

Enterprise Budgets

Prepared by the Department of Applied Economics, Utah State University

The following crop and livestock enterprise budgets were prepared by personnel at Utah State University with input from farmers and ranchers. These budgets are provided to assist farmers and ranchers in evaluating alternatives that may increase the profitability of their operation. The costs and returns commonly vary for a particular farm or ranch from those shown. Therefore, a column has been provided to adapt the budget to reflect the costs and returns for a specific farm or ranch enterprise.

Questions concerning these budgets should be referred to the appropriate contact person in the Department of Applied Economics at Utah State University in Logan at (435) 797-3417.

Budgets published in this and previous Editions of Utah Agricultural Statistics as well as budgets for other crop and livestock enterprises may be found on the extension web page at Utah State University, www.apecextension.usu.edu under "Agribusiness and Food".

Index of Enterprise Budgets by Subject and Year Most Recently Published in Utah Agricultural Statistics, 1996-2013

Alfalfa Hay, establishment with oat hay	1998	Custom Operators Rates	2010
Alfalfa Hay, irrigated, East Millard County	2001	Dairy	
Alfalfa Hay, dryland, Box Elder County	2002	Holstein Heifer Replacement	2001
Alfalfa Hay, Uintah County	2008	Jersey Heifer Replacement	2000
Alfalfa Haylage, Millard County	2001	Milk Cows, Jersey	1998
Alfalfa Hay, Cache County	2011	Milk Cows, Holstein	2010
Alfalfa Hay, Costs & Returns, Beaver County	2013	Dairy Bull	1998
Alfalfa Hay, Costs & Returns, Duchesne County	2012	Elk	1997
Alfalfa Hay, Establishment Costs, Beaver Co	2013	Grass Hay, Rich County	2006
Alfalfa Hay, Establishment Costs, Duchesne Co	2012	Grass Hay, Daggett County	2007
Barley, Irrigated (feed) , Cache County	2011	Lawn Turf	2006
Barley, Irrigated, Beaver County	2013	Machinery & Equipment Costs	2008
Barley, Irrigated, Duchesne County	2012	Manure & Waste Disposal, Dairy	1998
Beef Cattle		Oats, Irrigated, Beaver County	2013
Background Feeder Cattle	2000	Oats, Irrigated, Duchesne County	2012
Feeder Cattle Backgrounding Budget	2009	Oat Hay, San Juan County	2003
Feeder Cattle Drylot Budget	2009	Oats, San Juan County	2003
Feeder Cattle Summer Grazing Budget	2009	Oats, irrigated, Uintah County	2011
Beef heifer replacement	1998	Onion Production	2005
Cow/calf	1997	Pumpkin	1997
Cow/calf northern Utah	2004	Raspberry	1996
Cow/calf, southern Utah	2000	Safflower, dryland	1999
Cow/calf, Tooele & Duchesne Counties	2007	Safflower, irrigated	2005
Cull Cows	2006	Sheep, range	1997
Feeder cattle	2005	Lamb Feeding Budget	2009
Feeder steer calves	2003	Soybean	1998
Finish cattle	2000	Swine, farrow to finish	1998
Berries		Tomatoes	2003
High Tunnel Fall Raspberry	2010	Triticale	1996
Strawberry High Tunnel	2010	Turkeys, Hen	2000
Bison, Cow/Calf, 50 Cows	2001	Vegetables, Mixed, Davis County	2012
Canola, Spring irrigated	1996	Watermelons	1996
Cantaloupe	2006	Wheat, dryland	2008
Corn for grain, Irrigated, Beaver County	2013	Wheat, Irrigated, Cache County	2011
Corn for grain, Box Elder County	2002	Wheat, Irrigated, Duchesne County	2012
Corn Silage, Irrigated, Beaver County	2013	Wheat Straw Residue	1997
Corn Silage, Cache County	2002	Wheat, Soft White Winter, Irrigated, Box Elder	2000
Corn Silage, Irrigated, Duchesne County	2012		
Corn, Sweet	1996		
CRP Contract, per acre	2001		

Beaver County Crop Production Costs and Returns, 2012

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Sample costs and returns to establish and produce alfalfa hay, barley, oats, and corn (grain or silage) under pivot irrigation in Beaver County, Utah. 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. 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). The owner is provided \$30,000 annually for the 400 acre farm or \$75/acre. Hired labor is paid \$10/hr, \$10,000 annually for the 400 acre farm or \$25/acre. A pivot irrigation system is estimated at \$100,000 for each pivot (Valley Irrigation Company, March 2011).

Overall Assumptions

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 in Utah differ across counties. 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 on farm investments vary, 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 farm at an annual cost of \$3,000. The fuel and lube for machinery and vehicles is calculated at 8 percent of the average asset value. 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 and travel costs are estimated at \$3,000 and include office supplies, telephone service, Internet service, and travel expenses to educational seminars.

Capital recovery costs are the annual depreciation (opportunity cost) of all farm investments and 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 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.

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.

All USU enterprise budgets and documentation can be found at www.apecextension.usu.edu under "Agribusiness and Food".

Beaver County Alfalfa Hay Establishment Costs, 250 acres, 2012

	Total Units	Unit	Price/Cost Per Unit	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
OPERATING COSTS						
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	_____
TOTAL OPERATING COSTS				\$ 67,089.09	\$ 268.36	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
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	_____
TOTAL CASH OVERHEAD COSTS				\$ 7,971.44	\$ 31.89	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$ 9,881.25	\$ 39.53	_____
Machinery & Vehicles				\$ 28,255.45	\$ 113.02	_____
TOTAL NONCASH OVERHEAD COSTS				\$ 38,136.70	\$ 152.55	
TOTAL OWNERSHIP COSTS				\$ 46,108.14	\$ 184.43	
TOTAL COSTS				\$ 113,197.23	\$ 452.79	
YEAR ONE INCOME						
Alfalfa Hay	2.50	Tons	\$ 141.40	\$ 88,375.00	\$ 353.50	
TOTAL GROSS INCOME				\$ 88,375.00	\$ 353.50	
TOTAL ESTABLISHMENT INVESTMENT				\$ 24,822.23	\$ 99.29	

Beaver County Alfalfa Hay Costs and Returns, 250 acres, 2012

	Total Units	Unit	Price/Cost Per Unit	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
GROSS INCOME						
Alfalfa Hay	4.50	Tons	\$ 141.40	\$ 159,075.00	\$ 636.30	_____
TOTAL GROSS INCOME				\$ 159,075.00	\$ 636.30	
OPERATING COSTS						
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	_____
TOTAL OPERATING COSTS				\$ 63,589.09	\$ 254.36	
INCOME ABOVE OPERATING COSTS				\$ 95,485.91	\$ 381.94	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
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	_____
TOTAL CASH OVERHEAD COSTS				\$ 7,971.44	\$ 31.89	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$ 14,018.29	\$ 56.07	_____
Machinery & Vehicles				\$ 28,255.45	\$ 113.02	_____
TOTAL NONCASH OVERHEAD COSTS				\$ 42,273.73	\$ 169.09	
TOTAL OWNERSHIP COSTS				\$ 50,245.18	\$ 200.98	
TOTAL COSTS				\$ 113,834.27	\$ 455.34	
NET PROJECTED RETURNS				\$ 45,240.73	\$ 180.96	

Beaver County Irrigated Barley, 50 acres, 2012

	Total Units	Unit	Price/Cost Per bu.	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
GROSS INCOME						
Barley	90.00	Bushels	\$ 3.98	\$ 17,910.00	\$ 358.20	_____
TOTAL GROSS INCOME				\$ 17,910.00	\$ 358.20	
OPERATING COSTS						
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	_____
TOTAL OPERATING COSTS				\$ 17,504.22	\$ 350.08	
INCOME ABOVE OPERATING COSTS				\$ 405.78	\$ 8.12	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
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	_____
TOTAL CASH OVERHEAD COSTS				\$ 1,494.32	\$ 29.89	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$ 2,156.25	\$ 43.13	_____
Machinery & Vehicles				\$ 3,429.38	\$ 68.59	_____
TOTAL NONCASH OVERHEAD COSTS				\$ 5,585.63	\$ 111.71	
TOTAL OWNERSHIP COSTS				\$ 7,079.94	\$ 141.60	
TOTAL COSTS				\$ 24,584.16	\$ 491.68	
NET PROJECTED RETURNS				\$ (6,674.16)	\$ (133.48)	

Beaver County Irrigated Oats, 50 acres, 2012

	Total Units	Unit	Price/Cost Per bu.	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
GROSS INCOME						
Oats	125.00	Bushel	\$ 3.26	\$ 20,375.00	\$ 407.50	_____
TOTAL GROSS INCOME				\$ 20,375.00	\$ 407.50	
OPERATING COSTS						
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	_____
TOTAL OPERATING COSTS				\$ 28,514.22	\$ 570.28	
INCOME ABOVE OPERATING COSTS				\$ (8,139.22)	\$ (162.78)	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
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	_____
TOTAL CASH OVERHEAD COSTS				\$ 1,547.06	\$ 30.94	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$ 2,156.25	\$ 43.13	_____
Machinery & Vehicles				\$ 5,280.80	\$ 105.62	_____
TOTAL NONCASH OVERHEAD COSTS				\$ 7,437.05	\$ 148.74	
TOTAL OWNERSHIP COSTS				\$ 8,984.12	\$ 179.68	
TOTAL COSTS				\$ 37,498.34	\$ 749.97	
NET PROJECTED RETURNS				\$ (17,123.34)	\$ (342.47)	

Beaver County Irrigated Corn (Grain), 50 acres, 2012

	Total Units	Unit	Price/Cost Per bu.	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
GROSS INCOME						
Corn Grain	160.00	Bushel	\$ 5.12	\$ 40,960.00	\$ 819.20	_____
TOTAL GROSS INCOME				\$ 40,960.00	\$ 819.20	
OPERATING COSTS						
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	_____
TOTAL OPERATING COSTS				\$ 22,804.22	\$ 456.08	
INCOME ABOVE OPERATING COSTS				\$ 18,155.78	\$ 363.12	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
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	_____
TOTAL CASH OVERHEAD COSTS				\$ 1,494.32	\$ 29.89	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$ 2,156.25	\$ 43.13	_____
Machinery & Vehicles				\$ 3,429.38	\$ 68.59	_____
TOTAL NONCASH OVERHEAD COSTS				\$ 5,585.63	\$ 111.71	
TOTAL OWNERSHIP COSTS				\$ 7,079.94	\$ 141.60	
TOTAL COSTS				\$ 29,884.16	\$ 597.68	
NET PROJECTED RETURNS				\$ 11,075.84	\$ 221.52	

Beaver County Irrigated Corn (Silage), 50 acres, 2012

	Total Units	Unit	Price/Cost Per bu.	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
GROSS INCOME						
Corn Silage	25.00	Tons	\$ 28.20	\$ 35,250.00	\$ 705.00	_____
TOTAL GROSS INCOME				\$ 35,250.00	\$ 705.00	
OPERATING COSTS						
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	_____
TOTAL OPERATING COSTS				\$ 23,204.22	\$ 464.08	
INCOME ABOVE OPERATING COSTS				\$ 12,045.78	\$ 240.92	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
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	_____
TOTAL CASH OVERHEAD COSTS				\$ 2,786.10	\$ 55.72	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$ 4,556.25	\$ 91.13	_____
Machinery & Vehicles				\$ 3,429.38	\$ 68.59	_____
TOTAL NONCASH OVERHEAD COSTS				\$ 7,985.63	\$ 159.71	
TOTAL OWNERSHIP COSTS				\$ 10,771.73	\$ 215.43	
TOTAL COSTS				\$ 33,975.95	\$ 679.52	
NET PROJECTED RETURNS				\$ 1,274.05	\$ 25.48	