

# Enterprise Analysis Summary for 2013 Crops on Cash Rented Land

Bottineau, Minot and Rugby Farm and Ranch Business Management Education Programs

	Barley	Beans, Pinto	Canola	Corn	Flax	Peas, Field
Number of Fields	55		40	37		11
Number of Farms	25		18	19		6
Acres	120.66		117.69	106.23		76.92
Yield per Acres (bu or cwt)	68.75		21.7	120.32		39.39
Value per bushel/cwt	\$5.98		\$20.69	\$3.48		\$9.29
Other Product Return per Acre	\$0.37					
Total Product Return per Acre	\$411.59		\$449.05	\$418.18		\$365.88
Crop Insurance, LDP & Other Income	\$20.84		\$19.33			\$25.46
<b>Gross Return per Acre</b>	<b>\$432.43</b>		<b>\$468.38</b>	<b>\$418.18</b>		<b>\$391.34</b>
Direct Costs per Acre						
Seed	20.26		61.88	83.31		46.61
Fertilizer	53.93		76.95	108.34		14.49
Chemicals	34.45		25.39	28.44		62.60
Crop Insurance	17.81		18.25	21.49		17.66
Drying				2.31		
Fuel and Oil	20.70		20.54	37.66		22.78
Repairs	26.98		28.25	54.64		29.40
Custom Work	4.68		10.92	7.56		11.01
Land Rent	45.36		41.52	43.60		
Operating Interest	4.82		2.99	8.85		5.78
Miscellaneous Crop Expenses	3.38		0.01	1.01		44.34
<b>Total Direct Costs per Acre</b>	<b>\$232.37</b>		<b>\$286.70</b>	<b>\$397.21</b>		<b>\$254.67</b>
<b>Return to Overhead per Acre</b>	<b>\$200.06</b>		<b>\$181.68</b>	<b>\$20.97</b>		<b>\$136.67</b>
Overhead Costs per Acre						
Hired Labor	12.37		8.03	21.23		8.84
Machinery & Building Leases	3.80		15.98	5.89		0.67
Farm Insurance	3.91		3.34	5.21		3.95
Utilities	2.59		2.30	4.92		3.15
Dues and Professional Fees	2.06		1.83	1.29		1.30
Interest on Term Loans	4.52		3.00	5.62		5.08
Machinery and Building Depr.	24.83		14.88	39.64		31.20
Miscellaneous Farm Expenses	2.30		2.67	3.69		7.86
<b>Total Overhead Costs per Acre</b>	<b>\$56.38</b>		<b>\$52.03</b>	<b>\$87.49</b>		<b>\$62.05</b>
<b>Total Listed Costs per Acre</b>	<b>\$288.75</b>		<b>\$338.73</b>	<b>\$484.70</b>		<b>\$316.72</b>
<b>Net Return per Acre</b>	<b>\$143.68</b>		<b>\$129.65</b>	<b>-\$66.52</b>		<b>\$74.62</b>
Government Payments per Acre	10.02		9.75	8.19		7.53
<b>Net Return with Gov. Payments</b>	<b>\$153.70</b>		<b>\$139.40</b>	<b>-\$58.33</b>		<b>\$82.15</b>
Labor & Management Charge	33.05		34.89	41.87		33.32
<b>Net Return over Labor &amp; Mngt.</b>	<b>\$120.65</b>		<b>\$104.51</b>	<b>-\$100.20</b>		<b>\$48.83</b>
Total Direct Costs per Bu/Cwt	3.52		13.21	3.30		6.47
<b>Total Listed Costs per Bu/Cwt</b>	<b>4.20</b>		<b>15.61</b>	<b>4.03</b>		<b>8.04</b>
Listed Costs per Bu/Cwt Less Government Payments	3.75		14.27	3.96		7.20
Costs per bu/Cwt Less Gov. Payments, Other Income & Labor & Management Charge	4.23		15.88	4.31		8.05
Machinery Cost per Acre	89.44		92.67	148.74		98.01
Estimated Labor Hours per Acre	1.52		1.60	2.26		1.94



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	Soybeans	Sunflowers, Confectionary	Sunflowers, Oil	Wheat, Durum	Wheat, Hard Red Spring	Wheat, Hard Red Winter
Number of Fields	57		17		107	
Number of Farms	27		6		43	
Acres	145.92		87.1		140.87	
Yield per Acres (bu or cwt)	34.98		18.91		54.24	
Value per bushel/cwt	\$12.25		\$20.27		\$6.35	
Other Product Return per Acre						
Total Product Return per Acre	\$428.65		\$383.33		\$344.59	
Crop Insurance, LDP & Other Income	\$25.61		\$0.42		\$9.92	
<b>Gross Return per Acre</b>	<b>\$454.26</b>		<b>\$383.75</b>		<b>\$354.51</b>	
Direct Costs per Acre						
Seed	80.82		41.73		22.31	
Fertilizer	18.48		43.44		67.22	
Chemicals	32.11		52.51		38.21	
Crop Insurance	23.06		25.51		20.26	
Drying			0.69		0.47	
Fuel and Oil	21.20		17.86		19.50	
Repairs	33.35		31.41		28.47	
Custom Work	2.18		11.38		5.40	
Land Rent	45.69		42.44		42.85	
Operating Interest	5.41		6.95		4.73	
Miscellaneous Crop Expenses	0.96		0.36		0.34	
<b>Total Direct Costs per Acre</b>	<b>\$263.26</b>		<b>\$274.28</b>		<b>\$249.76</b>	
<b>Return to Overhead per Acre</b>	<b>\$191.00</b>		<b>\$109.47</b>		<b>\$104.75</b>	
Overhead Costs per Acre						
Hired Labor	10.33		12.88		8.87	
Machinery & Building Leases	6.18		2.23		9.85	
Farm Insurance	5.15		4.18		4.42	
Utilities	3.93		1.72		3.02	
Dues and Professional Fees	1.30		3.80		1.65	
Interest on Term Loans	5.10		2.75		3.79	
Machinery and Building Depr.	26.42		20.27		18.14	
Miscellaneous Farm Expenses	2.99		1.12		2.77	
<b>Total Overhead Costs per Acre</b>	<b>\$61.40</b>		<b>\$48.95</b>		<b>\$52.51</b>	
<b>Total Listed Costs per Acre</b>	<b>\$324.66</b>		<b>\$323.23</b>		<b>\$302.27</b>	
<b>Net Return per Acre</b>	<b>\$129.60</b>		<b>\$60.52</b>		<b>\$52.24</b>	
Government Payments per Acre	11.55		8.45		9.73	
<b>Net Return with Gov. Payments</b>	<b>\$141.15</b>		<b>\$68.97</b>		<b>\$61.97</b>	
Labor & Management Charge	29.22		38.51		28.84	
<b>Net Return over Labor &amp; Mngt.</b>	<b>\$111.93</b>		<b>\$30.46</b>		<b>\$33.13</b>	
Total Direct Costs per Bu/Cwt	7.53		14.50		4.60	
<b>Total Listed Costs per Bu/Cwt</b>	<b>9.28</b>		<b>17.09</b>		<b>5.57</b>	
Listed Costs per Bu/Cwt Less Government Payments	8.22		16.62		5.21	
Costs per bu/Cwt Less Gov. Payments, Other Income & Labor & Management Charge	9.05		18.66		5.74	
<b>Machinery Cost per Acre</b>	<b>94.66</b>		<b>83.65</b>		<b>84.14</b>	
<b>Estimated Labor Hours per Acre</b>	<b>1.43</b>		<b>1.52</b>		<b>1.42</b>	

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# Enterprise Analysis Summary for 2013 Forage Crops on Cash Rented Land

Bottineau, Minot and Rugby Farm and Ranch Business Management Education Programs

	Corn Silage	Hay, Alfalfa	Hay, Mixed Alfalfa/Grass	Hay, Grass	Hay, Small Grain	Pasture
Number of Fields	5	18	13	38		69
Number of Farms	5	12	11	21		31
Acres	53.00	46.42	82.4	147.18		370.84
Yield per Acres (tons or AUMs)	15.54	2.21	1.40	1.11		0.97
Value per ton or AUM	\$34.31	\$71.56	\$47.86	\$42.04		\$15.70
Other Product Return per Acre						\$0.39
Total Product Return per Acre	\$533.18	\$158.14	\$67.00	\$46.66		\$15.62
Crop Insurance, LDP & Other Income						\$0.74
<b>Gross Return per Acre</b>	<b>\$533.18</b>	<b>\$158.14</b>	<b>\$67.00</b>	<b>\$46.66</b>		<b>\$16.36</b>
Direct Costs per Acre						
Seed	78.46					
Fertilizer	77.20					
Chemicals	27.09					
Crop Insurance	24.20		0.13			
Fuel and Oil	31.74	12.18	14.95	9.26		0.60
Repairs	43.36	14.91	12.71	12.60		0.64
Custom Work	53.15	0.75				
Land Rent	25.43	26.32	28.23	13.62		13.32
Operating Interest	7.04	2.08	4.45	1.46		
Miscellaneous Crop Expenses		0.07	0.15	1.07		0.23
<b>Total Direct Costs per Acre</b>	<b>\$367.67</b>	<b>\$56.31</b>	<b>\$60.62</b>	<b>\$38.01</b>		<b>\$14.79</b>
<b>Return to Overhead per Acre</b>	<b>\$165.51</b>	<b>\$101.83</b>	<b>\$6.38</b>	<b>\$8.65</b>		<b>\$1.57</b>
Overhead Costs per Acre						
Hired Labor	15.06	4.82	1.97	5.56		
Machinery & Building Leases	0.11		0.50	0.36		
Farm Insurance	2.38	2.95	3.15	0.81		
Utilities	2.27	2.11	2.14	1.17		
Dues and Professional Fees	0.45	1.24	2.72	0.31		
Interest on Term Loans	4.63	6.98	3.32	1.27		
Machinery and Building Depr.	25.19	8.53	10.80	7.61		0.38
Miscellaneous Farm Expenses	2.09	0.62	0.02	0.34		0.74
<b>Total Overhead Costs per Acre</b>	<b>\$52.18</b>	<b>\$27.25</b>	<b>\$24.62</b>	<b>\$17.43</b>		<b>\$1.12</b>
<b>Total Listed Costs per Acre</b>	<b>\$419.85</b>	<b>\$83.56</b>	<b>\$85.24</b>	<b>\$55.44</b>		<b>\$15.91</b>
<b>Net Return per Acre</b>	<b>\$113.33</b>	<b>\$74.58</b>	<b>-\$18.24</b>	<b>-\$8.78</b>		<b>\$0.45</b>
Government Payments per Acre	7.76	1.81	6.49	0.01		0.06
<b>Net Return with Gov. Payments</b>	<b>\$121.09</b>	<b>\$76.39</b>	<b>-\$11.75</b>	<b>-\$8.77</b>		<b>\$0.51</b>
Labor & Management Charge	30.91	13.71	18.66	11.54		0.63
<b>Net Return over Labor &amp; Mngt.</b>	<b>\$90.18</b>	<b>\$62.68</b>	<b>-\$30.41</b>	<b>-\$20.31</b>		<b>-\$0.12</b>
Total Direct Costs per Ton/AUM	23.66	25.48	43.30	34.24		15.25
<b>Total Listed Costs per Ton/AUM</b>	<b>27.02</b>	<b>37.81</b>	<b>60.89</b>	<b>49.95</b>		<b>16.40</b>
Listed Costs per Ton/AUM Less Government Payments	26.52	36.99	56.25	49.94		15.18
Costs per Ton/AUM Less Gov. Payments, Other Income & Labor & Management Charge	28.51	43.19	69.58	60.33		15.82
Machinery Cost per Acre	156.97	44.26	43.26	31.95		1.83
Estimated Labor Hours per Acre	3.31	1.07	1.26	1.00		0.05



# Enterprise Analysis Summary for 2013 Livestock

Bottineau, Minot and Rugby Farm and Ranch Business Management Education Programs

	<b>Beef Cow-Calf Average per Cow</b>		<b>Beef Backgrounding Average per CWT Produced</b>	
Number of Farms	26		22	
	Quantity	Value	Quantity	Value
Beef Calves Sold (pounds)	174.40	304.30	419.99	644.74
Transferred Out (pounds)	326.00	557.38	113.36	153.88
Cull Sales (pounds)		165.29		
Other Income		3.55		3.05
Less Purchased (pounds)		-93.96	-11.00	-16.72
Less Transferred In (pounds)		-206.30	-268.89	-461.29
Inventory Change (pounds)	0.00	84.94	-153.46	-195.08
<b>Gross Margin (Production in pounds)</b>	<b>500.40</b>	<b>\$815.20</b>	<b>100.00</b>	<b>\$128.58</b>
<b>Direct Expenses</b>				
Barley (bushels)			0.96	3.10
Corn (bushels)			1.60	7.51
Oats (bushels)			1.62	4.48
Corn & Other Silage (pounds)	2753.50	35.43	612.53	6.89
Hay, Alfalfa (pounds)			89.08	2.19
Hay, Grass and Other (pounds)	5219.90	103.64	594.48	12.25
Complete Rations (pounds)	198.80	31.17	78.21	9.84
Protein, Vitamins & Minerals (lbs)	71.90	19.42	6.57	1.88
Pasture (animal unit months)	7.50	103.75	0.28	5.02
Other Feed Stuffs (pounds)	717.80	19.02	100.91	0.89
Veterinary		27.63		1.22
Livestock Supplies		21.02		3.47
Fuel and Oil		28.02		
Repairs		49.21		4.34
Custom Hire		8.26		0.79
Other Direct Expenses		3.65		2.07
Operating Interest				
<b>Total Direct Costs per Acre</b>		<b>\$450.22</b>		<b>\$65.94</b>
<b>Return Over Direct Expenses</b>		<b>\$364.98</b>		<b>\$62.64</b>
<b>Overhead Expenses</b>				
Hired Labor		21.71		2.49
Machinery & Building Leases				
Farm Insurance		11.13		1.25
Utilities		14.96		1.62
Dues and Professional Fees		4.20		
Interest on Term Loans		11.60		
Machinery and Building Depr.		34.71		2.93
Miscellaneous Farm Expenses		5.75		1.44
<b>Total Overhead Expenses</b>		<b>\$104.06</b>		<b>\$9.73</b>
<b>Total Direct &amp; Overhead Expenses</b>		<b>\$554.28</b>		<b>\$75.67</b>
<b>Net Return</b>		<b>\$260.92</b>		<b>\$52.91</b>
Labor & Management Charge		75.29		7.00
<b>Net Return over Labor &amp; Mngt.</b>		<b>\$185.63</b>		<b>\$45.91</b>
Feed Cost per Cow/Cwt Produced		\$312.43		\$54.05
Weaning Percentage		86.0%		
Average Weaning Weight		561		
Average Daily Gain				1.10
Pounds of Feed per Pound of Gain				12.61
Est. Labor Hours per Cow/Cwt Prod.		6.01		0.63

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# Executive Summary for 2013

Bottineau, Minot and Rugby Farm and Ranch Business Management Education Programs

## Income Statement

Crop Sales	501,767	
Crop Inventory Change	-37,512	
Gross Crop Income		464,255
Livestock Sales	63,531	
Livestock Inventory Change	3,548	
Gross Livestock Income		67,079
Government Payments		38,940
Other Cash Farm Income		153,068
Change in Accounts Receivable		-23,793
Gain or Loss on Hedging Accts.		815
Change in Other Assets		10,483
Gain or Loss on Breeding Lvst.		-1,374
<b>Gross Farm Income</b>		<b>709,473</b>
Cash Operating Expense	480,562	
Change in Prepaid Exp. & Sup.	307	
Change in Growing Crops	7,545	
Change in Accounts Payable	-216	
Depreciation	38,897	
Total Operating Expense		527,095
Interest Paid	27,756	
Change in Accrued Interest	809	
Total Interest Expense		28,565
<b>Total Expenses</b>		<b>555,660</b>
<b>Net Farm Income from Operations</b>		<b>153,813</b>
Gain or Loss on Capital Sales		4,783
<b>Net Farm Income</b>		<b>158,596</b>
Change in Earned Net Worth	121,049	8.7%

## Financial Standards Measures

	Beginning	Ending
<b>Liquidity</b>		
Current Ratio	2.21	1.98
Working Capital	329,365	278,388
Working Capital to Gross Rev.		40.1%
<b>Solvency (Cost)</b>	<b>Beginning</b>	<b>Ending</b>
Debt to Asset Ratio	34.5%	34.5%
Equity to Asset Ratio	62.7%	62.9%
Debt to Equity	59.6%	58.9%
<b>Profitability</b>		<b>Cost</b>
Rate of Return on Assets		6.6%
Rate of Return on Equity		8.2%
Operating Profit Margin		18.7%
Net Farm Income		153,813
EBITDA		221,273
<b>Repayment Capacity</b>		
Capital Debt Repayment Cap.		156,988
Capital Debt Repayment Margin		71,472
Replacement Margin		49,515
Term Debt Coverage Ratio		1.84
Replacement Margin Coverage Ratio		1.46
<b>Efficiency</b>		<b>Cost</b>
Asset Turnover Rate		35.5%
Operating Expense Ratio		68.1%
Depreciation Expense Ratio		5.6%
Interest Expense Ratio		4.1%
Net Farm Income Ratio		22.8%



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