

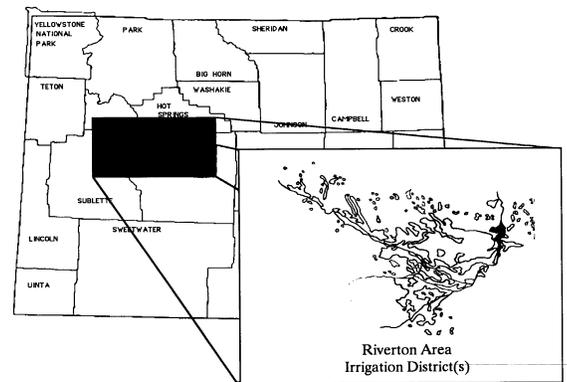
Crop Enterprise Budget

Feed Barley, Riverton Area

John P. Hewlett, Farm/Ranch Management Extension Specialist
Barry R. Munsell, Student Research Assistant
Tom Heald, Extension Educator
Alan Gray, Extension Agronomy Specialist
Ron Cunningham, Extension Educator
Fremont County Producers

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This enterprise budget presents estimated typical costs and returns feed barley 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 50 acres of feed barley grown each year. Other enterprises included on this farm are: alfalfa establishment, 40 acres; alfalfa hay, 200 acres; dry beans, 40 acres; sugar beets, 120 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 feed barley are listed in chronological order in the enterprise budget. Ground preparation begins in mid March, including custom fertilization. Planting usually occurs in later March and the crop is insured against weather damage/loss. After corrugating, irrigation begins in mid May. A total of 5 irrigations are scheduled for the growing season. The first four irrigations are for the feed barley crop, while the fifth is used to produce additional forage for the aftermath grazing enterprise. A total of 33 acre-inches of water is applied per acre of feed barley.

Harvest begins around mid August. The crop is swathed and custom threshed. Once the owned grain storage is filled, the remaining barley crop is hauled to a local elevator, where it stored for an average of three months before it is sold.

ENTERPRISE BUDGET

Economic costs and returns for feed barley 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 feed barley enterprise is estimated at \$200.00 per acre. Total variable costs are estimated at \$178.14 per acre, with total fixed costs at \$110.67 per acre. The total of all costs for feed barley is estimated at \$288.81 per acre, leaving a net projected return of (\$88.81) per acre. The net projected returns for the lease arrangement are (\$5.54) per acre for the landowner and (\$94.52) per acre for the tenant.

Feed Barley

Enterprise Budget
Economic Costs and Returns per Acre
Feed Barley - Riverton Area
50 Acre Enterprise

| RETURNS SECTION ----- | | | | --- Crop-Share --- | | | |
|--------------------------|----------|------|---------|--------------------|---------|----------|--------|
| GROSS INCOME Description | Quantity | Unit | \$/Unit | Owner- | Land- | Tenant | Your |
| | | | | Operator | owner | 100% | |
| | | | | 100% | 0% | 100% | Return |
| ===== | | | | Total | Total | Total | |
| FEED BARLEY | 100.00 | BU | 2.00 | \$200.00 | \$0.00 | \$200.00 | |
| CASH LAND RENT | 1.00 | ACRE | 75.00 | ---- | 75.00 | 0.00 | |
| ===== | | | | | | | |
| Total GROSS Income | | | | \$200.00 | \$75.00 | \$200.00 | |

| VARIABLE COSTS SECTION ----- | | | | ----- M a t e r i a l s ----- | | | | Materials | | | --- Crop-Share --- | | |
|------------------------------|------------------|-----------|-----------------|-------------------------------|------|---------|------------|-----------|---------|--------|--------------------|----------|----------|
| VARIABLE COST Description | Dollars per Acre | | Description | # Units | Unit | \$/unit | Total Cost | Per Acre | Owner- | Land- | Tenant | Your | |
| | LABOR | MACHINERY | | | | | | | | | | | Operator |
| ===== | | | | | | | | | | | | | |
| **ANNUAL** | | | | | | | | | | | | | |
| METAL SHOP | | | | | | | | | 2.30 | ---- | | 2.30 | |
| LOAFING SHED | | | | | | | | | 0.30 | ---- | | 0.30 | |
| 3000 BU GRANERY | | | | | | | | | 1.32 | ---- | | 1.32 | |
| 4-WHEELER | 2.97 | 5.27 | | | | | | | 8.24 | ---- | | 8.24 | |
| 1/2 TON PICKUP - 2WD | 4.31 | 1.42 | | | | | | | 5.73 | ---- | | 5.73 | |
| 1/2 TON PICKUP - 4WD | 4.31 | 1.42 | | | | | | | 5.73 | ---- | | 5.73 | |
| CASH LAND RENT | | | | | | | 75.00 | ---- | | ---- | | 75.00 | |
| GENERAL OVERHEAD | | | | | | | | | 6.99 | ---- | | 10.74 | |
| OPERATOR MANAGEMENT | | | | | | | | | 13.99 | ---- | | 21.49 | |
| ----- | | | | | | | | | | | | | |
| Total ANNUAL | | | | | | | | | \$44.60 | \$0.00 | | \$130.85 | |
| **PRE-PLANT SPRING** | | | | | | | | | | | | | |
| CUSTOM FERTILIZE 120-30-0 | | | | | | | 33.98 | | 33.98 | ---- | | 33.98 | |
| FIELD CULTIVATE Operation | 0.99 | 1.70 | | | | | | | 2.69 | ---- | | 2.69 | |
| ROLLER HARROW Operation | 0.85 | 1.65 | | | | | | | 2.50 | ---- | | 2.50 | |
| ----- | | | | | | | | | | | | | |
| Total PRE-PLANT SPRING | | | | | | | | | \$39.17 | \$0.00 | | \$39.17 | |
| **PLANT** | | | | | | | | | | | | | |
| HAUL SEED Operation | 0.22 | 0.14 | | | | | | | 0.36 | ---- | | 0.36 | |
| PLANT BARLEY Operation | 1.48 | 1.93 | BARLEY SEED | 1.10 | Cwt | 13.21 | 14.53 | | 17.94 | ---- | | 17.94 | |
| CROP INSURANCE BARLEY | | | | | | | 6.99 | | 6.99 | ---- | | 6.99 | |
| ----- | | | | | | | | | | | | | |
| Total PLANT | | | | | | | | | \$25.29 | \$0.00 | | \$25.29 | |
| **GROW** | | | | | | | | | | | | | |
| CORRUGATE 6-ROW Operation | 1.48 | 2.13 | | | | | | | 3.61 | ---- | | 3.61 | |
| LAY GATED PIPE Operation | 0.46 | 0.25 | | | | | | | 0.71 | ---- | | 0.71 | |
| CONCRETE DITCH | 0.26 | | Purchased Water | | | | 0.36 | | 0.62 | 0.36 | | 0.26 | |
| GATED PIPE | 0.65 | | Purchased Water | | | | 1.69 | | 2.34 | 1.69 | | 0.65 | |
| CUSTOM SPRAY WEEDS | | 3.47 | BRONATE | 0.13 | Gal | 56.68 | 7.09 | | 10.56 | ---- | | 10.56 | |
| CONCRETE DITCH | 0.26 | | Purchased Water | | | | 0.36 | | 0.62 | 0.36 | | 0.26 | |
| GATED PIPE | 0.65 | | Purchased Water | | | | 1.69 | | 2.34 | 1.69 | | 0.65 | |
| CONCRETE DITCH | 0.26 | | Purchased Water | | | | 0.36 | | 0.62 | 0.36 | | 0.26 | |
| GATED PIPE | 0.65 | | Purchased Water | | | | 1.69 | | 2.34 | 1.69 | | 0.65 | |
| CONCRETE DITCH | 0.26 | | Purchased Water | | | | 0.36 | | 0.62 | 0.36 | | 0.26 | |
| GATED PIPE | 0.65 | | Purchased Water | | | | 1.69 | | 2.34 | 1.69 | | 0.65 | |
| ----- | | | | | | | | | | | | | |
| Total GROW | | | | | | | | | \$26.72 | \$8.20 | | \$18.52 | |

Feed Barley

| VARIABLE COSTS SECTION ----- | | | | | | | | | | | |
|----------------------------------|------------------|--------------------|-------------------------------|---------------------|--------------|--------------|-------------------------------------|--------------------|--------------------|-----------|--------------|
| VARIABLE COST Description | Dollars per Acre | | ----- M a t e r i a l s ----- | | | | Materials Total Cost Per Acre | Owner- Operator | --- Crop-Share --- | | Your Cost |
| | LABOR | MACHINERY | Description | # Units Per Acre | Unit Type | \$/unit | | | Land- owner | Tenant | |
| **HARVEST** | | | | | | | | | | | |
| PIKUP GATED PIPE Operation | 0.46 | 0.25 | | | | | 0.71 | ---- | 0.71 | | |
| SWATH Operation | 0.77 | 1.29 | | | | | 2.06 | ---- | 2.06 | | |
| CUSTOM COMBINE W/ PIKUP | | | | | | 25.00 | 25.00 | ---- | 25.00 | | |
| HAUL BARLEY 2 TN Operation | 0.30 | 0.19 | | | | | 0.49 | ---- | 0.49 | | |
| HAUL BARLEY TNDM Operation | 0.30 | 0.14 | | | | | 0.44 | ---- | 0.44 | | |
| AUGER BARLEY Operation | 2.63 | 2.82 | | | | | 5.45 | ---- | 5.45 | | |
| 3 MONTHS BARLEY STORAGE | | | | | | 1.15 | 1.15 | ---- | 1.15 | | |
| Total HARVEST | | | | | | | | \$35.30 | \$0.00 | \$35.30 | |
| **POST HARVEST** | | | | | | | | | | | |
| LAY GATED PIPE Operation | 0.46 | 0.25 | | | | | 0.71 | ---- | 0.71 | | |
| CONCRETE DITCH | 0.26 | | Purchased Water | | | 0.36 | 0.62 | 0.36 | 0.26 | | |
| GATED PIPE | 0.65 | | Purchased Water | | | 1.69 | 2.34 | 1.69 | 0.65 | | |
| PIKUP GATED PIPE Operation | 0.46 | 0.25 | | | | | 0.71 | ---- | 0.71 | | |
| OPERATING INTEREST | | | | | | | 2.68 | 2.68 | ---- | 2.68 | |
| Total VARIABLE COST | | | | | | | | \$178.14 | \$10.25 | \$254.14 | |
| GROSS INCOME minus VARIABLE COST | | | | | | | | \$21.86 | \$64.75 | (\$54.14) | |
| ----- | | | | | | | | | | | |
| FIXED COSTS SECTION ----- | | | | | | | | | | | |
| FIXED COST Description | Unit | Owner- Operator | --- Crop-Share --- | | | Your Cost | | | | | |
| | | | Land- owner | Tenant | | | | | | | |
| Machinery and Equipment: | | | | | | | | | | | |
| Taxes | Acre | 1.76 | ---- | 1.76 | | | | | | | |
| Insurance | Acre | 3.00 | ---- | 3.00 | | | | | | | |
| Long Term Interest | Acre | 13.79 | ---- | 13.79 | | | | | | | |
| Depreciation | Acre | 21.82 | ---- | 21.82 | | | | | | | |
| Buildings and Improvements: | | | | | | | | | | | |
| Taxes | Acre | 1.00 | 1.00 | ---- | | | | | | | |
| Insurance | Acre | 0.46 | 0.46 | ---- | | | | | | | |
| Long Term Interest | Acre | 9.64 | 9.64 | ---- | | | | | | | |
| Depreciation | Acre | 7.90 | 7.90 | ---- | | | | | | | |
| Irrigation: | | | | | | | | | | | |
| Taxes | Acre | 0.35 | 0.35 | ---- | | | | | | | |
| Insurance | Acre | 0.16 | 0.16 | ---- | | | | | | | |
| Long Term Interest | Acre | 2.98 | 2.98 | ---- | | | | | | | |
| Depreciation | Acre | 4.52 | 4.52 | ---- | | | | | | | |
| Land: | | | | | | | | | | | |
| Taxes | Acre | 4.31 | 4.31 | ---- | | | | | | | |
| Long Term Interest | Acre | 38.98 | 38.98 | ---- | | | | | | | |
| Total FIXED Cost | | \$110.67 | \$70.29 | \$40.38 | | | | | | | |
| Total of ALL Cost | | \$288.81 | \$80.54 | \$294.52 | | | | | | | |
| NET PROJECTED RETURNS | | (\$88.81) | (\$5.54) | (\$94.52) | | | | | | | |

Feed Barley

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 |
| SWATHER-14 FT | \$38,298 | \$20,214 | \$2,129 | 130 Hours | 2,600 Hours | 1,300 Hours |
| CORRUGATOR 6-ROW | \$5,601 | \$2,946 | \$292 | 73 Hours | 1,460 Hours | 730 Hours |
| FIELD CULTIVATOR 18 FT | \$4,530 | \$2,383 | \$236 | 25 Hours | 500 Hours | 250 Hours |
| GRAIN DRILL 12 FT | \$7,449 | \$4,240 | \$1,032 | 23 Hours | 276 Hours | 138 Hours |
| PIPE TRAILER | \$1,213 | \$616 | \$19 | 78 Hours | 2,340 Hours | 1,170 Hours |
| PTO GRAIN AUGER 6X45 FT | \$2,105 | \$1,107 | \$110 | 23 Hours | 460 Hours | 230 Hours |
| ROLLER HARROW 15 FT | \$7,733 | \$4,068 | \$403 | 93 Hours | 1,860 Hours | 930 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 |
| 3000 BU GRANERY | | \$3,000 | \$300 | | 30 Years | 15 Years |
| 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 |

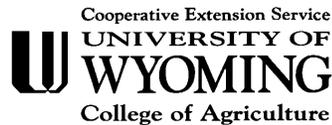
TABLE 2. Irrigation System Costs per Acre-Inch Delivered

| | Concrete Ditch | Gated Pipe |
|--|----------------|---------------|
| 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 |

Feed Barley

TABLE 3. Machinery, Equipment, and Building Cost Calculations

| Machine/Vehicle | Unit | -----Variable----- | | | | | -----Fixed----- | | TOTAL COST | ----- ENTERPRISE ----- | | | |
|------------------|-----------|--------------------|--------------------------|-------------------|--------------|----------------------|---------------------|-----------------------|------------|--------------------------|---------|--------|---------|
| | | Fuel and Lube | Operation Labor & Inputs | Repair and Maint. | Hourly Lease | Deprec. and Interest | Taxes and Insurance | Resource Use per Acre | | -----Costs per Acre----- | | TOTAL | |
| 100 HP TRACTOR | 2WD | \$/Hour | \$4.76 | \$0.00 | \$3.85 | \$0.00 | \$4.11 | \$0.35 | \$13.07 | 1.2518 | \$10.78 | \$5.58 | \$16.36 |
| 140 HP TRACTOR | 2WD | \$/Hour | 6.66 | 0.00 | 2.60 | 0.00 | 15.23 | 1.64 | 26.13 | 0.1668 | 1.54 | 2.81 | 4.35 |
| 4-WHEELER | 2WD | \$/Hour | 2.27 | 0.00 | 1.28 | 0.00 | 0.19 | 0.01 | 3.75 | 2.3280 | 8.26 | 0.47 | 8.73 |
| SWATHER-14 FT | | \$/Hour | 2.75 | 0.00 | 6.27 | 0.00 | 18.43 | 1.82 | 29.27 | 0.1430 | 1.29 | 2.90 | 4.19 |
| CORRUGATOR 6-ROW | | \$/Hour | 0.00 | 0.00 | 1.89 | 0.00 | 4.84 | 0.47 | 7.20 | 0.2500 | 0.47 | 1.33 | 1.80 |
| FIELD CULTIVATOR | 18 FT | \$/Hour | 0.00 | 0.00 | 1.11 | 0.00 | 11.42 | 1.12 | 13.65 | 0.1668 | 0.19 | 2.09 | 2.28 |
| GRAIN DRILL | 12 FT | \$/Hour | 0.00 | 0.00 | 1.20 | 0.00 | 26.27 | 2.16 | 29.63 | 0.2500 | 0.30 | 7.11 | 7.41 |
| PIPE TRAILER | | \$/Hour | 0.00 | 0.00 | 0.59 | 0.00 | 0.80 | 0.09 | 1.48 | 0.1644 | 0.10 | 0.15 | 0.25 |
| PTO GRAIN AUGER | 6X45 FT | \$/Hour | 0.00 | 0.00 | 0.28 | 0.00 | 5.77 | 0.56 | 6.61 | 0.4444 | 0.12 | 2.81 | 2.93 |
| ROLLER HARROW | 15 FT | \$/Hour | 0.00 | 0.00 | 1.60 | 0.00 | 5.24 | 0.51 | 7.35 | 0.1430 | 0.23 | 0.82 | 1.05 |
| 1/2 TON PICKUP | 4WD | \$/Mile | 0.07 | 0.00 | 0.00 | 0.00 | 0.24 | 0.05 | 0.36 | 20.0000 | 1.40 | 5.80 | 7.20 |
| 2 TON TRUCK | | \$/Mile | 0.23 | 0.00 | 0.00 | 0.00 | 0.35 | 0.09 | 0.67 | 1.4276 | 0.33 | 0.63 | 0.96 |
| 3/4 TON PICKUP | 4WD | \$/Mile | 0.07 | 0.00 | 0.00 | 0.00 | 0.30 | 0.06 | 0.43 | 20.0000 | 1.40 | 7.20 | 8.60 |
| TANDEM TRUCK | | \$/Mile | 0.17 | 0.00 | 0.00 | 0.00 | 0.54 | 0.16 | 0.87 | 0.8276 | 0.14 | 0.58 | 0.72 |
| CONCRETE DITCH | | \$/Ac-In | 0.00 | 0.54 | 0.00 | 0.00 | 0.09 | 0.00 | 0.63 | 5.8500 | 3.16 | 0.53 | 3.69 |
| GATED PIPE | | \$/Ac-In | 0.00 | 0.39 | 0.04 | 0.00 | 0.25 | 0.02 | 0.70 | 27.1500 | 11.67 | 7.33 | 19.00 |
| 3000 BU GRANERY | | \$/Year | 0.00 | 0.00 | 66.14 | 0.00 | 412.80 | 35.15 | 514.09 | 0.0200 | 1.32 | 8.96 | 10.28 |
| 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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