26.10
TOTAL HARVEST COSTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.71	38.71
Interest on Operating Capital @6.25%	0.12	0.14	0.15	0.17	0.18	0.60	1.21	1.55	1.67	1.75	1.97	9.51
TOTAL OPERATING COSTS/ACRE	23.77	2.94	2.96	2.97	2.99	81.66	117.42	67.51	23.57	18.20	43.48	387.46
CASH OVERHEAD												
General Overhead	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	10.00
Land Rent						250.00						250.00
Management Fee	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	37.00
Property Taxes												0.00
Property Insurance							1.56					1.56
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
TOTAL CASH OVERHEAD COSTS	4.27	4.27	4.27	4.27	4.27	254.27	5.84	4.27	4.27	4.27	4.27	298.56
TOTAL CASH COSTS/ACRE	28.05	7.21	7.23	7.24	7.26	335.93	123.25	71.79	27.84	22.47	47.75	686.02

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TABLE 4. HOURLY EQUIPMENT COSTS

		Spring Feed Barley	Total		Cash Ov	verhead		Operating		_
		Hours	Hours	Capital	Insur-		Lube&		Total	Total
Yr	Description	Used	Used	Recovery	ance	Taxes	Repairs	Fuel	Oper.	Costs/Hr.
15	4-wheeler	73	150	4.08	0.12	0.00	0.70	0.82	1.52	5.72
15	Grain Drill - 24'	60	65	56.90	1.46	0.00	7.12	0.00	7.12	65.47
15	Pickup 1 - 3/4 ton	138	750	9.04	0.17	0.00	3.30	8.16	11.46	20.67
15	Pickup 2 - 3/4 ton	138	750	9.04	0.17	0.00	3.30	8.16	11.46	20.67
15	Tractor 2 -200hp	66	500	24.41	0.82	0.00	11.46	21.22	32.68	57.90
15	Truck 1P 10-Wheeler	9	370	20.31	0.61	0.00	2.55	2.48	5.03	25.95
15	Tractor - 125hp	22	200	36.16	1.22	0.00	3.95	13.24	17.19	54.57
15	Tractor - 250hp	90	500	33.29	1.12	0.00	15.41	27.48	42.88	77.30
15	Disk-Ripper 13'	82	165	27.87	0.71	0.00	18.68	0.00	18.68	47.27
15	Roller Harrow 24'	60	125	39.14	1.09	0.00	12.28	0.00	12.28	52.50
15	Combine 25' Grain	82	225	162.89	3.98	0.00	29.66	21.50	51.16	218.04
15	Sprayer - 50' 200 gal	20	100	4.45	0.12	0.00	1.96	0.00	1.96	6.53
15	Pickup 3 - 3/4 ton	66	325	12.64	0.34	0.00	3.30	8.16	11.46	24.45
15	Pickup 4 - 3/4 ton	66	325	12.64	0.34	0.00	3.30	8.16	11.46	24.45
15	Service Truck	12	80	39.30	1.24	0.00	2.88	6.88	9.75	50.29
15	Fuel Truck	12	80	49.11	1.52	0.00	3.33	6.88	10.20	60.83

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

ANNUAL EQUIPMENT COSTS

						Cash Ove	rhead		
			Yrs	Salvage	Capital	Insur-			
Yr	Description	Price	Life	Value	Recovery	ance	Taxes	Total	
15	4-wheeler	6,000.00	10	1,772.31	680.75	19.43	0.00	700.18	
15	Grain Drill - 24'	37,000.00	12	5,124.74	4,109.47	105.31	0.00	4,214.78	
15	Pickup 1 - 3/4 ton	42,000.00	5	13,750.00	7,531.45	139.38	0.00	7,670.82	
15	Pickup 2 - 3/4 ton	42,000.00	5	13,750.00	7,531.45	139.38	0.00	7,670.82	
15	Tractor 2 -200hp	162,000.00	20	20,786.46	13,558.83	456.97	0.00	14,015.79	
15	Truck 1P 10-Wheeler	97,000.00	20	4,000.00	8,348.16	252.50	0.00	8,600.66	
15	Tractor - 125hp	96,000.00	20	12,317.90	8,034.86	270.79	0.00	8,305.66	
15	Tractor - 250hp	221,000.00	20	28,356.84	18,496.92	623.39	0.00	19,120.31	
15	Disk-Ripper 13'	46,000.00	12	6,371.30	5,109.07	130.93	0.00	5,240.00	
15	Roller Harrow 24'	55,000.00	15	5,280.35	5,436.09	150.70	0.00	5,586.79	
15	Combine 25' Grain	335,000.00	10	63,191.32	40,721.57	995.48	0.00	41,717.05	
15	Sprayer - 50' 200 gal	5,000.00	15	480.03	494.19	13.70	0.00	507.89	
15	Pickup 3 - 3/4 ton	42,000.00	12	7,500.00	4,565.06	123.75	0.00	4,688.81	
15	Pickup 4 - 3/4 ton	42,000.00	12	7,500.00	4,565.06	123.75	0.00	4,688.81	
15	Service Truck	41,000.00	20	3,000.00	3,493.01	110.00	0.00	3,603.01	
15	Fuel Truck	51,000.00	20	3,000.00	4,364.86	135.00	0.00	4,499.86	
	TOTAL	1,320,000.00	-	196,181.27	137,040.80	3,790.45	0.00	140,831.25	
	90% of New Cost*	1,188,000.00	-	176,563.15	123,336.72	3,411.41	0.00	126,748.12	

^{*}Used to reflect a mix of new and used equipment

ANNUAL INVESTMENT COSTS

					Cash Ov	erhead			
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

	Units/		Price/	Total
Description	Farm	Unit	Unit	Cost
General Overhead	550	acre	10.00	5,500.00
Land Rent	550	acre	250	137,500.00
Management Fee	550	acre	37	20,350.00

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TABLE 6. RANGING ANALYSIS - SPRING FEED BARLEY

COSTS PER ACRE AND PER BU AT VARYING YIELDS TO PRODUCE SPRING FEED BARLEY

_			YI	ELD(BU)			
	125.00	130.00	135.00	140.00	145.00	150.00	155.00
OPERATING COSTS/ACRE:							
Preharvest	339.24	339.24	339.24	339.24	339.24	339.24	339.24
Harvest	35.91	36.84	37.77	38.71	39.64	40.57	41.50
Interest on Operating Capital @ 6.25%	9.50	9.50	9.51	9.51	9.52	9.52	9.53
TOTAL OPERATING COSTS/ACRE	384.64	385.58	386.52	387.46	388.39	389.33	390.27
TOTAL OPERATING COSTS/BU	3.08	2.97	2.86	2.77	2.68	2.60	2.52
CASH OVERHEAD COSTS/ACRE	298.56	298.56	298.56	298.56	298.56	298.56	298.56
TOTAL CASH COSTS/ACRE	683.21	684.14	685.08	686.02	686.96	687.89	688.83
TOTAL CASH COSTS/BU	5.47	5.26	5.07	4.90	4.74	4.59	4.44
NON-CASH OVERHEAD COSTS/ACRE	59.16	59.16	59.16	59.16	59.16	59.16	59.16
TOTAL COSTS/ACRE	742.37	743.31	744.25	745.18	746.12	747.06	748.00
TOTAL COSTS/BU	5.94	5.72	5.51	5.32	5.15	4.98	4.83

Net Return Per Acre Above Operating Costs For Spring Feed Barley

PRICE (\$/bu)			YIEI	LD (bu/acre)			
Feed Barley	125.00	130.00	135.00	140.00	145.00	150.00	155.00
3.25	21.61	36.92	52.23	67.54	82.86	98.17	113.48
3.50	52.86	69.42	85.98	102.54	119.11	135.67	152.23
3.75	84.11	101.92	119.73	137.54	155.36	173.17	190.98
4.00	115.36	134.42	153.48	172.54	191.61	210.67	229.73
4.25	146.61	166.92	187.23	207.54	227.86	248.17	268.48
4.50	177.86	199.42	220.98	242.54	264.11	285.67	307.23
4.75	209.11	231.92	254.73	277.54	300.36	323.17	345.98

Net Return Per Acre Above Cash Costs For Spring Feed Barley

PRICE (\$/bu)	YIELD (bu/acre)								
Feed Barley	125.00	130.00	135.00	140.00	145.00	150.00	155.00		
3.25	-276.96	-261.64	-246.33	-231.02	-215.71	-200.39	-185.08		
3.50	-245.71	-229.14	-212.58	-196.02	-179.46	-162.89	-146.33		
3.75	-214.46	-196.64	-178.83	-161.02	-143.21	-125.39	-107.58		
4.00	-183.21	-164.14	-145.08	-126.02	-106.96	-87.89	-68.83		
4.25	-151.96	-131.64	-111.33	-91.02	-70.71	-50.39	-30.08		
4.50	-120.71	-99.14	-77.58	-56.02	-34.46	-12.89	8.67		
4.75	-89.46	-66.64	-43.83	-21.02	1.79	24.61	47.42		

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TABLE 6. RANGING ANALYSIS CONTINUED

Net Return Per Acre Above Total Costs For Spring Feed Barley

PRICE (\$/bu)	YIELD (bu/acre)									
Feed Barley	125.00	130.00	135.00	140.00	145.00	150.00	155.00			
3.25	-336.12	-320.81	-305.50	-290.18	-274.87	-259.56	-244.25			
3.50	-304.87	-288.31	-271.75	-255.18	-238.62	-222.06	-205.50			
3.75	-273.62	-255.81	-238.00	-220.18	-202.37	-184.56	-166.75			
4.00	-242.37	-223.31	-204.25	-185.18	-166.12	-147.06	-128.00			
4.25	-211.12	-190.81	-170.50	-150.18	-129.87	-109.56	-89.25			
4.50	-179.87	-158.31	-136.75	-115.18	-93.62	-72.06	-50.50			
4.75	-148.62	-125.81	-103.00	-80.18	-57.37	-34.56	-11.75			