

## Beaver County Crop Production Costs and Returns, 2012

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### Introduction

Sample costs and returns to establish and produce alfalfa hay, barley, oats, and corn (grain or silage) under pivot irrigation in Beaver County, Utah, are presented in this publication. This publication is intended to be a guide used to make production decisions, determine potential returns and prepare business and marketing plans. The practices described are not the recommendations of Utah State University, but rather the production practices and materials considered typical of a well-managed farm in the region, as determined by producer survey results from 2012. Costs, materials, and practices are not applicable to all situations as management and cultural practices vary among growers within the region. The “*Your Farm*” column in all tables is provided for your use.

**Farm.** The representative farm consists of 400 acres of land on which 250 acres are cultivated for alfalfa production, 50 acres for barley production, 50 acres for oat production, and 50 acres for corn (grain or silage) production. The market value in 2012 was approximately \$5,000 per acre for agricultural land in Beaver County with water rights.

**Crop Pricing.** Five-year average pricing (2007-2011) for alfalfa hay is \$141.40/ton, barley is \$3.98/bu, corn (grain) \$5.12/bu, corn (silage) \$28.20/ton, and oats \$3.26/bu (UDAF, 2012).

**Owner Labor.** The owner is provided \$30,000 annually for the 400 acre farm, or \$75/acre.

**Hired Labor.** Hired labor is paid \$10/hr, \$10,000 annually for the 400 acre farm, or \$25/acre.

**Irrigation System.** Pivot irrigation system estimated at \$100,000 for each pivot (Valley Irrigation Company, March 2011).

**Cash Overhead.** Cash overhead consists of various cash expenses paid out during the year. These costs include property taxes, interest, office expenses, liability and property insurance, accounting/legal costs, as well as investment/machinery repairs.

**Property Taxes.** Property taxes in Utah differ across counties. For the purposes of this publication, property taxes on buildings are calculated at 1 percent of the average asset value of the property. Property taxes on land should be taken into consideration, but are not included here.

**Insurance.** Insurance on farm investments varies, depending on the assets included and the amount of coverage. Property insurance provides coverage for property loss at .666 percent of the average asset value. Liability and crop insurance covers accidents and crop loss on the 400 acre farm at an annual cost of \$3,000.

**Fuel and Lube.** The fuel and lube for machinery and vehicles is calculated at 8 percent of the average asset value.

**Investment Repairs.** Annual repairs on all farm investments or capital recovery items that require maintenance are calculated at 2 percent of the

average asset value for buildings, improvements, and equipment and 7 percent of the average asset value for machinery and vehicles.

**Office & Travel.** Office and travel costs are estimated at \$3,000 for an average year for the 400 acre farm. These expenses include office supplies, telephone service, Internet service, and travel expenses to educational seminars.

**Accounting & Legal.** Annual accounting and legal costs are estimated at \$3,000 for an average year for the 400 acre farm.

**Capital Recovery.** Capital recovery costs are the annual depreciation (opportunity cost) of all farm investments. Capital recovery costs are calculated using straight line depreciation. All equipment listed is new unless otherwise noted. For used machinery the price is calculated as one-half of the new purchase price and useful life is two-thirds that of new machinery (Painter, 2011).

**Salvage Value.** Salvage value is 10 percent of the purchase price, which is an estimate of the remaining value of an investment at the end of its useful life. The

salvage value for land is the purchase price, as land does not normally depreciate.

#### **Average Asset Value Computation**

$$\left( \frac{\text{Purchase Price} + \text{Salvage Value}}{2} \right)$$

#### **Straight Line Depreciation Computation**

$$\left( \frac{\text{Purchase Price} - \text{Salvage Value}}{\text{Useful Life}} \right)$$

#### **References**

- Painter, Kathleen. 2011. The Costs of Owning and Operating Farm Machinery in the Pacific Northwest 2011. A Pacific Northwest Publication #346. University of Idaho, Washington State University, and Oregon State University.
- Utah Department of Agriculture and Food. 2012. 2012 Utah Agriculture Statistics and Utah Department of Agriculture and Food Annual Report.

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**Table 1: Beaver County Alfalfa Hay Establishment Costs, 250 acres, 2012**

	<b>Total Units</b>	<b>Unit</b>	<b>Price/Cost Per Unit</b>	<b>Total Cost/Value</b>	<b>Total Cost/Value Per Acre</b>	<b>Your Farm</b>
<b>OPERATING COSTS</b>						
Insecticide	1.00	Annual	\$ 3,000.00	\$ 3,000.00	\$ 12.00	_____
Herbicide	1.00	Annual	\$ 3,000.00	\$ 3,000.00	\$ 12.00	_____
Fertilizer	1.00	Annual	\$ 6,000.00	\$ 6,000.00	\$ 24.00	_____
Rodent Control	1.00	Annual	\$ 400.00	\$ 400.00	\$ 1.60	_____
Testing (Soil & Forage)	1.00	Annual	\$ 150.00	\$ 150.00	\$ 0.60	_____
Irrigation	1.00	Annual	\$ 2,500.00	\$ 2,500.00	\$ 10.00	_____
Alfalfa Seed	1.00	Annual	\$ 3,500.00	\$ 3,500.00	\$ 14.00	_____
Labor	250.00	Acre	\$ 25.00	\$ 6,250.00	\$ 25.00	_____
Operator Labor	250.00	Acre	\$ 75.00	\$ 18,750.00	\$ 75.00	_____
Fuel & Lube	1.00	Annual	\$ 10,167.85	\$ 10,167.85	\$ 40.67	_____
Maintenance	1.00	Annual	\$ 12,121.24	\$ 12,121.24	\$ 48.48	_____
Miscellaneous	250.00	Acre	\$ 5.00	\$ 1,250.00	\$ 5.00	_____
<b>TOTAL OPERATING COSTS</b>				<b>\$ 67,089.09</b>	<b>\$ 268.36</b>	
<b>OWNERSHIP COSTS</b>						
<b>CASH OVERHEAD COSTS</b>						
Liability/Crop Insurance				\$ 1,875.00	\$ 7.50	_____
Accounting & Legal				\$ 1,875.00	\$ 7.50	_____
Office & Travel				\$ 1,875.00	\$ 7.50	_____
Annual Investment Insurance				\$ 1,920.19	\$ 7.68	_____
Annual Investment Taxes				\$ 426.25	\$ 1.71	_____
<b>TOTAL CASH OVERHEAD COSTS</b>				<b>\$ 7,971.44</b>	<b>\$ 31.89</b>	
<b>NONCASH OVERHEAD COSTS (Capital Recovery)</b>						
Buildings, Improvements, & Equipment				\$ 9,881.25	\$ 39.53	_____
Machinery & Vehicles				\$ 28,255.45	\$ 113.02	_____
<b>TOTAL NONCASH OVERHEAD COSTS</b>				<b>\$ 38,136.70</b>	<b>\$ 152.55</b>	
<b>TOTAL OWNERSHIP COSTS</b>				<b>\$ 46,108.14</b>	<b>\$ 184.43</b>	
<b>TOTAL COSTS</b>				<b>\$ 113,197.23</b>	<b>\$ 452.79</b>	
<b>YEAR ONE INCOME</b>						
Alfalfa Hay	2.50	Tons	\$ 141.40	\$ 88,375.00	\$ 353.50	_____
<b>TOTAL GROSS INCOME</b>				<b>\$ 88,375.00</b>	<b>\$ 353.50</b>	
<b>TOTAL ESTABLISHMENT INVESTMENT</b>				<b>\$ 24,822.23</b>	<b>\$ 99.29</b>	

**Table 2: Beaver County Alfalfa Hay Production Costs and Returns, 250 acres, 2012**

	Total Units	Unit	Price/Cost Per Unit	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
<b>GROSS INCOME</b>						
Alfalfa Hay	4.50	Tons	\$ 141.40	\$ 159,075.00	\$ 636.30	_____
<b>TOTAL GROSS INCOME</b>				\$ 159,075.00	\$ 636.30	
<b>OPERATING COSTS</b>						
Insecticide	1.00	Annual	\$ 3,000.00	\$ 3,000.00	\$ 12.00	_____
Herbicide	1.00	Annual	\$ 3,000.00	\$ 3,000.00	\$ 12.00	_____
Fertilizer	1.00	Annual	\$ 6,000.00	\$ 6,000.00	\$ 24.00	_____
Rodent Control	1.00	Annual	\$ 400.00	\$ 400.00	\$ 1.60	_____
Testing (Soil & Forage)	1.00	Annual	\$ 150.00	\$ 150.00	\$ 0.60	_____
Irrigation	1.00	Annual	\$ 2,500.00	\$ 2,500.00	\$ 10.00	_____
Labor	250.00	Acre	\$ 25.00	\$ 6,250.00	\$ 25.00	_____
Operator Labor	250.00	Acre	\$ 75.00	\$ 18,750.00	\$ 75.00	_____
Fuel & Lube	1.00	Annual	\$10,167.85	\$ 10,167.85	\$ 40.67	_____
Maintenance	1.00	Annual	\$12,121.24	\$ 12,121.24	\$ 48.48	_____
Miscellaneous	250.00	Acre	\$ 5.00	\$ 1,250.00	\$ 5.00	_____
<b>TOTAL OPERATING COSTS</b>				\$ 63,589.09	\$ 254.36	
<b>INCOME ABOVE OPERATING COSTS</b>				\$ 95,485.91	\$ 381.94	
<b>OWNERSHIP COSTS</b>						
<b>CASH OVERHEAD COSTS</b>						
Liability/Crop Insurance				\$ 1,875.00	\$ 7.50	_____
Accounting & Legal				\$ 1,875.00	\$ 7.50	_____
Office & Travel				\$ 1,875.00	\$ 7.50	_____
Annual Investment Insurance				\$ 1,920.19	\$ 7.68	_____
Annual Investment Taxes				\$ 426.25	\$ 1.71	_____
<b>TOTAL CASH OVERHEAD COSTS</b>				\$ 7,971.44	\$ 31.89	
<b>NONCASH OVERHEAD COSTS (Capital Recovery)</b>						
Buildings, Improvements, & Equipment				\$ 14,018.29	\$ 56.07	_____
Machinery & Vehicles				\$ 28,255.45	\$ 113.02	_____
<b>TOTAL NONCASH OVERHEAD COSTS</b>				\$ 42,273.73	\$ 169.09	
<b>TOTAL OWNERSHIP COSTS</b>				\$ 50,245.18	\$ 200.98	
<b>TOTAL COSTS</b>				\$ 113,834.27	\$ 455.34	
<b>NET PROJECTED RETURNS</b>				\$ 45,240.73	\$ 180.96	

**Table 3: Alfalfa Production Investment Summary**

Description	Purchase Price	Percentage Use	Purchase Price	Useful Life (Yrs)	Salvage Value	Annual Capital Recovery	Annual Insurance	Annual Taxes	Annual Repairs	Annual Fuel & Lube
<b>Buildings, Improvements, and Equipment</b>										
Land	\$ 2,000,000.00	62.5%	\$ 1,250,000.00	150.00	\$ 1,250,000.00	\$ -	\$ -	TBD	\$ -	\$ -
Machine Shop (50x100)	\$ 60,000.00	62.5%	\$ 37,500.00	40.00	\$ 3,750.00	\$ 843.75	\$ 137.36	\$ 206.25	\$ 412.50	\$ -
Hay Barn (50x100)	\$ 40,000.00	100%	\$ 40,000.00	40.00	\$ 4,000.00	\$ 900.00	\$ 146.52	\$ 220.00	\$ 440.00	\$ -
Irrigation System (Pivot) (2)	\$ 200,000.00	100%	\$ 200,000.00	25.00	\$ 20,000.00	\$ 7,200.00	\$ 732.60	\$ -	\$ 2,200.00	\$ -
Implements	\$ 25,000.00	62.5%	\$ 15,625.00	15.00	\$ 1,562.50	\$ 937.50	\$ 57.23	\$ -	\$ 171.88	\$ -
Alfalfa Establishment	\$ 24,822.23	100%	\$ 24,822.23	6.00	\$ -	\$ 4,137.04	\$ -	\$ -	\$ -	\$ -
Sub Total Pre-Establishment	\$ 2,325,000.00		\$ 1,543,125.00		\$ 1,279,312.50	\$ 9,881.25	\$ 1,073.72	\$ 426.25	\$ 3,224.38	\$ -
Sub Total Post-Establishment	\$ 2,349,822.23		\$ 1,567,947.23		\$ 1,279,312.50	\$ 14,018.29	\$ 1,073.72	\$ 426.25	\$ 3,224.38	\$ -
<b>Machinery and Vehicles</b>										
145 HP Tractor (used)	\$ 59,000.00	62.5%	\$ 36,875.00	10.00	\$ 3,687.50	\$ 3,318.75	\$ 135.07	\$ -	\$ 1,419.69	\$ 1,622.50
125 HP Tractor (used)	\$ 46,500.00	62.5%	\$ 29,062.50	10.00	\$ 2,906.25	\$ 2,615.63	\$ 106.46	\$ -	\$ 1,118.91	\$ 1,278.75
85 HP Tractor (used)	\$ 26,000.00	62.5%	\$ 16,250.00	10.00	\$ 1,625.00	\$ 1,462.50	\$ 59.52	\$ -	\$ 625.63	\$ 715.00
(2) 3/4 Ton Pickup	\$ 80,000.00	62.5%	\$ 50,000.00	6.00	\$ 5,000.00	\$ 7,500.00	\$ 183.15	\$ -	\$ 1,925.00	\$ 2,200.00
Swather (used)	\$ 45,000.00	83%	\$ 37,350.00	7.00	\$ 3,735.00	\$ 4,802.14	\$ 136.81	\$ -	\$ 1,437.98	\$ 1,643.40
Baler	\$ 35,000.00	83%	\$ 29,050.00	7.00	\$ 2,905.00	\$ 3,735.00	\$ 106.41	\$ -	\$ 1,118.43	\$ 1,278.20
Rakes	\$ 20,000.00	100%	\$ 20,000.00	7.00	\$ 2,000.00	\$ 2,571.43	\$ 73.26	\$ -	\$ 770.00	\$ 880.00
(2) 4-Wheeler	\$ 20,000.00	62.5%	\$ 12,500.00	5.00	\$ 1,250.00	\$ 2,250.00	\$ 45.79	\$ -	\$ 481.25	\$ 550.00
Sub Total			\$ 231,087.50		\$ 23,108.75	\$ 28,255.45	\$ 846.47	\$ -	\$ 8,896.87	\$ 10,167.85
<b>Total</b>			<b>\$ 1,799,034.73</b>		<b>\$ 1,302,421.25</b>	<b>\$ 42,273.73</b>	<b>\$ 1,920.19</b>	<b>\$ 426.25</b>	<b>\$ 12,121.24</b>	<b>\$ 10,167.85</b>

**Table 4: Beaver County Barley Production Costs and Returns, 50 acres, 2012**

	<b>Total Units</b>	<b>Unit</b>	<b>Price/Cost Per bu.</b>	<b>Total Cost/Value</b>	<b>Total Cost/Value Per Acre</b>	<b>Your Farm</b>
<b>GROSS INCOME</b>						
Barley	90.00	Bushels	\$ 3.98	\$ 17,910.00	\$ 358.20	_____
<b>TOTAL GROSS INCOME</b>				<b>\$ 17,910.00</b>	<b>\$ 358.20</b>	
<b>OPERATING COSTS</b>						
Herbicide	50.00	Acre	\$ 10.00	\$ 500.00	\$ 10.00	_____
Fertilizer	50.00	Acre	\$ 100.00	\$ 5,000.00	\$ 100.00	_____
Custom Combine	50.00	Acre	\$ 40.00	\$ 2,000.00	\$ 40.00	_____
Seed	50.00	Acre	\$ 24.00	\$ 1,200.00	\$ 24.00	_____
Irrigation	1.00	Annual	\$ 500.00	\$ 500.00	\$ 10.00	_____
Labor	50.00	Acre	\$ 25.00	\$ 1,250.00	\$ 25.00	_____
Operator Labor	50.00	Acre	\$ 75.00	\$ 3,750.00	\$ 75.00	_____
Fuel & Lube	1.00	Annual	\$ 1,273.25	\$ 1,273.25	\$ 25.47	_____
Maintenance	1.00	Annual	\$ 1,780.97	\$ 1,780.97	\$ 35.62	_____
Miscellaneous	50.00	Acre	\$ 5.00	\$ 250.00	\$ 5.00	_____
<b>TOTAL OPERATING COSTS</b>				<b>\$ 17,504.22</b>	<b>\$ 350.08</b>	
<b>INCOME ABOVE OPERATING COSTS</b>				<b>\$ 405.78</b>	<b>\$ 8.12</b>	
<b>OWNERSHIP COSTS</b>						
<b>CASH OVERHEAD COSTS</b>						
Liability/Crop Insurance				\$ 375.00	\$ 7.50	_____
Accounting & Legal				\$ 375.00	\$ 7.50	_____
Office & Travel				\$ 375.00	\$ 7.50	_____
Annual Investment Insurance				\$ 328.07	\$ 6.56	_____
Annual Investment Taxes				\$ 41.25	\$ 0.83	_____
<b>TOTAL CASH OVERHEAD COSTS</b>				<b>\$ 1,494.32</b>	<b>\$ 29.89</b>	
<b>NONCASH OVERHEAD COSTS (Capital Recovery)</b>						
Buildings, Improvements, & Equipment				\$ 2,156.25	\$ 43.13	_____
Machinery & Vehicles				\$ 3,429.38	\$ 68.59	_____
<b>TOTAL NONCASH OVERHEAD COSTS</b>				<b>\$ 5,585.63</b>	<b>\$ 111.71</b>	
<b>TOTAL OWNERSHIP COSTS</b>				<b>\$ 7,079.94</b>	<b>\$ 141.60</b>	
<b>TOTAL COSTS</b>				<b>\$ 24,584.16</b>	<b>\$ 491.68</b>	
<b>NET PROJECTED RETURNS</b>				<b>\$ (6,674.16)</b>	<b>\$ (133.48)</b>	

**Table 5: Barley Production Investment Summary**

Description	Purchase Price	Percentage Use	Purchase Price	Useful Life (Yrs)	Salvage Value	Annual Capital Recovery	Annual Insurance	Annual Taxes	Annual Repairs	Annual Fuel & Lube
<b>Buildings, Improvements, and Equipment</b>										
Land	\$ 2,000,000.00	12.5%	\$ 250,000.00	150.00	\$ 250,000.00	\$ -	\$ -	TBD	\$ -	\$ -
Shop (50x100) & Tools	\$ 60,000.00	12.5%	\$ 7,500.00	40.00	\$ 750.00	\$ 168.75	\$ 27.47	\$ 41.25	\$ 82.50	\$ -
Implements	\$ 25,000.00	12.5%	\$ 3,125.00	15.00	\$ 312.50	\$ 187.50	\$ 11.45	\$ -	\$ 34.38	\$ -
Irrigation System (Pivot) (.5)	\$ 50,000.00	100%	\$ 50,000.00	25.00	\$ 5,000.00	\$ 1,800.00	\$ 183.15	\$ -	\$ 550.00	\$ -
Sub Total			\$ 310,625.00	NA	\$ 256,062.50	\$ 2,156.25	\$ 222.07	\$ 41.25	\$ 666.88	\$ -
<b>Machinery and Vehicles</b>										
145 HP Tractor (used)	\$ 59,000.00	12.5%	\$ 7,375.00	10.00	\$ 737.50	\$ 663.75	\$ 27.01	\$ -	\$ 283.94	\$ 324.50
125 HP Tractor (used)	\$ 46,500.00	12.5%	\$ 5,812.50	10.00	\$ 581.25	\$ 523.13	\$ 21.29	\$ -	\$ 223.78	\$ 255.75
85 HP Tractor (used)	\$ 26,000.00	12.5%	\$ 3,250.00	10.00	\$ 325.00	\$ 292.50	\$ 11.90	\$ -	\$ 125.13	\$ 143.00
(2) 3/4 Ton Pickup	\$ 80,000.00	12.5%	\$ 10,000.00	6.00	\$ 1,000.00	\$ 1,500.00	\$ 36.63	\$ -	\$ 385.00	\$ 440.00
(2) 4-Wheeler	\$ 20,000.00	12.5%	\$ 2,500.00	5.00	\$ 250.00	\$ 450.00	\$ 9.16	\$ -	\$ 96.25	\$ 110.00
Sub Total			\$ 28,937.50	NA	\$ 2,893.75	\$ 3,429.38	\$ 106.00	\$ -	\$ 1,114.09	\$ 1,273.25
<b>Total</b>			<b>\$ 339,562.50</b>	<b>NA</b>	<b>\$ 258,956.25</b>	<b>\$ 5,585.63</b>	<b>\$ 328.07</b>	<b>\$ 41.25</b>	<b>\$ 1,780.97</b>	<b>\$ 1,273.25</b>

**Table 6: Beaver County Oats Production Costs and Returns, 50 acres, 2012**

	<b>Total Units</b>	<b>Unit</b>	<b>Price/Cost Per bu.</b>	<b>Total Cost/Value</b>	<b>Total Cost/Value Per Acre</b>	<b>Your Farm</b>
<b>GROSS INCOME</b>						
Oats	125.00	Bushel	\$ 3.26	\$ 20,375.00	\$ 407.50	_____
<b>TOTAL GROSS INCOME</b>				<b>\$ 20,375.00</b>	<b>\$ 407.50</b>	
<b>OPERATING COSTS</b>						
Herbicide	50.00	Acre	\$ 10.00	\$ 500.00	\$ 10.00	_____
Fertilizer	50.00	Acre	\$ 100.00	\$ 5,000.00	\$ 100.00	_____
Seed	50.00	Acre	\$ 241.00	\$ 12,050.00	\$ 241.00	_____
Irrigation	1.00	Annual	\$ 500.00	\$ 500.00	\$ 10.00	_____
Labor	50.00	Acre	\$ 25.00	\$ 1,250.00	\$ 25.00	_____
Operator Labor	50.00	Acre	\$ 75.00	\$ 3,750.00	\$ 75.00	_____
Fuel & Lube	1.00	Annual	\$ 2,425.25	\$ 2,425.25	\$ 48.51	_____
Maintenance	1.00	Annual	\$ 2,788.97	\$ 2,788.97	\$ 55.78	_____
Miscellaneous	50.00	Acre	\$ 5.00	\$ 250.00	\$ 5.00	_____
<b>TOTAL OPERATING COSTS</b>				<b>\$ 28,514.22</b>	<b>\$ 570.28</b>	
<b>INCOME ABOVE OPERATING COSTS</b>				<b>\$ (8,139.22)</b>	<b>\$ (162.78)</b>	
<b>OWNERSHIP COSTS</b>						
<b>CASH OVERHEAD COSTS</b>						
Liability/Crop Insurance				\$ 375.00	\$ 7.50	_____
Accounting & Legal				\$ 375.00	\$ 7.50	_____
Office & Travel				\$ 375.00	\$ 7.50	_____
Annual Investment Insurance				\$ 380.81	\$ 7.62	_____
Annual Investment Taxes				\$ 41.25	\$ 0.83	_____
<b>TOTAL CASH OVERHEAD COSTS</b>				<b>\$ 1,547.06</b>	<b>\$ 30.94</b>	
<b>NONCASH OVERHEAD COSTS (Capital Recovery)</b>						
Buildings, Improvements, & Equipment				\$ 2,156.25	\$ 43.13	_____
Machinery & Vehicles				\$ 5,280.80	\$ 105.62	_____
<b>TOTAL NONCASH OVERHEAD COSTS</b>				<b>\$ 7,437.05</b>	<b>\$ 148.74</b>	
<b>TOTAL OWNERSHIP COSTS</b>				<b>\$ 8,984.12</b>	<b>\$ 179.68</b>	
<b>TOTAL COSTS</b>				<b>\$ 37,498.34</b>	<b>\$ 749.97</b>	
<b>NET PROJECTED RETURNS</b>				<b>\$ (17,123.34)</b>	<b>\$ (342.47)</b>	



**Table 7: Oats Production Investment Summary**

Description	Purchase Price	Percentage Use	Purchase Price	Useful Life (Yrs)	Salvage Value	Annual Capital Recovery	Annual Insurance	Annual Taxes	Annual Repairs	Annual Fuel & Lube
<b>Buildings, Improvements, and Equipment</b>										
Land	\$ 2,000,000.00	12.5%	\$ 250,000.00	150.00	\$ 250,000.00	\$ -	\$ -	TBD	\$ -	\$ -
Shop (50X100) & Tools	\$ 60,000.00	12.5%	\$ 7,500.00	40.00	\$ 750.00	\$ 168.75	\$ 27.47	\$ 41.25	\$ 82.50	\$ -
Implements	\$ 25,000.00	12.5%	\$ 3,125.00	15.00	\$ 312.50	\$ 187.50	\$ 11.45	\$ -	\$ 34.38	\$ -
Irrigation System (Pivot) (.5)	\$ 50,000.00	100%	\$ 50,000.00	25.00	\$ 5,000.00	\$ 1,800.00	\$ 183.15	\$ -	\$ 550.00	\$ -
Sub Total			\$ 310,625.00	NA	\$ 256,062.50	\$ 2,156.25	\$ 222.07	\$ 41.25	\$ 666.88	\$ -
<b>Machinery and Vehicles</b>										
145 HP Tractor (used)	\$ 59,000.00	12.5%	\$ 7,375.00	10.00	\$ 737.50	\$ 663.75	\$ 27.01	\$ -	\$ 283.94	\$ 324.50
125 HP Tractor (used)	\$ 46,500.00	12.5%	\$ 5,812.50	10.00	\$ 581.25	\$ 523.13	\$ 21.29	\$ -	\$ 223.78	\$ 255.75
85 HP Tractor (used)	\$ 26,000.00	12.5%	\$ 3,250.00	10.00	\$ 325.00	\$ 292.50	\$ 11.90	\$ -	\$ 125.13	\$ 143.00
(2) 3/4 Ton Pickup	\$ 80,000.00	12.5%	\$ 10,000.00	6.00	\$ 1,000.00	\$ 1,500.00	\$ 36.63	\$ -	\$ 385.00	\$ 440.00
(2) 4-Wheeler	\$ 20,000.00	12.5%	\$ 2,500.00	5.00	\$ 250.00	\$ 450.00	\$ 9.16	\$ -	\$ 96.25	\$ 110.00
Sw ather (used)	\$ 45,000.00	18%	\$ 8,100.00	7.00	\$ 810.00	\$ 1,041.43	\$ 29.67	\$ -	\$ 567.00	\$ 648.00
Baler (used)	\$ 35,000.00	18%	\$ 6,300.00	7.00	\$ 630.00	\$ 810.00	\$ 23.08	\$ -	\$ 441.00	\$ 504.00
Sub Total			\$ 43,337.50	NA	\$ 4,333.75	\$ 5,280.80	\$ 158.75	\$ -	\$ 2,122.09	\$ 2,425.25
<b>Total</b>			<b>\$ 353,962.50</b>	<b>NA</b>	<b>\$ 260,396.25</b>	<b>\$ 7,437.05</b>	<b>\$ 380.81</b>	<b>\$ 41.25</b>	<b>\$ 2,788.97</b>	<b>\$ 2,425.25</b>

**Table 8: Beaver County Corn (Grain) Production Costs and Returns, 50 acres, 2012**

	<b>Total Units</b>	<b>Unit</b>	<b>Price/Cost Per bu.</b>	<b>Total Cost/Value</b>	<b>Total Cost/Value Per Acre</b>	<b>Your Farm</b>
<b>GROSS INCOME</b>						
Corn Grain	160.00	Bushel	\$ 5.12	\$ 40,960.00	\$ 819.20	_____
<b>TOTAL GROSS INCOME</b>				<b>\$ 40,960.00</b>	<b>\$ 819.20</b>	
<b>OPERATING COSTS</b>						
Herbicide	50.00	Acre	\$ 50.00	\$ 2,500.00	\$ 50.00	_____
Fertilizer	50.00	Acre	\$ 100.00	\$ 5,000.00	\$ 100.00	_____
Seed	50.00	Acre	\$ 90.00	\$ 4,500.00	\$ 90.00	_____
Irrigation	1.00	Annual	\$ 500.00	\$ 500.00	\$ 10.00	_____
Labor	50.00	Acre	\$ 25.00	\$ 1,250.00	\$ 25.00	_____
Operator Labor	50.00	Acre	\$ 75.00	\$ 3,750.00	\$ 75.00	_____
Custom Combine	50.00	Acre	\$ 40.00	\$ 2,000.00	\$ 40.00	_____
Fuel & Lube	1.00	Annual	\$ 1,273.25	\$ 1,273.25	\$ 25.47	_____
Maintenance	1.00	Annual	\$ 1,780.97	\$ 1,780.97	\$ 35.62	_____
Miscellaneous	50.00	Acre	\$ 5.00	\$ 250.00	\$ 5.00	_____
<b>TOTAL OPERATING COSTS</b>				<b>\$ 22,804.22</b>	<b>\$ 456.08</b>	
<b>INCOME ABOVE OPERATING COSTS</b>				<b>\$ 18,155.78</b>	<b>\$ 363.12</b>	
<b>OWNERSHIP COSTS</b>						
<b>CASH OVERHEAD COSTS</b>						
Liability/Crop Insurance				\$ 375.00	\$ 7.50	_____
Accounting & Legal				\$ 375.00	\$ 7.50	_____
Office & Travel				\$ 375.00	\$ 7.50	_____
Annual Investment Insurance				\$ 328.07	\$ 6.56	_____
Annual Investment Taxes				\$ 41.25	\$ 0.83	_____
<b>TOTAL CASH OVERHEAD COSTS</b>				<b>\$ 1,494.32</b>	<b>\$ 29.89</b>	
<b>NONCASH OVERHEAD COSTS (Capital Recovery)</b>						
Buildings, Improvements, & Equipment				\$ 2,156.25	\$ 43.13	_____
Machinery & Vehicles				\$ 3,429.38	\$ 68.59	_____
<b>TOTAL NONCASH OVERHEAD COSTS</b>				<b>\$ 5,585.63</b>	<b>\$ 111.71</b>	
<b>TOTAL OWNERSHIP COSTS</b>				<b>\$ 7,079.94</b>	<b>\$ 141.60</b>	
<b>TOTAL COSTS</b>				<b>\$ 29,884.16</b>	<b>\$ 597.68</b>	
<b>NET PROJECTED RETURNS</b>				<b>\$ 11,075.84</b>	<b>\$ 221.52</b>	

**Table 9: Corn Production Investment Summary**

Description	Purchase Price	Percentage Use	Purchase Price	Useful Life (Yrs)	Salvage Value	Annual Capital Recovery	Annual Insurance	Annual Taxes	Annual Repairs	Annual Fuel & Lube
<b>Buildings, Improvements, and Equipment</b>										
Land	\$ 2,000,000.00	12.5%	\$ 250,000.00	150.00	\$ 250,000.00	\$ -	\$ -	TBD	\$ -	\$ -
Shop (50X100) & Tools	\$ 60,000.00	12.5%	\$ 7,500.00	40.00	\$ 750.00	\$ 168.75	\$ 27.47	\$ 41.25	\$ 82.50	\$ -
Implements	\$ 25,000.00	12.5%	\$ 3,125.00	15.00	\$ 312.50	\$ 187.50	\$ 11.45	\$ -	\$ 34.38	\$ -
Irrigation System (Pivot)(.5)	\$ 50,000.00	100%	\$ 50,000.00	25.00	\$ 5,000.00	\$ 1,800.00	\$ 183.15	\$ -	\$ 550.00	\$ -
Sub Total			\$ 310,625.00	NA	\$ 256,062.50	\$ 2,156.25	\$ 222.07	\$ 41.25	\$ 666.88	\$ -
<b>Machinery and Vehicles</b>										
145 HP Tractor (used)	\$ 59,000.00	12.5%	\$ 7,375.00	10.00	\$ 737.50	\$ 663.75	\$ 27.01	\$ -	\$ 283.94	\$ 324.50
125 HP Tractor (used)	\$ 46,500.00	12.5%	\$ 5,812.50	10.00	\$ 581.25	\$ 523.13	\$ 21.29	\$ -	\$ 223.78	\$ 255.75
85 HP Tractor (used)	\$ 26,000.00	12.5%	\$ 3,250.00	10.00	\$ 325.00	\$ 292.50	\$ 11.90	\$ -	\$ 125.13	\$ 143.00
(2) 3/4 Ton Pickup	\$ 80,000.00	12.5%	\$ 10,000.00	6.00	\$ 1,000.00	\$ 1,500.00	\$ 36.63	\$ -	\$ 385.00	\$ 440.00
(2) 4-Wheeler	\$ 20,000.00	12.5%	\$ 2,500.00	5.00	\$ 250.00	\$ 450.00	\$ 9.16	\$ -	\$ 96.25	\$ 110.00
Sub Total			\$ 28,937.50	41.00	\$ 2,893.75	\$ 3,429.38	\$ 106.00	\$ -	\$ 1,114.09	\$ 1,273.25
<b>Total</b>			<b>\$ 339,562.50</b>	<b>NA</b>	<b>\$ 258,956.25</b>	<b>\$ 5,585.63</b>	<b>\$ 328.07</b>	<b>\$ 41.25</b>	<b>\$ 1,780.97</b>	<b>\$ 1,273.25</b>

**Table 10: Beaver County Corn (Silage) Production Costs and Returns, 50 acres, 2012**

	Total Units	Unit	Price/Cost Per bu.	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
<b>GROSS INCOME</b>						
Corn Silage	25.00	Tons	\$ 28.20	\$ 35,250.00	\$ 705.00	_____
<b>TOTAL GROSS INCOME</b>				<b>\$ 35,250.00</b>	<b>\$ 705.00</b>	
<b>OPERATING COSTS</b>						
Herbicide	50.00	Acre	\$ 50.00	\$ 2,500.00	\$ 50.00	_____
Fertilizer	50.00	Acre	\$ 100.00	\$ 5,000.00	\$ 100.00	_____
Seed	50.00	Acre	\$ 90.00	\$ 4,500.00	\$ 90.00	_____
Irrigation	1.00	Annual	\$ 500.00	\$ 500.00	\$ 10.00	_____
Labor	50.00	Acre	\$ 25.00	\$ 1,250.00	\$ 25.00	_____
Operator Labor	50.00	Acre	\$ 75.00	\$ 3,750.00	\$ 75.00	_____
Fuel & Lube	1.00	Annual	\$ 1,273.25	\$ 1,273.25	\$ 25.47	_____
Maintenance	1.00	Annual	\$ 4,180.97	\$ 4,180.97	\$ 83.62	_____
Miscellaneous	50.00	Acre	\$ 5.00	\$ 250.00	\$ 5.00	_____
<b>TOTAL OPERATING COSTS</b>				<b>\$ 23,204.22</b>	<b>\$ 464.08</b>	
<b>INCOME ABOVE OPERATING COSTS</b>				<b>\$ 12,045.78</b>	<b>\$ 240.92</b>	
<b>OWNERSHIP COSTS</b>						
<b>CASH OVERHEAD COSTS</b>						
Liability/Crop Insurance				\$ 375.00	\$ 7.50	_____
Accounting & Legal				\$ 375.00	\$ 7.50	_____
Office & Travel				\$ 375.00	\$ 7.50	_____
Annual Investment Insurance				\$ 727.67	\$ 14.55	_____
Annual Investment Taxes				\$ 933.44	\$ 18.67	_____
<b>TOTAL CASH OVERHEAD COSTS</b>				<b>\$ 2,786.10</b>	<b>\$ 55.72</b>	
<b>NONCASH OVERHEAD COSTS (Capital Recovery)</b>						
Buildings, Improvements, & Equipment				\$ 4,556.25	\$ 91.13	_____
Machinery & Vehicles				\$ 3,429.38	\$ 68.59	_____
<b>TOTAL NONCASH OVERHEAD COSTS</b>				<b>\$ 7,985.63</b>	<b>\$ 159.71</b>	
<b>TOTAL OWNERSHIP COSTS</b>				<b>\$ 10,771.73</b>	<b>\$ 215.43</b>	
<b>TOTAL COSTS</b>				<b>\$ 33,975.95</b>	<b>\$ 679.52</b>	
<b>NET PROJECTED RETURNS</b>				<b>\$ 1,274.05</b>	<b>\$ 25.48</b>	

**Table 11: Corn Silage Production Investment Summary**

Description	Purchase Price	Percentage Use	Purchase Price	Useful Life (Yrs)	Salvage Value	Annual Capital Recovery	Annual Insurance	Annual Taxes	Annual Repairs	Annual Fuel & Lube
<b>Buildings, Improvements, and Equipment</b>										
Land	\$ 2,000,000.00	12.5%	\$ 250,000.00	150.00	\$ 250,000.00	\$ -	\$ -	TBD	\$ -	\$ -
Shop (50X100) & Tools	\$ 60,000.00	12.5%	\$ 7,500.00	40.00	\$ 750.00	\$ 168.75	\$ 27.47	\$ 41.25	\$ 82.50	\$ -
Implements	\$ 25,000.00	12.5%	\$ 3,125.00	15.00	\$ 312.50	\$ 187.50	\$ 11.45	\$ 17.19	\$ 34.38	\$ -
Irrigation System (Pivot)(.5)	\$ 50,000.00	100%	\$ 50,000.00	25.00	\$ 5,000.00	\$ 1,800.00	\$ 183.15	\$ 275.00	\$ 550.00	\$ -
Silage Pit (60x200x12)	\$ 120,000.00	100%	\$ 120,000.00	50.00	\$ -	\$ 2,400.00	\$ 399.60	\$ 600.00	\$ 2,400.00	\$ -
Sub Total			\$ 430,625.00	NA	\$ 256,062.50	\$ 4,556.25	\$ 621.67	\$ 933.44	\$ 3,066.88	\$ -
<b>Machinery and Vehicles</b>										
145 HP Tractor (used)	\$ 59,000.00	12.5%	\$ 7,375.00	10.00	\$ 737.50	\$ 663.75	\$ 27.01	\$ -	\$ 283.94	\$ 324.50
125 HP Tractor (used)	\$ 46,500.00	12.5%	\$ 5,812.50	10.00	\$ 581.25	\$ 523.13	\$ 21.29	\$ -	\$ 223.78	\$ 255.75
85 HP Tractor (used)	\$ 26,000.00	12.5%	\$ 3,250.00	10.00	\$ 325.00	\$ 292.50	\$ 11.90	\$ -	\$ 125.13	\$ 143.00
(2) 3/4 Ton Pickup	\$ 80,000.00	12.5%	\$ 10,000.00	6.00	\$ 1,000.00	\$ 1,500.00	\$ 36.63	\$ -	\$ 385.00	\$ 440.00
(2) 4-Wheeler	\$ 20,000.00	12.5%	\$ 2,500.00	5.00	\$ 250.00	\$ 450.00	\$ 9.16	\$ -	\$ 96.25	\$ 110.00
Sub Total			\$ 28,937.50	NA	\$ 2,893.75	\$ 3,429.38	\$ 106.00	\$ -	\$ 1,114.09	\$ 1,273.25
<b>Total</b>			<b>\$ 459,562.50</b>	<b>NA</b>	<b>\$ 258,956.25</b>	<b>\$ 7,985.63</b>	<b>\$ 727.67</b>	<b>\$ 933.44</b>	<b>\$ 4,180.97</b>	<b>\$ 1,273.25</b>