

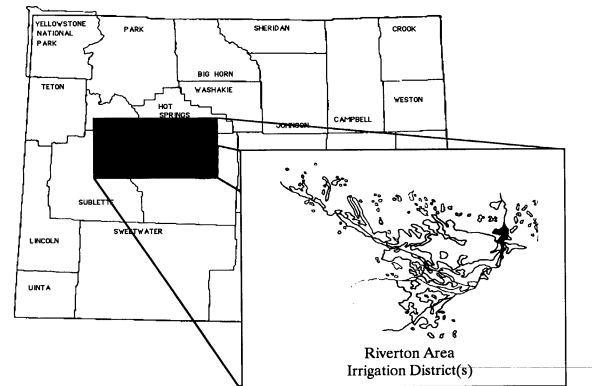
Crop Enterprise Budget

Sugar Beets, Riverton Area

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This enterprise budget presents estimated typical costs and returns sugar beets in the Riverton area of Wyoming. Data presented are not taken from an actual farm situation. A panel of Fremont County producers assisted in outlining the “representative” farm situation described by the budget. Thus, the budget provides a guide to determining costs and returns for specific operations. Production practices presented in the budget are not necessarily “best” management practices. The major assumptions used in this budget are presented below.

LAND

The budget is based on a 480 acre farm, with 120 acres of sugar beets grown each year. Other enterprises included on this farm are: alfalfa establishment, 40 acres; alfalfa hay, 200 acres; dry beans, 40 acres; feed barley, 50 acres; and 273 head of cattle grazed on crop aftermath. The remaining 30 acres include roadways, fence lines, and farmsteads. All owned land is valued at \$800 per acre. Leased land is rented on a cash-lease basis for \$75 per acre. The land owner pays for irrigation water, taxes, insurance, long term interest, and depreciation for owned land and improvements.

LABOR

Labor is provided by the operator and one full-time employee. All labor, including operator labor, is valued at \$5 per hour plus 7.65 percent to cover social security and federal withholding taxes. Labor charges for the owner/operator represent an opportunity cost for the time spent in this enterprise. Some part-time labor may be used on the farm for labor-intensive operations such as harvest.

CAPITAL

The operator provides 50 percent of the long-term capital and 50 percent of the operating capital for this enterprise. Fifty percent of the long-term capital is borrowed at an interest rate of 8.0 percent APR (Annual Percentage Rate). Fifty percent of the operating capital is borrowed at an interest rate of 8.5 percent APR. The interest rates used here are for short-term planning. Real interest rates (interest rates adjusted for expected inflation) should be used for accurate long-term planning.

MACHINERY, EQUIPMENT, AND BUILDINGS

A complete list of the machinery, equipment, and buildings used in this enterprise and the associated values are provided in Table 1. All resources are assumed to be half depreciated. Estimated operating and ownership costs are given in Table 3. Table 3 lists only the resources used in this enterprise. Other resources used on the farm are not included. However, the reader should note that the resources listed in Tables 1 and 3 may also be used in other enterprises on the farm.

Each irrigated acre on the farm is assumed to be irrigated by a fraction of the total irrigation system. The irrigation water provided by each irrigation system is broken down as follows: 18 percent concrete ditch and 82 percent gated pipe (50 percent aluminum and 50 percent plastic). This method was employed because crops will normally be rotated onto all farmed land over time. Table 2 presents an estimate of the cost per acre-inch for providing irrigation water for each type of irrigation.

OPERATIONS

Operations related to sugar beets are listed in chronological order in the enterprise budget. Ground preparation begins in early March, including custom fertilization. Planting usually occurs in early April, with irrigation scheduled for later in the month. The crop is insured against weather damage/loss soon after planting. This budget assumes 50 percent of the beets are thick planted (the traditional method) and 50 percent are planted to stand. Since growers in this area are beginning to adopt the stand-plant method, many are actually following this strategy.

Nine separate irrigations are planned for the beet crop. A total of 47 acre-inches of water is applied per acre of sugar beets.

Thick planted beets are thinned and weeded once by migrant laborers. In addition to wages, migrant laborers are provided leased housing. Stand-planted beets receive an extra application of herbicide and an extra cultivation.

Beet harvest is scheduled for late September. Since this farm assumes aftermath grazing for cattle, 50 percent of the beets are topsaved and 50 percent are defoliated. In addition, a post-harvest field cultivation brings-up any remaining beets or tops, allowing more effective aftermath grazing.

Beets are pulled and hauled using farm-owned equipment. The yield assumed for this budget is 22 tons per acre at 17.5 percent sugar.

ENTERPRISE BUDGET

Economic costs and returns for sugar beets are summarized by operation in the enterprise budget. Costs are broken down by stage of production. General overhead and operator management have been calculated at 5 percent and 10 percent of all cash costs, respectively.

Costs and returns for the cash lease arrangement are also summarized in the budget. Costs paid/received by the tenant, including the cash land rent are listed in the tenant column. Items paid/received by the landowner, including the cash land rent income are included in the landowner column. The far right column has been provided to calculate changes from this base budget for your operation.

SUMMARY

Gross income for the sugar beet enterprise is estimated at \$847.44 per acre. Total variable costs are estimated at \$421.65 per acre, with total fixed costs at \$229.76 per acre. The total of all costs for sugar beets is estimated at \$651.41 per acre, leaving a net projected return of \$196.03 per acre. The net projected returns for the lease arrangement are (\$4.40) per acre for the landowner and \$189.18 per acre for the tenant.

Sugar Beets

Enterprise Budget Economic Costs and Returns per Acre Sugar Beets - Riverton Area 120 Acre Enterprise

RETURNS SECTION -----							
				--- Crop-Share ---			
				Owner- Operator 100%	Land- owner 0%	Tenant 100%	Your Return
GROSS INCOME Description	Quantity	Unit	\$/Unit	Total	Total	Total	
SUGAR BEETS	22.00	TON	38.52	\$847.44	\$0.00	\$847.44	
CASH LAND RENT	1.00	ACRE	75.00	----	75.00	0.00	
Total GROSS Income				\$847.44	\$75.00	\$847.44	

VARIABLE COSTS SECTION -----											
				----- M a t e r i a l s -----			Materials	--- Crop-Share ---			
VARIABLE COST Description	Dollars per Acre			# Units	Unit	\$/unit	Total Cost	Owner- Operator	Land- owner	Tenant	Your Cost
	LABOR	MACHINERY	Description	Per Acre	Type		Per Acre				
ANNUAL											
METAL SHOP								2.30	----		2.30
LOAFING SHED								0.30	----		0.30
4-WHEELER	4.13	7.31						11.44	----		11.44
1/2 TON PICKUP - 2WD	8.97	2.95						11.92	----		11.92
1/2 TON PICKUP - 4WD	8.97	2.95						11.92	----		11.92
CASH LAND RENT							75.00	----	----		75.00
GENERAL OVERHEAD								16.44	----		20.19
OPERATOR MANAGEMENT								32.87	----		40.37
Total ANNUAL								\$87.19	\$0.00		\$173.44
PRE-PLANT FALL											
SPRAY BEETS #1	Operation	0.13	0.17	ROUNDUP	0.17	Gal	47.65	7.91	8.21	----	8.21
PLOW	Operation	1.97	3.95						5.92	----	5.92
ROLLER HARROW	Operation	0.85	1.65						2.50	----	2.50
CUSTOM FERTILIZE 50-50-0								20.78	20.78	----	20.78
ROLLER HARROW	Operation	0.85	1.65						2.50	----	2.50
Total PRE-PLANT FALL									\$39.91	\$0.00	\$39.91
PRE-PLANT SPRING											
ROLLER HARROW	Operation	0.85	1.65						2.50	----	2.50
LEVEL	Operation	1.18	2.25						3.43	----	3.43
LEVEL	Operation	1.18	2.25						3.43	----	3.43
CUSTOM FERTILIZE 50-50-0								20.78	20.78	----	20.78
ROLLER HARROW	Operation	0.85	1.65						2.50	----	2.50
BED GROUND	Operation	0.99	2.03	NORTON	0.10	Gal	167.34	16.90	19.92	----	19.92
Total PRE-PLANT SPRING									\$52.56	\$0.00	\$52.56
PLANT											
PLNT BEETS 1/2 THICK	Oper.	0.42	0.68	BEET SEED REGULAR	0.80	Lbs	22.00	25.16	26.26	----	26.26
				COUNTER	4.00	Lbs	1.89				
PLNT BEETS 1/2 STAND	Oper.	0.42	0.68	BEET SEED PELETS	0.80	Lbs	9.75	15.36	16.46	----	16.46
				COUNTER	4.00	Lbs	1.89				
CROP INSURANCE BEETS								13.28	13.28	----	13.28
Total PLANT									\$56.00	\$0.00	\$56.00
GROW											
LAY GATED PIPE	Operation	0.46	0.25						0.71	----	0.71
CONCRETE DITCH		0.21		Purchased Water			0.29	0.50	0.29		0.21
GATED PIPE		0.52		Purchased Water			1.34	1.86	1.34		0.52
1 MNTH LABOR HOUSING LEASE								3.33	3.33	----	3.33
SPRAY BEETS #2	Operation	0.59	0.45	STINGER	0.01	Gal	349.61	9.42	10.46	----	10.46
				BETAMIX	0.08	Gal	89.41				
SPRAY BEETS #3	Operation	0.59	0.45	STINGER	0.02	Gal	349.61	17.88	18.92	----	18.92
				BETAMIX	0.08	Gal	89.41				
				POAST	0.05	Gal	104.78				
CULTIVATE 6-ROW	Operation	1.48	2.33						3.81	----	3.81

Sugar Beets

VARIABLE COSTS SECTION			----- M a t e r i a l s -----					Materials	--- Crop-Share ---			
VARIABLE COST	Description	Dollars per Acre	LABOR	MACHINERY	Description	# Units	Unit	Total Cost	Owner-Operator	Land-owner	Tenant	Your Cost
							\$/unit	Per Acre				
THIN 1/2 BEETS	LABOR							17.50	17.50	----	17.50	
SPRAY 1/2 BEETS #4	Oper.	0.30	0.23		CROP OIL	0.02	Gal	9.11	2.16	2.69	----	2.69
					POAST	0.02	Gal	104.78				
SIDEDRESS LIQD N	Operation	0.99	1.10		32-0-0 LIQUID	0.09	Ton	180.00	16.74	18.83	----	18.83
1 MTH LABOR HOUSING	LEASE							3.33	3.33	----	3.33	
CULTIVATE 6-RW	Operation	1.48	2.33						3.81	----	3.81	
WEED 1/2 BEETS	LABOR							10.00	10.00	----	10.00	
CULTIVATE 6-RW	Operation	1.48	2.33						3.81	----	3.81	
CONCRETE DITCH		0.21			Purchased Water			0.29	0.50	0.29	0.21	
GATED PIPE		0.52			Purchased Water			1.34	1.86	1.34	0.52	
CONCRETE DITCH		0.21			Purchased Water			0.29	0.50	0.29	0.21	
GATED PIPE		0.52			Purchased Water			1.34	1.86	1.34	0.52	
CULT. 1/2 BEETS 6-RW	Oper.	0.74	1.17						1.91	----	1.91	
CONCRETE DITCH		0.21			Purchased Water			0.29	0.50	0.29	0.21	
GATED PIPE		0.52			Purchased Water			1.34	1.86	1.34	0.52	
CONCRETE DITCH		0.21			Purchased Water			0.29	0.50	0.29	0.21	
GATED PIPE		0.52			Purchased Water			1.34	1.86	1.34	0.52	
CONCRETE DITCH		0.21			Purchased Water			0.29	0.50	0.29	0.21	
GATED PIPE		0.52			Purchased Water			1.34	1.86	1.34	0.52	
CONCRETE DITCH		0.21			Purchased Water			0.29	0.50	0.29	0.21	
GATED PIPE		0.52			Purchased Water			1.34	1.86	1.34	0.52	
CONCRETE DITCH		0.21			Purchased Water			0.29	0.50	0.29	0.21	
GATED PIPE		0.52			Purchased Water			1.34	1.86	1.34	0.52	
Total GROW									\$120.35	\$14.67	\$105.68	

HARVEST												
PIKUP GATED PIPE	Operation	0.46	0.25						0.71	----	0.71	
DEFOLIATE 1/2 BEETS	Oper.	1.18	2.10						3.28	----	3.28	
TOPSAVE 1/2 BEETS	Oper.	0.99	1.83						2.82	----	2.82	
PULL BEETS	Operation	3.95	9.21						13.16	----	13.16	
HAUL BEETS 2 TON	Operation	10.89	7.07						17.96	----	17.96	
HAUL BEETS TNDM	Operation	10.89	5.16						16.05	----	16.05	
BEEET ASSN DUES								1.76	1.76	----	1.76	
Total HARVEST									\$55.74	\$0.00	\$55.74	

POST HARVEST												
FIELD CULT. 1/2 BEETS	Oper.	0.49	0.85						1.34	----	1.34	
Total POST HARVEST									\$1.34	\$0.00	\$1.34	
OPERATING INTEREST									8.56	8.56	----	8.56
Total VARIABLE COST									\$421.65	\$14.67	\$493.23	
GROSS INCOME minus VARIABLE COST									\$425.79	\$60.33	\$354.21	

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FIXED COSTS SECTION -----					
FIXED COST Description	Unit	--- Crop-Share ---			
		Owner- Operator	Land- owner	Tenant	Your Cost
=====	=====	=====	=====	=====	=====
Machinery and Equipment:					
Taxes	Acre	12.91	----	12.91	
Insurance	Acre	14.11	----	14.11	
Long Term Interest	Acre	52.87	----	52.87	
Depreciation	Acre	85.14	----	85.14	
Buildings and Improvements:					
Taxes	Acre	0.52	0.52	----	
Insurance	Acre	0.24	0.24	----	
Long Term Interest	Acre	4.98	4.98	----	
Depreciation	Acre	4.30	4.30	----	
Irrigation:					
Taxes	Acre	0.50	0.50	----	
Insurance	Acre	0.23	0.23	----	
Long Term Interest	Acre	4.24	4.24	----	
Depreciation	Acre	6.43	6.43	----	
Land:					
Taxes	Acre	4.31	4.31	----	
Long Term Interest	Acre	38.98	38.98	----	
=====	=====	=====	=====	=====	=====
Total FIXED Cost		\$229.76	\$64.73	\$165.03	
-----	-----	-----	-----	-----	-----
Total of ALL Cost		\$651.41	\$79.40	\$658.26	

NET PROJECTED RETURNS		\$196.03	(\$4.40)	\$189.18	

Sugar Beets

TABLE 1. Machinery, Equipment, and Building Value and Use Assumptions

Resource Name	Current List Price	Current Market Value	Salvage Value	Total Defined Annual Use	Useful Life	Remaining Life
=====	=====	=====	=====	=====	=====	=====
100 HP TRACTOR 2WD	\$43,409	\$29,279	\$15,149	986 Hours	7,888 Hours	3,944 Hours
140 HP TRACTOR 2WD	\$55,430	\$31,271	\$7,112	223 Hours	4,460 Hours	2,230 Hours
4-WHEELER 2WD	\$1,729	\$1,127	\$526	1,000 Hours	5,000 Hours	2,500 Hours
ATV BOOM SPRAYER12-ROW	\$2,552	\$1,390	\$229	30 Hours	450 Hours	225 Hours
BEET BEDDER 12-ROW	\$13,868	\$7,295	\$723	20 Hours	400 Hours	200 Hours
BEET DEFOLIATOR 6-ROW	\$13,805	\$7,262	\$720	24 Hours	480 Hours	240 Hours
BEET DIGGER 3-ROW	\$24,309	\$12,498	\$688	80 Hours	2,000 Hours	1,000 Hours
BEET TOPSAVER 6-ROW	\$17,768	\$9,020	\$273	20 Hours	600 Hours	300 Hours
CULTIVATOR 6-ROW22 INCH	\$5,601	\$2,946	\$292	105 Hours	2,100 Hours	1,050 Hours
FIELD CULTIVATOR18 FT	\$4,530	\$2,383	\$236	25 Hours	500 Hours	250 Hours
LAND PLANE 12X45 FT	\$8,414	\$4,426	\$439	64 Hours	1,280 Hours	640 Hours
PIPE TRAILER	\$1,213	\$616	\$19	78 Hours	2,340 Hours	1,170 Hours
PLANTER 12-ROW 22 INCH	\$16,924	\$9,634	\$2,344	18 Hours	216 Hours	108 Hours
PLOW 2-WAY 4-18'S	\$6,143	\$3,232	\$320	54 Hours	1,080 Hours	540 Hours
ROLLER HARROW 15 FT	\$7,733	\$4,068	\$403	93 Hours	1,860 Hours	930 Hours
SPRAYER 3-POINT 30 FT	\$2,461	\$1,341	\$221	6 Hours	90 Hours	45 Hours
1/2 TON PICKUP 4WD	\$12,437	\$7,810	\$3,184	10,000 Miles	75,000 Miles	37,500 Miles
2 TON TRUCK	\$10,974	\$6,452	\$1,931	4,730 Miles	50,000 Miles	25,000 Miles
3/4 TON PICKUP 4WD	\$15,315	\$9,618	\$3,921	10,000 Miles	75,000 Miles	37,500 Miles
TANDEM TRUCK	\$16,628	\$9,458	\$2,289	3,975 Miles	50,000 Miles	25,000 Miles
CONCRETE DITCH	\$2,812	\$1,666	\$520	3,913 Ac-In	39,750 Ac-In	19,875 Ac-In
GATED PIPE	\$51,140	\$27,759	\$5,237	18,180 Ac-In	272,700 Ac-In	136,350 Ac-In
FENCES 3.0 MILES		\$7,207	\$721		30 Years	15 Years
LOAFING SHED 16 x 40		\$5,000	\$500		30 Years	15 Years
METAL SHOP 40 x 80		\$20,000	\$2,000		30 Years	15 Years

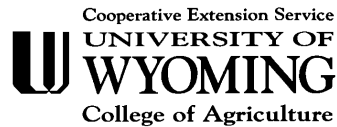
TABLE 2. Irrigation System Costs per Acre-Inch Delivered

	Concrete <u>Ditch</u>	Gated <u>Pipe</u>
Variable Costs		
Repair and Maintenance (Off-Farm).....	\$ - -	\$0.04
Owner Operation Labor.....	0.23	0.08
Purchased Water.....	0.31	0.31
Fixed Costs		
Taxes.....	- - -	0.01
Interest on Investment.....	0.03	0.10
Depreciation.....	0.06	0.15
Insurance.....	- - -	0.01
Total Cost per Acre-Inch of Irrigation Water Delivered.....	\$0.63	\$0.70

Sugar Beets

TABLE 3. Machinery, Equipment, and Building Cost Calculations

Machine/Vehicle	Unit		-----Variable-----			-----Fixed-----			TOTAL COST	Resource Use per Acre	----- ENTERPRISE -----		
			Fuel and Lube	Operation Labor & Inputs	Repair and Maint.	Hourly Lease	Deprec. and Interest	Taxes and Insurance			-----Costs Variable	Resource per Acre Fixed	TOTAL
100 HP TRACTOR	2WD	\$/Hour	\$4.76	\$0.00	\$3.85	\$0.00	\$4.11	\$0.35	\$13.07	2.3939	\$20.61	\$10.68	\$31.29
140 HP TRACTOR	2WD	\$/Hour	6.66	0.00	2.60	0.00	15.23	1.64	26.13	1.4833	13.74	25.02	38.76
4-WHEELER	2WD	\$/Hour	2.27	0.00	1.28	0.00	0.19	0.01	3.75	3.4833	12.37	0.70	13.07
ATV BOOM SPRAYER	12-ROW	\$/Hour	0.00	0.00	0.89	0.00	6.25	0.54	7.68	0.2500	0.22	1.70	1.92
BEEET BEDDER	12-ROW	\$/Hour	0.00	0.00	1.28	0.00	43.72	4.27	49.27	0.1667	0.21	8.00	8.21
BEEET DEFOLIATOR	6-ROW	\$/Hour	0.00	0.00	2.56	0.00	36.26	3.55	42.37	0.2000	0.51	7.96	8.47
BEEET DIGGER	3-ROW	\$/Hour	0.00	0.00	6.57	0.00	17.16	1.83	25.56	0.6667	4.38	12.66	17.04
BEEET TOPSAVER	6-ROW	\$/Hour	0.00	0.00	2.96	0.00	53.71	5.28	61.95	0.1667	0.49	9.83	10.32
CULTIVATOR 6-ROW	22 INCH	\$/Hour	0.00	0.00	2.72	0.00	3.36	0.33	6.41	0.8750	2.38	3.23	5.61
FIELD CULTIVATOR	18 FT	\$/Hour	0.00	0.00	1.11	0.00	11.42	1.12	13.65	0.0833	0.09	1.05	1.14
LAND PLANE	12X45 FT	\$/Hour	0.00	0.00	2.53	0.00	8.29	0.81	11.63	0.4000	1.01	3.64	4.65
PIPE TRAILER		\$/Hour	0.00	0.00	0.59	0.00	0.80	0.09	1.48	0.0822	0.05	0.07	0.12
PLANTER 12-ROW	22 INCH	\$/Hour	0.00	0.00	2.14	0.00	76.28	6.27	84.69	0.1428	0.31	11.79	12.10
PLOW 2-WAY	4-18'S	\$/Hour	0.00	0.00	3.02	0.00	7.17	0.70	10.89	0.3333	1.01	2.62	3.63
ROLLER HARROW	15 FT	\$/Hour	0.00	0.00	1.60	0.00	5.24	0.51	7.35	0.5716	0.91	3.29	4.20
SPRAYER 3-POINT	30 FT	\$/Hour	0.00	0.00	0.53	0.00	30.14	2.62	33.29	0.0222	0.01	0.73	0.74
1/2 TON PICKUP	4WD	\$/Mile	0.07	0.00	0.00	0.00	0.24	0.05	0.36	41.6667	2.92	12.08	15.00
2 TON TRUCK		\$/Mile	0.23	0.00	0.00	0.00	0.35	0.09	0.67	30.3417	6.98	13.35	20.33
3/4 TON PICKUP	4WD	\$/Mile	0.07	0.00	0.00	0.00	0.30	0.06	0.43	41.6667	2.92	15.00	17.92
TANDEM TRUCK		\$/Mile	0.17	0.00	0.00	0.00	0.54	0.16	0.87	30.3417	5.16	21.24	26.40
CONCRETE DITCH		\$/Ac-In	0.00	0.54	0.00	0.00	0.09	0.00	0.63	8.2800	4.47	0.75	5.22
GATED PIPE		\$/Ac-In	0.00	0.39	0.04	0.00	0.25	0.02	0.70	38.7000	16.64	10.45	27.09
FENCES	3.0 MILES	\$/Year	0.00	0.00	0.00	0.00	1,199.24	84.44	1,283.68	0.0020	0.00	2.57	2.57
LOAFING SHED	16 X 40	\$/Year	0.00	0.00	153.80	0.00	688.00	58.58	900.38	0.0020	0.31	1.49	1.80
METAL SHOP	40 X 80	\$/Year	1,000.00	0.00	153.80	0.00	2,752.00	234.33	4,140.13	0.0020	2.31	5.97	8.28



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