



**ND FARM**  
MANAGEMENT EDUCATION

# 2018 Annual Report

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

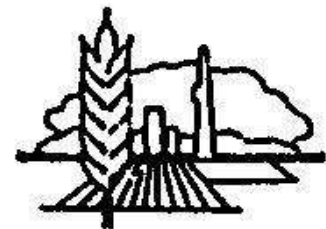


## *Thank You*

The Dakota College at Bottineau Farm and Ranch Business Management Programs located at Bottineau, Minot and Rugby would like to recognize and thank the businesses and organizations listed on this and the following pages for their contributions toward the production and distribution of the 2018 Averages Book.



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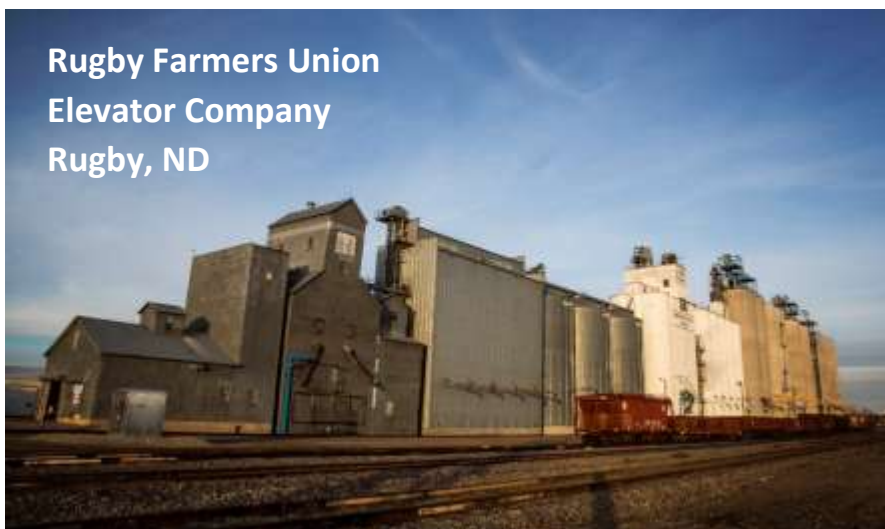
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# **Annual Averages Report for 2018**

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

## **ACKNOWLEDGEMENTS**

The farm and ranch business analyses for this report were submitted by the following instructors:

**SCHOOLS:**

Dakota College at Bottineau (Bottineau Office)

Dakota College at Bottineau (Minot Office)

Dakota College at Bottineau (Rugby Office)

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We acknowledge the contributions made by the farm families who cooperated with their Farm and Ranch Business Management Education Program instructors in getting the records for 2018 closed out on a timely schedule. Acknowledgment is due to the above instructors for submitting their respective Finan farm business analyses to the North Dakota State University Extension Economist at North Dakota State University who then used the data to run these average reports. The North Dakota State University Finpack Center ran the averages based upon the data from 62 Finan business analyses submitted by the instructors prior to the March cut off date.

A special acknowledgement is due to Andy Swenson who serves as the liaison coordinator between the instructors and the NDSU Extension Service. Andy manages the data base software program which is used to summarize the individual analyses into specific comparative tables. Swenson is the Farm and Family Resource Management Specialist with the NDSU Extension Service at North Dakota State University in Fargo, North Dakota.

***In cooperation with the  
North Dakota State Board for  
Career and Technical Education***



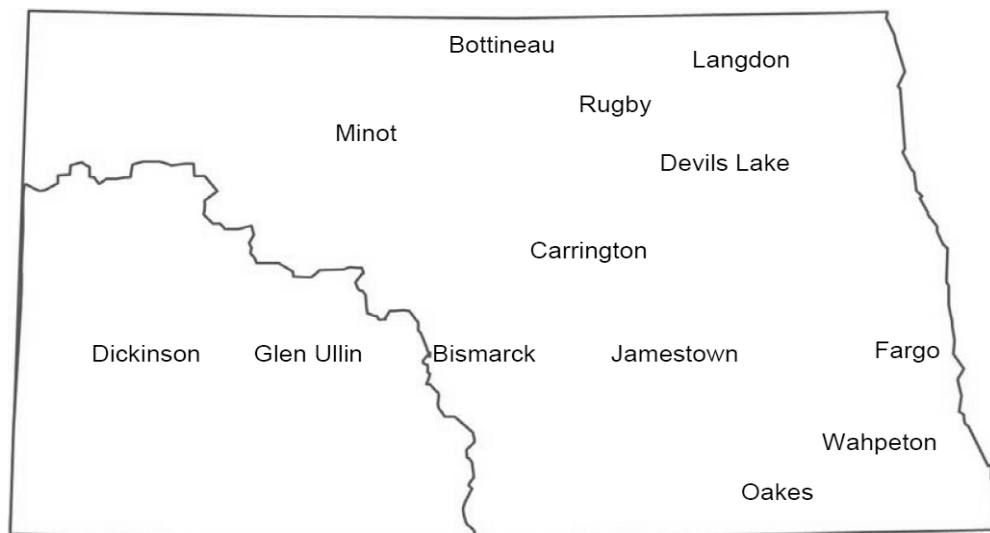
# ***Annual Averages Report for 2018***

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

## ***Table of Contents***

<i>Financial Sponsors .....</i>	<i>i</i>
<i>Acknowledgments .....</i>	<i>iv</i>
<i>Table of Contents.....</i>	<i>v</i>
<i>Whole Farm/Ranch Financial and Operator Information .....</i>	<i>1</i>
<i>Crop Enterprises .....</i>	<i>19</i>
<i>Livestock Enterprises .....</i>	<i>43</i>
<i>Graphs.....</i>	<i>52</i>

## ***Locations of North Dakota Farm and Ranch Business Management Education Programs***





# **Whole Farm Financial Information**

**Farm Income Statement**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Cash Farm Income</b>				
Barley	25,989	19,815	21,598	49,656
Beans, Garbonzo	1,620	-	-	-
Beans, Navy	449	2,321	-	-
Beans, Pinto	8,175	-	-	20,657
Canola	45,833	40,192	43,672	68,612
Corn	30,045	31,964	17,501	62,319
Hay, Alfalfa	74	64	115	-
Oats	2,746	-	3,524	4,251
Peas Seed	3,211	-	-	15,312
Peas, Field	6,564	6,725	6,597	18,485
Soybeans	166,885	111,676	140,229	365,833
Soybeans Seed	814	-	-	3,882
Sunflowers	9,980	14,771	2,633	26,892
Wheat, Durum	7,364	11,863	-	21,743
Wheat, Spring	165,773	146,322	113,285	302,008
Wheat, Winter	1,701	-	429	3,065
Barley, Seed	148	-	-	708
Hay	552	-	-	2,631
User Added Crop	1,290	-	-	6,154
Miscellaneous crop income	6,512	140	898	27,402
Beef Cow-Calf, Beef Calves	22,926	23,694	14,851	3,064
Beef Replacement Heifers	4,256	6,459	4,745	-
Beef Backgrounding	18,621	16,751	26,864	2,624
Cull breeding livestock	7,284	5,257	7,029	1,334
Misc. livestock income	578	-	511	105
Crop government payments	39,335	31,169	23,578	83,079
CRP payments	1,308	1,742	-	2,486
Other government payments	46,785	41,384	30,781	65,856
Custom work income	8,714	5,039	6,550	26,732
Patronage dividends, cash	4,604	4,160	2,323	7,064
Crop insurance income	35,453	35,394	17,413	65,155
Property insurance income	1,165	2,098	-	1,676
Sale of resale items	639	-	-	3,047
Livestock insurance inc	44	-	211	-
Other farm income	8,568	5,033	1,325	15,005
Gross Cash Farm Income	686,006	564,035	486,662	1,276,836



**Farm Income Statement (continued)**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Cash Farm Expense</b>				
Seed and plants	85,964	68,662	68,470	164,315
Fertilizer	85,240	76,801	58,059	159,211
Crop chemicals	71,447	76,910	47,703	133,379
Crop insurance	31,546	31,472	23,018	61,716
Drying expense	640	1,884	255	378
Storage	234	970	129	92
Irrigation energy	108	83	-	110
Crop miscellaneous	3,112	10,198	1,130	2,716
Consultants	3,409	991	3,873	8,644
Feeder livestock purchase	521	668	1,674	23
Purchased feed	5,973	6,417	3,886	1,309
Veterinary	2,578	2,195	2,993	165
Supplies	1,153	1,165	1,695	327
Livestock insurance	24	125	-	-
Livestock leases	162	67	46	634
Interest	32,724	42,308	35,802	34,616
Fuel & oil	31,125	24,605	22,070	57,036
Repairs	55,408	65,904	31,923	86,259
Custom hire	14,254	10,162	10,722	19,625
Hired labor	18,013	13,128	15,355	33,363
Land rent	81,579	68,090	61,235	168,172
Machinery leases	9,150	4,910	7,516	24,468
Building leases	1,377	649	577	4,928
Real estate taxes	4,774	3,919	3,154	6,410
Farm insurance	10,254	11,026	6,120	17,716
Utilities	7,026	8,651	4,150	12,892
Marketing	513	719	649	185
Dues & professional fees	2,756	4,523	2,191	2,759
Purchase of resale items	351	-	-	1,521
Miscellaneous	6,366	8,665	2,591	13,813
Total cash expense	567,783	545,865	416,987	1,016,783
Net cash farm income	118,223	18,170	69,675	260,053
<b>Inventory Changes</b>				
Prepays and supplies	428	-2,199	3,444	6,212
Accounts receivable	26,151	9,342	5,383	113,191
Hedging accounts	9,011	-	692	34,686
Other current assets	-316	-	-204	-2,049
Crops and feed	43,783	-20,030	18,286	136,816
Market livestock	-1,125	-658	13,683	720
Breeding livestock	-1,572	-6,332	-5,540	-495
Other assets	6,501	3,959	3,330	22,710
Accounts payable	206	8,308	-6,838	-3,350
Accrued interest	-1,112	-620	1,871	-6,464
Total inventory change	81,956	-8,231	34,108	301,978
Net operating profit	200,179	9,939	103,783	562,031
<b>Depreciation</b>				
Machinery and equipment	-43,484	-37,919	-22,993	-91,634
Titled vehicles	-7,201	-9,218	-4,258	-11,720
Buildings and improvements	-4,869	-1,908	-1,453	-10,180
Total depreciation	-55,554	-49,046	-28,704	-113,533
Net farm income from operations	144,626	-39,107	75,080	448,498
Gain or loss on capital sales	724	-5,140	1,164	7,397
Net farm income	145,350	-44,247	76,243	455,895

**Inventory Changes**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
Net cash farm income	118,223	18,170	69,675	260,053
<b>Crops and Feed</b>				
Ending inventory	451,222	378,813	266,994	1,045,014
Beginning inventory	407,439	398,843	248,708	908,197
Inventory change	43,783	-20,030	18,286	136,816
<b>Market Livestock</b>				
Ending inventory	35,035	30,583	41,809	4,133
Beginning inventory	36,160	31,242	28,126	3,413
Inventory change	-1,125	-658	13,683	720
<b>Accts Receivable</b>				
Ending inventory	39,340	13,881	15,447	137,508
Beginning inventory	13,189	4,540	10,064	24,317
Inventory change	26,151	9,342	5,383	113,191
<b>Prepaid Expenses and Supplies</b>				
Ending inventory	48,993	7,828	28,677	154,407
Beginning inventory	48,564	10,028	25,232	148,195
Inventory change	428	-2,199	3,444	6,212
<b>Hedging Activities</b>				
Ending inventory	9,247	-	1,077	37,009
Withdrawals	7,689	-	-	24,375
Beginning inventory	4,575	-	-	15,310
Deposits	3,350	-	385	11,388
Gain or loss	9,011	-	692	34,686
<b>Other Current Assets</b>				
Ending inventory	769	-	127	2,167
Beginning inventory	1,085	-	331	4,216
Inventory change	-316	-	-204	-2,049
<b>Breeding Livestock</b>				
Ending inventory	100,097	101,149	116,087	11,631
Capital sales	434	-	-	-
Beginning inventory	94,070	99,596	100,639	11,372
Capital purchases	8,032	7,885	20,988	754
Depreciation, capital adjust	-1,572	-6,332	-5,540	-495
<b>Other Capital Assets</b>				
Ending inventory	38,673	51,141	27,328	67,270
Capital sales	1,110	101	809	1,769
Beginning inventory	33,234	47,283	24,575	46,329
Capital purchases	48	-	231	-
Depreciation, capital adjust	6,501	3,959	3,330	22,710
<b>Accounts Payable</b>				
Beginning inventory	13,936	20,394	6,799	24,229
Ending inventory	13,730	12,087	13,637	27,578
Inventory change	206	8,308	-6,838	-3,350
<b>Accrued Interest</b>				
Beginning inventory	17,849	23,026	21,262	19,574
Ending inventory	18,960	23,646	19,391	26,039
Inventory change	-1,112	-620	1,871	-6,464
Total inventory change	81,956	-8,231	34,108	301,978
Net operating profit	200,179	9,939	103,783	562,031



**Depreciation**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
Net operating profit	200,179	9,939	103,783	562,031
<b>Machinery and Equipment</b>				
Ending inventory	578,372	457,946	323,638	1,177,168
Capital sales	15,567	18,861	9,444	35,252
Beginning inventory	528,683	450,223	293,819	1,051,125
Capital purchases	108,738	64,503	62,256	252,929
Depreciation, capital adjust.	-43,484	-37,919	-22,993	-91,634
<b>Titled Vehicles</b>				
Ending inventory	79,267	101,224	48,845	120,399
Capital sales	2,509	1,151	169	3,811
Beginning inventory	76,800	98,693	44,172	120,143
Capital purchases	12,177	12,901	9,100	15,787
Depreciation, capital adjust.	-7,201	-9,218	-4,258	-11,720
<b>Buildings and Improvements</b>				
Ending inventory	173,900	153,131	63,308	369,179
Capital sales	2,363	-	-	-
Beginning inventory	156,243	136,568	62,777	346,588
Capital purchases	24,890	18,471	1,983	32,770
Depreciation, capital adjust.	-4,869	-1,908	-1,453	-10,180
Total depreciation, capital adj.	-55,554	-49,046	-28,704	-113,533
Net farm income from operations	144,626	-39,107	75,080	448,498
Gain or loss on capital sales	724	-5,140	1,164	7,397
Net farm income	145,350	-44,247	76,243	455,895

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**Profitability Measures**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Profitability (assets valued at cost)</b>				
Net farm income from operations	144,626	-39,107	75,080	448,498
Rate of return on assets	6.1 %	-2.5 %	4.8 %	10.9 %
Rate of return on equity	7.4 %	-11.9 %	6.0 %	13.4 %
Operating profit margin	15.9 %	-7.9 %	12.2 %	24.8 %
Asset turnover rate	38.6 %	31.9 %	39.2 %	43.9 %
Farm interest expense	33,835	42,928	33,931	41,081
Value of operator lbr and mgmt.	57,249	46,709	46,199	97,878
Return on farm assets	121,212	-42,888	62,812	391,701
Average farm assets	1,973,664	1,702,789	1,319,334	3,599,149
Return on farm equity	87,377	-85,815	28,880	350,620
Average farm equity	1,177,971	721,449	483,839	2,611,303
Value of farm production	761,910	543,231	516,938	1,581,611

**Liquidity & Repayment Capacity Measures**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Liquidity</b>				
Current ratio	1.75	0.94	1.13	2.61
Working capital	267,777	-31,882	44,833	882,293
Working capital to gross inc	34.8 %	-5.8 %	8.6 %	55.7 %
Current assets	627,068	465,415	388,715	1,428,827
Current liabilities	359,291	497,297	343,882	546,534
Gross revenues (accrual)	768,756	550,316	522,497	1,584,465
<b>Repayment capacity</b>				
Net farm income from operations	144,626	-39,107	75,080	448,498
Depreciation	55,554	49,046	28,704	113,533
Personal income	41,263	41,838	32,383	74,024
Family living/owner withdrawals	-63,703	-53,769	-61,381	-99,602
Cash discrepancy	186	-101	522	481
Payments on personal debt	-4,217	-6,134	-3,746	-2,910
Income taxes paid	-13,113	-2,755	-2,445	-39,053
Interest on term debt	23,274	34,982	25,852	22,366
Capital debt repayment capacity	183,868	24,000	94,968	517,336
Scheduled term debt payments	-81,788	-98,873	-85,946	-99,062
Capital debt repayment margin	102,081	-74,873	9,022	418,274
Cash replacement allowance	-35,477	-33,725	-5,522	-89,601
Replacement margin	66,604	-108,598	3,499	328,673
Term debt coverage ratio	2.25	0.24	1.10	5.22
Replacement coverage ratio	1.57	0.18	1.04	2.74

**Balance Sheet at Cost Values**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Assets</b>				
Current Farm Assets				
Cash and checking balance	42,462	34,309	34,584	48,590
Prepaid expenses & supplies	48,993	7,828	28,677	154,407
Growing crops	769	-	127	2,167
Accounts receivable	39,340	13,881	15,447	137,508
Hedging accounts	9,247	-	1,077	37,009
Crops held for sale or feed	451,222	378,813	266,994	1,045,014
Crops under government loan	-	-	-	-
Market livestock held for sale	35,035	30,583	41,809	4,133
Other current assets	-	-	-	-
Total current farm assets	627,068	465,415	388,715	1,428,827
Intermediate Farm Assets				
Breeding livestock	100,097	101,149	116,087	11,631
Machinery and equipment	578,372	457,946	323,638	1,177,168
Titled vehicles	79,267	101,224	48,845	120,399
Other intermediate assets	2,181	502	582	1,053
Total intermediate farm assets	759,916	660,822	489,152	1,310,251
Long Term Farm Assets				
Farm land	477,128	392,524	421,618	699,369
Buildings and improvements	173,900	153,131	63,308	369,179
Other long-term assets	36,492	50,638	26,745	66,217
Total long-term farm assets	687,520	596,294	511,671	1,134,765
Total Farm Assets	2,074,505	1,722,531	1,389,539	3,873,843
Total Nonfarm Assets	389,416	327,148	195,187	776,980
Total Assets	2,463,921	2,049,679	1,584,726	4,650,824
<b>Liabilities</b>				
Current Farm Liabilities				
Accrued interest	18,960	23,646	19,391	26,039
Accounts payable	13,730	12,087	13,637	27,578
Current notes	262,619	403,164	238,653	414,574
Government crop loans	-	-	-	-
Principal due on term debt	63,981	58,400	72,200	78,343
Total current farm liabilities	359,291	497,297	343,882	546,534
Total intermediate farm liabs	194,237	223,896	189,466	209,648
Total long term farm liabilities	291,206	302,345	355,145	334,722
Total farm liabilities	844,735	1,023,539	888,493	1,090,904
Total nonfarm liabilities	70,024	101,873	71,159	60,093
Total liabilities	914,759	1,125,412	959,652	1,150,997
Net worth (farm and nonfarm)	1,549,162	924,267	625,074	3,499,827
Net worth change	128,466	-49,558	42,049	390,476
Percent net worth change	9 %	-5 %	7 %	13 %
<b>Ratio Analysis</b>				
Current farm liabilities / assets	57 %	107 %	88 %	38 %
Intermediate farm liab. / assets	26 %	34 %	39 %	16 %
Long term farm liab. / assets	42 %	51 %	69 %	29 %
Total debt to asset ratio	37 %	55 %	61 %	25 %



**Statement Of Cash Flows**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
Beginning cash (farm & nonfarm)	48,698	23,490	25,485	90,384
<b>Cash Provided By Operating Activities</b>				
Gross cash farm income	686,006	564,035	486,662	1,276,836
Total cash farm expense	-567,783	-545,865	-416,987	-1,016,783
Net cash from hedging transactions	4,339	-	-385	12,987
Cash provided by operating	122,562	18,170	69,291	273,040
<b>Cash Provided By Investing Activities</b>				
Sale of breeding livestock	434	-	-	-
Sale of machinery & equipment	17,271	17,556	10,664	44,114
Sale of titled vehicles	2,340	1,504	113	2,346
Sale of farm land	2,903	15,000	-	-
Sale of farm buildings	2,363	-	-	-
Sale of other farm assets	1,267	913	809	1,769
Sale of nonfarm assets	2,601	3,054	441	3,939
Purchase of breeding livestock	-8,032	-7,885	-20,988	-754
Purchase of machinery & equip.	-108,738	-64,503	-62,256	-252,929
Purchase of titled vehicles	-12,177	-12,901	-9,100	-15,787
Purchase of farm land	-36,732	-28,048	-27,336	-79,405
Purchase of farm buildings	-24,890	-18,471	-1,983	-32,770
Purchase of other farm assets	-48	-	-231	-
Purchase of nonfarm assets	-16,166	-12,421	-29,680	-28,187
Cash provided by investing	-177,605	-106,202	-139,548	-357,663
<b>Cash Provided By Financing Activities</b>				
Money borrowed	655,268	698,791	609,023	1,032,161
Principal payments	-554,113	-601,021	-485,445	-839,667
Personal income	41,263	41,838	32,383	74,024
Family living/owner withdrawals	-63,703	-53,769	-61,381	-99,602
Income and social security tax	-12,349	-2,755	-5,201	-32,745
Capital contributions	-	-	-	-
Capital distributions	-	-	-	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	16,928	19,055	-	2,975
Gifts given	-619	-5	-	-
Other cash flows	-	-	-	-
Cash provided by financing	82,675	102,133	89,379	137,145
Net change in cash balance	27,632	14,101	19,121	52,522
Ending cash (farm & nonfarm)	76,516	37,490	45,128	143,386
Discrepancy	-186	101	-522	-481

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**Crop Production and Marketing Summary**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Acreage Summary</b>				
Total acres owned	930	712	501	1,172
Total crop acres	2,377	1,948	1,619	4,419
Crop acres owned	575	461	360	794
Crop acres cash rented	1,565	1,462	1,184	3,153
Crop acres share rented	236	25	74	472
Total pasture acres	540	535	478	116
Percent crop acres owned	24 %	24 %	22 %	18 %
Mach invest/crop acre cost	266	284	219	279
<b>Average Price Received (Cash Sales Only)</b>				
Wheat, Spring per bushel	5.41	5.64	5.36	5.47
Soybeans per bushel	8.74	8.54	8.73	8.91
Canola per cwt	17.24	16.08	15.99	17.85
Barley per bushel	4.26	-	-	4.31
Corn per bushel	3.06	-	-	3.20
Sunflowers per cwt	16.49	-	-	-
Wheat, Durum per bushel	5.12	-	-	-
Peas, Field per bushel	6.65	-	-	-
Oats per bushel	2.76	-	-	-
<b>Average Yield Per Acre</b>				
Wheat, Spring (bushel)	58.05	52.88	56.39	61.97
Soybeans (bushel)	26.24	28.02	27.83	26.06
Canola (cwt)	18.26	15.16	16.68	19.50
Hay, Grass (ton)	1.06	1.18	-	-
Corn (bushel)	104.36	101.61	-	105.80
Hay, Mixed Alfalfa/Grass (ton)	1.25	-	-	0.816
Barley (bushel)	68.91	-	-	75.73
Hay, Small Grain (ton)	1.90	1.58	-	-
Corn Silage (ton)	15.16	-	-	-
Flax (bushel)	27.86	-	-	26.32
Wheat, Durum (bushel)	67.20	-	-	67.54
Hay, Alfalfa (ton)	1.59	-	-	-
Oats (bushel)	116.86	-	-	-
Beans, Pinto (cwt)	15.51	-	-	-
Peas, Field (lb)	43.54	-	-	43.54

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**Financial Standards Measures**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Liquidity</b>				
Current ratio	1.75	0.94	1.13	2.61
Working capital	267,777	-31,882	44,833	882,293
Working capital to gross inc	34.8 %	-5.8 %	8.6 %	55.7 %
<b>Solvency (cost)</b>				
Farm debt to asset ratio	41 %	59 %	64 %	28 %
Farm equity to asset ratio	59 %	41 %	36 %	72 %
Farm debt to equity ratio	0.69	1.46	1.77	0.39
<b>Profitability (cost)</b>				
Rate of return on farm assets	6.1 %	-2.5 %	4.8 %	10.9 %
Rate of return on farm equity	7.4 %	-11.9 %	6.0 %	13.4 %
Operating profit margin	15.9 %	-7.9 %	12.2 %	24.8 %
Net farm income	145,350	-44,247	76,243	455,895
EBITDA	234,015	52,866	137,715	603,112
<b>Repayment Capacity</b>				
Capital debt repayment capacity	183,868	24,000	94,968	517,336
Capital debt repayment margin	102,081	-74,873	9,022	418,274
Replacement margin	66,604	-108,598	3,499	328,673
Term debt coverage ratio	2.25	0.24	1.10	5.22
Replacement coverage ratio	1.57	0.18	1.04	2.74
<b>Efficiency</b>				
Asset turnover rate (cost)	38.6 %	31.9 %	39.2 %	43.9 %
Operating expense ratio	69.6 %	90.4 %	73.6 %	61.9 %
Depreciation expense ratio	7.2 %	8.9 %	5.5 %	7.2 %
Interest expense ratio	4.4 %	7.8 %	6.5 %	2.6 %
Net farm income ratio	18.9 %	-8.0 %	14.6 %	28.8 %

**Household and Personal Expenses**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	31	7	5	5
Average family size	3.2	3.1	4.0	4.2
Family Living Expenses				
Food and meals expense	9,639	9,763	11,577	11,506
Medical care	5,549	3,630	6,157	6,763
Health insurance	8,096	8,242	4,321	14,646
Cash donations	2,925	1,907	1,542	5,579
Household supplies	8,965	7,609	12,989	13,256
Clothing	2,535	2,193	3,600	3,575
Personal care	3,397	1,005	1,856	2,835
Child / Dependent care	721	285	1,571	704
Alimony and child support	-	-	-	-
Gifts	2,069	2,053	1,743	3,105
Education	1,575	1,712	1,472	1,118
Recreation	4,587	3,400	5,392	4,180
Utilities (household share)	4,892	3,887	5,432	5,713
Personal vehicle operating exp	4,225	4,414	5,752	3,090
Household real estate taxes	462	-	12	465
Dwelling rent	-	-	-	-
Household repairs	1,887	1,471	6,062	1,178
Personal interest	3,052	2,165	6,651	3,324
Disability / Long term care ins	378	-	-	727
Life insurance payments	4,280	5,382	1,616	7,457
Personal property insurance	537	-	6	1,225
Miscellaneous	5,886	7,603	4,852	10,324
Total cash family living expense	75,658	66,721	82,602	100,769
Family living from the farm	101	-	-	156
Total family living	75,759	66,721	82,602	100,925
Other Nonfarm Expenditures				
Income taxes	10,118	3,098	2,024	14,401
Furnishing & appliance purchases	28	123	-	-
Nonfarm vehicle purchases	3,782	3,386	7,840	1,854
Nonfarm real estate purchases	9,847	-	61,053	-
Other nonfarm capital purchases	-	-	-	-
Nonfarm savings & investments	16,168	386	4,390	-4,390
Total other nonfarm expenditures	39,943	6,993	75,307	11,865
Total cash family living investment & nonfarm capital purch	115,601	73,714	157,910	112,634

**Operator and Labor Information**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Operator Information</b>				
Average number of operators	1.1	1.0	1.0	1.4
Average age of operators	44.2	49.1	36.5	44.2
Average number of years farming	19.0	20.8	10.5	21.4
<b>Results Per Operator</b>				
Working capital	240,611	-31,882	44,833	637,212
Total assets (cost)	2,213,958	2,049,679	1,584,726	3,358,928
Total liabilities	821,958	1,125,412	959,652	831,276
Net worth (cost)	1,392,000	924,267	625,074	2,527,653
Gross farm income	690,766	550,316	522,497	1,144,336
Total farm expense	560,812	589,423	447,418	820,421
Net farm income from operations	129,954	-39,107	75,080	323,915
Net nonfarm income	37,077	41,838	32,383	53,461
Family living & tax withdrawals	68,856	56,625	63,305	99,792
Total acres owned	835.8	712.3	500.7	846.4
Total crop acres	2,135.7	1,948.4	1,618.7	3,191.6
Crop acres owned	517.0	460.9	360.4	573.3
Crop acres cash rented	1,406.4	1,462.0	1,184.1	2,277.4
Crop acres share rented	212.4	25.4	74.2	340.9
Total pasture acres	485.1	535.3	478.2	84.1
<b>Labor Analysis</b>				
Number of farms	62	12	13	13
Total unpaid labor hours	2,333	2,225	2,100	2,846
Total hired labor hours	744	496	671	1,281
Total labor hours per farm	3,077	2,721	2,771	4,127
Unpaid hours per operator	2,096	2,225	2,100	2,056
Value of farm production / hour	247.63	199.61	186.52	383.20
Net farm income / unpaid hour	61.99	-17.58	35.75	157.58
Average hourly hired labor wage	25.21	25.74	22.00	28.09
<b>Partnerships &amp; LLCs</b>				
Number of farms	5	1	-	3
Number of operators	1.6	-	-	-
Owner withdrawals per farm	-	-	-	-
Withdrawals per operator	-	-	-	-



**Nonfarm Summary**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
<b>Nonfarm Income</b>				
Personal wages & salary	20,859	22,079	26,280	26,226
Net nonfarm business income	7,423	6,175	1,278	24,524
Personal rental income	5,570	6,906	-	12,273
Personal interest income	206	3	4	927
Personal cash dividends	11	-	2	-
Tax refunds	1,364	2,195	1,587	824
Other nonfarm income	5,828	4,480	3,232	9,249
Total nonfarm income	41,263	41,838	32,383	74,024
Gifts and inheritances	16,928	19,055	-	2,975
<b>Nonfarm Assets (cost)</b>				
Checking & savings	34,054	3,181	10,544	94,796
Stocks & bonds	26,218	9,186	2,139	54,457
Other current assets	16,192	6,169	168	37,359
Furniture & appliances	14,929	20,825	5,231	22,050
Nonfarm vehicles	26,935	31,087	24,758	44,440
Cash value of life ins.	14,968	32,928	2,573	27,538
Retirement accounts	68,880	5,995	39,438	144,694
Other intermediate assets	7,751	7,094	1,115	16,272
Nonfarm real estate	156,783	162,847	109,222	271,524
Personal bus. investment	4,839	-	-	23,077
Other long term assets	17,867	47,837	-	40,774
Total nonfarm assets	389,416	327,148	195,187	776,980
<b>Nonfarm Liabilities</b>				
Accrued interest	747	766	80	51
Accounts payable	959	1,779	437	-
Current notes	2,751	12,863	328	680
Princ due on term debt	4,357	7,695	4,250	2,199
Total current liabilities	11,395	23,101	5,864	14,085
Intermediate liabilities	4,522	8,928	10,489	759
Long term liabilities	54,107	69,843	54,806	45,249
Total nonfarm liabilities	70,024	101,873	71,159	60,093
Nonfarm net worth	319,392	225,275	124,029	716,888
Nonfarm debt to asset ratio	18 %	31 %	36 %	8 %

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Gross Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Less than 100,000</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>1,000,001- 2,000,000</u>
Number of farms	62	6	8	15	22	10
<b>Income Statement</b>						
Gross cash farm income	686,006	66,048	193,224	395,290	826,489	1,437,677
Total cash farm expense	567,783	50,157	177,037	346,543	715,426	1,089,643
Net cash farm income	118,223	15,891	16,188	48,748	111,063	348,034
Inventory change	81,956	3,535	12,927	41,087	150,057	128,611
Depreciation	-55,554	-2,320	-11,929	-27,074	-64,161	-127,755
Net farm income from operations	144,626	17,106	17,185	62,760	196,959	348,889
Gain or loss on capital sales	724	-	2,092	-4,088	685	11,282
Average net farm income	145,350	17,106	19,277	58,672	197,645	360,171
Median net farm income	79,614	12,965	16,969	50,712	183,846	466,002
<b>Profitability (cost)</b>						
Rate of return on assets	6.1 %	2.4 %	-0.3 %	4.0 %	7.2 %	7.6 %
Rate of return on equity	7.4 %	2.6 %	-6.4 %	3.7 %	9.1 %	9.4 %
Operating profit margin	15.9 %	7.9 %	-0.7 %	10.5 %	17.3 %	20.1 %
Asset turnover rate	38.6 %	29.8 %	37.4 %	37.6 %	41.7 %	38.0 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	627,068	77,107	162,252	330,328	743,792	1,347,235
Current liabilities	359,291	28,763	118,574	229,977	408,365	638,063
Current ratio	1.75	2.68	1.37	1.44	1.82	2.11
Working capital	267,777	48,343	43,678	100,351	335,427	709,172
Change in working capital	36,803	12,735	15,394	51,307	47,161	48,022
Working capital to gross inc	34.8 %	70.0 %	19.7 %	23.2 %	34.2 %	45.5 %
Term debt coverage ratio	2.25	1.78	0.86	1.39	2.28	3.33
Replacement coverage ratio	1.57	1.71	0.71	1.07	1.68	2.02
Term debt to EBITDA	1.87	3.14	4.60	2.61	1.75	1.51
<b>Solvency (end of year at cost)</b>						
Number of farms	62	6	8	15	22	10
Total assets	2,463,921	287,053	738,540	1,383,654	2,881,850	5,282,065
Total liabilities	914,759	130,238	419,923	640,715	1,077,701	1,586,725
Net worth	1,549,162	156,815	318,617	742,938	1,804,149	3,695,340
Net worth change	128,466	26,766	21,051	31,867	184,263	319,894
Farm debt to asset ratio	41 %	48 %	59 %	49 %	40 %	34 %
Total debt to asset ratio	37 %	45 %	57 %	46 %	37 %	30 %
Change in earned net worth %	9 %	21 %	7 %	4 %	11 %	9 %
<b>Nonfarm Information</b>						
Net nonfarm income	41,263	31,438	45,745	25,581	25,767	96,008
Farms reporting living expenses	31	2	3	9	14	2
Total family living expense	75,759	-	-	58,600	91,986	-
Total living, invest, cap. purch	115,601	-	-	70,251	153,174	-
<b>Crop Acres</b>						
Total crop acres	2,377	326	785	1,539	3,144	4,177
Total crop acres owned	575	-	167	361	898	800
Total crop acres cash rented	1,565	314	544	994	1,922	2,975
Total crop acres share rented	236	13	74	184	323	401
Machinery value per crop acre	266	70	212	236	239	317

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Total Acres)**

	<u>Avg. Of All Farms</u>	<u>501 - 1,000</u>	<u>1,001 - 1,500</u>	<u>1,501 - 2,000</u>	<u>2,001 - 5,000</u>
Number of farms	62	9	7	10	29
<b>Income Statement</b>					
Gross cash farm income	686,006	186,048	437,067	460,116	1,031,164
Total cash farm expense	567,783	147,231	325,758	395,278	823,397
Net cash farm income	118,223	38,817	111,309	64,838	207,768
Inventory change	81,956	-4,162	47	27,418	120,034
Depreciation	-55,554	-9,989	-40,763	-26,091	-83,689
Net farm income from operations	144,626	24,667	70,593	66,166	244,112
Gain or loss on capital sales	724	-	2,233	-6,021	4,410
Average net farm income	145,350	24,667	72,825	60,146	248,523
Median net farm income	79,614	44,569	54,375	46,593	228,055
<b>Profitability (cost)</b>					
Rate of return on assets	6.1 %	0.8 %	3.4 %	4.6 %	7.3 %
Rate of return on equity	7.4 %	-1.2 %	3.7 %	4.1 %	9.1 %
Operating profit margin	15.9 %	2.9 %	11.7 %	11.1 %	18.7 %
Asset turnover rate	38.6 %	28.1 %	29.3 %	42.0 %	39.2 %
<b>Liquidity &amp; Repayment (end of year)</b>					
Current assets	627,068	166,787	389,685	320,771	934,114
Current liabilities	359,291	82,525	245,284	233,557	472,025
Current ratio	1.75	2.02	1.59	1.37	1.98
Working capital	267,777	84,261	144,401	87,213	462,090
Change in working capital	36,803	24,320	23,456	22,670	48,871
Working capital to gross inc	34.8 %	43.1 %	33.8 %	17.9 %	40.2 %
Term debt coverage ratio	2.25	0.91	1.21	1.30	2.72
Replacement coverage ratio	1.57	0.79	1.00	1.02	1.83
Term debt to EBITDA	1.87	3.72	3.32	3.00	1.61
<b>Solvency (end of year at cost)</b>					
Number of farms	62	9	7	10	29
Total assets	2,463,921	806,092	1,651,416	1,505,959	3,674,095
Total liabilities	914,759	352,925	723,213	688,920	1,252,942
Net worth	1,549,162	453,167	928,203	817,038	2,421,153
Net worth change	128,466	29,348	27,588	100,054	208,604
Farm debt to asset ratio	41 %	44 %	47 %	53 %	38 %
Total debt to asset ratio	37 %	44 %	44 %	46 %	34 %
Change in earned net worth %	9 %	7 %	3 %	14 %	9 %
<b>Nonfarm Information</b>					
Net nonfarm income	41,263	41,078	39,943	31,209	46,513
Farms reporting living expenses	31	2	5	7	14
Total family living expense	75,759	-	69,603	66,207	89,996
Total living, invest, cap. purch	115,601	-	97,836	135,451	109,932
<b>Crop Acres</b>					
Total crop acres	2,377	769	1,272	1,723	3,434
Total crop acres owned	575	143	507	431	802
Total crop acres cash rented	1,565	561	616	1,110	2,267
Total crop acres share rented	236	66	149	183	366
Machinery value per crop acre	266	177	326	199	276

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Age of Operator)**

	<u>Avg. Of All Farms</u>	<u>Less Than 31</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	62	10	15	16	11	10
<b>Income Statement</b>						
Gross cash farm income	686,006	224,238	735,977	843,248	653,160	857,363
Total cash farm expense	567,783	174,683	605,205	695,196	538,068	733,577
Net cash farm income	118,223	49,555	130,772	148,052	115,092	123,786
Inventory change	81,956	11,837	99,819	105,888	28,516	145,775
Depreciation	-55,554	-6,001	-58,398	-64,451	-44,933	-98,285
Net farm income from operations	144,626	55,390	172,193	189,489	98,675	171,276
Gain or loss on capital sales	724	-111	22	6,310	-3,749	-1,405
Average net farm income	145,350	55,280	172,215	195,799	94,926	169,871
Median net farm income	79,614	57,783	90,333	92,977	65,811	197,266
<b>Profitability (cost)</b>						
Rate of return on assets	6.1 %	9.7 %	7.6 %	6.4 %	5.2 %	4.5 %
Rate of return on equity	7.4 %	17.8 %	9.9 %	7.7 %	6.7 %	4.7 %
Operating profit margin	15.9 %	14.6 %	17.6 %	18.4 %	11.8 %	13.4 %
Asset turnover rate	38.6 %	66.3 %	43.3 %	34.7 %	44.0 %	33.3 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	627,068	138,260	660,948	789,091	500,128	945,455
Current liabilities	359,291	72,581	374,863	412,778	338,343	560,109
Current ratio	1.75	1.90	1.76	1.91	1.48	1.69
Working capital	267,777	65,679	286,085	376,313	161,784	385,346
Change in working capital	36,803	-470	44,779	58,156	25,116	40,801
Working capital to gross inc	34.8 %	26.9 %	34.1 %	40.1 %	23.7 %	38.1 %
Term debt coverage ratio	2.25	2.54	2.53	2.50	1.33	2.25
Replacement coverage ratio	1.57	2.36	1.69	1.75	1.07	1.40
Term debt to EBITDA	1.87	1.86	1.64	2.12	2.89	1.12
<b>Solvency (end of year at cost)</b>						
Number of farms	62	10	15	16	11	10
Total assets	2,463,921	524,781	2,291,599	3,443,824	1,914,143	3,698,455
Total liabilities	914,759	311,555	965,954	1,190,767	929,872	982,935
Net worth	1,549,162	213,226	1,325,644	2,253,057	984,271	2,715,520
Net worth change	128,466	46,496	124,940	237,279	33,666	145,904
Farm debt to asset ratio	41 %	59 %	43 %	39 %	57 %	29 %
Total debt to asset ratio	37 %	59 %	42 %	35 %	49 %	27 %
Change in earned net worth %	9 %	28 %	10 %	12 %	4 %	6 %
<b>Nonfarm Information</b>						
Net nonfarm income	41,263	35,682	23,160	72,267	22,374	45,170
Farms reporting living expenses	31	4	6	5	8	8
Total family living expense	75,759	-	74,032	81,318	66,234	85,895
Total living, invest, cap. purch	115,601	-	92,158	156,793	74,915	128,389
<b>Crop Acres</b>						
Total crop acres	2,377	784	2,519	2,758	2,402	3,120
Total crop acres owned	575	18	278	712	672	1,253
Total crop acres cash rented	1,565	701	1,669	1,882	1,616	1,711
Total crop acres share rented	236	64	572	164	114	156
Machinery value per crop acre	266	121	281	261	209	338

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Farm Type)**

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Beef</u>	<u>Crop and Beef</u>
Number of farms	62	44	7	9
<b>Income Statement</b>				
Gross cash farm income	686,006	808,909	229,278	361,110
Total cash farm expense	567,783	673,119	156,810	299,276
Net cash farm income	118,223	135,790	72,469	61,834
Inventory change	81,956	104,930	-10,445	30,580
Depreciation	-55,554	-65,332	-15,080	-28,447
Net farm income from operations	144,626	175,388	46,944	63,967
Gain or loss on capital sales	724	-1,385	182	-8,040
Average net farm income	145,350	174,003	47,126	55,928
Median net farm income	79,614	98,827	-3,683	73,213
<b>Profitability (cost)</b>				
Rate of return on assets	6.1 %	6.5 %	3.0 %	4.3 %
Rate of return on equity	7.4 %	7.8 %	2.8 %	4.2 %
Operating profit margin	15.9 %	16.2 %	14.5 %	14.3 %
Asset turnover rate	38.6 %	40.0 %	20.7 %	30.0 %
<b>Liquidity &amp; Repayment (end of year)</b>				
Current assets	627,068	759,860	215,436	316,131
Current liabilities	359,291	419,663	80,053	251,446
Current ratio	1.75	1.81	2.69	1.26
Working capital	267,777	340,197	135,382	64,685
Change in working capital	36,803	43,245	-9,410	55,286
Working capital to gross inc	34.8 %	37.2 %	59.6 %	16.4 %
Term debt coverage ratio	2.25	2.43	1.82	1.40
Replacement coverage ratio	1.57	1.63	1.53	1.28
Term debt to EBITDA	1.87	1.67	2.50	2.95
<b>Solvency (end of year at cost)</b>				
Number of farms	62	44	7	9
Total assets	2,463,921	2,893,048	1,100,135	1,453,378
Total liabilities	914,759	1,011,841	317,749	715,724
Net worth	1,549,162	1,881,208	782,385	737,654
Net worth change	128,466	158,058	54,279	35,334
Farm debt to asset ratio	41 %	39 %	29 %	52 %
Total debt to asset ratio	37 %	35 %	29 %	49 %
Change in earned net worth %	9 %	9 %	7 %	5 %
<b>Nonfarm Information</b>				
Net nonfarm income	41,263	48,047	38,270	17,697
Farms reporting living expenses	31	23	2	5
Total family living expense	75,759	86,168	-	49,618
Total living, invest, cap. purch	115,601	138,791	-	53,459
<b>Crop Acres</b>				
Total crop acres	2,377	2,815	758	1,374
Total crop acres owned	575	612	371	556
Total crop acres cash rented	1,565	1,912	381	617
Total crop acres share rented	236	291	6	201
Machinery value per crop acre	266	269	283	216



# **Crop Enterprise Analysis**

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Barley on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	189.05
Yield per acre (bu.)	67.19
Operators share of yield %	100.00
Value per bu.	4.37
Total product return per acre	293.36
Crop insurance per acre	13.36
Gross return per acre	306.72
<b>Direct Expenses</b>	
Seed and plants	17.30
Fertilizer	54.97
Crop chemicals	41.69
Crop insurance	18.37
Fuel & oil	15.05
Repairs	30.02
Custom hire	5.20
Machinery leases	4.79
Operating interest	5.82
Miscellaneous	2.34
Total direct expenses per acre	195.54
Return over direct exp per acre	111.18
<b>Overhead Expenses</b>	
Hired labor	7.65
Building leases	1.03
RE & pers. property taxes	6.66
Farm insurance	4.69
Utilities	5.34
Dues & professional fees	0.67
Interest	34.39
Mach & bldg depreciation	26.65
Miscellaneous	6.19
Total overhead expenses per acre	93.26
Total dir & ovhd expenses per acre	288.80
Net return per acre	17.92
Government payments	26.30
Net return with govt pmts	44.21
Labor & management charge	22.65
Net return over lbr & mgt	21.56
<b>Cost of Production</b>	
Total direct expense per bu.	2.91
Total dir & ovhd exp per bu.	4.30
Less govt & other income	3.71
With labor & management	4.05
Net value per unit	4.37
Machinery cost per acre	83.95
Est. labor hours per acre	1.20

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Barley on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	7
Acres	198.83
Yield per acre (bu.)	64.92
Operator's share of yield %	100.00
Value per bu.	4.23
Total product return per acre	274.52
Crop insurance per acre	10.46
Gross return per acre	284.99
<b>Direct Expenses</b>	
Seed and plants	22.52
Fertilizer	38.33
Crop chemicals	35.89
Crop insurance	13.93
Fuel & oil	12.66
Repairs	30.74
Custom hire	2.26
Land rent	47.41
Machinery leases	0.82
Operating interest	4.09
Miscellaneous	2.44
Total direct expenses per acre	211.09
Return over direct exp per acre	73.90
<b>Overhead Expenses</b>	
Custom hire	1.20
Hired labor	9.21
Machinery leases	1.27
Building leases	0.21
Farm insurance	4.11
Utilities	4.55
Dues & professional fees	1.03
Interest	2.38
Mach & bldg depreciation	28.25
Miscellaneous	5.01
Total overhead expenses per acre	57.23
Total dir & ovhd expenses per acre	268.32
Net return per acre	16.66
Government payments	16.16
Net return with govt pmts	32.82
Labor & management charge	24.01
Net return over lbr & mgt	8.81
<b>Cost of Production</b>	
Total direct expense per bu.	3.25
Total dir & ovhd exp per bu.	4.13
Less govt & other income	3.72
With labor & management	4.09
Net value per unit	4.23
Machinery cost per acre	76.02
Est. labor hours per acre	1.19

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Canola on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	16
Acres	184.33
Yield per acre (cwt.)	17.59
Operator's share of yield %	100.00
Value per cwt.	15.91
Other product return per acre	0.85
Total product return per acre	280.71
Crop insurance per acre	7.96
Other crop income per acre	0.58
Gross return per acre	289.25
<b>Direct Expenses</b>	
Seed and plants	55.63
Fertilizer	43.13
Crop chemicals	32.67
Crop insurance	15.60
Fuel & oil	13.48
Repairs	21.30
Custom hire	5.73
Machinery leases	0.18
Operating interest	3.48
Miscellaneous	2.44
Total direct expenses per acre	193.64
Return over direct exp per acre	95.61
<b>Overhead Expenses</b>	
Custom hire	0.81
Hired labor	9.03
Machinery leases	1.28
Building leases	0.61
RE & pers. property taxes	6.78
Farm insurance	4.87
Utilities	3.50
Dues & professional fees	1.04
Interest	18.27
Mach & bldg depreciation	22.17
Miscellaneous	2.94
Total overhead expenses per acre	71.32
Total dir & ovhd expenses per acre	264.96
Net return per acre	24.29
Government payments	20.95
Net return with govt pmts	45.24
Labor & management charge	19.78
Net return over lbr & mgt	25.46
<b>Cost of Production</b>	
Total direct expense per cwt.	11.01
Total dir & ovhd exp per cwt.	15.07
Less govt & other income	13.34
With labor & management	14.47
Net value per unit	15.91
Machinery cost per acre	64.21
Est. labor hours per acre	1.22

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Canola on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	19
Acres	460.16
Yield per acre (cwt.)	18.48
Operators share of yield %	100.00
Value per cwt.	15.48
Total product return per acre	286.01
Crop insurance per acre	4.61
Other crop income per acre	0.55
Gross return per acre	291.17
<b>Direct Expenses</b>	
Seed and plants	57.81
Fertilizer	50.47
Crop chemicals	27.10
Crop insurance	16.46
Fuel & oil	12.23
Repairs	22.11
Custom hire	4.28
Land rent	48.47
Machinery leases	0.09
Operating interest	4.67
Miscellaneous	2.62
Total direct expenses per acre	246.31
Return over direct exp per acre	44.86
<b>Overhead Expenses</b>	
Custom hire	0.96
Hired labor	7.22
Machinery leases	2.76
Building leases	1.08
Farm insurance	3.66
Utilities	2.26
Dues & professional fees	1.15
Interest	3.76
Mach & bldg depreciation	22.87
Miscellaneous	2.48
Total overhead expenses per acre	48.20
Total dir & ovhd expenses per acre	294.52
Net return per acre	-3.35
Government payments	19.29
Net return with govt pmts	15.94
Labor & management charge	21.34
Net return over lbr & mgt	-5.40
<b>Cost of Production</b>	
Total direct expense per cwt.	13.33
Total dir & ovhd exp per cwt.	15.94
Less govt & other income	14.62
With labor & management	15.77
Net value per unit	15.48
Machinery cost per acre	67.25
Est. labor hours per acre	1.10



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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Canola on Share Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	97.46
Yield per acre (cwt.)	18.34
Operators share of yield %	74.59
Value per cwt.	16.19
Total product return per acre	221.53
Gross return per acre	221.53
<b>Direct Expenses</b>	
Seed and plants	65.48
Fertilizer	43.38
Crop chemicals	28.01
Crop insurance	7.63
Fuel & oil	12.44
Repairs	28.52
Custom hire	2.20
Operating interest	1.61
Miscellaneous	0.55
Total direct expenses per acre	189.80
Return over direct exp per acre	31.72
<b>Overhead Expenses</b>	
Custom hire	1.94
Hired labor	7.01
Machinery leases	5.39
Building leases	0.24
Farm insurance	2.88
Utilities	1.36
Dues & professional fees	0.97
Interest	2.00
Mach & bldg depreciation	19.55
Miscellaneous	1.81
Total overhead expenses per acre	43.14
Total dir & ovhd expenses per acre	232.94
Net return per acre	-11.41
Government payments	19.56
Net return with govt pmts	8.14
Labor & management charge	20.47
Net return over lbr & mgt	-12.33
<b>Cost of Production</b>	
Total direct expense per cwt.	13.87
Total dir & ovhd exp per cwt.	17.02
Less govt & other income	15.60
With labor & management	17.09
Net value per unit	16.19
Machinery cost per acre	70.29
Est. labor hours per acre	1.41

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Corn on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	12
Acres	181.02
Yield per acre (bu.)	108.80
Operator's share of yield %	100.00
Value per bu.	3.19
Total product return per acre	347.06
Hedging gains/losses per acre	17.10
Crop insurance per acre	11.19
Other crop income per acre	0.61
Gross return per acre	375.96
<b>Direct Expenses</b>	
Seed and plants	77.94
Fertilizer	70.92
Crop chemicals	29.49
Crop insurance	16.02
Fuel & oil	23.40
Repairs	47.72
Custom hire	2.24
Machinery leases	0.71
Operating interest	8.18
Miscellaneous	1.49
Total direct expenses per acre	278.12
Return over direct exp per acre	97.84
<b>Overhead Expenses</b>	
Custom hire	0.74
Hired labor	23.23
Machinery leases	2.22
Building leases	0.93
RE & pers. property taxes	8.40
Farm insurance	6.52
Utilities	6.24
Dues & professional fees	0.98
Interest	33.83
Mach & bldg depreciation	50.80
Miscellaneous	5.66
Total overhead expenses per acre	139.56
Total dir & ovhd expenses per acre	417.68
Net return per acre	-41.72
Government payments	23.45
Net return with govt pmts	-18.28
Labor & management charge	39.78
Net return over lbr & mgt	-58.05
<b>Cost of Production</b>	
Total direct expense per bu.	2.56
Total dir & ovhd exp per bu.	3.84
Less govt & other income	3.36
With labor & management	3.72
Net value per unit	3.35
Machinery cost per acre	121.13
Est. labor hours per acre	2.34

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Corn on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	10
Acres	220.70
Yield per acre (bu.)	98.25
Operator's share of yield %	100.00
Value per bu.	3.42
Total product return per acre	336.33
Hedging gains/losses per acre	7.04
Crop insurance per acre	15.99
Other crop income per acre	0.35
Gross return per acre	359.72
<b>Direct Expenses</b>	
Seed and plants	84.10
Fertilizer	70.13
Crop chemicals	27.99
Crop insurance	15.53
Drying expense	1.54
Fuel & oil	19.21
Repairs	44.57
Custom hire	1.35
Land rent	44.30
Machinery leases	0.53
Operating interest	4.61
Miscellaneous	4.00
Total direct expenses per acre	317.85
Return over direct exp per acre	41.87
<b>Overhead Expenses</b>	
Custom hire	0.51
Hired labor	12.67
Machinery leases	0.84
Building leases	0.81
Farm insurance	4.18
Utilities	4.20
Dues & professional fees	1.29
Interest	2.15
Mach & bldg depreciation	43.36
Miscellaneous	3.50
Total overhead expenses per acre	73.51
Total dir & ovhd expenses per acre	391.36
Net return per acre	-31.64
Government payments	20.50
Net return with govt pmts	-11.14
Labor & management charge	37.23
Net return over lbr & mgt	-48.37
<b>Cost of Production</b>	
Total direct expense per bu.	3.24
Total dir & ovhd exp per bu.	3.98
Less govt & other income	3.54
With labor & management	3.92
Net value per unit	3.49
Machinery cost per acre	108.23
Est. labor hours per acre	1.67

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Corn Silage on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	8
Acres	74.83
Yield per acre (ton)	15.16
Operators share of yield %	100.00
Value per ton	26.07
Total product return per acre	395.26
Gross return per acre	395.26
<b>Direct Expenses</b>	
Seed and plants	77.35
Fertilizer	45.24
Crop chemicals	15.56
Crop insurance	11.93
Fuel & oil	26.25
Repairs	41.87
Custom hire	59.44
Operating interest	8.51
Miscellaneous	0.32
Total direct expenses per acre	286.46
Return over direct exp per acre	108.80
<b>Overhead Expenses</b>	
Custom hire	0.90
Hired labor	5.86
Machinery leases	1.37
RE & pers. property taxes	4.86
Farm insurance	4.39
Utilities	2.32
Dues & professional fees	1.62
Interest	17.15
Mach & bldg depreciation	38.25
Miscellaneous	2.37
Total overhead expenses per acre	79.10
Total dir & ovhd expenses per acre	365.57
Net return per acre	29.70
Government payments	28.41
Net return with govt pmts	58.11
Labor & management charge	33.66
Net return over lbr & mgt	24.44
<b>Cost of Production</b>	
Total direct expense per ton	18.90
Total dir & ovhd exp per ton	24.12
Less govt & other income	22.24
With labor & management	24.46
Net value per unit	26.07
Machinery cost per acre	167.97
Est. labor hours per acre	2.70

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**CRP on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	8
Acres	106.87
Yield per acre (\$)	38.35
Operators share of yield %	100.00
Value per \$	1.00
Total product return per acre	38.35
Gross return per acre	38.35
<b>Direct Expenses</b>	
Crop chemicals	0.31
Repairs	0.71
Miscellaneous	0.42
Total direct expenses per acre	1.44
Return over direct exp per acre	36.91
<b>Overhead Expenses</b>	
RE & pers. property taxes	6.95
Interest	10.45
Mach & bldg depreciation	0.67
Miscellaneous	0.67
Total overhead expenses per acre	18.76
Total dir & ovhd expenses per acre	20.20
Net return per acre	18.15
Government payments	-
Net return with govt pmts	18.15
Labor & management charge	0.57
Net return over lbr & mgt	17.58
<b>Cost of Production</b>	
Total direct expense per \$	0.04
Total dir & ovhd exp per \$	0.53
Less govt & other income	0.53
With labor & management	0.54
Net value per unit	1.00
Machinery cost per acre	1.84
Est. labor hours per acre	0.04

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	83.53
Yield per acre (ton)	1.64
Operators share of yield %	100.00
Value per ton	69.15
Total product return per acre	113.43
Gross return per acre	113.43
<b>Direct Expenses</b>	
Seed and plants	0.82
Fertilizer	5.73
Fuel & oil	7.74
Repairs	12.58
Custom hire	0.82
Operating interest	2.62
Total direct expenses per acre	30.31
Return over direct exp per acre	83.12
<b>Overhead Expenses</b>	
Custom hire	0.61
Hired labor	3.41
Machinery leases	0.03
Building leases	0.01
RE & pers. property taxes	4.79
Farm insurance	2.58
Utilities	2.55
Dues & professional fees	1.77
Interest	12.18
Mach & bldg depreciation	8.99
Total overhead expenses per acre	36.91
Total dir & ovhd expenses per acre	67.22
Net return per acre	46.21
Government payments	-
Net return with govt pmts	46.21
Labor & management charge	11.58
Net return over lbr & mgt	34.63
<b>Cost of Production</b>	
Total direct expense per ton	18.48
Total dir & ovhd exp per ton	40.98
Less govt & other income	40.98
With labor & management	48.04
Net value per unit	69.15
Machinery cost per acre	32.39
Est. labor hours per acre	0.98

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Owned Land**

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	<u>Avg. Of All Farms</u>
Number of farms	7
Acres	211.73
Yield per acre (ton)	1.14
Operators share of yield %	100.00
Value per ton	38.48
Total product return per acre	43.85
Gross return per acre	43.85
<b>Direct Expenses</b>	
Fuel & oil	6.93
Repairs	14.88
Operating interest	1.14
Total direct expenses per acre	22.95
Return over direct exp per acre	20.90
<b>Overhead Expenses</b>	
Hired labor	0.79
Machinery leases	0.40
RE & pers. property taxes	3.05
Farm insurance	1.00
Utilities	1.30
Dues & professional fees	0.49
Interest	7.77
Mach & bldg depreciation	11.95
Miscellaneous	1.30
Total overhead expenses per acre	28.05
Total dir & ovhd expenses per acre	51.00
Net return per acre	-7.15
Government payments	-
Net return with govt pmts	-7.15
Labor & management charge	12.59
Net return over lbr & mgt	-19.75
<b>Cost of Production</b>	
Total direct expense per ton	20.14
Total dir & ovhd exp per ton	44.76
Less govt & other income	44.76
With labor & management	55.81
Net value per unit	38.48
Machinery cost per acre	34.94
Est. labor hours per acre	1.08



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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Cash Rent**

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	<u>Avg. Of All Farms</u>
Number of farms	11
Acres	201.74
Yield per acre (ton)	0.96
Operators share of yield %	100.00
Value per ton	39.72
Total product return per acre	37.99
Gross return per acre	37.99
<b>Direct Expenses</b>	
Fuel & oil	7.75
Repairs	12.91
Land rent	22.58
Operating interest	2.61
Miscellaneous	0.98
Total direct expenses per acre	46.84
Return over direct exp per acre	-8.85
<b>Overhead Expenses</b>	
Custom hire	0.39
Hired labor	1.13
Machinery leases	0.90
Farm insurance	1.49
Utilities	1.05
Dues & professional fees	0.51
Interest	1.26
Mach & bldg depreciation	13.97
Miscellaneous	0.80
Total overhead expenses per acre	21.49
Total dir & ovhd expenses per acre	68.33
Net return per acre	-30.34
Government payments	-
Net return with govt pmts	-30.34
Labor & management charge	12.62
Net return over lbr & mgt	-42.96
<b>Cost of Production</b>	
Total direct expense per ton	48.98
Total dir & ovhd exp per ton	71.45
Less govt & other income	71.45
With labor & management	84.65
Net value per unit	39.72
Machinery cost per acre	36.68
Est. labor hours per acre	0.96

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Mixed Alfalfa/Grass on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	7
Acres	205.73
Yield per acre (ton)	1.47
Operators share of yield %	100.00
Value per ton	44.78
Total product return per acre	65.69
Gross return per acre	65.69
<b>Direct Expenses</b>	
Fertilizer	0.90
Fuel & oil	8.50
Repairs	13.30
Custom hire	6.80
Operating interest	2.00
Total direct expenses per acre	31.50
Return over direct exp per acre	34.19
<b>Overhead Expenses</b>	
Hired labor	3.20
Machinery leases	0.48
Building leases	0.63
RE & pers. property taxes	4.56
Farm insurance	4.25
Utilities	2.14
Dues & professional fees	1.26
Interest	16.75
Mach & bldg depreciation	12.95
Miscellaneous	0.05
Total overhead expenses per acre	46.27
Total dir & ovhd expenses per acre	77.77
Net return per acre	-12.09
Government payments	-
Net return with govt pmts	-12.09
Labor & management charge	11.50
Net return over lbr & mgt	-23.59
<b>Cost of Production</b>	
Total direct expense per ton	21.47
Total dir & ovhd exp per ton	53.01
Less govt & other income	53.01
With labor & management	60.85
Net value per unit	44.78
Machinery cost per acre	45.76
Est. labor hours per acre	0.82

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Mixed Alfalfa/Grass on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	73.87
Yield per acre (ton)	1.08
Operators share of yield %	100.00
Value per ton	41.94
Total product return per acre	45.10
Gross return per acre	45.10
<b>Direct Expenses</b>	
Fuel & oil	6.94
Repairs	11.95
Land rent	12.30
Operating interest	1.89
Total direct expenses per acre	33.09
Return over direct exp per acre	12.02
<b>Overhead Expenses</b>	
Custom hire	0.38
Hired labor	1.52
Machinery leases	0.58
Building leases	0.06
Farm insurance	3.85
Utilities	2.73
Dues & professional fees	1.15
Interest	3.77
Mach & bldg depreciation	9.62
Total overhead expenses per acre	23.67
Total dir & ovhd expenses per acre	56.76
Net return per acre	-11.66
Government payments	-
Net return with govt pmts	-11.66
Labor & management charge	11.71
Net return over lbr & mgt	-23.37
<b>Cost of Production</b>	
Total direct expense per ton	30.77
Total dir & ovhd exp per ton	52.78
Less govt & other income	52.78
With labor & management	63.67
Net value per unit	41.94
Machinery cost per acre	32.23
Est. labor hours per acre	0.83

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Small Grain on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	125.50
Yield per acre (ton)	1.91
Operators share of yield %	100.00
Value per ton	48.97
Total product return per acre	93.55
Gross return per acre	93.55
<b>Direct Expenses</b>	
Seed and plants	18.81
Fertilizer	23.66
Crop chemicals	9.19
Fuel & oil	7.50
Repairs	13.09
Custom hire	0.96
Operating interest	2.82
Miscellaneous	0.90
Total direct expenses per acre	76.93
Return over direct exp per acre	16.61
<b>Overhead Expenses</b>	
Hired labor	4.85
Machinery leases	0.17
Building leases	0.12
RE & pers. property taxes	4.73
Farm insurance	3.39
Utilities	2.52
Dues & professional fees	1.64
Interest	9.03
Mach & bldg depreciation	12.55
Miscellaneous	2.51
Total overhead expenses per acre	41.50
Total dir & ovhd expenses per acre	118.44
Net return per acre	-24.89
Government payments	33.64
Net return with govt pmts	8.75
Labor & management charge	11.44
Net return over lbr & mgt	-2.69
<b>Cost of Production</b>	
Total direct expense per ton	40.27
Total dir & ovhd exp per ton	61.99
Less govt & other income	44.39
With labor & management	50.37
Net value per unit	48.97
Machinery cost per acre	37.16
Est. labor hours per acre	1.06

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Small Grain on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	62.78
Yield per acre (ton)	1.93
Operators share of yield %	100.00
Value per ton	55.50
Total product return per acre	107.09
Gross return per acre	107.09
<b>Direct Expenses</b>	
Seed and plants	17.87
Fertilizer	22.55
Crop chemicals	11.34
Fuel & oil	7.97
Repairs	13.77
Custom hire	3.72
Land rent	39.23
Operating interest	2.02
Miscellaneous	0.67
Total direct expenses per acre	119.14
Return over direct exp per acre	-12.05
<b>Overhead Expenses</b>	
Custom hire	1.55
Hired labor	2.71
Machinery leases	1.80
Farm insurance	3.26
Utilities	3.55
Dues & professional fees	2.34
Interest	2.69
Mach & bldg depreciation	8.39
Miscellaneous	2.97
Total overhead expenses per acre	29.25
Total dir & ovhd expenses per acre	148.40
Net return per acre	-41.31
Government payments	8.99
Net return with govt pmts	-32.32
Labor & management charge	17.49
Net return over lbr & mgt	-49.81
<b>Cost of Production</b>	
Total direct expense per ton	61.75
Total dir & ovhd exp per ton	76.91
Less govt & other income	72.25
With labor & management	81.31
Net value per unit	55.50
Machinery cost per acre	39.48
Est. labor hours per acre	1.45

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Pasture on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	14
Acres	760.62
Yield per acre (aum)	0.88
Operators share of yield %	100.00
Value per aum	15.59
Other product return per acre	0.06
Total product return per acre	13.75
Gross return per acre	13.75
<b>Direct Expenses</b>	
Fertilizer	0.32
Repairs	0.70
Miscellaneous	0.75
Total direct expenses per acre	1.77
Return over direct exp per acre	11.98
<b>Overhead Expenses</b>	
RE & pers. property taxes	2.51
Interest	4.92
Mach & bldg depreciation	0.55
Miscellaneous	0.55
Total overhead expenses per acre	8.53
Total dir & ovhd expenses per acre	10.30
Net return per acre	3.45
Government payments	-
Net return with govt pmts	3.45
Labor & management charge	0.65
Net return over lbr & mgt	2.80
<b>Cost of Production</b>	
Total direct expense per aum	2.02
Total dir & ovhd exp per aum	11.73
Less govt & other income	11.66
With labor & management	12.40
Net value per unit	15.59
Machinery cost per acre	1.84
Est. labor hours per acre	0.06

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Pasture on Cash Rent**

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	<u>Avg. Of All Farms</u>
Number of farms	18
Acres	650.71
Yield per acre (aum)	0.86
Operators share of yield %	100.00
Value per aum	15.83
Other product return per acre	0.13
Total product return per acre	13.71
Gross return per acre	13.71
<b>Direct Expenses</b>	
Repairs	0.64
Land rent	15.63
Miscellaneous	0.94
Total direct expenses per acre	17.22
Return over direct exp per acre	-3.50
<b>Overhead Expenses</b>	
Mach & bldg depreciation	0.59
Miscellaneous	0.63
Total overhead expenses per acre	1.22
Total dir & ovhd expenses per acre	18.43
Net return per acre	-4.72
Government payments	-
Net return with govt pmts	-4.72
Labor & management charge	0.63
Net return over lbr & mgt	-5.35
<b>Cost of Production</b>	
Total direct expense per aum	20.05
Total dir & ovhd exp per aum	21.47
Less govt & other income	21.32
With labor & management	22.06
Net value per unit	15.83
Machinery cost per acre	1.78
Est. labor hours per acre	0.05

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Soybeans on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	26	5	5	6
Acres	276.34	193.52	290.12	271.88
Yield per acre (bu.)	25.99	13.93	25.68	33.54
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.18	8.74	7.90	8.39
Total product return per acre	212.61	121.78	202.89	281.29
Hedging gains/losses per acre	1.35	-	5.86	-
Crop insurance per acre	45.31	100.62	46.13	31.53
Other crop income per acre	33.42	22.99	40.72	43.44
Gross return per acre	292.69	245.39	295.60	356.26
<b>Direct Expenses</b>				
Seed and plants	67.40	83.88	64.58	67.85
Fertilizer	12.16	14.60	9.60	7.13
Crop chemicals	29.42	40.23	23.67	28.24
Crop insurance	15.85	23.86	14.95	14.10
Drying expense	0.13	0.52	-	-
Fuel & oil	12.17	13.69	15.30	10.25
Repairs	21.19	26.39	22.18	16.29
Custom hire	3.85	6.17	6.07	0.47
Machinery leases	1.32	-	0.72	0.29
Operating interest	4.38	11.02	2.69	1.65
Miscellaneous	0.90	0.90	2.59	-
Total direct expenses per acre	168.77	221.25	162.34	146.27
Return over direct exp per acre	123.92	24.14	133.26	209.99
<b>Overhead Expenses</b>				
Custom hire	0.73	0.59	0.30	0.63
Hired labor	11.13	7.93	19.67	2.57
Machinery leases	1.06	3.06	0.48	0.13
Building leases	0.38	-	0.68	0.57
RE & pers. property taxes	7.55	8.02	9.45	6.76
Farm insurance	5.30	4.97	10.25	4.09
Utilities	3.53	2.64	5.94	3.56
Dues & professional fees	0.98	0.83	1.28	0.52
Interest	23.34	30.79	16.76	24.35
Mach & bldg depreciation	28.54	25.64	38.91	37.13
Miscellaneous	2.44	1.37	3.16	3.26
Total overhead expenses per acre	84.99	85.85	106.86	83.56
Total dir & ovhd expenses per acre	253.76	307.10	269.21	229.83
Net return per acre	38.93	-61.71	26.40	126.43
Government payments	25.94	27.31	28.11	25.17
Net return with govt pmts	64.87	-34.40	54.51	151.60
Labor & management charge	21.44	22.23	24.91	20.08
Net return over lbr & mgt	43.43	-56.64	29.60	131.53
<b>Cost of Production</b>				
Total direct expense per bu.	6.49	15.88	6.32	4.36
Total dir & ovhd exp per bu.	9.76	22.05	10.48	6.85
Less govt & other income	5.68	11.21	5.78	3.87
With labor & management	6.51	12.81	6.75	4.46
Net value per unit	8.23	8.74	8.13	8.39
Machinery cost per acre	67.91	78.80	76.83	65.13
Est. labor hours per acre	1.22	1.29	1.93	0.92



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Soybeans on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	35	7	7	7
Acres	720.58	585.08	1,129.88	571.14
Yield per acre (bu.)	25.32	25.85	24.83	28.89
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.15	8.44	8.34	7.87
Total product return per acre	206.44	218.23	207.09	227.47
Hedging gains/losses per acre	4.96	-	-	30.65
Crop insurance per acre	52.81	33.84	25.95	87.68
Other crop income per acre	37.13	29.38	35.35	47.61
Gross return per acre	301.34	281.45	268.39	393.40
<b>Direct Expenses</b>				
Seed and plants	68.72	71.17	72.15	66.68
Fertilizer	12.96	22.45	12.39	11.89
Crop chemicals	28.98	30.00	27.57	28.89
Crop insurance	16.30	15.97	14.74	15.05
Fuel & oil	11.63	11.47	11.74	11.85
Repairs	23.97	34.54	15.15	22.36
Custom hire	2.80	6.64	1.70	0.05
Land rent	52.06	51.12	50.53	56.50
Machinery leases	4.58	0.55	0.19	0.53
Operating interest	5.56	9.81	4.70	0.96
Miscellaneous	2.21	1.54	1.71	5.98
Total direct expenses per acre	229.76	255.27	212.56	220.74
Return over direct exp per acre	71.59	26.18	55.83	172.66
<b>Overhead Expenses</b>				
Custom hire	0.92	0.40	1.33	0.62
Hired labor	7.13	9.28	8.64	5.82
Machinery leases	1.69	1.26	2.04	0.99
Building leases	0.27	0.50	-	0.56
Farm insurance	3.86	4.70	2.51	4.06
Utilities	2.67	3.82	1.53	2.82
Dues & professional fees	1.09	1.52	0.79	1.28
Interest	3.01	4.72	1.43	2.13
Mach & bldg depreciation	23.40	32.84	14.19	31.41
Miscellaneous	1.92	5.15	0.89	1.69
Total overhead expenses per acre	45.96	64.19	33.36	51.38
Total dir & ovhd expenses per acre	275.71	319.46	245.92	272.12
Net return per acre	25.63	-38.01	22.47	121.28
Government payments	17.17	29.26	10.75	18.16
Net return with govt pmts	42.80	-8.75	33.23	139.44
Labor & management charge	22.60	22.99	19.13	24.71
Net return over lbr & mgt	20.21	-31.74	14.10	114.73
<b>Cost of Production</b>				
Total direct expense per bu.	9.08	9.87	8.56	7.64
Total dir & ovhd exp per bu.	10.89	12.36	9.90	9.42
Less govt & other income	6.46	8.78	7.00	3.05
With labor & management	7.36	9.67	7.77	3.90
Net value per unit	8.35	8.44	8.34	8.93
Machinery cost per acre	70.61	90.84	46.66	66.84
Est. labor hours per acre	0.99	1.14	0.91	1.03

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Soybeans on Share Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	10
Acres	316.94
Yield per acre (bu.)	31.30
Operator's share of yield %	72.86
Value per bu.	7.99
Total product return per acre	182.21
Hedging gains/losses per acre	0.87
Crop insurance per acre	28.45
Other crop income per acre	35.18
Gross return per acre	246.71
<b>Direct Expenses</b>	
Seed and plants	64.83
Fertilizer	9.66
Crop chemicals	30.20
Crop insurance	11.70
Drying expense	0.06
Fuel & oil	11.22
Repairs	19.73
Custom hire	2.43
Machinery leases	0.24
Operating interest	2.36
Miscellaneous	1.14
Total direct expenses per acre	153.56
Return over direct exp per acre	93.15
<b>Overhead Expenses</b>	
Custom hire	0.85
Hired labor	3.10
Machinery leases	3.80
Building leases	1.09
Farm insurance	3.88
Utilities	3.22
Dues & professional fees	0.55
Interest	2.23
Mach & bldg depreciation	30.54
Miscellaneous	3.26
Total overhead expenses per acre	52.52
Total dir & ovhd expenses per acre	206.09
Net return per acre	40.62
Government payments	16.89
Net return with govt pmts	57.51
Labor & management charge	21.29
Net return over lbr & mgt	36.22
<b>Cost of Production</b>	
Total direct expense per bu.	6.73
Total dir & ovhd exp per bu.	9.04
Less govt & other income	5.47
With labor & management	6.40
Net value per unit	8.03
Machinery cost per acre	69.36
Est. labor hours per acre	0.86

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	25	5	5	5
Acres	283.71	136.16	421.76	270.15
Yield per acre (bu.)	59.20	50.49	60.47	68.13
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.26	5.01	5.38	5.25
Other product return per acre	0.54	0.46	-	2.12
Total product return per acre	312.02	253.57	325.23	359.46
Hedging gains/losses per acre	0.72	-	0.95	2.29
Crop insurance per acre	3.10	17.29	4.86	-
Other crop income per acre	13.35	7.07	9.19	20.72
Gross return per acre	329.19	277.93	340.22	382.47
<b>Direct Expenses</b>				
Seed and plants	19.37	19.93	19.66	17.67
Fertilizer	49.56	51.83	52.53	52.57
Crop chemicals	37.66	39.91	38.08	38.28
Crop insurance	18.28	23.61	18.70	13.29
Drying expense	0.32	-	0.83	-
Fuel & oil	11.41	11.70	11.25	10.25
Repairs	22.88	33.41	28.25	16.83
Custom hire	4.57	7.94	3.38	4.22
Machinery leases	1.02	10.60	-	-
Operating interest	4.86	7.18	6.60	3.51
Miscellaneous	2.12	1.18	1.81	1.58
Total direct expenses per acre	172.05	207.28	181.09	158.20
Return over direct exp per acre	157.14	70.66	159.13	224.27
<b>Overhead Expenses</b>				
Custom hire	0.68	0.61	0.89	0.01
Hired labor	8.93	4.30	19.33	0.61
Machinery leases	1.02	3.74	0.04	1.76
Building leases	0.51	-	0.79	1.45
RE & pers. property taxes	7.49	6.09	8.47	7.05
Farm insurance	4.90	5.68	7.64	3.85
Utilities	3.00	4.54	4.06	2.99
Dues & professional fees	0.84	1.17	1.12	0.47
Interest	18.40	43.95	15.00	12.49
Mach & bldg depreciation	27.24	22.53	39.17	31.99
Miscellaneous	1.80	3.74	1.70	2.14
Total overhead expenses per acre	74.80	96.34	98.20	64.81
Total dir & ovhd expenses per acre	246.85	303.61	279.30	223.01
Net return per acre	82.34	-25.68	60.92	159.47
Government payments	22.10	21.09	30.04	21.26
Net return with govt pmts	104.43	-4.59	90.96	180.73
Labor & management charge	22.14	24.91	23.56	23.20
Net return over lbr & mgt	82.29	-29.50	67.40	157.53
<b>Cost of Production</b>				
Total direct expense per bu.	2.91	4.11	2.99	2.32
Total dir & ovhd exp per bu.	4.17	6.01	4.62	3.27
Less govt & other income	3.50	5.10	3.87	2.59
With labor & management	3.87	5.60	4.26	2.93
Net value per unit	5.27	5.01	5.39	5.28
Machinery cost per acre	68.49	91.70	78.69	66.27
Est. labor hours per acre	1.29	1.46	1.54	1.02

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	34	6	7	7
Acres	833.17	804.19	878.07	729.44
Yield per acre (bu.)	57.27	51.66	57.54	63.95
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.26	5.39	5.18	5.18
Other product return per acre	0.06	-	-	-
Total product return per acre	301.21	278.23	298.22	331.54
Hedging gains/losses per acre	1.98	-	4.89	1.62
Crop insurance per acre	5.55	17.29	1.08	-
Other crop income per acre	12.02	8.42	11.94	12.82
Gross return per acre	320.76	303.94	316.13	345.98
<b>Direct Expenses</b>				
Seed and plants	17.58	24.99	15.05	13.89
Fertilizer	53.63	56.13	54.56	48.31
Crop chemicals	36.88	42.92	32.89	34.13
Crop insurance	17.39	22.10	14.48	13.44
Drying expense	0.24	1.15	-	-
Fuel & oil	11.32	11.45	8.67	11.49
Repairs	22.70	37.76	17.96	16.71
Custom hire	4.75	8.06	5.85	1.67
Land rent	49.58	47.49	51.53	47.50
Machinery leases	1.78	0.76	-	-
Operating interest	5.44	12.83	2.34	4.15
Miscellaneous	3.07	2.53	3.58	2.95
Total direct expenses per acre	224.35	268.15	206.92	194.25
Return over direct exp per acre	96.41	35.78	109.21	151.73
<b>Overhead Expenses</b>				
Custom hire	1.06	0.64	1.88	0.44
Hired labor	7.19	6.93	9.95	5.33
Machinery leases	1.98	2.13	2.59	4.04
Building leases	0.60	-	1.14	0.91
Farm insurance	3.71	4.83	3.40	2.95
Utilities	2.53	3.28	2.30	2.89
Dues & professional fees	1.21	0.98	1.44	0.42
Interest	3.35	5.32	2.64	1.31
Mach & bldg depreciation	22.40	31.68	21.58	10.00
Miscellaneous	1.97	2.88	1.33	1.90
Total overhead expenses per acre	46.01	58.67	48.26	30.20
Total dir & ovhd expenses per acre	270.36	326.82	255.18	224.45
Net return per acre	50.40	-22.88	60.95	121.53
Government payments	16.59	20.39	17.66	15.47
Net return with govt pmts	66.99	-2.49	78.61	137.00
Labor & management charge	22.46	22.41	23.69	21.32
Net return over lbr & mgt	44.53	-24.90	54.92	115.68
<b>Cost of Production</b>				
Total direct expense per bu.	3.92	5.19	3.60	3.04
Total dir & ovhd exp per bu.	4.72	6.33	4.43	3.51
Less govt & other income	4.09	5.43	3.82	3.04
With labor & management	4.48	5.87	4.23	3.38
Net value per unit	5.29	5.39	5.27	5.21
Machinery cost per acre	67.70	97.10	57.73	44.86
Est. labor hours per acre	1.06	1.18	1.16	0.74

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Share Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	11
Acres	372.79
Yield per acre (bu.)	61.42
Operators share of yield %	73.39
Value per bu.	5.28
Other product return per acre	0.20
Total product return per acre	238.14
Hedging gains/losses per acre	0.68
Other crop income per acre	7.07
Gross return per acre	245.89
<b>Direct Expenses</b>	
Seed and plants	13.77
Fertilizer	51.79
Crop chemicals	38.75
Crop insurance	11.55
Fuel & oil	12.08
Repairs	22.56
Custom hire	6.64
Operating interest	1.73
Miscellaneous	1.48
Total direct expenses per acre	160.36
Return over direct exp per acre	85.53
<b>Overhead Expenses</b>	
Custom hire	0.80
Hired labor	2.89
Machinery leases	5.92
Building leases	1.18
Farm insurance	3.57
Utilities	2.50
Dues & professional fees	0.60
Interest	2.29
Mach & bldg depreciation	25.48
Miscellaneous	3.29
Total overhead expenses per acre	48.53
Total dir & ovhd expenses per acre	208.89
Net return per acre	37.01
Government payments	18.72
Net return with govt pmts	55.72
Labor & management charge	21.12
Net return over lbr & mgt	34.60
<b>Cost of Production</b>	
Total direct expense per bu.	3.56
Total dir & ovhd exp per bu.	4.63
Less govt & other income	4.04
With labor & management	4.51
Net value per unit	5.29
Machinery cost per acre	74.64
Est. labor hours per acre	0.98

# **Livestock Enterprise Analysis**

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Beef Cow-Calf -- Average Per Cwt. Produced**

	<u>Avg. Of All Farms</u>	
Number of farms	15	
	Quantity	Value
Beef Calves sold (lb)	36.76	58.49
Transferred out (lb)	52.99	79.00
Cull sales (lb)	-	19.29
HedgeAcctIncome		-
LvstInsIncome		-
LvstGovtPayments		5.27
Other income		0.33
Purchased (lb)	-0.02	-11.41
Transferred in (lb)	-	-29.13
Inventory change (lb)	10.27	19.97
Gross margin		141.81
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	7.70	2.46
Creep / Starter (lb.)	21.83	2.44
Barley (bu.)	0.08	0.24
Corn (bu.)	0.54	1.72
Corn Silage (lb.)	588.25	7.34
Hay, Alfalfa (lb.)	149.42	4.80
Hay, Grass (lb.)	1,010.91	20.57
Pasture (aum)	1.24	19.59
Other feed stuffs (lb)	168.01	2.65
Veterinary		6.63
Supplies		2.76
Fuel & oil		5.51
Repairs		10.62
Marketing		0.75
Operating interest		2.33
Total direct expenses		90.39
Return over direct expense		51.42
<b>Overhead Expenses</b>		
Hired labor		2.09
Farm insurance		2.39
Utilities		2.89
Dues & professional fees		0.96
Interest		1.12
Mach & bldg depreciation		6.31
Miscellaneous		1.50
Total overhead expenses		17.26
Total dir & ovhd expenses		107.66
Net return		34.16
Labor & management charge		15.02
Net return over lbr & mgt		19.14
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		90.39
Total dir & ovhd expense per unit		107.66
With other revenue adjustments		120.14
With labor and management		135.15
Est. labor hours per unit		1.20
<b>Other Information</b>		
Number of cows		134.2
Pregnancy percentage		94.7
Pregnancy loss percentage		3.8
Culling percentage		13.3
Calving percentage		91.1
Weaning percentage		86.3
Calves sold per cow		0.85
Calf death loss percent		5.6
Cow death loss percent		1.6
Cows per FTE		419.0
Average weaning weight		577
Lb. weaned/exposed female		498
Feed cost per cow		345.41
Avg wgt/ Beef Calves sold		604

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***Livestock Enterprise Analysis (continued)***  
***North Dakota Farm Business Management Education Program***  
***Bottineau - Minot - Rugby, 2018***  
***(Farms Sorted By Net Return)***

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***Beef Cow-Calf -- Average Per Cwt. Produced***

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	<u>Avg. Of All Farms</u>	
Number of farms	15	
Avg price / cwt.	Quantity	Value
		159.08



**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Beef Cow-Calf -- Average Per Cow**

	<u>Avg. Of All Farms</u>	
Number of farms	15	
	Quantity	Value
Beef Calves sold (lb)	205.5	326.85
Transferred out (lb)	296.1	441.47
Cull sales (lb)	-	107.81
HedgeAcctIncome		-
LvstInsIncome		-
LvstGovtPayments		29.47
Other income		1.85
Purchased (lb)	-0.1	-63.75
Transferred in (lb)	-	-162.79
Inventory change (lb)	57.4	111.61
Gross margin		792.53
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	43.0	13.75
Creep / Starter (lb.)	122.0	13.65
Barley (bu.)	0.4	1.34
Corn (bu.)	3.0	9.59
Corn Silage (lb.)	3,287.5	41.00
Hay, Alfalfa (lb.)	835.1	26.83
Hay, Grass (lb.)	5,649.5	114.97
Pasture (aum)	7.0	109.46
Other feed stuffs (lb)	938.9	14.82
Veterinary		37.04
Supplies		15.40
Fuel & oil		30.78
Repairs		59.36
Marketing		4.18
Operating interest		13.02
Total direct expenses		505.17
Return over direct expense		287.36
<b>Overhead Expenses</b>		
Hired labor		11.70
Farm insurance		13.37
Utilities		16.17
Dues & professional fees		5.36
Interest		6.28
Mach & bldg depreciation		35.25
Miscellaneous		8.36
Total overhead expenses		96.48
Total dir & ovhd expenses		601.65
Net return		190.88
Labor & management charge		83.92
Net return over lbr & mgt		106.96
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		90.39
Total dir & ovhd expense per unit		107.66
With other revenue adjustments		120.14
With labor and management		135.15
Est. labor hours per unit		6.68
<b>Other Information</b>		
Number of cows		134.2
Pregnancy percentage		94.7
Pregnancy loss percentage		3.8
Culling percentage		13.3
Calving percentage		91.1
Weaning percentage		86.3
Calves sold per cow		0.85
Calf death loss percent		5.6
Cow death loss percent		1.6
Cows per FTE		419.0
Average weaning weight		577
Lb. weaned/exposed female		498
Feed cost per cow		345.41
Avg wgt/ Beef Calves sold		604

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***Livestock Enterprise Analysis (continued)***  
***North Dakota Farm Business Management Education Program***  
***Bottineau - Minot - Rugby, 2018***  
***(Farms Sorted By Net Return)***

***Beef Cow-Calf -- Average Per Cow***

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	<u>Avg. Of All Farms</u>	
Number of farms	15	
Avg price / cwt.	Quantity	Value
		159.08

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Beef Replacement Heifers -- Average Per Head**

	<u>Avg. Of All Farms</u>	
Number of farms	6	
	Quantity	Value
Beef Replace sold (hd)	0.24	363.57
Transferred out (hd)	0.89	1,150.16
Cull sales (hd)	0.02	27.89
HedgeAcctIncome		-
LvstInsIncome		-
LvstGovtPayments		10.12
Otherincome		-
Purchased (hd)	0.03	-34.64
Transferred in (hd)	0.90	-899.19
Inventory change (hd)	-0.25	-210.11
Gross margin		407.80
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	72.93	14.51
Complete Ration (lb.)	9.12	1.05
Barley (bu.)	2.20	6.50
Corn (bu.)	12.05	38.04
Corn Silage (lb.)	2,550.64	29.49
Hay, Alfalfa (lb.)	1,159.54	43.97
Hay, Grass (lb.)	3,326.51	67.68
Pasture (aum)	4.21	65.40
Straw (lb.)	218.80	2.19
Cover crop forage (aum)	0.26	3.91
Other feed stuffs (lb)	25.69	1.63
Breeding fees		2.10
Veterinary		26.45
Supplies		5.60
Fuel & oil		3.64
Repairs		7.38
Custom hire		1.31
Operating interest		1.68
Total direct expenses		322.55
Return over direct expense		85.25
<b>Overhead Expenses</b>		
Farm insurance		2.18
Utilities		2.55
Interest		0.82
Mach & bldg depreciation		3.60
Miscellaneous		3.77
Total overhead expenses		12.92
Total dir & ovhd expenses		335.47
Net return		72.33
Labor & management charge		9.93
Net return over lbr & mgt		62.40
<b>Cost of Production Per Head Sold/Trans</b>		
Total direct expense per unit		1,264.94
Total dir & ovhd expense per unit		1,276.29
With other revenue adjustments		1,267.39
With labor and management		1,276.13
Est. labor hours per unit		0.79
<b>Other Information</b>		
No. purchased or trans in		34
Number sold or trans out		42
Average number of head		37
Percentage death loss		2.0
Feed cost per average head		274.38
Hired labor per average head		1.64
Feed cost/head sold/trans		241.26
Total cost/head sold/trans		1,276.13
Feed cost per head per day		0.75
Avg. purch price / head		1,266.67
Avg. wgt / Beef Replace sold		149
Avg. sales price / head		1,490.86

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Beef Replacement Heifers -- Average Per Head Sold/Trans**

	<u>Avg. Of All Farms</u>	
Number of farms	6	
	Quantity	Value
Beef Replace sold (hd)	0.2	319.68
Transferred out (hd)	0.8	1,011.31
Cull sales (hd)	0.0	24.53
HedgeAcctIncome		-
LvstInsIncome		-
LvstGovtPayments		8.90
Otherincome		-
Purchased (hd)	0.0	-30.46
Transferred in (hd)	0.8	-790.64
Inventory change (hd)	-0.2	-184.75
Gross margin		358.57
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	64.1	12.76
Complete Ration (lb.)	8.0	0.92
Barley (bu.)	1.9	5.72
Corn (bu.)	10.6	33.45
Corn Silage (lb.)	2,242.7	25.93
Hay, Alfalfa (lb.)	1,019.6	38.66
Hay, Grass (lb.)	2,924.9	59.51
Pasture (aum)	3.7	57.50
Straw (lb.)	192.4	1.92
Cover crop forage (aum)	0.2	3.44
Other feed stuffs (lb)	22.6	1.44
Breeding fees		1.84
Veterinary		23.26
Supplies		4.93
Fuel & oil		3.20
Repairs		6.49
Custom hire		1.15
Operating interest		1.47
Total direct expenses		283.61
Return over direct expense		74.96
<b>Overhead Expenses</b>		
Farm insurance		1.92
Utilities		2.24
Mach & bldg depreciation		3.16
Miscellaneous		4.03
Total overhead expenses		11.36
Total dir & ovhd expenses		294.97
Net return		63.60
Labor & management charge		8.73
Net return over lbr & mgt		54.87
<b>Cost of Production Per Head Sold/Trans</b>		
Total direct expense per unit		1,264.94
Total dir & ovhd expense per unit		1,276.29
With other revenue adjustments		1,267.39
With labor and management		1,276.13
Est. labor hours per unit		0.69
<b>Other Information</b>		
No. purchased or trans in		34
Number sold or trans out		42
Average number of head		37
Percentage death loss		2.0
Feed cost per average head		274.38
Hired labor per average head		1.64
Feed cost/head sold/trans		241.26
Total cost/head sold/trans		1,276.13
Feed cost per head per day		0.75
Avg. purch price / head		1,266.67
Avg. wgt / Beef Replace sold		149
Avg. sales price / head		1,490.86

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

**Beef Backgrounding -- Average Per Cwt. Produced**

	<u>Avg. Of All Farms</u>	
Number of farms	10	
	Quantity	Value
Backgnd Beef sold (lb)	345.87	506.60
Transferred out (lb)	44.76	61.20
HedgeAcctIncome		-
LvstInsIncome		-
LvstGovtPayments		-
Other income		-
Transferred in (lb)	-263.33	-389.40
Inventory change (lb)	-27.30	-59.42
Gross margin		118.99
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	10.28	2.54
Creep / Starter (lb.)	13.08	1.24
Complete Ration (lb.)	1,064.35	13.16
Barley (bu.)	0.68	2.00
Corn (bu.)	2.24	6.84
Corn Silage (lb.)	319.74	4.09
Hay, Alfalfa (lb.)	132.21	4.77
Hay, Grass (lb.)	601.16	14.27
Oats (bu.)	0.82	1.87
Other feed stuffs (lb)	12.57	0.34
Veterinary		4.58
Supplies		1.12
Fuel & oil		0.83
Repairs		2.95
Hired labor		0.63
Marketing		0.43
Operating interest		0.62
Total direct expenses		62.27
Return over direct expense		56.72
<b>Overhead Expenses</b>		
Hired labor		0.18
Farm insurance		1.04
Utilities		1.20
Mach & bldg depreciation		1.98
Miscellaneous		1.02
Total overhead expenses		5.43
Total dir & ovhd expenses		67.69
Net return		51.29
Labor & management charge		7.64
Net return over lbr & mgt		43.65
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		130.83
Total dir & ovhd expense per unit		132.22
With other revenue adjustments		132.22
With labor and management		134.18
Est. labor hours per unit		0.43
<b>Other Information</b>		
No. purchased or trans in		70
Number sold or trans out		78
Percentage death loss		0.4
Avg. daily gain (lb.)		1.22
Lb. of conc / lb. of gain		12.72
Lb. of feed / lb. of gain		21.25
Feed cost per cwt. of gain		51.12
Feed cost per head		70.77
Hired labor per head		1.13
Avg wgt / Backgnd Beef sold		689
Avg sales price / cwt.		146.47

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Bottineau - Minot - Rugby, 2018**  
**(Farms Sorted By Net Return)**

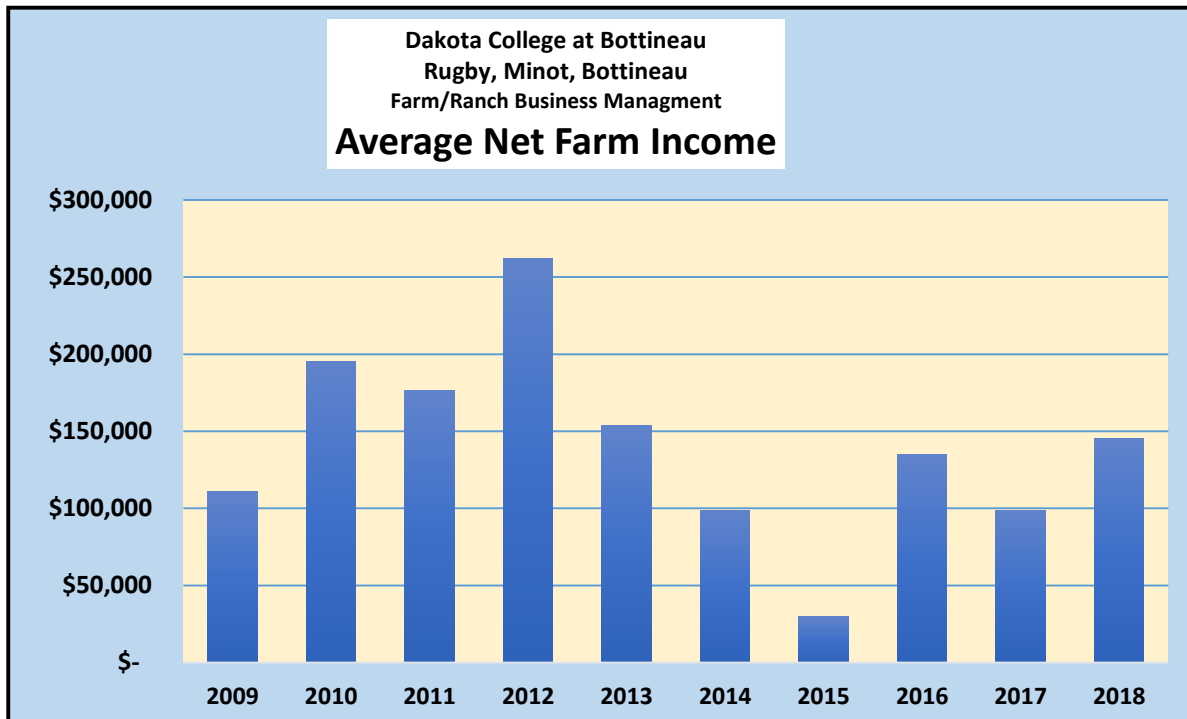
**Beef Backgrounding -- Average Per Head**

	<u>Avg. Of All Farms</u>	
Number of farms	10	
	Quantity	Value
Backgnd Beef sold (lb)	478.8	701.35
Transferred out (lb)	62.0	84.73
HedgeAcctIncome		-
LvstInsIncome		-
LvstGovtPayments		-
Other income		-
Transferred in (lb)	-364.6	-539.09
Inventory change (lb)	-37.8	-82.26
Gross margin		164.73
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	14.2	3.52
Creep / Starter (lb.)	18.1	1.72
Complete Ration (lb.)	1,473.5	18.22
Barley (bu.)	0.9	2.77
Corn (bu.)	3.1	9.47
Corn Silage (lb.)	442.7	5.66
Hay, Alfalfa (lb.)	183.0	6.61
Hay, Grass (lb.)	832.3	19.76
Oats (bu.)	1.1	2.59
Straw (lb.)	17.4	0.47
Veterinary		6.34
Supplies		2.43
Fuel & oil		1.14
Repairs		4.08
Marketing		0.60
Operating interest		0.85
Total direct expenses		86.20
Return over direct expense		78.53
<b>Overhead Expenses</b>		
Hired labor		0.25
Farm insurance		1.44
Utilities		1.67
Mach & bldg depreciation		2.74
Miscellaneous		1.41
Total overhead expenses		7.52
Total dir & ovhd expenses		93.72
Net return		71.01
Labor & management charge		10.58
Net return over lbr & mgt		60.43
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		130.83
Total dir & ovhd expense per unit		132.22
With other revenue adjustments		132.22
With labor and management		134.18
Est. labor hours per unit		0.60
<b>Other Information</b>		
No. purchased or trans in		70
Number sold or trans out		78
Percentage death loss		0.4
Avg. daily gain (lb.)		1.22
Lb. of conc / lb. of gain		12.72
Lb. of feed / lb. of gain		21.25
Feed cost per cwt. of gain		51.12
Feed cost per head		70.77
Hired labor per head		1.13
Avg wgt / Backgnd Beef sold		689
Avg sales price / cwt.		146.47

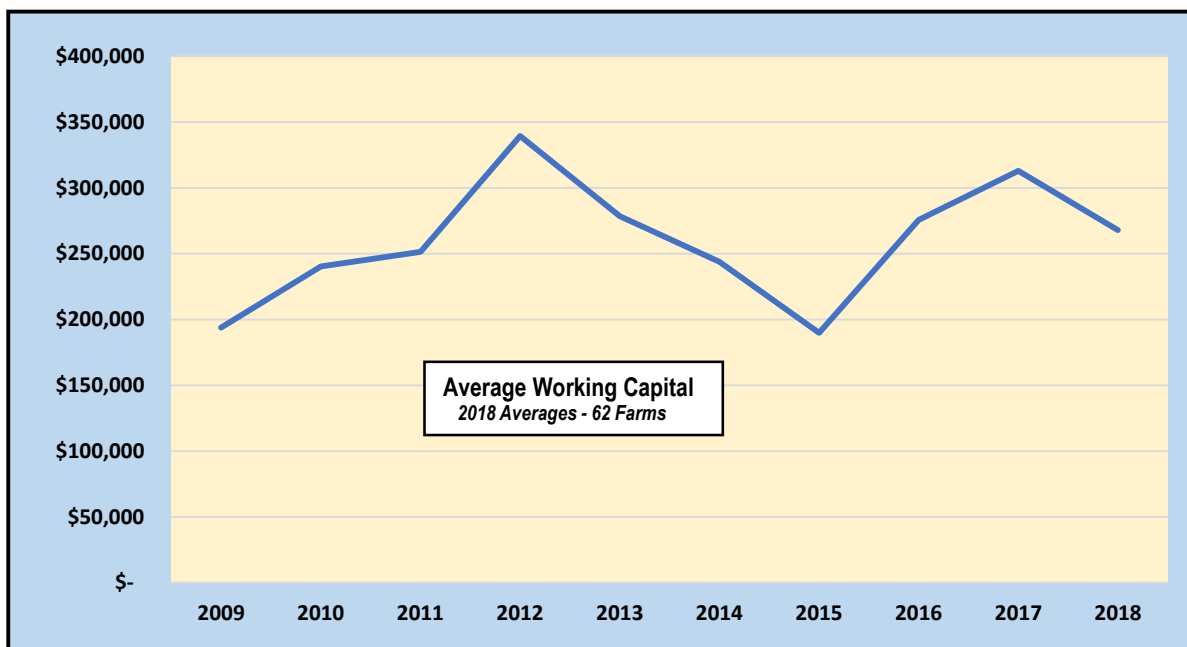
# Graphs

**Dakota College at Bottineau-Farm Business Management**  
**Rugby, Minot, & Bottineau - 2018 Averages Report**

**Farm Profitability**



**Liquidity**

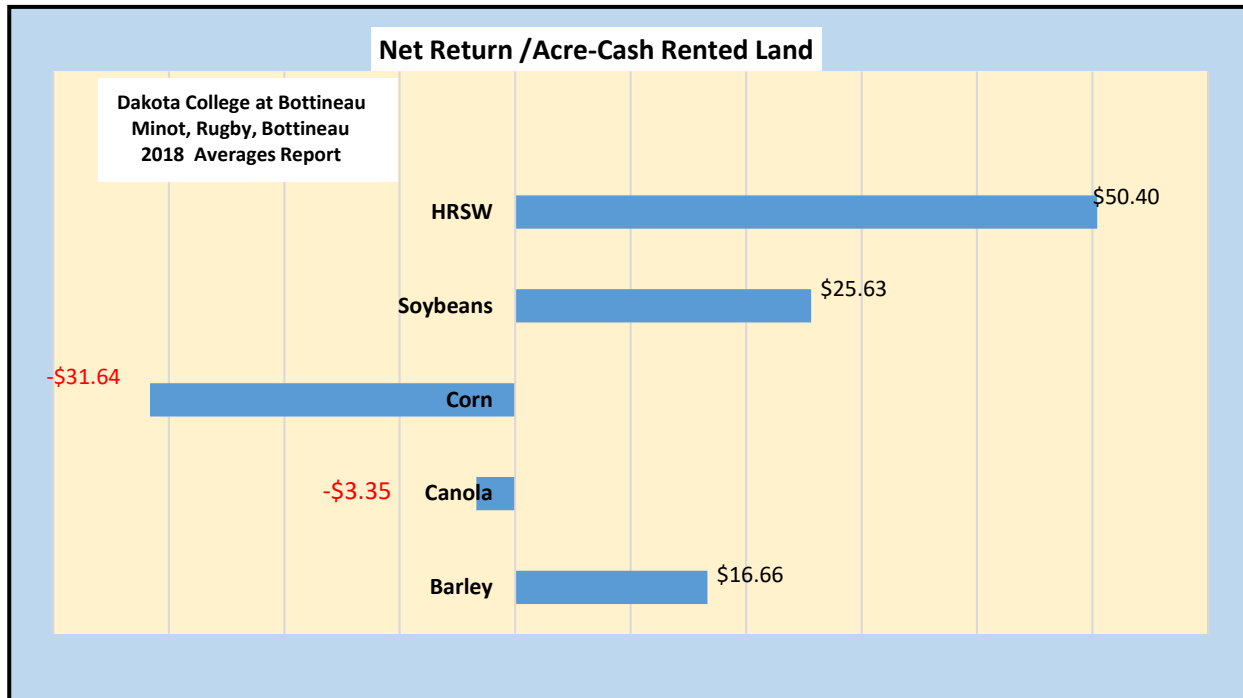




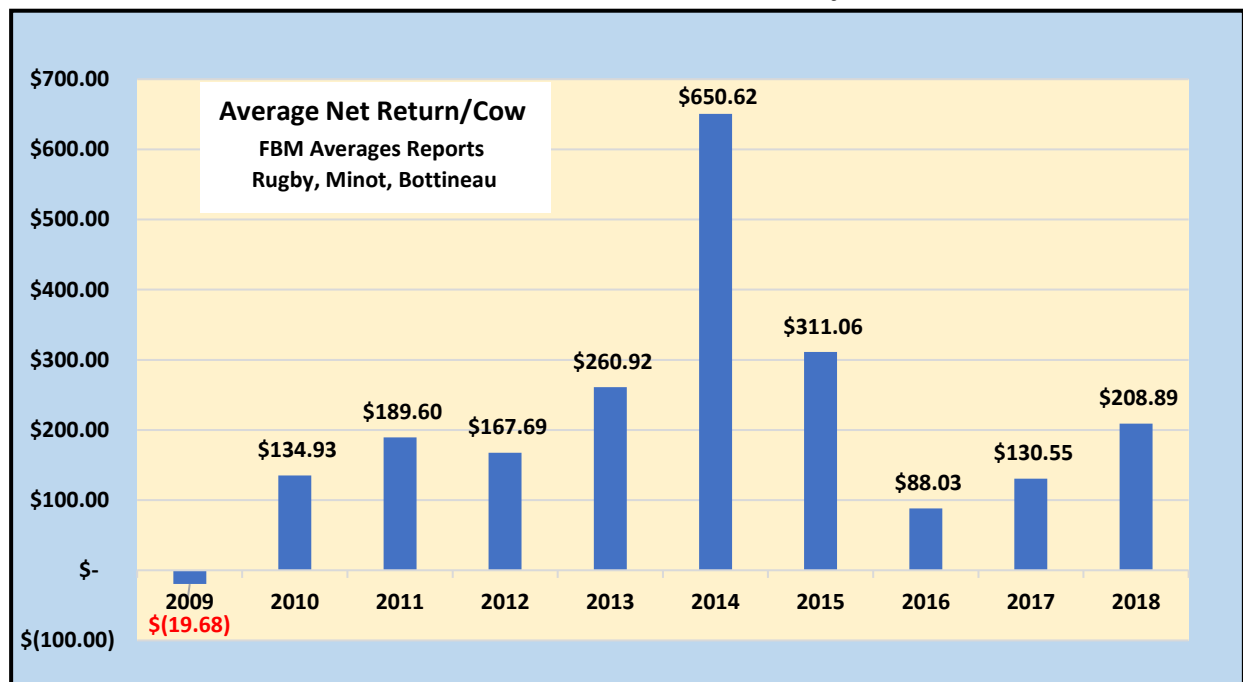
# Dakota College at Bottineau - Farm Business Management

## Rugby, Minot, Bottineau - 2018 Averages Report

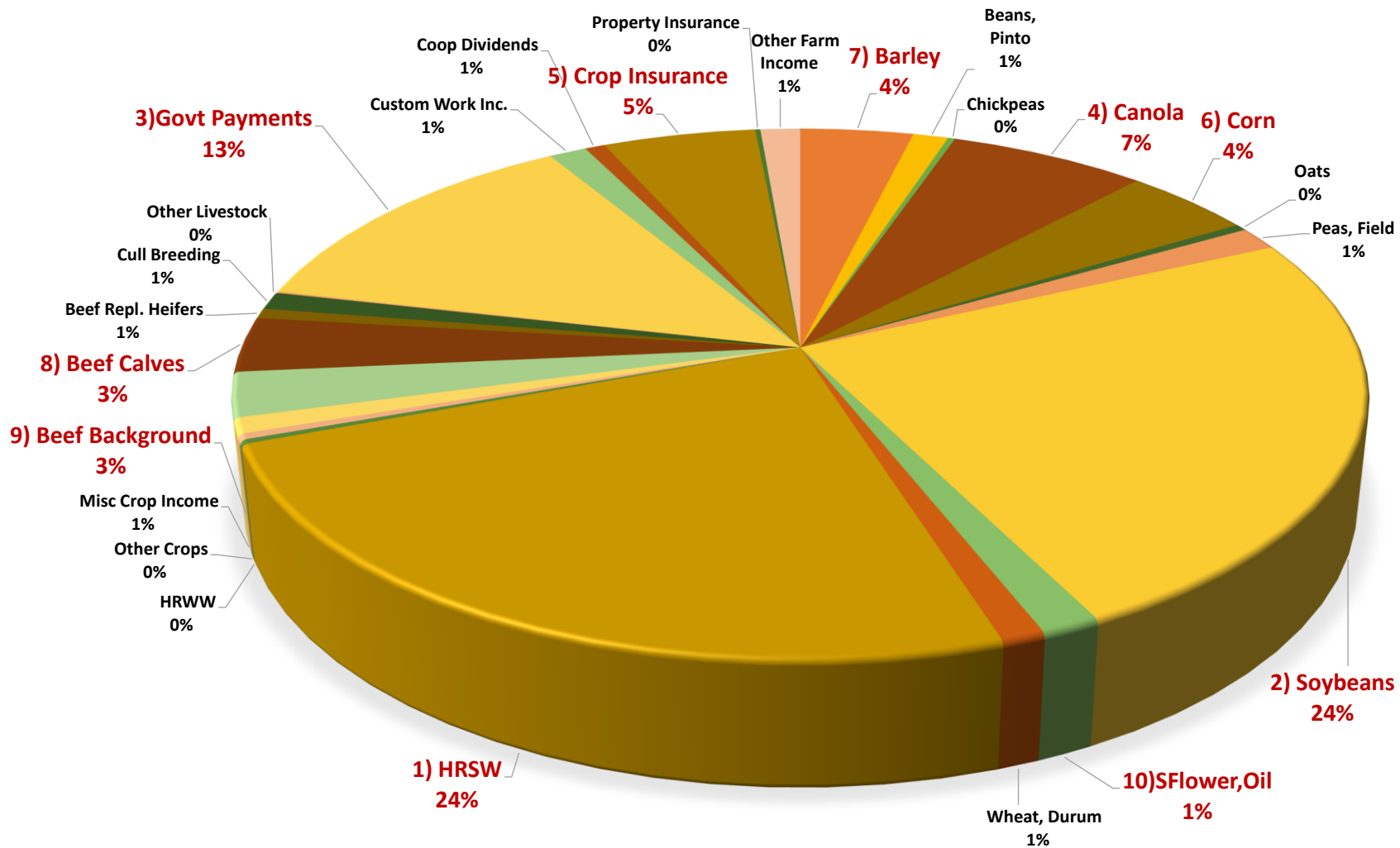
### Crop Comparison



### Beef Cow/Calf Profitability

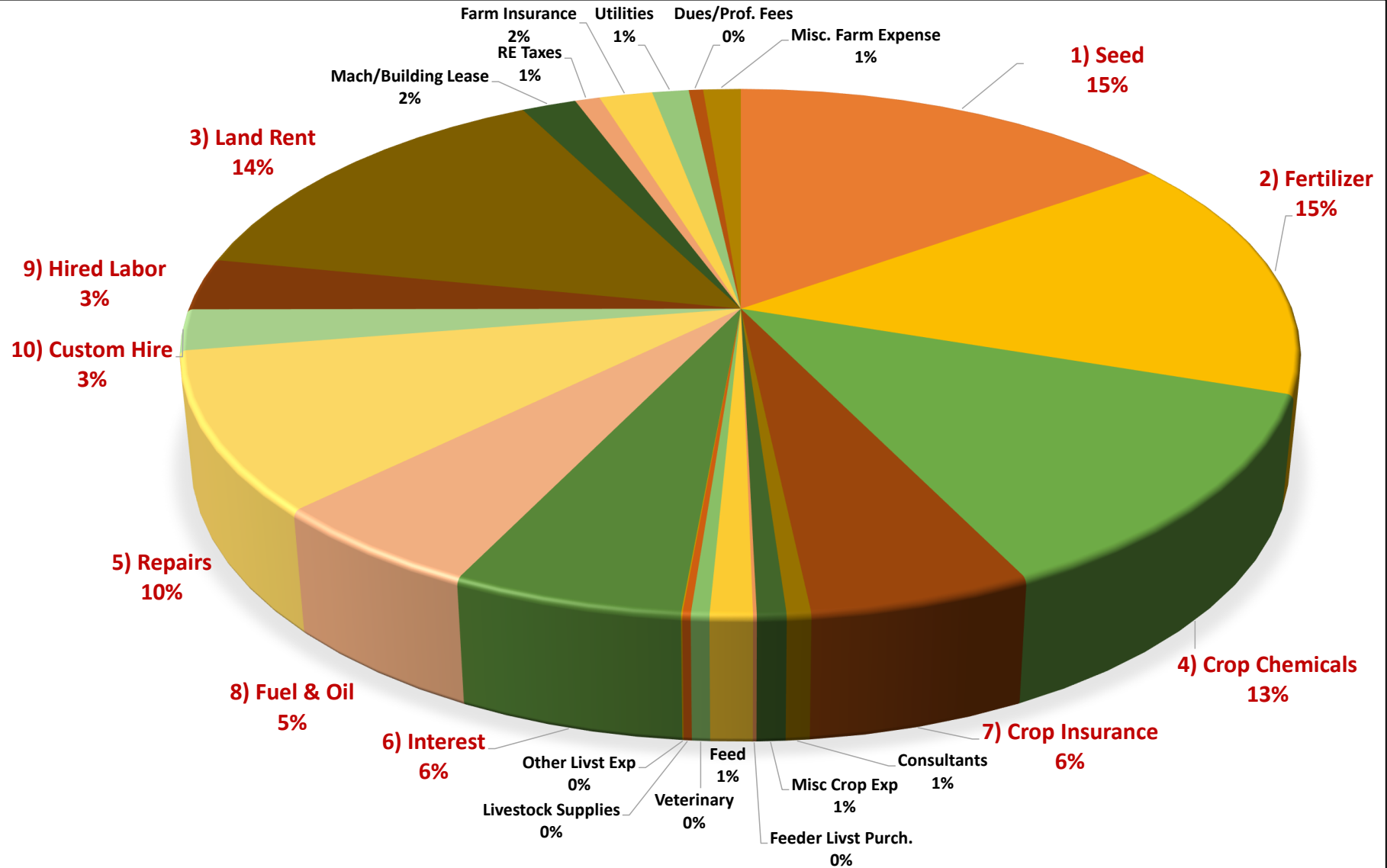


## 2018 DCB Farm Business Management Average Gross Cash Income



Data from 2018 Dakota College Farm Business Management Annual Report. Average of 62 Farms. Bottineau, Rugby, Minot

## 2018 DCB Farm Business Management Average Cash Farm Expenses



Data from 2018 Dakota College Farm Business Management Annual Report. Average of 62 Farms. Bottineau, Rugby, Minot

# **What is the Dakota College at Bottineau Farm and Ranch Business Management Education Program?**

**It is an instructional program designed to:**

- ➡ help increase the profitability of the family farm or ranch business.**
- ➡ improve the family farm or ranch's record keeping system.**
- ➡ increase the knowledge of farm and ranch financial management.**
- ➡ help formulate family, personal and business goals.**
- ➡ develop an understanding of the financial strengths and weaknesses of the farm or ranch business.**
- ➡ improve the efficiency and organization of the family farm or ranch business.**
- ➡ develop the operator and family's appreciation of the affects of current and long term decisions.**

**The instructional sessions are individualized and are conducted in the privacy of the enrollee's home or the Farm and Ranch Business Management Education Program office.**

**The Farm and Ranch Business Management Education Program keeps the producer's information strictly Confidential.**

**It is the Farm and Ranch Business Management Education Program instructors responsibility to provide education, information and assistance to the producer in making management decisions.**

If you would like additional information about the Farm and Ranch Business Management Education Program or would like to enroll in the program you can contact the instructors at any of the locations by the following means:

Rodney Armstrong at Bottineau  
Office Phone: (701) 228-5481  
email: [rodney.armstrong@dakotacollege.edu](mailto:rodney.armstrong@dakotacollege.edu)  
Address: 105 Simrall Boulevard, Bottineau, ND 58318

Lynsey Aberle at Minot  
Office Phone: (701) 857-7660  
email: [lynsey.aberle@dakotacollege.edu](mailto:lynsey.aberle@dakotacollege.edu)  
Address: 5400 Hwy 83 S, Minot, ND 58701

Sheila Braaten at Rugby  
Office Phone: (701) 776-5095  
email: [sheila.braaten@dakotacollege.edu](mailto:sheila.braaten@dakotacollege.edu)  
Address: 1123 South Main, Rugby, ND 58368