

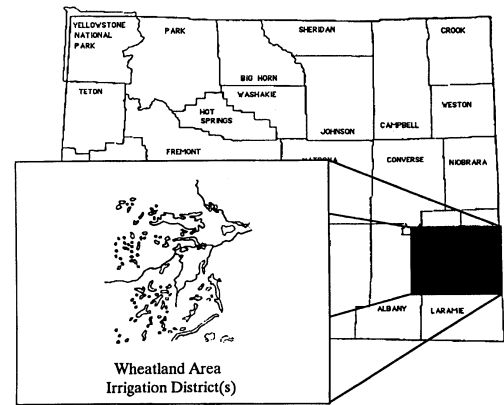
Crop Enterprise Budget

Dry Beans, Wheatland Area

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MP-72.2

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This enterprise budget presents estimated typical costs and returns for dry beans in the Wheatland area of Wyoming. It should be used only as a guide. The data presented are not taken from an actual farm. The major assumptions used in this budget are presented below.

LAND

The budget is based on a 500-acre farm, with 75 acres of dry beans grown each year. Other enterprises included on this farm are: alfalfa establishment, 17 acres; alfalfa hay, 100 acres; sugar beets, 100 acres; corn for grain, 62.5 acres; corn for silage, 62.5 acres; and setaside program, 23 acres. The remaining 60 acres include roadways, fence lines, and farmsteads. Owned land is valued at \$750 per acre for flood-irrigated land and \$850 per acre for center pivot-irrigated land. Leased land is rented on a crop-share basis. For dry beans, a 25 percent share of gross revenue is paid to the landowner. In turn, the landowner pays for all purchased irrigation water and 2 percent of the fertilizer, herbicide, and insecticide applied to the crop.

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 is 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 9.75 percent APR (Annual Percentage Rate). Fifty percent of the operating capital is borrowed at an interest rate of 9 percent APR. The interest rates used here are for short-term planning. Real interest rates should be used for accurate long-term planning.

MACHINERY, EQUIPMENT, AND BUILDINGS

A complete list of 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: 30 percent center pivot, 25 percent concrete ditch and tubes, and 45 percent gated pipe (plastic and aluminum, 50 percent each). This method was employed because crops will normally be rotated onto all farmed land over time. Table 2 estimates the cost per acre-inch for providing irrigation water with each irrigation system.

OPERATIONS

Operations related to dry bean production are listed in chronological order in the enterprise budget. The ground is prepared in early March, including fertilization. The beans are usually planted early in the following month. Irrigation is started in early July, with a total of six irrigations per growing season. A total of 23 acre inches of water is delivered per acre of dry beans.

Fifty percent of the bean crop is insured against weather damage/loss. The beans are weeded once by migrant laborers. Bean harvest begins in late August with cutting and rodweeding. The beans are then threshed and hauled using equipment owned by the farm. The budgeted yield is 18 hundredweight per acre

ENTERPRISE BUDGET

Economic costs and returns for dry bean production 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 crop share-lease arrangement are also summarized in the budget. Costs paid in whole or in part by the landowner are listed in the landowner column. The tenant column describes the tenant's share of the appropriate cost and return items. The far right column has been provided to calculate changes from this base budget for your operation.

SUMMARY

Gross income for the dry bean enterprise is estimated at \$270 per acre. Total variable costs are estimated at \$252.16 per acre, with total fixed costs at \$192.85 per acre. The total of all costs for dry beans is estimated at \$445.01 per acre, leaving a net projected return of (175.01) per acre. The net projected returns for the share-lease arrangement are (\$46.61) per acre for the landowner and (\$128.40) per acre for the tenant.

Dry Beans

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	\$45,054	\$26,562	\$8,070	635 Hours	10,160 Hours	5,080 Hours
140 HP TRACTOR MFD	\$59,492	\$33,563	\$7,634	496 Hours	9,920 Hours	4,960 Hours
70 HP TRACTOR 2WD	\$27,245	\$15,370	\$3,496	323 Hours	6,460 Hours	3,230 Hours
COMBINE 100 BU	\$70,835	\$37,387	\$3,938	69 Hours	1,380 Hours	690 Hours
6-ROW CULTIVATOR	\$7,253	\$4,552	\$1,850	284 Hours	1,988 Hours	994 Hours
6-ROW PLANTER	\$6,785	\$3,862	\$940	94 Hours	1,128 Hours	564 Hours
BEAN CUTTER 6-ROW	\$12,709	\$6,686	\$662	25 Hours	500 Hours	250 Hours
FERTILIZER SPREDRLEASED	----	----	----	42 Hours	504 Hours	252 Hours
LEVELER 12 FT	\$6,832	\$3,594	\$356	48 Hours	960 Hours	480 Hours
PICKUP HEADER 13 FT	\$5,289	\$2,792	\$294	38 Hours	760 Hours	380 Hours
PIPE TRAILER 30 FT	\$1,416	\$745	\$74	47 Hours	940 Hours	470 Hours
PLOW 2-WAY 5-18'S	\$6,860	\$3,632	\$404	114 Hours	2,166 Hours	1,083 Hours
RIPPER BAR 18 FT	\$2,846	\$1,497	\$148	22 Hours	440 Hours	220 Hours
RODWEEDER 15 FT	\$2,124	\$1,117	\$111	25 Hours	500 Hours	250 Hours
ROLLER HARROW	\$7,973	\$4,369	\$765	134 Hours	2,010 Hours	1,005 Hours
TANDEM DISK 21 FT	\$11,959	\$6,291	\$623	68 Hours	1,360 Hours	680 Hours
WEED BURNER	\$53	\$28	\$3	10 Hours	200 Hours	100 Hours
1/2 TON PICKUP 2WD	\$14,279	\$8,967	\$3,656	10,000 Miles	75,000 Miles	37,500 Miles
1/2 TON PICKUP 4WD	\$16,190	\$10,167	\$4,145	10,000 Miles	75,000 Miles	37,500 Miles
2 TON TRUCK #1	\$11,605	\$6,055	\$505	2,276 Miles	50,072 Miles	25,036 Miles
2 TON TRUCK #2	\$9,494	\$4,890	\$287	2,250 Miles	56,250 Miles	28,125 Miles
CENTER PIVOT	\$29,337	\$16,171	\$3,004	2,929 AcIns	43,935 AcIns	21,968 AcIns
CONCRETE DITCH	\$21,814	\$10,907	\$0	3,975 AcIns	99,375 AcIns	49,688 AcIns
GATED PIPE	\$21,422	\$11,808	\$2,194	7,233 AcIns	108,495 AcIns	54,248 AcIns
GRND WATER WELL	\$10,530	\$5,424	\$318	969 AcIns	24,225 AcIns	12,113 AcIns
METAL SHOP 20 X 20		\$10,000	\$1,000		30 Years	15 Years
POLE BARN 40 X 80		\$16,500	\$1,650		30 Years	15 Years

TABLE 2. Irrigation System Costs per Acre-Inch Delivered

	Center Pivot	Concrete Ditch	Gated Pipe	Ground Water Well
VARIABLE COSTS	=====	=====	=====	=====
Fuel Cost	\$0.81	\$----	\$----	\$2.22
Repair and Maintenance (off-farm)	0.69	----	0.06	0.27
Owner Operation Labor	0.05	----	----	----
Hired Operation Labor	----	0.29	0.09	----
Purchased Water	----	0.64	0.64	----
FIXED COSTS				
Taxes 0.07	0.03	0.04	0.11	
Interest on Investment	0.54	0.24	0.28	0.95
Depreciation	0.68	0.24	0.32	0.55
Insurance	0.05	0.02	0.02	0.07
=====	=====	=====	=====	=====
TOTAL COST PER ACRE-INCH DELIVERED	\$2.89	\$1.46	\$1.45	\$4.17

Dry Beans

Enterprise Budget Economic Costs and Returns per Acre Dry Beans - Wheatland Area 75-Acre Enterprise

RETURNS SECTION -----

GROSS INCOME Description	Quantity	Unit	\$/Unit	Owner-	Land-	Tenant	Your
				Operator	owner	Total	
				100%	25%	75%	
				Total	Total	Total	Return
DRY BEANS	18.00	CWT	15.00	\$270.00	\$67.50	\$202.50	
Total GROSS Income				\$270.00	\$67.50	\$202.50	

VARIABLE COSTS SECTION -----

VARIABLE COST Description	Dollars per Acre		M a t e r i a l s				Materials Total Cost Per Acre	Crop-Share		Your Cost
	LABOR	MACHINERY	Description	# Units Per Acre	Unit Type	\$/unit		Operator	Land- owner	
ANNUAL										
METAL SHOP - 20 X 20								2.14	----	2.14
POLE BARN - 40 X 80								1.24	----	1.24
1/2 TON PICKUP - 2WD	4.95	4.30						9.25	----	9.25
1/2 TON PICKUP - 4WD	4.95	4.83						9.78	----	9.78
GENERAL OVERHEAD								10.09	----	10.09
OPERATOR MANAGEMENT								20.18	----	20.18
Total ANNUAL								52.68	0.00	52.68
PRE-PLANT										
CLEAN DITCHES	Operation 0.26	0.02						0.28	----	0.28
DISK	Operation 0.74	2.02						2.76	----	2.76
PLOW	Operation 1.97	6.41						8.38	----	8.38
ROLLER HARROW	Operation 1.18	2.31						3.49	----	3.49
LEVEL	Operation 1.32	4.12						5.44	----	5.44
SPREAD FERTILIZER	Operation 0.59	0.73	FERTILIZER SPREDR	1.000	Acres	0.50	16.22	17.54	4.06	13.48
			11-52-0	0.050	TON	264.00				
			20ZN-10FE-15MN	0.007	TON	360.00				
SPRAY BEANS	Operation 0.00	0.00	TREFLAN	0.125	GAL	34.28	18.34	18.34	4.59	13.75
			EPTAM	0.375	GAL	28.15				
			CUSTOM SPRAY	1.000	ACRE	3.50				
ROLLER HARROW	Operation 1.32	2.57						3.89	----	3.89
Total PRE-PLANT								60.12	8.65	51.47
PLANT										
CROP INSURANCE BEANS							3.30	3.30	----	3.30
HAUL BEAN SEED	Operation 0.07	0.09						0.16	----	0.16
PLANT BEANS	Operation 1.48	2.85	BEAN SEED	60.000	LBS	0.29	17.40	21.73	----	21.73
Total PLANT								25.19	0.00	25.19
GROW BEANS										
CULTIVATE 6-ROWS	Operation 1.97	4.05						6.02	----	6.02
CULTIVATE 6-ROWS	Operation 1.97	4.05						6.02	----	6.02
LAY GATED PIPE	Operation 0.41	0.15						0.56	----	0.56
CENTER PIVOT	0.04	1.23						1.27	----	1.27
GRND WATER WELL		0.70						0.70	----	0.70
CONCRETE DITCH	0.30	0.00	Purchased Water				0.68	0.98	0.68	0.30
GATED PIPE	0.18	0.11	Purchased Water				1.25	1.54	1.25	0.29
CENTER PIVOT	0.04	1.23						1.27	----	1.27
GRND WATER WELL		0.70						0.70	----	0.70
CONCRETE DITCH	0.30	0.00	Purchased Water				0.68	0.98	0.68	0.30
GATED PIPE	0.18	0.11	Purchased Water				1.25	1.54	1.25	0.29
CULTIVATE 6-ROWS	Operation 1.48	3.41						4.89	----	4.89
CENTER PIVOT	0.04	1.23						1.27	----	1.27
GRND WATER WELL		0.70						0.70	----	0.70
CONCRETE DITCH	0.30	0.00	Purchased Water				0.68	0.98	0.68	0.30
GATED PIPE	0.18	0.11	Purchased Water				1.25	1.54	1.25	0.29
SPRAY BEANS	Operation 0.00	0.00	ASANA	0.023	GAL	134.80	6.60	6.60	1.65	4.95
			CUSTOM SPRAY	1.000	ACRE	3.50				
CENTER PIVOT	0.04	1.23						1.27	----	1.27
GRND WATER WELL		0.70						0.70	----	0.70
CONCRETE DITCH	0.30	0.00	Purchased Water				0.68	0.98	0.68	0.30

Wheatland Area, June 1992

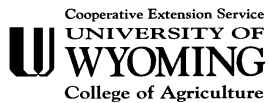
Dry Beans

GATED PIPE	0.18	0.11	Purchased Water			1.25	1.54	1.25	0.29	
CENTER PIVOT	0.04	1.23					1.27	----	1.27	
VARIABLE COSTS SECTION -----										
	Dollars per Acre		----- M a t e r i a l s -----			Materials		--- Crop-Share ---		Your
VARIABLE COST Description	LABOR	MACHINERY	Description	# Units Per Acre	Unit Type	\$/unit	Total Cost Per Acre	Owner-Operator	Land-owner	Tenant
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
GRND WATER WELL		0.70						0.70	----	0.70
CONCRETE DITCH	0.30	0.00	Purchased Water				0.68	0.98	0.68	0.30
GATED PIPE	0.18	0.11	Purchased Water				1.25	1.54	1.25	0.29
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Total GROW BEANS								81.03	13.23	67.80
HARVEST										
PIKUP GATED PIPE Operation	0.41	0.15						0.56	----	0.56
CUT BEANS Operation	1.97	4.22						6.19	----	6.19
RODWEEED BEANS Operation	.97	1.53						3.50	----	3.50
THRESH BEANS Operation	2.96	9.14						12.10	----	12.10
HAUL CROP 8TN/LD Operation	0.28	0.35						0.63	----	0.63
HAUL CROP 8TN/LD Operation	0.28	0.35						0.63	----	0.63
DISK Operation	0.74	2.02						2.76	----	2.76
RIP GROUND Operation	0.74	1.76						2.50	----	2.50
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Total HARVEST								28.87	0.00	28.87
Operating Interest								4.27	----	4.27
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Total VARIABLE COST								\$252.16	\$21.88	\$230.28
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
GROSS INCOME minus VARIABLE COST								\$17.84	\$45.62	(\$27.78)
FIXED COSTS SECTION -----										
			--- Crop-Share ---							Your
FIXED COST Description	Unit	Owner-Operator	Land-owner	Tenant						Cost
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Machinery and Equipment:										
Taxes	Acre	7.73	----	7.73						
Insurance	Acre	8.35	----	8.35						
Long-term Interest	Acre	43.11	----	43.11						
Depreciation	Acre	41.43	----	41.43						
Buildings and Improvements:										
Taxes	Acre	0.70	0.70	----						
Insurance	Acre	0.45	0.45	----						
Long-term Interest	Acre	6.27	6.27	----						
Depreciation	Acre	3.97	3.97	----						
Irrigation:										
Taxes	Acre	0.89	0.89	----						
Insurance	Acre	0.49	0.49	----						
Long-term Interest	Acre	9.02	9.02	----						
Depreciation	Acre	9.54	9.54	----						
Land:										
Taxes	Acre	8.78	8.78	----						
Long-term Interest	Acre	52.13	52.13	----						
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Total FIXED Cost		\$192.85	\$92.23	\$100.62						
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Total of ALL Cost		\$445.01	\$114.11	\$330.90						
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
NET PROJECTED RETURNS		(\$175.01)	(\$46.61)	(\$128.40)						
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

Dry Beans

TABLE 3. Machinery, Equipment, and Building Cost Calculations

		RESOURCE COST PER UNIT OF USE							ENTERPRISE				
		-----Variable-----				-----Fixed-----							
Machine/Vehicle	Unit	Fuel and Lube	Operation and Labor & Inputs	Repair and Maint.	Hourly Lease	Deprec. and Interest	Taxes and Insurance	TOTAL COST	Resource Use per Acre	-----Costs per Acre-----			TOTAL
										Variable	Fixed	TOTAL	
100 HP TRACTOR	2WD	\$/Hour	\$5.17	\$0.00	\$4.86	\$0.00	\$4.48	\$0.72	\$15.23	2.0221	\$20.28	\$10.52	\$30.80
140 HP TRACTOR	MFD	\$/Hour	7.24	0.00	6.20	0.00	6.66	1.17	21.27	0.9305	12.51	7.29	19.80
70 HP TRACTOR	2WD	\$/Hour	3.62	0.00	1.85	0.00	4.69	0.82	10.98	0.4047	2.21	2.23	4.44
COMBINE 100 BU		\$/Hour	10.38	0.00	8.21	0.00	53.44	9.35	81.38	0.5000	9.30	31.40	40.70
6-ROW CULTIVATOR		\$/Hour	0.00	0.00	3.63	0.00	2.46	0.28	6.37	0.9167	3.33	2.51	5.84
6-ROW PLANTER		\$/Hour	0.00	0.00	4.48	0.00	5.08	0.71	10.27	0.2500	1.12	1.45	2.57
BEAN CUTTER	6-ROW	\$/Hour	0.00	0.00	1.82	0.00	26.38	4.62	32.82	0.3333	0.61	10.33	10.94
FERTILIZER SPREDR	LEASED	\$/Hour	0.00	0.00	0.00	5.00	0.00	0.00	5.00	0.1000	0.50	0.00	0.50
LEVELER	12 FT	\$/Hour	0.00	0.00	1.64	0.00	7.39	1.29	10.32	0.2221	0.36	1.93	2.29
PICKUP HEADER	13 FT	\$/Hour	0.00	0.00	0.34	0.00	7.25	1.27	8.86	0.5000	0.17	4.26	4.43
PIPE TRAILER	30 FT	\$/Hour	0.00	0.00	0.33	0.00	1.56	0.27	2.16	0.0715	0.02	0.13	0.15
PLOW 2-WAY	5-18'S	\$/Hour	0.00	0.00	5.90	0.00	3.04	0.52	9.46	0.3333	1.97	1.19	3.16
RIPPER BAR	18 FT	\$/Hour	0.00	0.00	0.67	0.00	6.71	1.18	8.56	0.1251	0.08	0.99	1.07
RODWEEDER	15 FT	\$/Hour	0.00	0.00	0.25	0.00	4.41	0.77	5.43	0.3333	0.08	1.73	1.81
ROLLER HARROW		\$/Hour	0.00	0.00	1.69	0.00	3.66	0.56	5.91	0.4221	0.71	1.78	2.49
TANDEM DISK	21 FT	\$/Hour	0.00	0.00	2.89	0.00	9.12	1.60	13.61	0.2500	0.72	2.68	3.40
WEED BURNER		\$/Hour	0.93	0.00	0.00	0.00	0.53	0.05	1.51	0.0240	0.02	0.01	0.03
1/2 TON PICKUP	2WD	\$/Mile	0.10	0.00	0.06	0.00	0.26	0.07	0.49	27.5863	4.41	9.10	13.51
1/2 TON PICKUP	4WD	\$/Mile	0.10	0.00	0.07	0.00	0.29	0.08	0.54	27.5863	4.69	10.21	14.90
2 TON TRUCK	#1	\$/Mile	0.24	0.00	0.20	0.00	0.48	0.21	1.13	0.9883	0.43	0.68	1.11
2 TON TRUCK	#2	\$/Mile	0.24	0.00	0.20	0.00	0.37	0.17	0.98	0.7883	0.35	0.43	0.78
CENTER PIVOT		\$/Ac-In	0.81	0.05	0.87	0.00	1.76	0.12	3.61	4.7400	8.20	8.91	17.11
CONCRETE DITCH		\$/Ac-In	0.00	0.93	0.00	0.00	0.91	0.06	1.90	6.4800	6.03	6.29	12.32
GATED PIPE		\$/Ac-In	0.00	0.73	0.08	0.00	0.99	0.08	1.88	11.7600	9.53	12.58	22.11
GRND WATER WELL		\$/Ac-In	2.22	0.00	0.52	0.00	2.58	0.23	5.55	1.5600	4.27	4.38	8.65
METAL SHOP	20 X 20	\$/Year	720.00	0.00	140.37	0.00	1,545.75	131.63	2,537.75	0.0020	1.72	3.35	5.07
POLE BARN	40 X 80	\$/Year	360.00	0.00	140.37	0.00	2,550.49	217.20	3,268.06	0.0020	1.00	5.54	6.54



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