

# **NORTHLAND**

## **Community and Technical College**



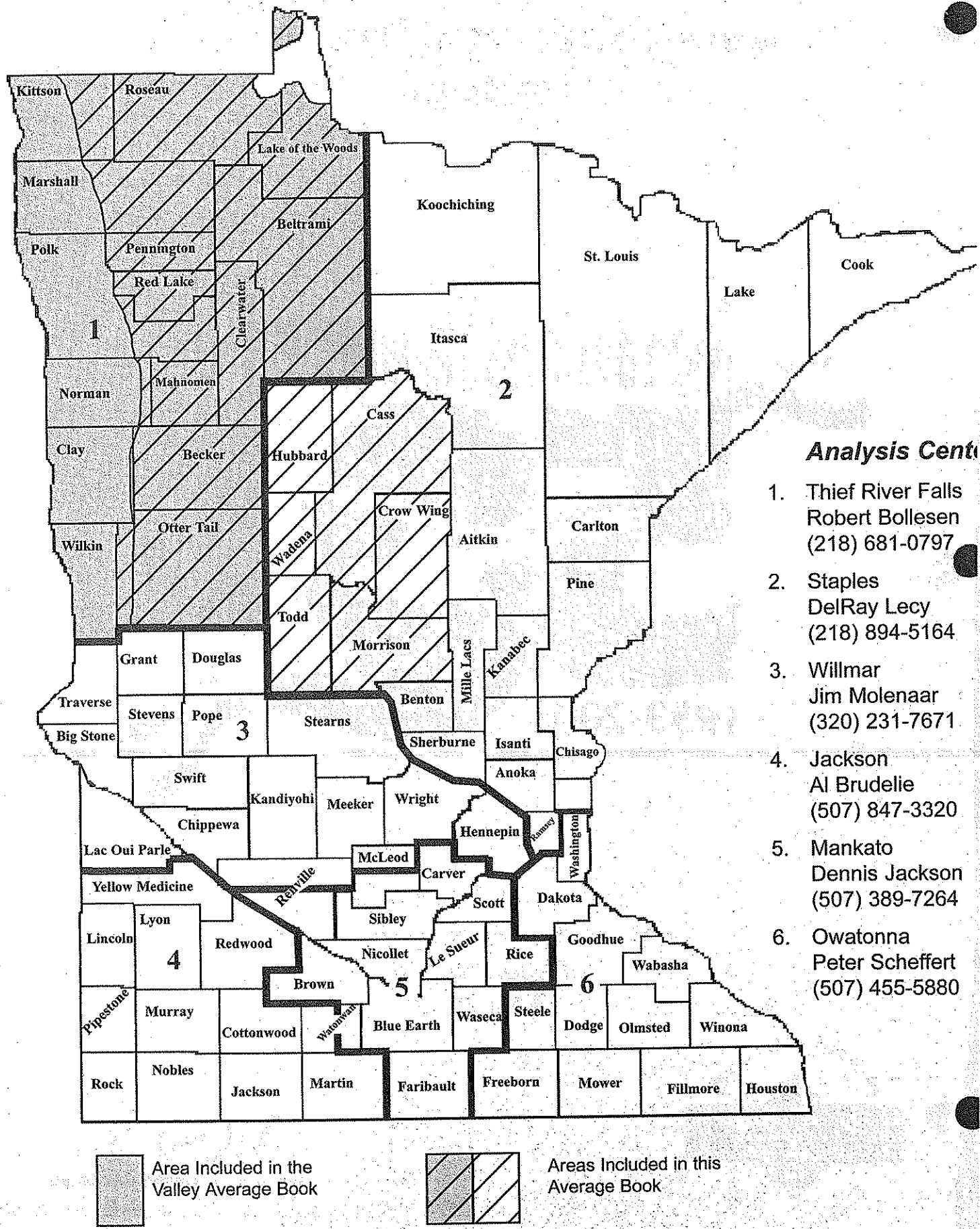
**2002 ANNUAL REPORT**  
**NORTHWESTERN MINNESOTA**  
Report No. 48  
April 2003



**MSCU**

Minnesota State Colleges & Universities

# FARM BUSINESS MANAGEMENT REGIONS



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## **What's in the 2002 Annual Report**

The 2002 Northwestern Minnesota Farm Business Management Education Program Annual Reports continue the three changes started with the 1997 Annual Reports. They include an enlarged database, statewide livestock tables and the two books - Valley and Northwestern.

The disparity of input cost, land cost, production and return between the farming operations in the heart of the Red River Valley and those not, continues to influence separation of the Northwestern Annual Report and the Red River Valley Annual Report. On the inside front cover of this report is a map of Minnesota, which shows what areas are included in this report as well as the 2002 Red River Valley Report. We believe that by separating the reports, each report will provide truer benchmarks and be more representative of actual data for each of the respective areas.

The Northwestern Minnesota Annual Report contains at least some student data from all Northland Community and Technical College Instructors listed on page three. In addition to including data from students enrolled in Northland Community and Technical College Programs, farm records are included in this report from North Central Minnesota. We have identified programs with similar farming operations and have added them to our databases. Farm records have been included from the following counties along the Eastern edge of our service area: Cass, Hubbard, Wadena, Todd, Crow Wing, and Morrison. These students are enrolled in the Farm Business Management Program through Central Lakes Community and Technical College in Staples. The instructors participating are listed on page three of this report. We believe that merging this data, from similar farming operations and environments, enables us to provide more complete farm financial information.

This report and the five other regional reports include only statewide data for each of the livestock enterprises. Minnesota Farm Business Management Education Programs are committed to developing an even more valuable database of information for farmers. The increase in the number of farms included in each enterprise enhances the reliability and accuracy of the database. Regional livestock enterprise information will be available, however, from each of the six Regional Farm Business Management Offices or a Farm Business Management Instructor in that area.

Additional Note: The state database, which has been developed, includes over 2,100 farms in 2002. This information is unique to Minnesota and provides a wealth of information for farmers and the agriculture businesses that support those farmers. In addition to the regional information being available from the regional offices listed on the inside front cover, it is also available along with the statewide data on the Farm Business Management (FBM) Internet website. Included on the FBM website is information about Management Programs, instructor location and information, regional and state databases, and links to other agriculture web pages.

**Northland FBM Website:**  
[www.northlandcollege.edu/fbm.htm](http://www.northlandcollege.edu/fbm.htm)

**State FBM Website:**  
[www.mgt.org](http://www.mgt.org)

## **LOCATIONS PARTICIPATING**

This report includes data from farmers enrolled through Northland Community and Technical College at 13 sites in Northwestern Minnesota and 3 sites from Central Lakes Community and Technical College. A list of sites and instructors follows:

### **Northland Community and Technical College**

<u>Site</u>	<u>Instructor</u>
Barnesville	-Sheldon Schmiess
Baudette	-Gerald Ausmus
Bemidji	-Jim Sackett/Steve Ziegler
Detroit Lakes	-Mark Berg/Paul Ramsey
East Grand Forks	-Ron Dvergsten
Fergus Falls	-Rudy Hasbargen
Fertile	-Ron Dvergsten/Dennis Olsen
Fosston	-Doug Fjerstad
Hawley	-Dennis Olsen
Mahnomen, Ulen	-Mike Lockhart
Red Lake Falls	-Greg Kalinoski
Roseau	-Duane Jaenicke
Thief River Falls	-Greg Dvergsten Danie Packard

### **Central Lakes Community and Technical College**

<u>Site</u>	<u>Instructor</u>
Little Falls	-Dave Stish
Pierz	-Ben Jorgensen
Staples	-Brad Irwin Bob Rick Tom Schulz

The analysis average of 327 farm records and the preparation of this report is done under the direction of Robert E. Bolleson, Regional Dean of Management Education at Northland Community and Technical College - Thief River Falls. Directing in a supervisory capacity are: Dr. Orley Gunderson, Campus President, NCTC Thief River Falls; John Murray, Program Manager, Minnesota State Colleges and Universities. All records are completed and analyzed with Finpack and RankEm software packages from the Center for Farm Financial Management at the University of Minnesota in St. Paul. These software packages are copyrighted and licensed by the Center for Farm Financial Management.

A special thank you is due to Clayton Hoyt and Robin Langevin for their assistance in preparing and assembling this report.

## **PROGRAM INFORMATION**

A half-century after the first Farm Business Financial Analysis and serving thousands of farm businesses, Minnesota Farm Business Management Education is celebrating its golden anniversary. Farm Business Management Education has been a part of agriculture education programs in Minnesota since 1952. From the early cooperative efforts of the State Department of Agriculture Education, the program has expanded to serve over 5,000 farm families each year in six Farm Management areas. Programs are now administered and managed by the Minnesota State College and University System through eight two-year Colleges.

The Farm Business Management Program is an educational program that is designed to help farm families achieve their farm business and family goals. This is done through improved management organization and efficiency of their farm operations. This purpose has not changed over the years.

The programs became course/credit based in FY92. A typical farm business enrollee registers for 10 credits per year. The purpose of this effort is to more adequately address the needs of the individual farmer, making enrollment even more beneficial. To accomplish these purposes, programs have been organized to conform to the following guidelines:

- Farm families enroll in a specific management course.
- Each course has a specific objective and units of instruction to meet the objective.
- Courses are offered in sequence and farmers are expected to enroll in the first of the sequence of courses.
- There is continuity to each course. Each leads to the next course in the sequence.
- Instruction is primarily individualized on the farm or in the office with the farm family.
- Additional instruction is also offered in group or classroom settings.

Northland Community and Technical College now offers four Farm Business Management Programs:

1. Farm Business Management - Diploma Program
2. Advanced Farm Business Management - Certificate Program
3. Agriculture Commodity Marketing - Certificate Program
4. Farm Business Management - Current Topics Certificate Program

Like most educational programs, members benefit from the instruction in relation to how much effort they put into study. Some farmers have benefited more, and some less, depending upon how seriously they studied the results of their business analysis and the kind of decisions they made as a result of their analysis.

***Northwestern Minnesota  
Farm Financial Highlights  
For Five-Year Period from 1998 - 2002***

	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Net Cash Farm Income	\$36,977	\$46,829	\$45,582	\$55,061	\$42,510
Net Farm Income (profit or loss)**	\$34,041	\$42,158	\$49,752	\$36,245	\$26,142
Expenses per Dollar of Income	\$0.81	\$0.78	\$0.66	\$0.79	\$0.81
Change in Net Worth (Mkt.)	\$19,507	\$3,004	\$29,001	\$29,869	\$20,617
Rate of Return on Capital (Cost)	7.70%	8.70%	9.40%	6.10%	3.90%
Rate of Return on Equity (Cost)	8.30%	10.40%	11.30%	5.10%	2.60%
Asset Turnover Rate	35.80%	35.20%	36.10%	38.10%	34.70%
Percent in Debt	57%	52%	49%	50%	52%
Total Investment (Cost)	\$373,609	\$401,380	\$540,761	\$560,627	\$568,996

The data from farms located in the RR Valley is not included, as these farms are included in a separate report.

accounts, Medical and health expenses and loan principle payments. The following list shows 2002 expenses:

Family Living	\$20,887
SS and Income Tax	\$2,704
Health and Medical Expenses	\$4,122
Retirement Accounts	\$446
Principle Payments	<u>\$23,811</u>
Balance left	-\$25,828

**Farm Income Statement**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Net Farm Income)**

Number of farms	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
	327	65	66	66
<b>Cash Farm Income</b>				
Barley	1,336	2,120	1,387	956
Beans, Edible	1,517	5,565	253	1,368
Canola	2,267	2,237	1,205	6,525
Corn	5,602	1,781	848	18,476
Corn Silage	229	-	17	377
Grass Seed	383	849	-	1,060
Hay, Alfalfa	2,960	760	2,026	9,980
Hay, Grass	84	5	-	384
Hay, Mixed	351	285	85	-
Haylage, Alfalfa	112	-	23	27
Oats	494	269	705	915
Potatoes	761	3,825	-	-
Pulpwood	113	-	560	-
Soybeans	23,840	16,968	12,168	55,053
Soybeans, Food	83	416	-	-
Straw	179	159	176	373
Sugar Beets	510	-	-	-
Sunflowers	911	474	1,590	1,118
Sunflowers, Confectionary	256	-	401	785
Wheat, Spring	28,891	18,975	19,504	73,608
Wheat, Winter	560	67	284	655
Other Crop income	407	309	884	83
Beef Cow-Calf, Beef Calves	4,871	3,378	3,898	3,201
Beef Replacement Heifers	40	16	182	-
Beef, Custom Fed	2,185	-	4,351	1,074
Beef, Background Beef	3,576	4,382	783	4,113
Beef, Finish Beef Calves	1,461	244	81	6,497
Beef, Finish Yrlg Steers	752	-	-	3,054
Dairy, Milk	94,677	107,905	73,490	154,144
Dairy, Dairy Calves	1,351	2,481	689	1,408
Dairy Heifers (for sale)	654	300	893	227
Dairy Replacement Heifers	647	86	563	568
Dairy Steers	3,985	1,644	6,492	4,300
Other Livestock	5,473	18,865	783	6,303
Cull breeding livestock	5,502	4,526	4,320	8,217
Misc. livestock income	552	1,182	239	197
LDP payments	69	22	56	149
Direct & CC govt payments	6,416	5,392	4,676	13,762
CRP payments	1,396	2,010	1,853	1,331
Livestock govt payments	2,688	2,222	2,700	3,721
Other government payments	3,345	1,644	3,298	5,031
Custom work income	2,731	1,112	1,583	5,923
Patronage dividends, cash	1,128	1,668	994	1,293
Insurance income	12,429	10,700	8,985	26,574
Other farm income	5,666	5,566	3,394	7,882
<b>Gross Cash Farm Income</b>	<b>233,440</b>	<b>230,409</b>	<b>166,419</b>	<b>430,712</b>

**Farm Income Statement (Continued)**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Net Farm Income)**

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	327	65	66	66
<b>Cash Farm Expense</b>				
Seed	8,723	6,544	6,224	18,724
Fertilizer	11,847	9,018	7,945	26,563
Crop chemicals	9,453	6,185	6,187	21,933
Crop insurance	4,460	3,388	2,748	10,557
Drying fuel	552	209	193	1,700
Irrigation energy	123	365	78	81
CCC buyback	1,916	1,239	1,869	4,423
Crop marketing	366	222	63	419
Crop miscellaneous	1,512	588	797	3,060
Feeder livestock purchase	3,736	921	5,589	7,843
Purchased feed	34,985	52,960	25,673	45,627
Breeding fees	1,197	1,490	989	1,660
Veterinary	4,659	6,627	3,345	6,275
BST	1,210	1,794	337	2,157
Livestock supplies	5,376	7,263	4,298	7,636
DHIA	491	311	491	733
Contract production exp.	1,226	254	1,575	1,895
Livestock leases	171	84	330	193
Hauling and trucking	1,208	578	787	1,626
Livestock marketing	2,472	3,181	2,912	2,562
Interest	17,874	24,307	12,663	27,140
Fuel & oil	7,866	8,031	5,961	13,024
Repairs	17,870	18,498	12,885	30,025
Custom hire	5,281	3,502	4,670	9,260
Hired labor	13,126	21,209	6,129	23,453
Land rent	14,743	10,396	8,786	32,552
Machinery & bldg leases	3,261	3,109	2,207	6,016
Real estate taxes	1,896	1,927	1,485	2,889
Farm insurance	3,538	3,702	3,087	5,230
Utilities	5,310	6,717	4,494	7,061
Dues & professional fees	1,177	1,088	768	2,218
Miscellaneous	3,305	4,494	2,458	4,251
Total cash expense	190,929	210,202	138,022	328,787
Net cash farm income	42,510	20,207	28,395	101,927
<b>Inventory Changes</b>				
Crops and feed	3,940	-13,298	-510	27,188
Market livestock	1,014	-1,783	1,000	2,230
Accounts receivable	2,086	-475	1,565	5,945
Prepaid expenses and supplies	-867	-560	-1,646	1,060
Accounts payable	-3,348	-8,358	-1,084	-4,148
Total inventory change	2,824	-24,475	-675	32,275
Net operating profit	45,334	-4,267	27,720	134,202
<b>Depreciation and Other Capital Adjustments</b>				
Breeding livestock	-5,446	-17,470	105	-5,340
Machinery and equipment	-10,866	-9,500	-7,896	-19,411
Buildings and improvements	-2,406	-3,206	-1,274	-4,338
Other farm capital	-475	-4,285	-95	1,456
Total depr. and other capital adj	-19,193	-34,461	-9,160	-27,633
Net farm income	26,142	-38,728	18,560	106,569

**Statement Of Cash Flows**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(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	327	65	66	66
Beginning cash (farm & nonfarm)	7,443	8,921	2,925	12,160
<b>Cash From Operating Activities</b>				
Gross cash farm income	233,439	230,409	166,417	430,714
Net nonfarm income	18,265	28,509	16,594	11,300
Total cash farm expense	-190,929	-210,202	-138,022	-328,787
Apparent family living expense	-29,718	-26,335	-27,610	-44,316
Income and social security tax	-3,011	-1,901	-2,417	-6,112
Cash from operations	28,046	20,481	14,963	62,799
<b>Cash From Investing Activities</b>				
Sale of breeding livestock	2,441	5,068	2,566	1,692
Sale of machinery & equipment	2,391	2,526	849	3,304
Sale of titled vehicles	90	-	158	129
Sale of farm land	1,164	67	182	2,394
Sale of farm buildings	817	3,678	424	-
Sale of other farm assets	111	23	125	95
Sale of nonfarm assets	1,649	6,997	507	149
Purchase of breeding livestock	-10,789	-19,842	-4,041	-21,940
Purchase of machinery & equip.	-21,926	-16,791	-11,729	-42,187
Purchase of titled vehicles	-937	-1,784	-1,323	-
Purchase of farm land	-9,133	-8,763	-9,330	-13,855
Purchase of farm buildings	-4,966	-8,558	-3,529	-5,111
Purchase of other farm assets	-909	-1,132	-594	-837
Purchase of nonfarm assets	-5,695	-2,465	-4,147	-14,729
Cash from investing activities	-45,692	-40,976	-29,883	-90,896
<b>Cash From Financing Activities</b>				
Money borrowed	135,133	144,589	108,480	233,333
Cash gifts and inheritances	1,061	826	1,815	160
Principal payments	-118,263	-127,137	-94,615	-201,132
Dividends paid	-34	-	-	-
Gifts given	-33	-18	-61	-84
Cash from financing activities	17,864	18,260	15,619	32,277
Net change in cash balance	218	-2,235	700	4,179
Ending cash (farm & nonfarm)	7,661	6,686	3,625	16,339

**Crop Production and Marketing Summary**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Net Farm Income)**

	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of farms	327	65	66	66
<b>Acreage Summary</b>				
Total acres owned	434	412	373	618
Total crop acres	724	578	524	1,443
Crop acres owned	291	267	239	543
Crop acres cash rented	396	267	272	812
Crop acres share rented	37	44	12	88
Total pasture acres	43	28	36	41
<b>Average Price Received (Cash Sales Only)</b>				
Soybeans per bushel	4.66	4.62	4.88	4.60
Wheat, Spring per bushel	3.30	3.17	3.23	3.30
Corn per bushel	2.13	2.08	2.09	2.11
Hay, Alfalfa per ton	68.16	58.30	75.95	69.72
Oats per bushel	1.94	1.83	2.27	1.85
Barley per bushel	2.08	1.97	-	1.98
Canola per cwt	9.21	-	-	9.66
Sunflowers per cwt	11.33	-	11.05	-
Hay, Mixed per ton	39.02	-	-	-
Straw per ton	32.71	-	-	-
Wheat, Winter per bushel	3.68	-	-	-
Corn Silage per ton	15.97	-	-	-
Beans, Pinto per cwt	18.06	-	-	-
Haylage, Alfalfa per ton	38.03	-	-	-
<b>Average Yield Per Acre</b>				
Wheat, Spring (bushel)	28.60	22.27	25.53	30.10
Soybeans (bushel)	32.33	29.01	29.15	34.58
Hay, Alfalfa (ton)	3.03	2.61	3.27	3.37
Corn Silage (ton)	15.61	12.95	15.74	18.34
Corn (bushel)	120.54	105.35	119.28	125.93
Hay, Mixed (ton)	2.02	1.64	1.97	2.71
Hay, Grass (ton)	1.78	1.36	1.83	2.24
Barley (bushel)	20.50	27.84	21.42	32.87
Canola (cwt)	9.77	9.16	7.53	10.16
Haylage, Alfalfa (ton)	5.29	-	4.33	5.79
Hay, Small Grain (ton)	2.38	-	2.65	-
Sunflowers (cwt)	14.44	-	-	13.23
Beans, Pinto (cwt)	9.59	-	-	11.00
Wheat, Winter (bushel)	36.66	-	-	-
Sunflowers, Confectionary (cwt)	10.40	-	-	-
Beans, Navy (cwt)	16.14	-	-	-
Hay, Mixed Alfalfa/Grass (ton)	2.08	-	-	-

**Balance Sheet at Cost Values**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Net Farm Income)**

	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of farms	281	55	61	49
<b>Assets</b>				
Current Farm Assets				
Cash and checking balance	5,844	3,536	2,843	15,219
Prepaid expenses & supplies	7,266	1,902	3,879	26,696
Growing crops	160	191	70	160
Accounts receivable	8,322	5,252	7,661	14,259
Hedging accounts	204	263	95	725
Crops held for sale or feed	57,146	33,955	37,864	151,533
Crops under government loan	3,403	2,869	3,131	6,526
Market livestock held for sale	17,068	9,454	14,455	17,395
Other current assets	237	360	310	34
Total current farm assets	99,651	57,782	70,308	232,547
Intermediate Farm Assets				
Breeding livestock	67,246	34,024	67,850	99,758
Machinery and equipment	123,950	99,225	91,703	229,875
Titled vehicles	1,470	2,321	1,334	388
Other intermediate assets	7,269	4,497	5,339	9,989
Total intermediate farm assets	199,934	140,068	166,227	340,011
Long Term Farm Assets				
Farm land	134,233	132,765	124,689	204,650
Buildings and improvements	50,004	36,358	53,050	80,186
Other long-term assets	7,081	3,884	7,026	12,563
Total long-term farm assets	191,318	173,007	184,765	297,399
Total Farm Assets	490,903	370,857	421,300	869,956
Total Nonfarm Assets	78,094	67,060	62,283	130,869
Total Assets	568,996	437,917	483,583	1,000,825
<b>Liabilities</b>				
Current Farm Liabilities				
Accrued interest	4,025	4,686	4,013	4,852
Accounts payable	8,581	12,710	8,001	6,913
Current notes	38,072	28,148	25,517	88,904
Government crop loans	2,918	2,339	2,652	5,755
Principal due on term debt	23,811	19,146	18,209	43,961
Total current farm liabilities	77,406	67,029	58,391	150,386
Total intermediate farm liabs	76,277	68,613	65,180	114,482
Total long term farm liabilities	103,293	92,668	102,324	130,645
Total farm liabilities	256,976	228,310	225,895	395,513
Total nonfarm liabilities	13,788	16,493	11,277	20,581
Total liabilities	270,763	244,803	237,172	416,094
Net worth (farm and nonfarm)	298,233	193,114	246,411	584,731
Net worth change	16,940	-16,633	4,260	68,262
<b>Ratio Analysis</b>				
Current farm liabilities / assets	78 %	116 %	83 %	65 %
Curr. & interm farm liab. / assets	51 %	69 %	52 %	46 %
Long term farm liab. / assets	54 %	54 %	55 %	44 %
Total debt to asset ratio	48 %	56 %	49 %	42 %

**Balance Sheet at Market Values**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Net Farm Income)**

	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of farms	281	55	61	49
<b>Assets</b>				
Current Farm Assets				
Cash and checking balance	5,844	3,536	2,843	15,219
Prepaid expenses & supplies	7,266	1,902	3,879	26,696
Growing crops	160	191	70	160
Accounts receivable	8,322	5,252	7,661	14,259
Hedging accounts	204	263	95	725
Crops held for sale or feed	57,146	33,955	37,864	151,533
Crops under government loan	3,403	2,869	3,131	6,526
Market livestock held for sale	17,068	9,454	14,455	17,395
Other current assets	237	360	310	34
Total current farm assets	99,651	57,782	70,308	232,547
Intermediate Farm Assets				
Breeding livestock	68,519	36,693	68,193	102,297
Machinery and equipment	156,376	126,101	114,978	294,601
Titled vehicles	1,510	2,324	1,528	388
Other intermediate assets	7,743	5,563	5,584	10,420
Total intermediate farm assets	234,147	170,682	190,283	407,706
Long Term Farm Assets				
Farm land	180,452	168,823	178,725	255,387
Buildings and improvements	54,694	39,786	53,350	93,218
Other long-term assets	7,014	3,894	6,740	12,820
Total long-term farm assets	242,159	212,503	238,815	361,425
Total Farm Assets	575,957	440,967	499,406	1,001,678
Total Nonfarm Assets	82,595	73,254	64,292	141,896
Total Assets	658,552	514,222	563,699	1,143,574
<b>Liabilities</b>				
Current Farm Liabilities				
Accrued interest	4,025	4,686	4,013	4,852
Accounts payable	8,581	12,710	8,001	6,913
Current notes	38,072	28,148	25,517	88,904
Government crop loans	2,918	2,339	2,652	5,755
Principal due on term debt	23,811	19,146	18,209	43,961
Total current farm liabilities	77,406	67,029	58,391	150,386
Total intermediate farm liabs	76,277	68,613	65,180	114,482
Total long term farm liabilities	103,293	92,668	102,324	130,645
Total farm liabilities	256,976	228,310	225,895	395,513
Total nonfarm liabilities	13,788	16,493	11,277	20,581
Total liabs excluding deferreds	270,763	244,803	237,172	416,094
Total deferred liabilities	46,139	27,666	30,759	111,127
Total liabilities	316,902	272,470	267,930	527,221
Retained earnings	298,233	193,114	246,411	584,731
Market valuation equity	43,416	48,638	49,357	31,623
Net worth (farm and nonfarm)	341,650	241,752	295,768	616,354
Net worth excluding deferreds	387,789	269,418	326,527	727,481
Net worth change	20,617	-6,523	9,471	64,387
<b>Ratio Analysis</b>				
Current farm liabilities / assets	78 %	116 %	83 %	65 %
Curr. & interm farm liab. / assets	46 %	59 %	47 %	41 %
Long term farm liab. / assets	43 %	44 %	43 %	36 %
Total debt to asset ratio	48 %	53 %	48 %	46 %
Debt to assets excl deferreds	41 %	48 %	42 %	36 %

**Profitability and Liquidity Measures**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(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	327	65	66	66
<b>Profitability (assets valued at cost)</b>				
Net farm income	26,142	-38,728	18,560	106,569
Labor and management earnings	10,346	-51,959	6,373	77,195
Rate of return on assets	3.8%	-5.5%	3.0%	10.4%
Rate of return on equity	1.3%	-29.6%	-0.2%	14.4%
Operating profit margin	11.0%	-23.8%	9.3%	23.8%
Asset turnover rate	34.7%	23.3%	32.5%	43.9%
Interest on farm net worth	15,796	13,231	12,187	29,374
Farm interest expense	18,166	25,001	13,189	26,545
Value of operator lbr and mgmt.	22,708	20,380	18,924	36,368
Return on farm assets	21,599	-34,107	12,825	96,746
Average farm assets	566,460	616,139	422,914	928,628
Return on farm equity	3,433	-59,107	-364	70,201
Average farm equity	257,680	199,530	202,571	489,084
Value of farm production	196,311	143,502	137,316	407,266
<b>Liquidity (cash)</b>				
Net cash farm income	42,510	20,207	28,395	101,927
Net nonfarm income	18,265	28,509	16,594	11,300
Family living and taxes	32,762	28,236	30,027	50,428
Real estate principal payments	8,237	10,528	6,384	11,204
Cash available for interm. debt	19,775	9,953	8,580	51,595
Average intermediate debt	107,224	119,153	83,615	153,873
Years to turnover interm. debt	5.4	12	9.7	3
Expense as a % of income	82%	91%	83%	76%
Interest as a % of income	8%	11%	8%	6%
<b>Liquidity (accrual)</b>				
Total accrual farm income	240,479	214,853	168,472	466,077
Total accrual operating expense	195,144	219,120	140,752	331,875
Net accrual operating income	45,334	-4,267	27,720	134,202
Net nonfarm income	18,265	28,509	16,594	11,300
Family living and taxes	32,762	28,236	30,027	50,428
Real estate principal payments	8,237	10,528	6,384	11,204
Available for intermediate debt	22,599	-14,521	7,904	83,870
Average intermediate debt	107,224	119,153	83,615	153,873
Years to turnover interm. debt	4.7	**	10.6	1.8
Expense as a % of income	81%	102%	84%	71%
Interest as a % of income	8%	12%	8%	6%

\*\* Income insufficient to meet debt servicing requirements

**Financial Standards Measures**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Net Farm Income)**

	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of farms	327	65	66	66
<b>Liquidity</b>				
Current ratio	1.21	0.66	1.22	1.53
Working capital	20,253	-44,227	13,603	91,078
<b>Solvency (market)</b>				
Farm debt to asset ratio	54 %	65 %	51 %	51 %
Farm equity to asset ratio	46 %	35 %	49 %	49 %
Farm debt to equity ratio	120 %	187 %	105 %	103 %
<b>Profitability (cost)</b>				
Rate of return on farm assets	3.8 %	-5.5 %	3.0 %	10.4 %
Rate of return on farm equity	1.3 %	-29.6 %	-0.2 %	14.4 %
Operating profit margin	11.0 %	-23.8 %	9.3 %	23.8 %
Net farm income	26,142	-38,728	18,560	106,569
<b>Repayment Capacity</b>				
Term debt coverage ratio	105 %	38 %	81 %	172 %
Capital replacement margin	2,484	-31,512	-6,630	48,876
<b>Efficiency</b>				
Asset turnover rate (cost)	34.7 %	23.3 %	32.5 %	43.9 %
Operating expense ratio	73.6 %	90.3 %	75.7 %	65.5 %
Depreciation expense ratio	8.0 %	16.0 %	5.4 %	5.9 %
Interest expense ratio	7.6 %	11.6 %	7.8 %	5.7 %
Net farm income ratio	10.9 %	-18.0 %	11.0 %	22.9 %

**Financial Standards Measures**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(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	327	65	66	66
<b>Operator Information</b>				
Average number of operators	1.2	1.2	1.1	1.5
Average age of operators	45.4	47.2	45.9	45.2
Average number of years farming	21.5	22.6	21.8	22.2
<b>Results Per Operator</b>				
Working capital	16,732	-37,677	12,132	62,292
Total assets (market)	633,233	676,272	515,004	869,433
Total liabilities	320,364	415,173	244,844	410,119
Net worth (market)	312,869	261,099	270,160	459,314
Net worth excl deferred liabs	357,546	295,273	300,236	543,042
Gross farm income	198,677	183,033	150,259	318,768
Total farm expense	177,080	216,026	133,705	245,881
Net farm income	21,598	-32,992	16,554	72,887
Net nonfarm income	15,090	24,287	14,800	7,728
Family living & tax withdrawals	27,067	24,054	26,781	34,490
Total acres owned	358.2	351.2	333.0	423.0
Total crop acres	598.1	492.7	467.0	986.7
Crop acres owned	240.6	227.8	213.3	371.1
Crop acres cash rented	327.2	227.5	242.8	555.4
Crop acres share rented	30.4	37.4	10.9	60.2
Total pasture acres	35.1	23.8	31.8	28.2
<b>Labor Analysis</b>				
Number of farms	327	65	66	66
Total unpaid labor hours	2,995	2,340	2,803	4,258
Total hired labor hours	1,335	2,032	847	2,245
Total labor hours per farm	4,330	4,371	3,650	6,503
Unpaid hours per operator	2,475	1,993	2,500	2,912
Value of farm production / hour	45.33	32.83	37.62	62.63
Net farm income / unpaid hour	8.73	-16.55	6.62	25.03
<b>Partnerships</b>				
Number of farms	36	7	4	13
Number of operators	2.1	2.2	-	2.5
Owner withdrawals per farm	47,541	-	-	88,099
Withdrawals per operator	21,006	-	-	31,094
<b>Corporations</b>				
Number of farms	10	3	1	4
Number of operators	2.0	-	-	-

## Financial Guideline Measures

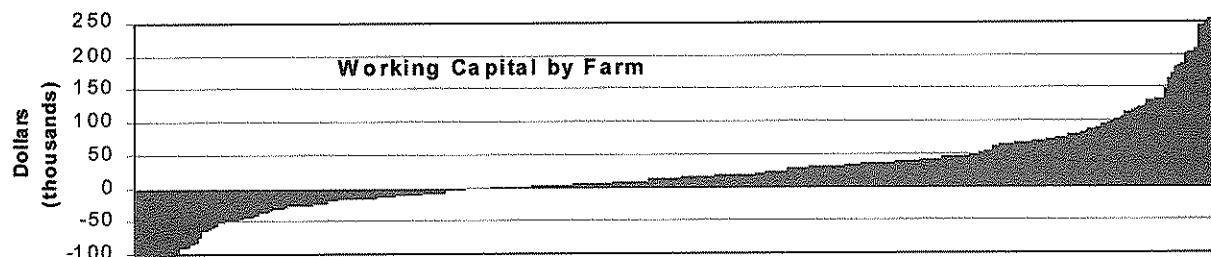
The Farm Financial Standards Task Force recommended the use of sixteen financial measures to evaluate a farms financial position and financial performance. Liquidity, Solvency, Profitability, Repayment Capacity and Efficiency group these measures.

### Liquidity

Liquidity is the ability of the farm business to meet financial obligations in a timely manner, without disrupting normal business operations.

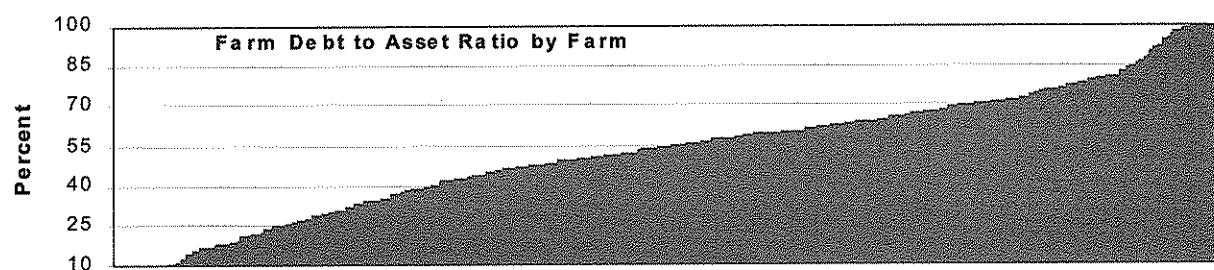
**Current Ratio:** The current ratio shows the value of current assets relative to current liabilities. It measures the extent current farm assets, if liquidated, would cover liabilities that are due during the next 12 months. The higher the ratio, the safer the short term position.

**Working Capital:** Working capital shows the dollar amount that current assets can or cannot cover current liabilities. It approximates the amount of capital available to purchase crop and livestock inputs and equipment necessary to produce farm products. The amount of working capital considered adequate must be related to the size of the farm business.



### Solvency

Solvency is important in evaluating the risk position of the farm and family and in considering future borrowing capacity. Solvency measures the ability of the business to pay off all debts if liquidated.



**Farm Debt To Asset Ratio:** The farm debt to asset ratio measures the financial position or solvency of the farm or ranch by comparing the total liabilities to the total assets. It measures the portion of the farm assets that have debt against them. A higher ratio is considered an indicator of greater financial risk.

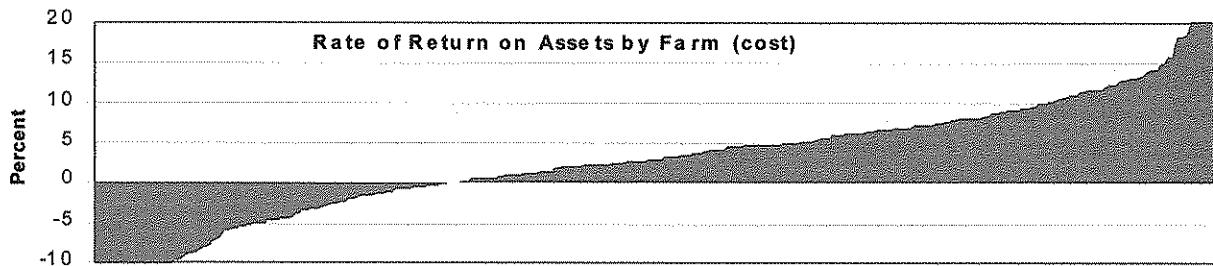
**Farm Equity To Asset Ratio:** The farm equity to asset ratio measures the farm equity relative to the value of the farm assets. It measures the proportion of the farm assets financed by the owner's equity whereas the debt to asset ratio measured the proportion of farm assets financed by debt.

**Farm Debt To Equity Ratio:** The farm debt to equity ratio measures the amount of farm debt relative to the amount of farm equity. It measures the amount of debt the farm has for every dollar of equity the farm has.

## Profitability

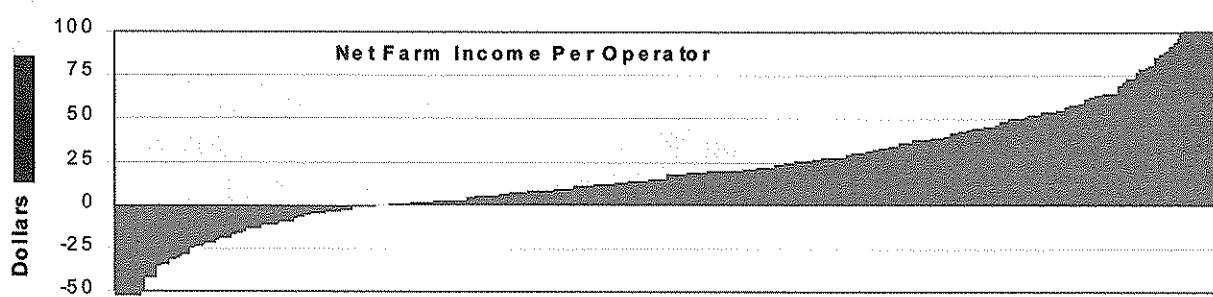
Profitability is the measure of the value of goods produced by the business in relation to the cost of resources used in the production. Profitability calculated on a cost basis does not consider changes in market valuation of capital assets such as machinery and breeding livestock.

**Rate of Return on Assets:** Rate of return on assets is, in effect, the interest rate your farm earned in the past year on all money invested in the business. If assets are valued at market value, the rate of return on investment can be looked at as the "opportunity cost" of investing money in the farm instead of alternative investments. If assets are valued at cost (cost less depreciation), the rate of return represents the actual return on the average dollar invested in the business.



**Rate of Return on Equity:** Rate of return on equity is, in effect, the interest rate your investment in the business earned in the past year. If assets are valued at market value, this return can be compared with returns available if the assets were liquidated and invested in alternative investments. If assets are valued at cost, this represents the actual return to the amount of equity capital you have invested in the farm business.

If your return on assets is higher than your average interest rate, your return on equity will be still higher, reflecting the fact that there are residual returns to equity capital after paying all interest expense. This is positive use of financial leverage. If your return on assets is lower than your average interest rate, your return on equity will be still lower, reflecting the fact that borrowed capital did not earn enough to pay its interest cost. This is negative financial leverage. As your debt to asset ratio increases, these relationships become more pronounced. So profitability becomes a key concern when substantial debt capital is used in the business.



**Net Farm Income:** Net farm income represents the returns to labor, management, and equity capital invested in the business. Without income from other sources, or appreciation of capital asset values, net farm income must cover family living expenses and taxes, or net worth will decrease.

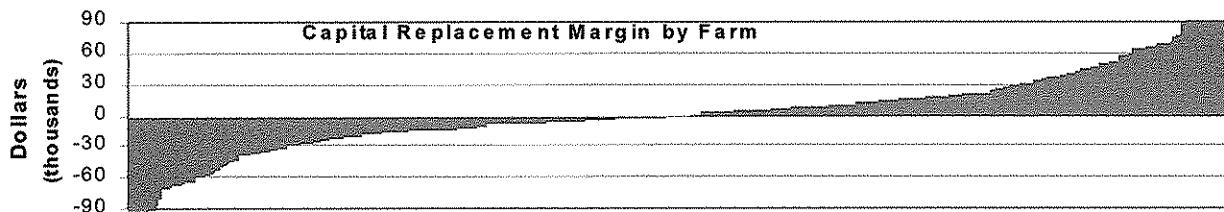
**Operating Profit Margin:** The operating profit margin is a measure of the profit margin from the employment of assets. It measures how effectively you are employing assets relative to the value of output produced. Low prices, high operating expenses, or production problems are all possible causes of a low operating profit margin.

## Repayment Capacity

Repayment capacity measures the ability to repay term debt (longer than one year) and to replace capital assets.

**Term Debt Coverage Ratio:** The term debt coverage ratio measures the ability of the business to cover all term debt payments. A number less than 100 percent indicates that the business, plus non-farm income, is not generating sufficient cash to meet all of the debt payments, after family living expenses and taxes have been paid. A number greater than 100 indicates the business is generating sufficient cash to pay all term debt obligations with some surplus margin remaining.

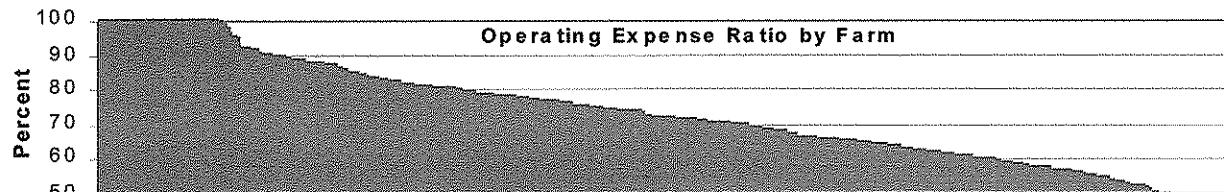
**Capital Replacement Margin:** The capital replacement margin is the amount of money remaining from farm and non-farm income after all operating expenses, taxes, family living and debt payments have been paid. It is the amount available for acquiring capital assets, such as machinery and land, or servicing additional debt.



## Efficiency

These measures reflect the relationships between expense and income items to revenue and the efficiency of the farm business with regard to the use of cash and capital assets.

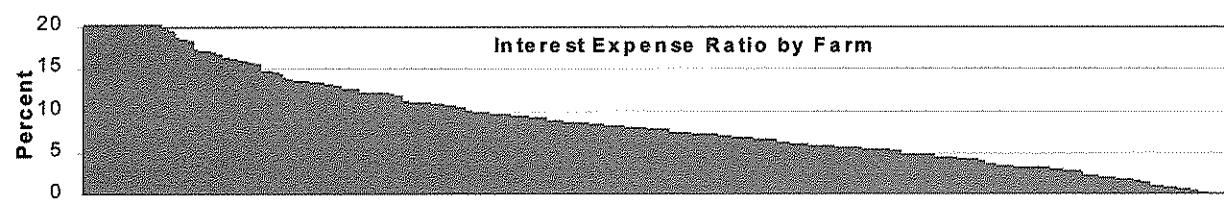
**Asset Turnover:** Asset turnover is a measure of how efficiently assets are used in the business. A farm with good operating profit margin and asset turnover will show a strong rate of return on farm assets. If operating profit margin is low, the asset turnover rate must be strong, or vice versa, to maintain the rate of return on assets.



**Operating Expense Ratio:** This ratio indicates the percent of the gross farm income that is used to pay the operating expenses. Operating expenses do not include interest or depreciation expense.

**Depreciation Expense Ratio:** This ratio indicates the percent of the gross farm income that is used to cover the depreciation expense.

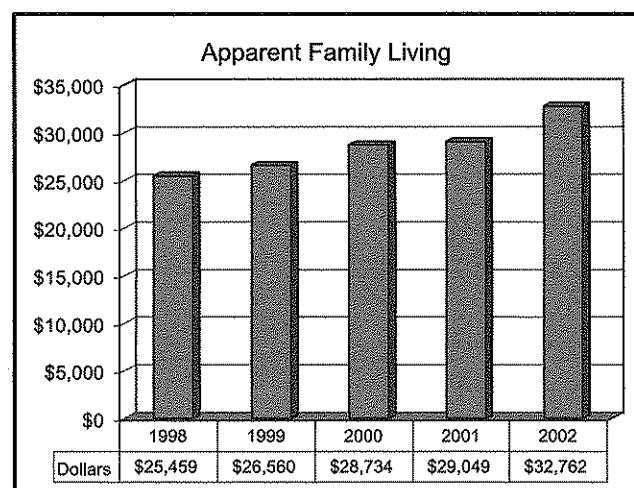
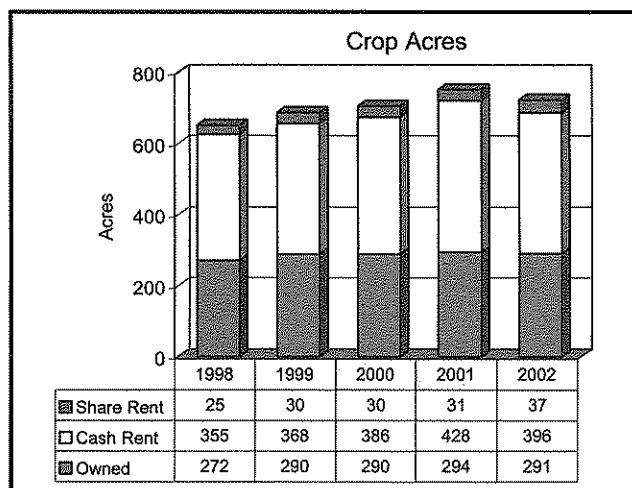
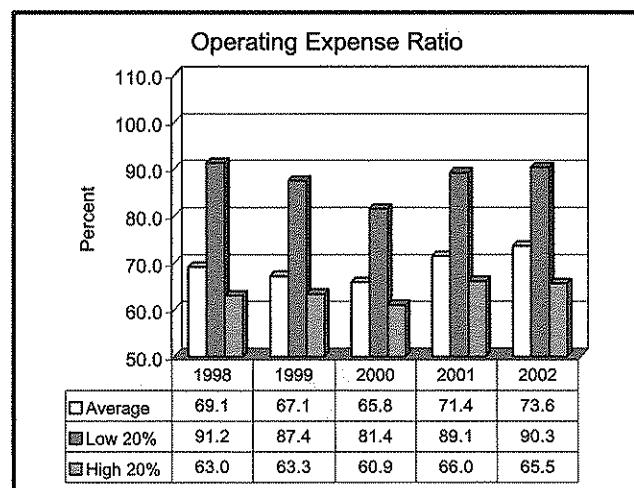
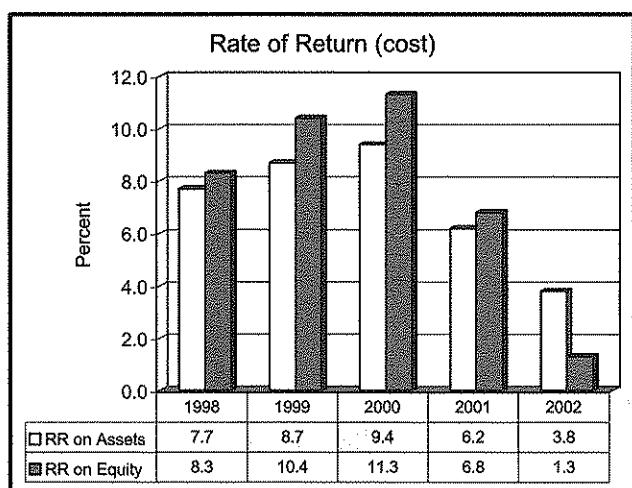
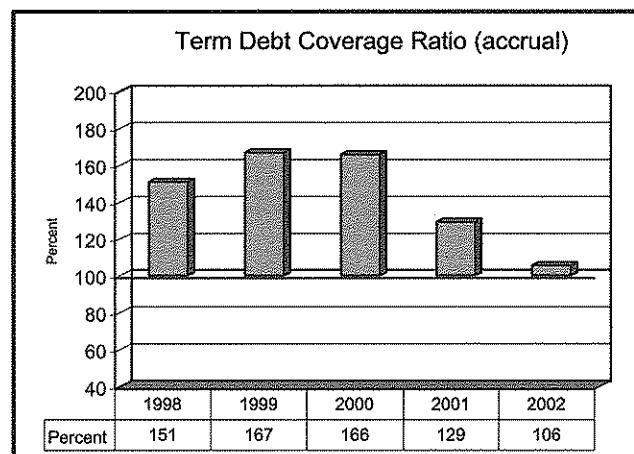
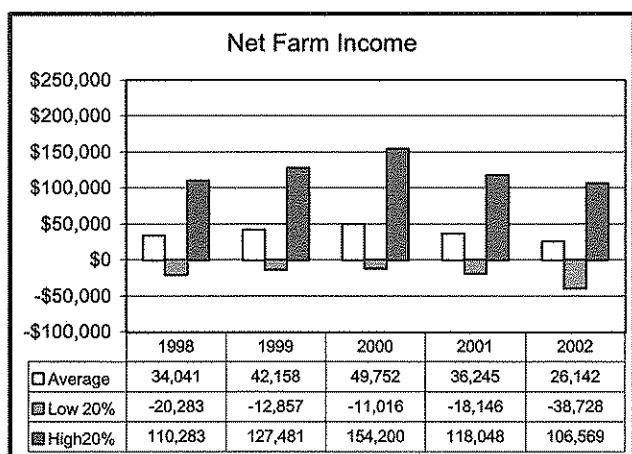
**Interest Expense Ratio:** This ratio indicates the percent of the gross farm income that is used to pay farm interest expenses.



**Net Farm Income Ratio:** The ratio indicates the percent of the gross farm income that remains after all expenses.

## Five Year Trends

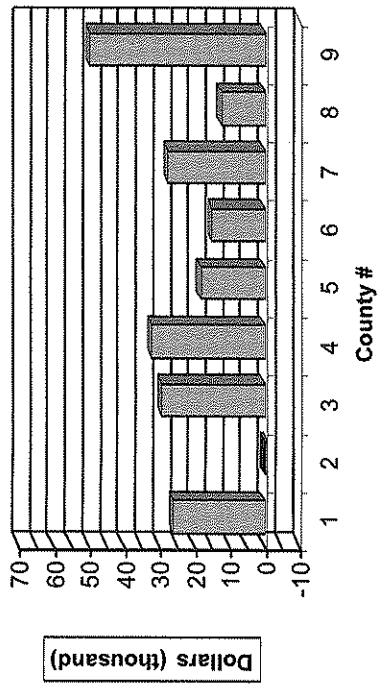
### Northwest Farm Business Management Education



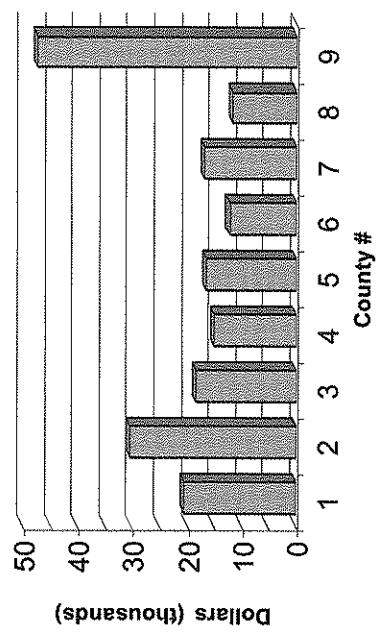
***Household and Personal Expenses***  
***Farm Business Management Northwest Averages***  
***Northland Community and Technical College***  
***(Farms Sorted By Net Farm Income)***

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	77	9	18	13
Average family size	3.6	2.7	4.6	3.5
<b>Family Living Expenses</b>				
Food and meals expense	4,866	3,747	5,294	5,558
Medical care	1,834	866	1,788	1,488
Health insurance	2,288	1,036	2,596	3,380
Cash donations	737	479	879	926
Household supplies	2,197	1,081	1,989	3,429
Clothing	967	863	936	1,216
Personal care	2,294	3,410	2,168	2,224
Child / Dependent care	239	168	206	-
Alimony and Child support	100	-	-	591
Gifts	844	999	880	1,081
Education	593	480	727	478
Recreation	1,110	1,193	1,132	974
Utilities (household share)	1,560	1,358	1,348	1,776
Nonfarm vehicle operating expense	1,775	2,043	2,324	1,677
Household real estate taxes	73	62	32	153
Dwelling rent	87	-	-	295
Household repairs	1,018	1,089	1,141	1,773
Nonfarm interest	623	620	482	484
Disability / Long term care insuran	28	52	90	4
Life insurance payments	912	428	947	1,379
Nonfarm property insurance	12	-	-	18
Miscellaneous	854	518	1,025	1,336
Total cash family living expense	25,009	20,492	25,982	30,241
Family living from the farm	518	-	677	335
<b>Total family living</b>	<b>25,527</b>	<b>20,492</b>	<b>26,659</b>	<b>30,576</b>
<b>Other Nonfarm Expenditures</b>				
Income taxes	2,704	971	3,129	5,677
Furnishing & appliance purchases	160	121	62	776
Nonfarm vehicle purchases	1,303	502	1,676	638
Nonfarm real estate purchases	2,678	-	-190	10,878
Other nonfarm capital purchases	68	89	100	-
Nonfarm savings & investments	446	-3,312	630	2,205
<b>Total other nonfarm expenditures</b>	<b>7,358</b>	<b>-1,630</b>	<b>5,407</b>	<b>20,175</b>
<b>Total cash family living</b>				
investment & nonfarm capital purch	32,367	18,862	31,389	50,416

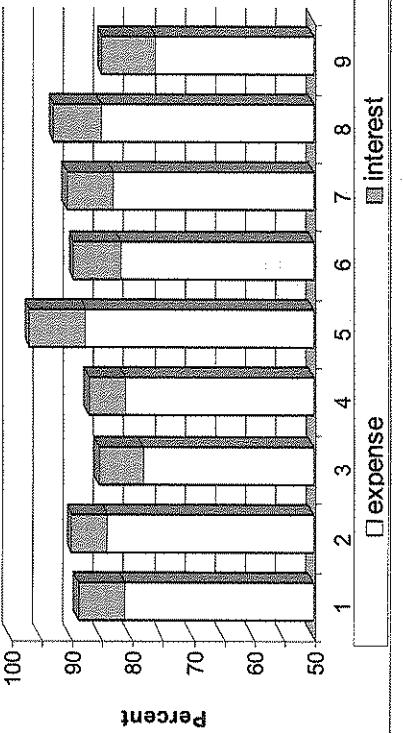
### Net Farm Income by County



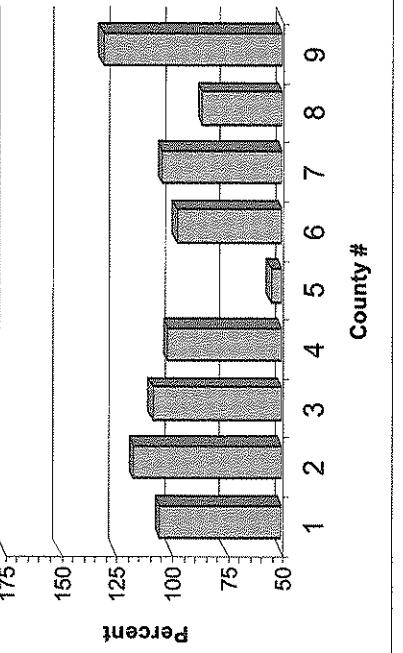
### Change in Net Worth by County



### Expense and Interest as % of Income



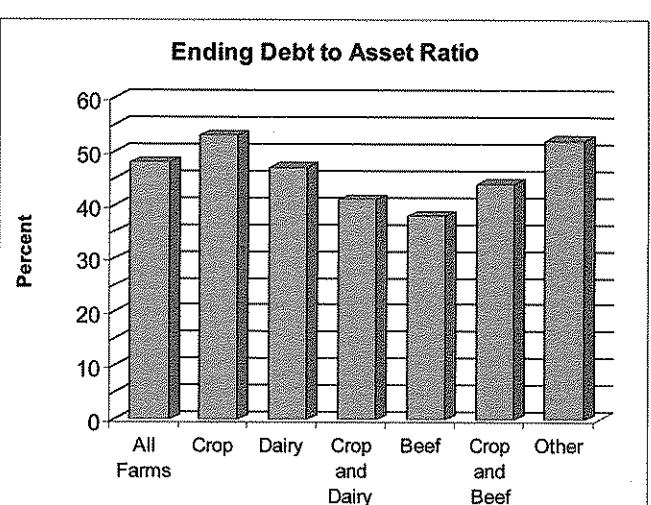
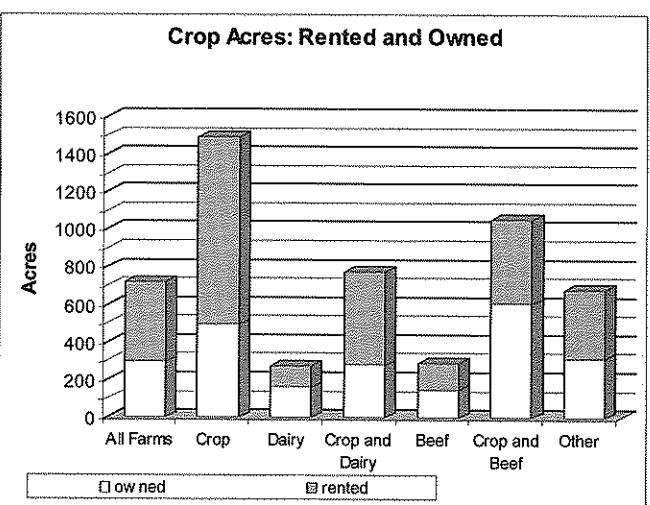
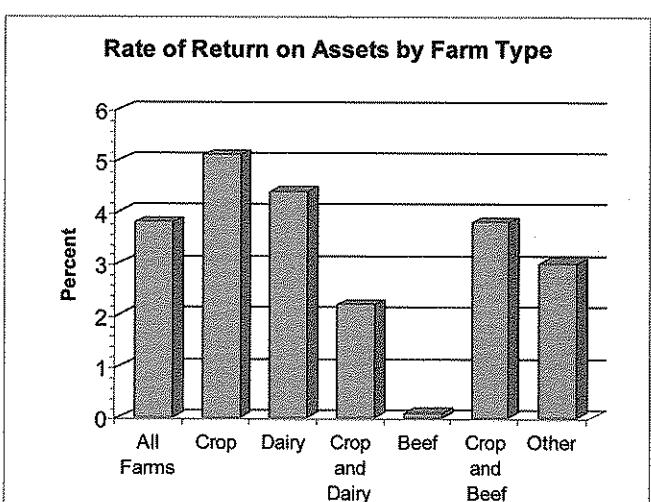
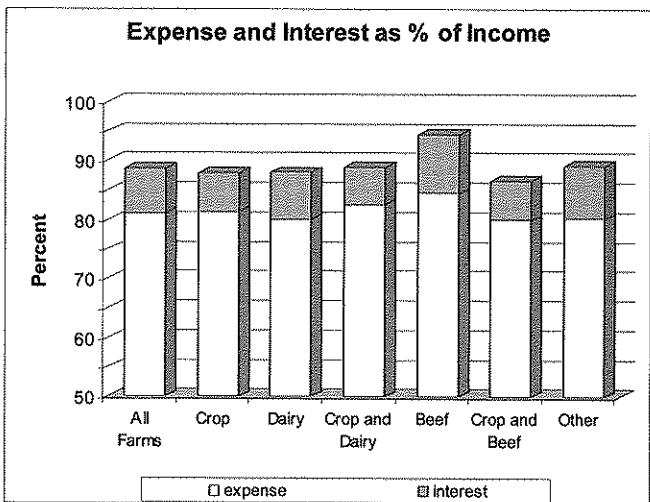
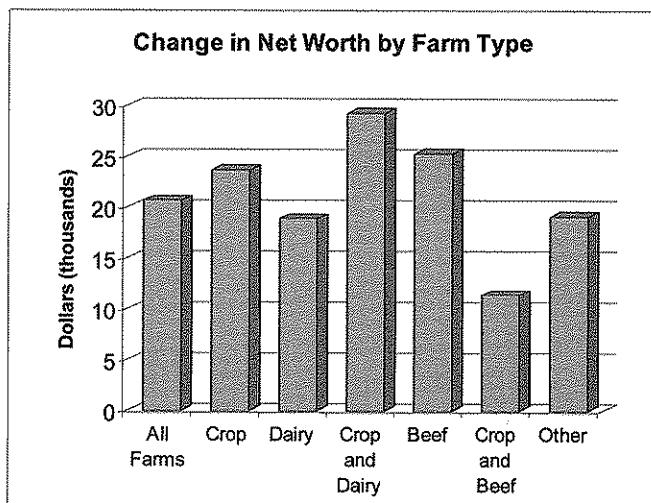
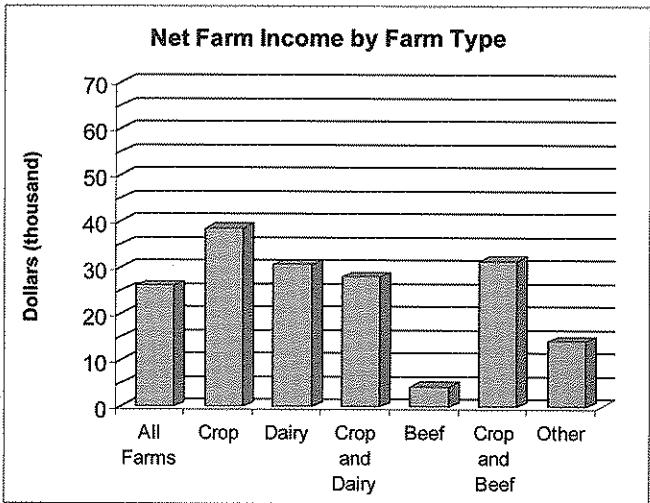
### Term Debt Coverage Ratio by County



County #	All Farms	Koochiching LOW Roseau	Kitson Marshall	Pennington Polk Red Lake	Mahnomen Norman	Beltrami Clearwater Hubbard	Becker Clay Otter Tail Wilkin	Cass Todd Wadena	Crow Wing Morrison
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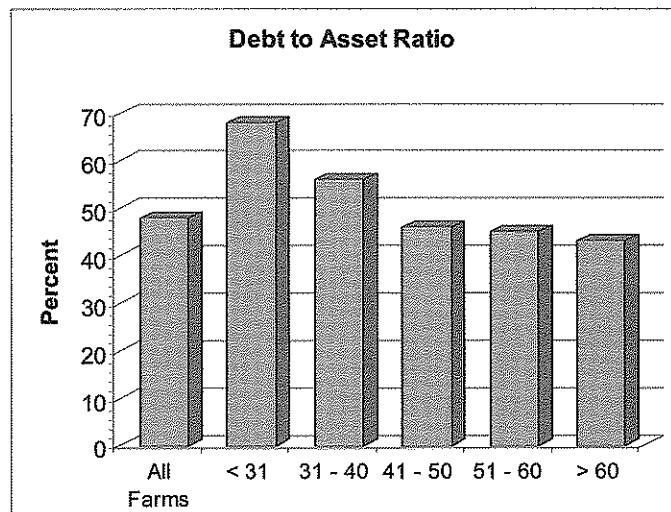
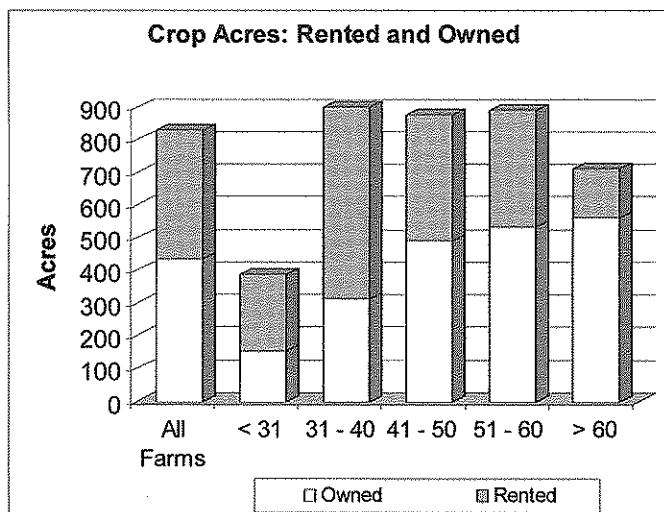
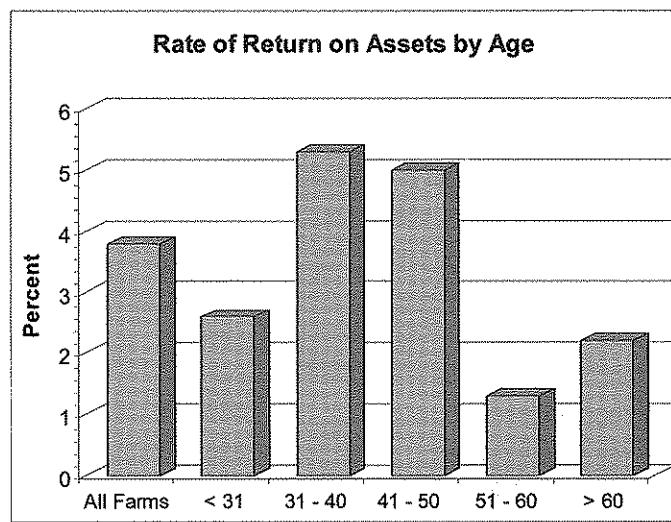
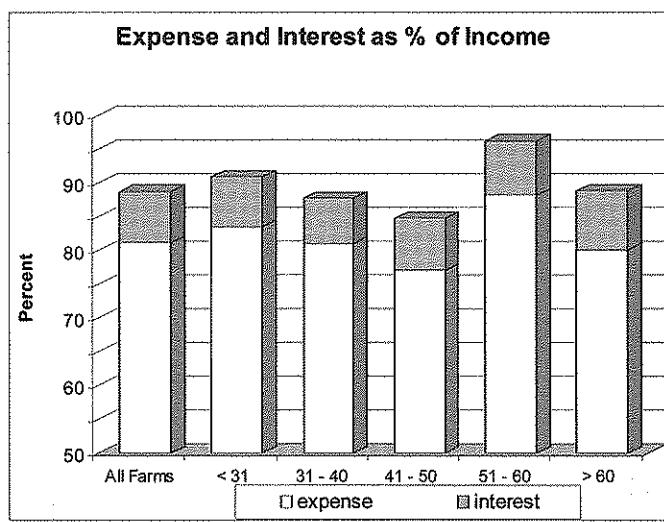
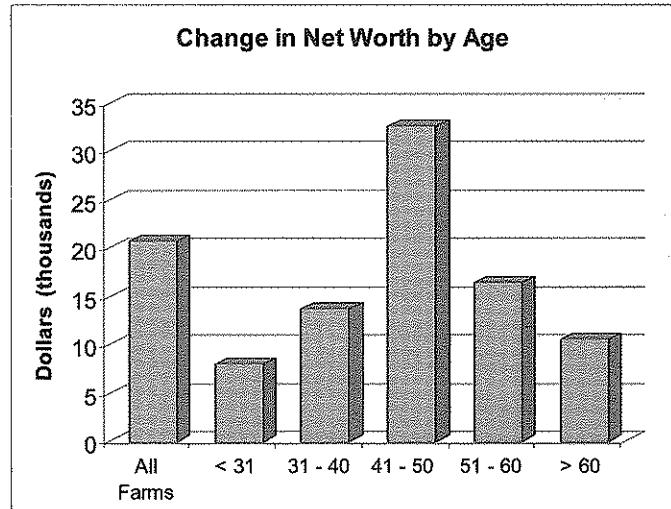
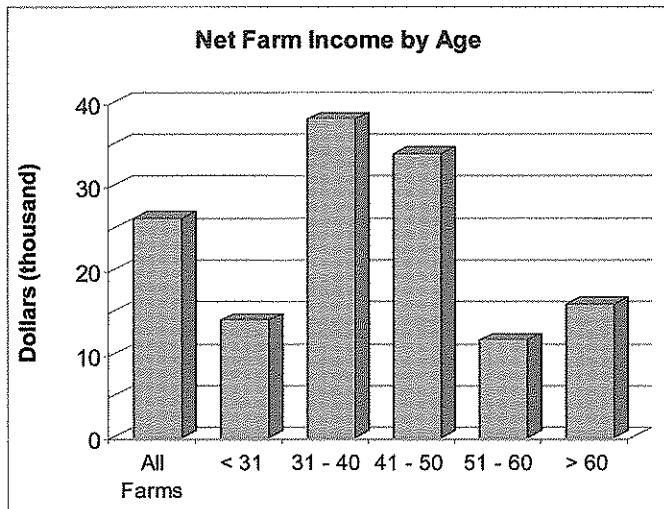
**Financial Summary**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**

	Average For All Farms	Koochiching LOW Rousseau	Kittson Marshall	Pennington Polk Red Lake	Mahnomen Norman	Bemidji Clearwater Hubbard	Becker, Clay Otter Tail Wilkin	Cass Todd Wadena	Crow Wing Morrison
<b>Number of farms</b>	327	24	24	64	28	36	68	34	49
<b>Income Statement</b>									
Gross cash farm income	233,439	163,871	223,807	251,412	176,758	160,662	262,674	161,613	343,884
Total cash farm expense	190,929	119,293	162,756	204,298	150,144	130,385	229,876	141,125	270,651
Net cash farm income	42,510	44,578	61,051	47,114	26,614	30,277	32,798	20,488	73,232
Inventory change	2,824	-20,969	-15,074	2,321	-3,803	-580	13,969	4,923	13,269
Depreciation and capital adjust	-19,193	-24,521	-16,738	-17,332	-4,503	-14,577	-19,133	-12,826	-36,500
Net farm income	26,142	-913	29,239	32,103	18,308	15,120	27,633	12,585	50,000
<b>Profitability (cost)</b>									
Labor and management earnings	10,346	-17,642	15,299	16,863	6,848	489	13,445	1,805	23,981
Rate of return on assets	3.8%	-2.4%	4.1%	4.0%	2.6%	2.4%	4.4%	2.0%	6.0%
Rate of return on equity	1.3%	-7.1%	2.6%	2.6%	-2.7%	-0.7%	2.6%	-2.8%	4.8%
Operating profit margin	11.0%	-8.2%	10.8%	8.9%	7.8%	8.8%	12.6%	6.0%	20.3%
Asset turnover rate	34.7%	29.8%	38.4%	44.7%	33.1%	27.9%	35.2%	33.5%	29.5%
<b>Liquidity</b>									
Term debt coverage ratio	105.5%	117.2%	108.5%	102.0%	55.2%	97.6%	104.5%	86.2%	131.1%
Expense as a percent of income	81.1%	83.9%	78.1%	81.1%	87.5%	81.7%	83.1%	85.1%	76.1%
Interest as a percent of income	7.6%	6.0%	7.3%	5.9%	9.4%	7.8%	7.6%	7.7%	8.8%
<b>Solvency (market)</b>									
Number of sole proprietors	281	23	22	53	26	32	58	31	36
Ending farm assets	575,957	503,051	629,309	609,343	498,040	508,999	529,738	468,415	823,644
Ending farm liabilities	301,800	192,092	334,651	353,746	304,892	223,457	286,047	253,424	409,785
Ending total assets	658,552	589,227	761,131	671,254	540,946	606,349	597,720	548,271	945,768
Ending total liabilities	316,902	203,221	350,812	367,617	313,883	231,083	299,001	276,182	436,516
Ending net worth	341,650	386,006	410,319	303,637	227,063	375,265	298,719	272,089	509,252
Net worth change	20,617	30,606	18,497	15,157	16,645	12,327	16,937	11,766	47,359
Ending farm debt to asset ratio	52%	38%	53%	58%	61%	44%	54%	50%	50%
Beg total debt to asset ratio	48%	37%	48%	54%	59%	38%	48%	46%	46%
End total debt to asset ratio	48%	34%	46%	55%	58%	38%	50%	50%	46%
<b>Nonfarm Information</b>									
Net nonfarm income	18,265	21,990	22,635	17,890	20,691	22,063	12,504	20,642	16,959
Farms reporting living expenses	147	12	-	9	14	-	51	28	28
Total family living expense	23,678	20,306	-	46,636	22,411	-	20,973	22,033	24,591
Total living, invest, & capital	33,353	22,801	-	69,329	25,636	-	29,746	29,875	38,848
<b>Crop Acres</b>									
Total acres owned	434	661	826	478	392	485	338	290	291
Total crop acres	724	946	1,382	1,344	647	388	558	233	345
Total crop acres owned	291	447	686	414	223	214	229	112	168
Total crop acres cash rented	396	347	615	854	419	166	312	121	178
Total crop acres share rented	37	152	81	77	4	7	17	17	-



**Financial Summary**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Type of Farm)**

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Dairy</u>	<u>Crop &amp; Dairy</u>	<u>Beef</u>	<u>Crop &amp; Beef</u>	<u>Other</u>
<b>Number of farms</b>	327	72	124	18	34	18	59
<b>Income Statement</b>							
Gross cash farm income	233,439	273,380	275,678	245,295	77,171	243,614	164,354
Total cash farm expense	190,929	225,486	222,792	199,456	65,962	210,077	126,914
Net cash farm income	42,510	47,895	52,886	45,839	11,209	33,537	37,440
Inventory change	2,824	5,077	3,755	-3,945	1,075	17,803	-4259
Depreciation and capital adjustment	-19,193	-14,362	-25,989	-13,818	-7,841	-19,927	-18,904
Net farm income	26,142	38,610	30,652	28,076	4,444	31,413	14,278
<b>Profitability (cost)</b>							
Labor and management earnings	10,346	22,498	12,774	6,494	-7,121	11,247	4,889
Rate of return on assets	3.8%	5.1%	4.4%	2.2%	0.1%	3.8%	3.0%
Rate of return on equity	1.3%	4.7%	2.0%	-0.6%	-4.0%	2.1%	-1.8%
Operating profit margin	11.0%	10.9%	14.2%	6.2%	0.3%	11.1%	8.5%
Asset turnover rate	34.7%	46.6%	30.8%	35.8%	18.9%	33.7%	34.9%
<b>Liquidity</b>							
Term debt coverage ratio	105.5%	102.3%	107.6%	105.6%	119.9%	136.6%	94.6%
Expense as a percent of income	81.1%	81.4%	80.1%	82.6%	84.5%	79.9%	80.2%
Interest as a percent of income	7.6%	6.5%	8.0%	6.4%	10.0%	6.8%	9.0%
<b>Solvency (market)</b>							
Number of sole proprietors	281	60	106	13	30	16	55
Ending farm assets	575,957	693,557	566,695	694,450	373,255	677,997	510,799
Ending farm liabilities	301,800	402,988	286,091	303,887	154,153	325,793	291,633
Ending total assets	658,552	797,198	642,816	770,250	461,272	748,035	585,105
Ending total liabilities	316,902	421,234	300,564	314,980	173,205	330,703	306,394
Ending net worth	341,650	375,964	342,251	455,270	288,066	417,332	278,711
Net worth change	20,617	23,689	18,869	29,250	25,253	11,393	19,097
Ending farm debt to asset ratio	52%	58%	50%	44%	41%	48%	57%
Beg total debt to asset ratio	48%	53%	47%	41%	39%	43%	53%
End total debt to asset ratio	48%	53%	47%	41%	38%	44%	52%
<b>Nonfarm Information</b>							
Net nonfarm income	18,265	17,828	11,769	16,013	35,264	24,040	21,912
Farms reporting living expenses	147	24	75	9	13	5	20
Total family living expense	23,678	30,709	21,719	27,376	23,921	30,857	19,727
Total living, invest, & capital purch	33,353	42,339	33,525	35,743	29,923	38,403	21,422
<b>Crop Acres</b>							
Total acres owned	447	562	279	368	444	789	484
Total crop acres	753	1,556	276	819	322	1,245	712
Total crop acres owned	294	494	159	280	150	606	313
Total crop acres cash rented	428	998	115	496	141	448	366
Total crop acres share rented	31	64	2	43	31	191	33



**Financial Summary**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Age of Operator)**

	<b>Avg. Of All Farms</b>	<b>Less than 31</b>	<b>31 - 41</b>	<b>41 - 50</b>	<b>51 - 60</b>	<b>Over 60</b>
<b>Number of farms</b>	327	33	72	120	74	28
<b>Income Statement</b>						
Gross cash farm income	233,439	104,630	277,954	246,725	251,168	166,989
Total cash farm expense	190,929	88,902	220,958	198,587	214,252	139,502
Net cash farm income	42,510	15,728	56,996	48,139	36,916	27,487
Inventory change	2,824	2,668	-2,589	11,252	-7,350	7,701
Depreciation and capital adjustment	-19,193	-4,405	-16,517	-25,602	-17,944	-19,332
Net farm income	26,142	13,991	37,890	33,788	11,622	15,856
<b>Profitability (cost)</b>						
Labor and management earnings	10,346	9,246	21,945	15,995	-5,600	-253
Rate of return on assets	3.8%	2.6%	5.3%	5.0%	1.3%	2.2%
Rate of return on equity	1.3%	-2.8%	4.3%	3.8%	-4.4%	-1.5%
Operating profit margin	11.0%	6.6%	13.0%	14.6%	4.3%	8.1%
Asset turnover rate	34.7%	39.6%	40.9%	34.2%	31.2%	27.7%
<b>Liquidity</b>						
Term debt coverage ratio	105.5%	87.0%	103.7%	131.0%	71.6%	95.0%
Expense as a percent of income	81.1%	83.5%	81.0%	77.1%	88.1%	80.1%
Interest as a percent of income	7.6%	7.4%	6.7%	7.6%	8.1%	8.8%
<b>Solvency (market)</b>						
Number of sole proprietors	281	30	56	106	68	21
Ending farm assets	575,957	250,553	568,957	633,887	613,519	645,452
Ending farm liabilities	301,800	175,276	339,227	315,261	304,434	306,273
Ending total assets	658,552	281,337	645,218	725,195	706,896	740,058
Ending total liabilities	316,902	190,998	359,669	329,990	316,943	316,527
Ending net worth	341,650	90,339	285,549	395,205	389,953	423,531
Net worth change	20,617	8,003	13,677	32,575	16,381	10,506
Ending farm debt to asset ratio	52%	70%	60%	50%	50%	47%
Beg total debt to asset ratio	48%	67%	55%	46%	45%	42%
End total debt to asset ratio	48%	68%	56%	46%	45%	43%
<b>Nonfarm Information</b>						
Net nonfarm income	18,265	19,409	15,255	20,357	18,623	14,741
Farms reporting living expenses	147	12	30	58	39	8
Total family living expense	23,678	14,370	23,720	25,140	25,692	17,074
Total living, invest, & capital purch	33,353	26,354	39,664	32,874	33,413	23,367
<b>Crop Acres</b>						
Total acres owned	434	152	312	491	536	564
Total crop acres	724	340	883	772	754	480
Total crop acres owned	291	103	224	345	351	294
Total crop acres cash rented	396	237	626	385	354	151
Total crop acres share rented	37	1	33	42	48	35

**Money Spent By The Average Northwestern Minnesota Farmer**  
**Northwestern Farm Business Management Averages**  
**Northland Community and Technical College**  
**Summary for Five-Year Period from 1998 - 2002**

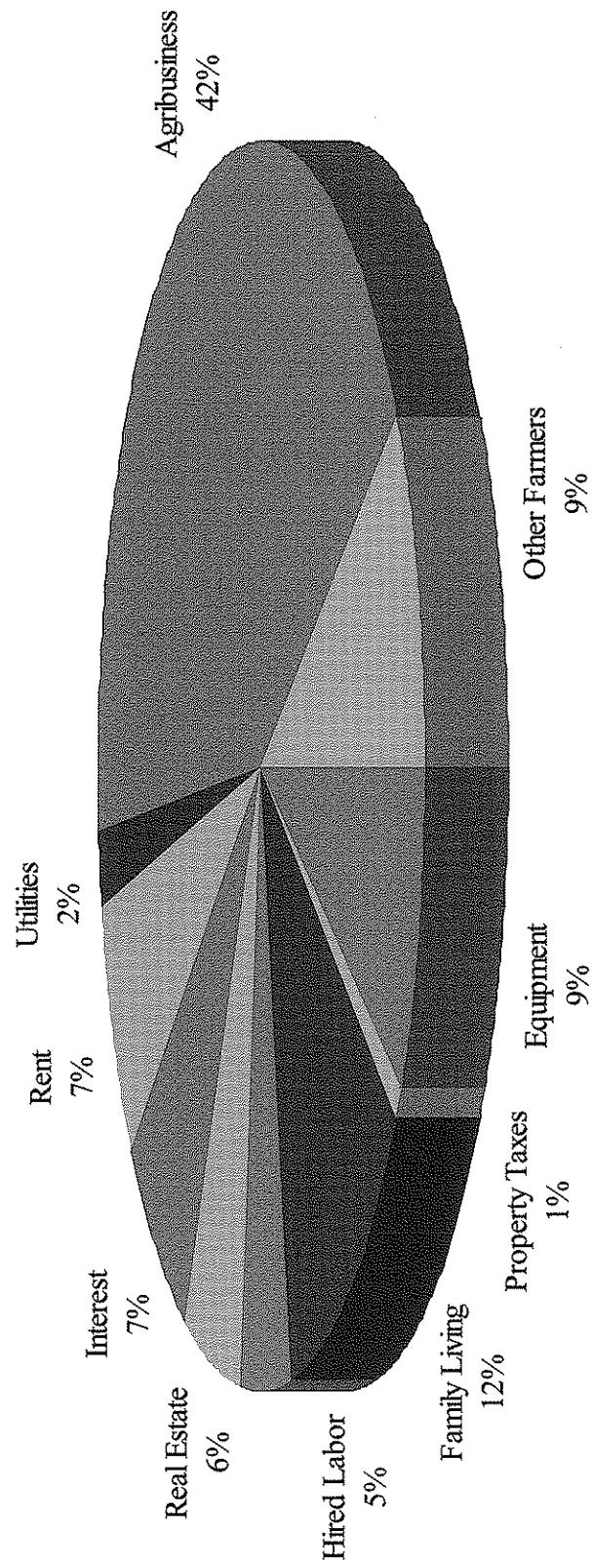
	1998	1999	2000	2001	2002
<b>To Other Farmers</b>					
For Livestock and Custom Work	\$13,467	\$13,818	\$18,716	\$23,022	\$24,714
<b>To the Agribusiness Community</b>					
For Fertilizer, Chemicals, Feed, Se Fuel, Repairs and Supplies	\$106,221	\$106,648	\$125,554	\$117,992	\$110,986
<b>For Farm Equipment</b>					
Farm Power and Machinery	\$16,357	\$19,765	\$21,616	\$30,225	\$22,862
<b>For Extra Labor</b>					
	\$8,558	\$10,569	\$11,091	\$14,772	\$13,126
<b>For Support of Local Government</b>					
Property Taxes	\$2,221	\$2,185	\$1,835	\$1,902	\$1,896
<b>For Utilities</b>					
Telephone, Electricity, Water	\$4,160	\$4,242	\$4,715	\$5,231	\$5,433
<b>For Use of Other People's Capital</b>					
Interest	\$17,410	\$16,610	\$19,541	\$19,880	\$17,874
Rent	\$16,680	\$16,805	\$14,411	\$15,353	\$18,239
Total	\$34,090	\$33,415	\$33,952	\$35,233	\$36,113
<b>For Real Estate</b>					
Purchases and Improvements	\$16,537	\$10,573	\$13,338	\$13,268	\$15,008
<b>Total Farm Purchases</b>	<b>\$201,611</b>	<b>\$201,215</b>	<b>\$230,817</b>	<b>\$241,645</b>	<b>\$230,138</b>
<b>Household and Pers. Expenses</b>					
<b>(Family Living)</b>					
For Food, Clothing, Furnishings, Education, Contributions, Medical, Gifts, Recreation, Investments and Income tax	\$31,730	\$30,588	\$28,734	\$29,049	\$32,762
<b>Total Money Spent by an Average Farmer within the Community or Service Area</b>	<b>\$233,341</b>	<b>\$231,803</b>	<b>\$259,551</b>	<b>\$270,694</b>	<b>\$262,900</b>

The amount spent by one farmer over one year in the community: \$262,900

The amount spent by one farmer over a 30 year career in the community: \$7,887,000

The amount spent in the community by 327 farmers over one year: \$85,968,300

## Where the Money is Spent



## Individual Crop Enterprise Analysis

The individual crop analysis table show crops where at least five farmers in the Northwest area raised the crop in the 2002. The report lists acres, yield, value per unit, (usually the value per unit at December 31st or sales price) and the gross return per acre. The price includes cash price plus any Loan Deficiency Payment (LDP). Miscellaneous income would include crop insurance payment or crop specific government payment.

Costs such as fertilizer, chemicals, seed, crop drying expenses, hired labor and custom hire are costs that are assigned to each individual crop in the account book or computerized record system. These costs are shown in the crop enterprise analysis as Direct Costs.

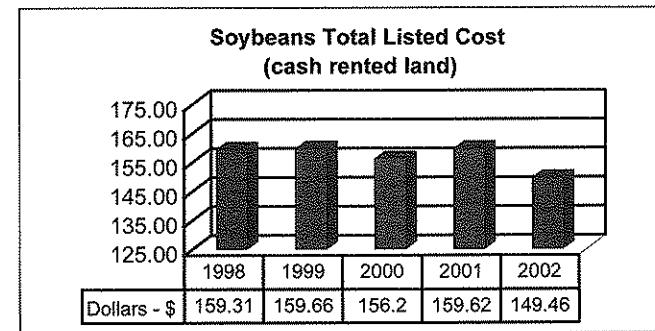
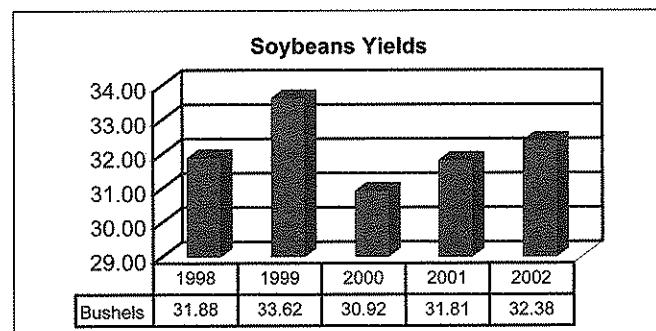
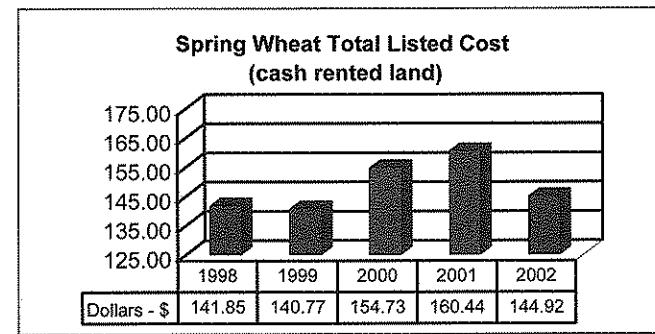
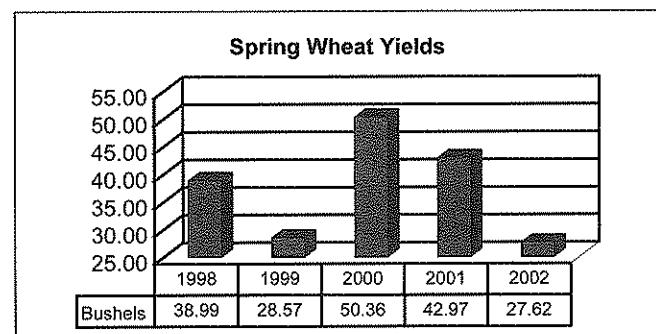
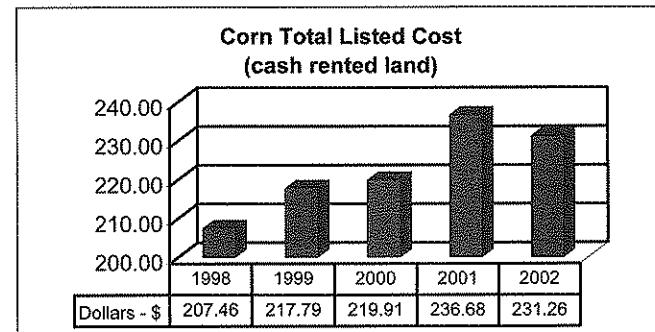
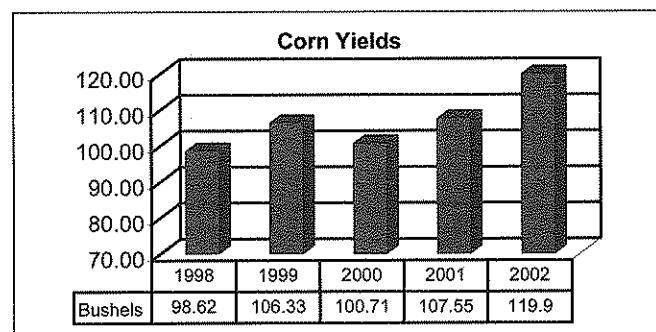
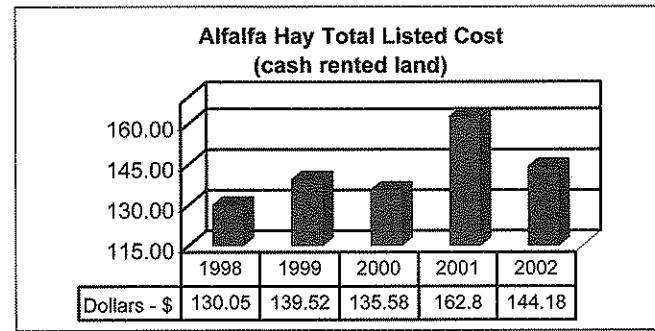
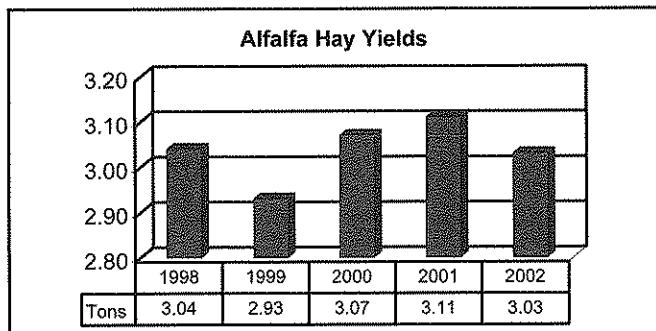
Other costs, called Overhead Costs, are divided out by formula. Overhead costs are assigned by an allocation factor to each enterprise. The allocation factor is based on historical data of labor and capital intensity.

There are a couple of subtle differences between the Owned Land and Cash Rented Land tables. Naturally, on cash rented land, the actual cost of renting the land is reported in the direct cost section. On the owned land, the land cost is divided into three different lines in the overhead cost section. These are the real-estate taxes, interest on long-term debt and farm insurance lines.

The Labor and Management Charge is calculated by a percentage of the gross farm revenue and is based on the total farm operation.

Government Payments near the bottom of the page include Direct and Counter Cyclical payments. They are spread across all tillable acres except edible beans, potatoes and other vegetable crops.

**Five Year Crop History of  
Yields and Cost of Production**  
**Northwest Farm Business Management Education**



**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**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 fields	122	19	17	16
Number of farms	82	16	16	16
Acres	192.33	124.84	206.11	192.77
Yield per acre (bu.)	25.74	15.00	28.12	45.34
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.97	3.64	4.00	4.15
Total product return per acre	102.25	54.62	112.47	187.94
Miscellaneous income per acre	30.92	38.86	21.94	3.84
Gross return per acre	133.17	93.48	134.41	191.78
<b>Direct Expenses</b>				
Seed	9.64	11.98	9.67	10.66
Fertilizer	25.87	27.65	24.85	25.85
Crop chemicals	13.79	12.57	16.33	19.88
Crop insurance	8.12	11.02	8.20	5.46
Drying fuel	0.61	0.11	1.08	0.65
Fuel & oil	6.88	9.17	5.43	5.80
Repairs	12.68	16.51	13.87	12.14
Custom hire	2.60	1.89	2.05	0.27
Operating interest	2.57	2.37	2.93	3.21
Miscellaneous	0.27	0.05	0.62	0.74
Total direct expenses per acre	83.04	93.32	85.02	84.65
Return over direct exp per acre	50.13	0.16	49.40	107.13
<b>Overhead Expenses</b>				
Custom hire	1.79	0.18	0.76	1.83
Hired labor	3.35	1.61	2.25	5.07
Machinery & bldg leases	1.61	2.10	1.00	1.60
RE & pers. property taxes	3.79	4.37	4.05	6.45
Farm insurance	2.48	2.54	1.91	3.55
Utilities	1.81	2.92	1.79	1.64
Dues & professional fees	1.00	0.87	0.98	1.45
Interest	15.24	24.99	15.77	20.24
Mach & bldg depreciation	10.68	8.36	6.50	14.91
Miscellaneous	1.42	2.17	1.35	1.46
Total overhead expenses per acre	43.17	50.10	36.34	58.20
Total dir & ovhd expenses per acre	126.22	143.42	121.35	142.85
Net return per acre	6.96	-49.94	13.06	48.93
Lbr & mgt charge per acre	13.79	14.95	13.37	14.70
Net return over lbr & mgt	-6.83	-64.89	-0.31	34.23
Government payments	11.37	11.78	10.43	10.79
Net return with govt payments	4.54	-53.10	10.13	45.02
<b>Cost of Production</b>				
Total direct expense per bu.	3.23	6.22	3.02	1.87
Total dir & ovhd exp per bu.	4.90	9.56	4.32	3.15
With labor & management	5.44	10.56	4.79	3.48
Total exp less govt & oth income	3.80	7.18	3.64	3.15
Est. labor hours per acre	1.66	1.62	1.37	1.88

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Wheat, Spring on Cash Rent**

	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of fields	122	25	33	21
Number of farms	83	17	17	17
Acres	291.98	230.63	298.11	358.24
Yield per acre (bu.)	29.49	22.59	27.73	38.06
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.92	3.64	3.88	4.26
Total product return per acre	115.74	82.32	107.50	162.16
Miscellaneous income per acre	22.39	18.85	22.34	17.89
Gross return per acre	138.14	101.17	129.85	180.05
<b>Direct Expenses</b>				
Seed	9.80	11.43	8.96	9.74
Fertilizer	24.56	25.53	24.50	25.59
Crop chemicals	18.12	21.75	16.63	18.33
Crop insurance	8.72	7.51	9.71	8.29
Drying fuel	0.45	0.19	0.36	0.75
Fuel & oil	6.46	6.95	6.26	6.82
Repairs	12.61	14.51	11.07	13.57
Custom hire	1.29	1.69	0.55	1.21
Land rent	36.36	39.65	35.59	32.69
Operating interest	2.78	3.87	1.80	3.01
Miscellaneous	0.48	0.09	0.27	1.36
Total direct expenses per acre	121.63	133.16	115.68	121.36
Return over direct exp per acre	16.51	-31.99	14.17	58.68
<b>Overhead Expenses</b>				
Custom hire	1.94	1.17	1.16	2.64
Hired labor	2.96	2.59	1.65	4.84
Machinery & bldg leases	1.74	1.97	0.78	1.97
Farm insurance	2.20	1.87	1.98	2.50
Utilities	1.70	1.70	1.36	1.88
Dues & professional fees	1.16	0.93	0.58	1.53
Interest	2.90	3.13	2.36	3.35
Mach & bldg depreciation	7.50	6.87	7.21	11.42
Miscellaneous	1.19	1.56	1.11	0.88
Total overhead expenses per acre	23.29	21.79	18.19	31.02
Total dir & ovhd expenses per acre	144.92	154.94	133.87	152.38
Net return per acre	-6.78	-53.77	-4.02	27.67
Lbr & mgt charge per acre	13.72	12.69	13.94	14.63
Net return over lbr & mgt	-20.51	-66.46	-17.96	13.04
Government payments	12.34	12.32	11.78	12.45
Net return with govt payments	-8.17	-54.14	-6.19	25.49
<b>Cost of Production</b>				
Total direct expense per bu.	4.12	5.90	4.17	3.19
Total dir & ovhd exp per bu.	4.91	6.86	4.83	4.00
With labor & management	5.38	7.42	5.33	4.39
Total exp less govt & oth income	4.20	6.04	4.10	3.59
Est. labor hours per acre	1.46	1.34	1.46	1.69

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Barley on Owned Land and Cash Rent**

	Avg. Of All Farms Owned Land	Avg. Of All Farms Cash Rent
Number of fields	22	27
Number of farms	22	20
Acres	89.30	129.66
Yield per acre (bu)	20.37	19.01
Operators share of yield %	100.00	100.00
Value per bu.	2.39	2.51
Other product return per acre	0.43	-
Total product return per acre	49.09	47.63
Miscellaneous income per acre	49.02	46.03
Gross return per acre	98.11	93.66
<b>Direct Expenses</b>		
Seed	7.80	7.93
Fertilizer	17.49	18.34
Crop chemicals	13.62	7.52
Crop insurance	6.36	6.70
Fuel & oil	6.94	6.04
Repairs	12.40	10.26
Custom hire	0.94	0.60
Land Rent	-	27.19
Operating interest	2.23	2.59
Miscellaneous	0.34	0.11
Total direct expenses per acre	68.12	87.27
Return over direct exp per acre	29.99	6.39
<b>Overhead Expenses</b>		
Custom hire	1.03	1.49
Hired labor	3.92	1.79
Machinery & bldg leases	1.24	1.73
RE & pers. property taxes	3.18	-
Farm insurance	2.46	2.46
Utilities	2.18	1.88
Dues & professional fees	1.06	1.04
Interest	18.24	2.32
Mach & bldg depreciation	10.04	6.44
Miscellaneous	3.01	1.95
Total overhead expenses per acre	46.35	21.10
Total dir & ovhd expenses per acre	114.47	108.37
Net return per acre	-16.36	-14.71
Lbr & mgt charge per acre	13.44	12.06
Net return over lbr & mgt	-29.80	-26.77
Government payments	8.80	8.86
Net return with govt payments	-21.00	-17.91
<b>Cost of Production</b>		
Total direct expense per bushel	3.34	4.59
Total dir & ovhd exp per bushel	5.62	5.70
With labor & management	6.28	6.34
Total exp less govt & oth income	3.42	3.45
Est. labor hours per acre	1.73	1.26

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**  
**Canola on Owned Land and Cash Rent**

	Avg. Of All Farms Owned Land	Avg. Of All Farms Cash Rent
Number of fields	19	17
Number of farms	12	11
Acres	133.65	166.34
Yield per acre (cwt)	9.40	9.47
Operators share of yield %	100.00	100.00
Value per cwt.	10.99	11.01
Total product return per acre	103.24	104.28
Miscellaneous income per acre	31.19	29.77
Gross return per acre	134.43	134.04
<b>Direct Expenses</b>		
Seed	18.21	14.22
Fertilizer	32.70	27.12
Crop chemicals	8.63	9.04
Crop insurance	7.13	10.38
Fuel & oil	7.35	7.25
Repairs	11.43	12.47
Custom hire	1.75	3.00
Land rent	-	25.99
Marketing	-	0.09
Operating interest	2.72	2.40
Miscellaneous	0.11	0.03
Total direct expenses per acre	90.04	111.99
Return over direct exp per acre	44.38	22.05
<b>Overhead Expenses</b>		
Custom hire	1.17	1.51
Hired labor	3.68	2.42
Machinery & bldg leases	0.90	1.42
RE & pers. property taxes	2.53	-
Farm insurance	1.64	2.54
Utilities	1.91	2.61
Dues & professional fees	0.66	1.39
Interest	7.98	2.93
Mach & bldg depreciation	14.77	11.84
Miscellaneous	1.35	0.92
Total overhead expenses per acre	36.60	27.59
Total dir & ovhd expenses per acre	126.64	139.58
Net return per acre	7.79	-5.54
Lbr & mgt charge per acre	14.88	15.67
Net return over lbr & mgt	-7.10	-21.21
Government payments	10.66	11.88
Net return with govt payments	3.57	-9.33
<b>Cost of Production</b>		
Total direct expense per cwt	9.58	11.82
Total dir & ovhd exp per cwt	13.48	14.73
With labor & management	15.06	16.39
Total exp less govt & oth income	10.61	11.99
Est. labor hours per acre	1.65	1.65

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Corn on Owned Land</b>				
	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of fields	96	18	17	22
Number of farms	89	18	17	18
Acres	57.83	54.66	60.01	68.89
Yield per acre (bu.)	120.78	89.16	115.68	140.18
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	2.04	1.92	2.04	2.13
Other product return per acre	0.43	-	-	-
Total product return per acre	247.36	171.03	235.44	298.39
Miscellaneous income per acre	3.50	0.59	8.79	3.10
Gross return per acre	250.86	171.62	244.23	301.49
<b>Direct Expenses</b>				
Seed	27.95	28.54	28.04	30.12
Fertilizer	26.48	22.65	26.61	28.50
Crop chemicals	25.08	25.77	21.05	24.46
Crop insurance	6.36	4.64	7.10	6.43
Drying fuel	8.47	9.72	12.42	7.62
Fuel & oil	12.23	12.54	11.05	12.84
Repairs	27.15	26.13	26.03	21.17
Custom hire	4.40	10.39	1.67	0.70
Hired labor	0.36	-	0.60	-
Operating interest	5.48	5.33	5.00	8.98
Miscellaneous	1.00	0.06	1.31	0.53
Total direct expenses per acre	144.98	145.77	140.89	141.36
Return over direct exp per acre	105.89	25.85	103.34	160.13
<b>Overhead Expenses</b>				
Custom hire	4.22	4.67	2.96	2.81
Hired labor	9.23	6.65	6.26	13.57
Machinery & bldg leases	2.22	1.28	1.47	2.97
RE & pers. property taxes	4.61	5.37	4.17	5.66
Farm insurance	3.37	4.83	2.83	3.93
Utilities	2.59	3.03	1.63	3.36
Dues & professional fees	1.60	0.71	1.39	1.92
Interest	23.12	26.13	26.05	22.06
Mach & bldg depreciation	19.70	14.61	14.24	28.26
Miscellaneous	2.31	3.38	1.70	1.34
Total overhead expenses per acre	72.98	70.66	62.70	85.88
Total dir & ovhd expenses per acre	217.95	216.43	203.59	227.23
Net return per acre	32.91	-44.81	40.64	74.26
Lbr & mgt charge per acre	27.34	27.39	23.76	26.85
Net return over lbr & mgt	5.57	-72.20	16.88	47.41
Government payments	10.35	8.21	10.88	11.03
Net return with govt payments	15.92	-63.99	27.76	58.44
<b>Cost of Production</b>				
Total direct expense per bu.	1.20	1.63	1.22	1.01
Total dir & ovhd exp per bu.	1.80	2.43	1.76	1.62
With labor & management	2.03	2.73	1.97	1.81
Total exp less govt & oth income	1.91	2.64	1.80	1.71
Est. labor hours per acre	5.35	5.49	5.35	4.59

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Corn on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	87	17	18	19
Number of farms	79	16	16	16
Acres	95.43	49.42	136.43	55.37
Yield per acre (bu.)	119.05	81.41	113.66	145.96
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	2.08	1.95	2.09	2.11
Other product return per acre	0.05	-	-	0.25
Total product return per acre	247.66	158.62	237.03	308.88
Miscellaneous income per acre	4.82	21.95	4.75	5.13
Gross return per acre	252.48	180.57	241.78	314.01
<b>Direct Expenses</b>				
Seed	30.27	28.27	29.66	28.73
Fertilizer	27.30	28.81	25.37	27.45
Crop chemicals	23.41	23.81	20.71	21.77
Crop insurance	5.84	7.00	4.07	6.45
Drying fuel	9.47	11.03	13.53	9.04
Fuel & oil	11.63	14.06	10.62	11.14
Repairs	25.68	34.85	23.01	23.75
Custom hire	2.24	5.71	2.58	3.43
Hired labor	0.64	-	2.16	-
Land rent	37.49	32.46	39.38	33.25
Operating interest	4.45	3.19	4.45	3.96
Miscellaneous	0.90	0.24	0.50	0.33
Total direct expenses per acre	179.32	189.45	176.04	169.30
Return over direct exp per acre	73.16	-8.88	65.74	144.71
<b>Overhead Expenses</b>				
Custom hire	6.09	6.15	4.55	5.97
Hired labor	8.54	6.57	8.45	7.04
Machinery & bldg leases	3.55	0.86	4.70	1.08
Farm insurance	3.08	3.33	3.51	2.99
Utilities	2.52	3.21	1.09	2.12
Dues & professional fees	0.64	1.09	0.51	1.16
Interest	7.75	8.17	5.19	8.98
Mach & bldg depreciation	17.74	19.86	12.51	24.42
Miscellaneous	2.04	1.43	1.80	2.21
Total overhead expenses per acre	51.94	50.66	42.32	55.96
Total dir & ovhd expenses per acre	231.26	240.11	218.36	225.27
Net return per acre	21.22	-59.55	23.42	88.75
Lbr & mgt charge per acre	21.13	26.93	15.39	30.49
Net return over lbr & mgt	0.09	-86.48	8.03	58.26
Government payments	9.58	8.56	7.75	11.86
Net return with govt payments	9.67	-77.91	15.78	70.12
<b>Cost of Production</b>				
Total direct expense per bu.	1.51	2.33	1.55	1.16
Total dir & ovhd exp per bu.	1.94	2.95	1.92	1.54
With labor & management	2.12	3.28	2.06	1.75
Total exp less govt & oth income	2.00	2.91	1.95	1.63
Est. labor hours per acre	4.22	5.00	3.98	4.98

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Corn Silage on Owned Land</b>				
	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	119	24	23	23
Number of farms	115	23	23	23
Acres	50.23	42.87	52.41	58.33
Yield per acre (ton)	15.78	9.85	15.08	21.15
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	19.81	18.71	19.36	20.89
Total product return per acre	312.63	184.28	291.90	441.96
Miscellaneous income per acre	2.23	7.21	3.32	1.29
Gross return per acre	314.86	191.49	295.22	443.25
<b>Direct Expenses</b>				
Seed	25.29	24.24	25.38	27.41
Fertilizer	19.55	21.65	18.55	17.58
Crop chemicals	22.54	18.70	21.35	23.28
Crop insurance	5.35	4.42	4.31	7.89
Fuel & oil	15.03	15.79	14.64	14.39
Repairs	31.27	35.07	22.23	29.52
Custom hire	8.39	14.95	8.27	0.76
Hired labor	0.32	0.63	-	-
Operating interest	4.78	7.22	4.95	2.96
Miscellaneous	1.43	1.37	0.74	0.99
Total direct expenses per acre	133.95	144.02	120.42	124.77
Return over direct exp per acre	180.92	47.47	174.80	318.48
<b>Overhead Expenses</b>				
Custom hire	7.38	3.83	6.68	8.04
Hired labor	13.46	8.75	14.32	16.55
Machinery & bldg leases	3.52	1.74	3.96	5.35
RE & pers. property taxes	4.58	4.70	4.4	4.85
Farm insurance	3.58	4.32	4.58	3.39
Utilities	2.73	2.47	4.05	2.98
Dues & professional fees	1.10	1.80	1.42	0.45
Interest	31.12	19.56	30.82	32.16
Mach & bldg depreciation	21.09	28.36	16.83	20.10
Miscellaneous	4.00	3.79	4.16	2.49
Total overhead expenses per acre	92.57	79.31	91.24	96.36
Total dir & ovhd expenses per acre	226.52	223.33	211.66	221.12
Net return per acre	88.34	-31.83	83.56	222.13
Lbr & mgt charge per acre	26.16	25.57	26.13	21.07
Net return over lbr & mgt	62.19	-57.40	57.43	201.05
Government payments	8.60	9.32	7.85	7.33
Net return with govt payments	70.78	-48.09	65.27	208.38
<b>Cost of Production</b>				
Total direct expense per ton	8.49	14.62	7.99	5.90
Total dir & ovhd exp per ton	14.35	22.68	14.04	10.45
With labor & management	16.01	25.27	15.77	11.45
Total exp less govt & oth income	15.32	23.59	15.03	11.04
Est. labor hours per acre	6.34	6.38	5.68	5.68

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Corn Silage on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	75	17	15	14
Number of farms	69	14	14	14
Acres	50.41	43.80	67.22	43.21
Yield per acre (ton)	15.09	10.88	14.63	20.87
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	19.67	18.46	18.70	21.04
Total product return per acre	296.81	200.77	273.58	439.05
Miscellaneous income per acre	0.93	-	-	-
Gross return per acre	297.75	200.77	273.58	439.05
<b>Direct Expenses</b>				
Seed	26.07	25.99	26.88	29.40
Fertilizer	19.66	25.25	15.54	20.54
Crop chemicals	22.30	18.84	26.27	24.46
Crop insurance	5.96	4.78	7.05	6.51
Fuel & oil	14.40	16.37	15.57	14.65
Repairs	28.75	34.91	26.24	27.44
Custom hire	9.09	16.76	2.00	2.57
Hired labor	0.15	0.75	-	-
Land rent	29.61	31.62	28.16	27.47
Operating interest	4.47	4.13	6.91	1.99
Miscellaneous	1.42	2.37	0.24	1.28
Total direct expenses per acre	161.89	181.76	154.85	156.32
Return over direct exp per acre	135.85	19.01	118.72	282.73
<b>Overhead Expenses</b>				
Custom hire	6.76	3.64	10.89	12.22
Hired labor	10.92	4.18	16.62	17.81
Machinery & bldg leases	5.41	3.11	4.23	5.66
Farm insurance	3.03	3.36	3.89	3.46
Utilities	2.13	2.50	2.32	2.30
Dues & professional fees	0.80	1.25	1.24	0.18
Interest	12.62	7.72	18.37	10.84
Mach & bldg depreciation	18.53	20.43	17.20	22.07
Miscellaneous	2.54	1.51	4.15	2.07
Total overhead expenses per acre	62.73	47.70	78.91	76.60
Total dir & ovhd expenses per acre	224.63	229.46	233.77	232.93
Net return per acre	73.12	-28.69	39.81	206.12
Lbr & mgt charge per acre	26.94	29.48	27.51	23.91
Net return over lbr & mgt	46.18	-58.17	12.30	182.21
Government payments	9.14	9.26	12.49	6.38
Net return with govt payments	55.32	-48.90	24.79	188.59
<b>Cost of Production</b>				
Total direct expense per ton	10.73	16.71	10.58	7.49
Total dir & ovhd exp per ton	14.89	21.10	15.98	11.16
With labor & management	16.67	23.81	17.86	12.31
Total exp less govt & oth income	16.00	22.95	17.00	12.00
Est. labor hours per acre	5.94	5.29	6.62	5.83

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Soybeans on Owned Land</b>				
	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	91	20	23	16
Number of farms	77	15	15	16
Acres	134.37	125.44	123.78	114.51
Yield per acre (bu.)	33.37	25.80	33.96	40.30
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.21	5.13	5.28	5.25
Total product return per acre	173.83	132.41	179.14	211.69
Miscellaneous income per acre	4.92	10.24	2.86	1.52
Gross return per acre	178.74	142.66	182.00	213.21
<b>Direct Expenses</b>				
Seed	19.04	23.43	16.12	21.23
Fertilizer	8.35	5.59	10.03	8.21
Crop chemicals	17.20	15.46	18.48	16.49
Crop insurance	8.78	10.86	10.21	5.80
Fuel & oil	8.12	8.27	7.86	8.82
Repairs	18.08	19.35	20.62	15.87
Custom hire	1.60	1.89	2.43	2.05
Machinery & bldg leases	0.23	-	0.63	-
Operating interest	3.55	3.80	3.72	2.86
Miscellaneous	0.63	0.11	0.27	0.23
Total direct expenses per acre	85.60	88.75	90.37	81.56
Return over direct exp per acre	93.15	53.91	91.64	131.65
<b>Overhead Expenses</b>				
Custom hire	2.26	1.84	2.32	4.61
Hired labor	3.98	3.20	6.24	3.51
Machinery & bldg leases	1.83	1.20	2.30	0.34
RE & pers. property taxes	5.13	4.90	5.47	4.68
Farm insurance	3.22	2.55	3.67	3.14
Utilities	2.08	2.40	2.46	2.22
Dues & professional fees	1.87	3.25	2.06	1.57
Interest	16.82	19.37	12.08	14.38
Mach & bldg depreciation	13.57	9.27	13.84	11.63
Miscellaneous	1.87	0.96	3.24	1.63
Total overhead expenses per acre	52.63	48.94	53.67	47.72
Total dir & ovhd expenses per acre	138.23	137.69	144.03	129.28
Net return per acre	40.51	4.97	37.97	83.93
Lbr & mgt charge per acre	17.98	17.53	18.27	17.69
Net return over lbr & mgt	22.53	-12.56	19.70	66.25
Government payments	11.70	12.10	11.65	10.70
Net return with govt payments	34.23	-0.47	31.35	76.95
<b>Cost of Production</b>				
Total direct expense per bu.	2.56	3.44	2.66	2.02
Total dir & ovhd exp per bu.	4.14	5.34	4.24	3.21
With labor & management	4.68	6.02	4.78	3.65
Total exp less govt & oth income	4.18	5.15	4.35	3.34
Est. labor hours per acre	2.14	2.00	2.04	2.27

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Soybeans on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	106	22	20	17
Number of farms	86	17	18	17
Acres	314.92	218.05	380.17	326.95
Yield per acre (bu.)	31.51	22.06	32.15	38.31
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.19	5.13	5.15	5.24
Total product return per acre	163.60	113.05	165.46	200.84
Miscellaneous income per acre	11.29	18.23	5.64	3.84
Gross return per acre	174.89	131.28	171.10	204.68
<b>Direct Expenses</b>				
Seed	19.48	22.72	19.57	23.21
Fertilizer	7.76	7.31	3.92	9.02
Crop chemicals	16.16	14.23	16.66	13.10
Crop insurance	8.79	7.37	8.18	6.51
Fuel & oil	7.55	8.90	7.44	7.69
Repairs	17.62	22.32	18.39	12.64
Custom hire	1.18	1.29	1.29	0.81
Hired labor	0.16	-	0.53	-
Land rent	38.07	37.70	41.78	29.30
Operating interest	3.70	3.29	4.47	3.36
Miscellaneous	0.87	0.28	0.39	0.32
Total direct expenses per acre	121.35	125.42	122.60	105.96
Return over direct exp per acre	53.54	5.86	48.50	98.72
<b>Overhead Expenses</b>				
Custom hire	2.56	1.40	1.53	4.07
Hired labor	3.28	1.83	2.78	4.83
Machinery & bldg leases	2.37	2.18	4.99	2.16
Farm insurance	2.35	2.30	2.30	2.49
Utilities	1.99	1.91	2.20	2.12
Dues & professional fees	1.29	1.07	1.65	0.94
Interest	4.04	4.97	4.25	2.48
Mach & bldg depreciation	8.63	9.05	6.06	12.80
Miscellaneous	1.60	1.06	1.84	0.75
Total overhead expenses per acre	28.11	25.77	27.60	32.64
Total dir & ovhd expenses per acre	149.46	151.18	150.20	138.60
Net return per acre	25.42	-19.91	20.90	66.08
Lbr & mgt charge per acre	16.60	18.55	17.02	14.67
Net return over lbr & mgt	8.83	-38.45	3.87	51.41
Government payments	12.40	12.11	11.78	11.53
Net return with govt payments	21.23	-26.34	15.65	62.94
<b>Cost of Production</b>				
Total direct expense per bu.	3.85	5.69	3.81	2.77
Total dir & ovhd exp per bu.	4.74	6.85	4.67	3.62
With labor & management	5.27	7.69	5.20	4.00
Total exp less govt & oth income	4.52	6.32	4.66	3.60
Est. labor hours per acre	1.83	2.03	1.75	1.73

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Oats on Owned Land</b>				
	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of fields	43	9	8	10
Number of farms	40	8	8	8
Acres	36.71	52.41	35.00	40.90
Yield per acre (bu.)	40.59	16.05	39.37	63.94
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	1.72	1.33	1.52	2.14
Other product return per acre	0.63	-	-	2.44
Total product return per acre	70.31	21.37	59.67	139.56
Miscellaneous income per acre	23.74	17.13	26.98	30.05
Gross return per acre	94.05	38.50	86.65	169.61
<b>Direct Expenses</b>				
Seed	8.46	9.80	5.24	8.23
Fertilizer	10.34	15.54	10.03	7.55
Crop chemicals	2.03	0.55	2.25	2.24
Crop insurance	2.85	2.21	1.79	4.75
Fuel & oil	7.29	7.70	6.82	6.44
Repairs	14.18	12.50	15.56	14.33
Custom hire	2.58	6.58	-	1.58
Operating interest	1.16	0.65	1.28	1.86
Miscellaneous	0.46	-	1.41	0.59
Total direct expenses per acre	49.35	55.55	44.39	47.57
Return over direct exp per acre	44.71	-17.05	42.26	122.04
<b>Overhead Expenses</b>				
Custom hire	1.68	1.49	3.09	1.36
Hired labor	3.77	7.14	4.12	1.13
Machinery & bldg leases	0.69	0.16	0.18	0.34
RE & pers. property taxes	4.26	3.47	2.83	5.70
Farm insurance	2.06	1.95	1.03	2.55
Utilities	1.44	1.77	0.91	1.82
Dues & professional fees	0.74	0.83	0.27	1.30
Interest	14.32	11.69	10.74	18.65
Mach & bldg depreciation	9.44	5.39	16.90	8.07
Miscellaneous	1.39	1.40	0.95	2.18
Total overhead expenses per acre	39.78	35.28	41.04	43.10
Total dir & ovhd expenses per acre	89.13	90.83	85.43	90.67
Net return per acre	4.92	-52.34	1.22	78.94
Lbr & mgt charge per acre	13.12	14.31	11.99	11.78
Net return over lbr & mgt	-8.20	-66.65	-10.76	67.16
Government payments	8.16	9.57	7.10	9.05
Net return with govt payments	-0.04	-57.08	-3.67	76.21
<b>Cost of Production</b>				
Total direct expense per bu.	1.22	3.46	1.13	0.74
Total dir & ovhd exp per bu.	2.20	5.66	2.17	1.42
With labor & management	2.52	6.55	2.47	1.60
Total exp less govt & oth income	1.72	4.89	1.61	0.95
Est. labor hours per acre	2.40	2.14	2.98	2.02

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Oats on Cash Rent</b>				
	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	34	6	7	7
Number of farms	34	6	7	7
Acres	49.37	81.87	25.06	50.36
Yield per acre (bu.)	35.48	8.61	45.79	60.28
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	1.64	1.16	1.48	1.80
Other product return per acre	0.12	-	-	0.57
Total product return per acre	58.30	10.01	67.65	109.22
Miscellaneous income per acre	23.94	18.39	18.82	49.01
Gross return per acre	82.24	28.40	86.47	158.23
<b>Direct Expenses</b>				
Seed	8.66	10.74	8.47	7.70
Fertilizer	14.98	19.56	23.66	9.39
Crop chemicals	3.17	4.13	1.93	4.31
Crop insurance	3.47	4.88	1.19	4.67
Fuel & oil	6.82	6.13	5.83	8.35
Repairs	14.19	13.59	10.38	20.98
Custom hire	2.31	2.43	4.02	3.30
Land rent	26.21	31.32	23.78	19.76
Operating interest	2.09	1.38	3.66	3.11
Miscellaneous	2.05	6.56	0.32	0.02
Total direct expenses per acre	83.94	100.73	83.25	81.60
Return over direct exp per acre	-1.71	-72.33	3.22	76.63
<b>Overhead Expenses</b>				
Custom hire	3.27	5.25	3.38	2.11
Hired labor	2.46	3.64	1.87	1.66
Machinery & bldg leases	0.90	0.84	0.30	0.99
Farm insurance	2.03	2.19	2.46	2.21
Utilities	1.46	1.52	1.09	1.92
Dues & professional fees	0.62	0.47	0.40	0.28
Interest	4.35	3.06	1.28	8.08
Mach & bldg depreciation	7.35	6.21	4.68	10.29
Miscellaneous	2.02	2.20	1.97	2.80
Total overhead expenses per acre	24.44	25.39	17.45	30.36
Total dir & ovhd expenses per acre	108.38	126.12	100.69	111.96
Net return per acre	-26.15	-97.72	-14.22	46.27
Lbr & mgt charge per acre	13.30	12.17	10.67	15.19
Net return over lbr & mgt	-39.45	-109.89	-24.90	31.08
Government payments	8.53	9.51	6.86	10.26
Net return with govt payments	-30.93	-100.39	-18.04	41.34
<b>Cost of Production</b>				
Total direct expense per bu.	2.37	11.69	1.82	1.35
Total dir & ovhd exp per bu.	3.05	14.64	2.20	1.86
With labor & management	3.43	16.05	2.43	2.11
Total exp less govt & oth income	2.51	12.82	1.87	1.12
Est. labor hours per acre	2.03	1.60	2.12	2.20

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Sunflowers on Owned Land and Cash Rent**

	<u>Avg. Of All Farms Owned Land</u>	<u>Avg. Of All Farms Cash Rent</u>
Number of fields	7	6
Number of farms	7	6
Acres	102.00	84.72
Yield per acre (cwt)	15.31	14.34
Operators share of yield %	100.00	100.00
Value per cwt	11.45	12.31
Total product return per acre	175.30	176.49
Miscellaneous income per acre	7.88	3.74
Gross return per acre	183.18	180.23
<b>Direct Expenses</b>		
Seed	17.38	15.96
Fertilizer	22.20	25.30
Crop chemicals	9.98	11.16
Crop insurance	8.03	8.49
Drying fuel	1.54	0.88
Fuel & oil	8.70	9.10
Repairs	21.18	17.14
Custom hire	3.74	2.68
Land rent	-	34.18
Operating interest	2.28	3.78
Total direct expenses per acre	95.03	128.68
Return over direct exp per acre	88.15	51.56
<b>Overhead Expenses</b>		
Custom hire	2.86	3.36
Hired labor	4.67	4.85
Machinery & bldg leases	2.13	1.24
RE & pers. property taxes	3.22	-
Farm insurance	3.08	2.35
Utilities	2.62	2.98
Dues & professional fees	1.81	1.32
Interest	17.59	4.36
Mach & bldg depreciation	8.84	11.75
Miscellaneous	1.61	0.64
Total overhead expenses per acre	48.42	32.84
Total dir & ovhd expenses per acre	143.45	161.51
Net return per acre	39.73	18.72
Lbr & mgt charge per acre	19.47	18.39
Net return over lbr & mgt	20.26	0.34
Government payments	11.87	8.49
Net return with govt payments	32.13	8.83
<b>Cost of Production</b>		
Total direct expense per cwt	6.21	8.97
Total dir & ovhd exp per cwt	9.37	11.26
With labor & management	10.64	12.55
Total exp less govt & oth income	9.35	11.69
Est. labor hours per acre	2.45	2.09

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Establish Hay, Alfalfa on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	29	5	6	6
Number of farms	29	5	6	6
Acres	50.32	43.10	30.33	73.17
Yield per acre (ton)	1.41	0.40	0.99	2.22
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	54.19	30.00	58.59	57.19
Total product return per acre	76.21	11.97	57.86	127.05
Miscellaneous income per acre	12.14	-	-	11.28
Gross return per acre	88.35	11.97	57.86	138.34
<b>Direct Expenses</b>				
Seed	29.66	31.20	41.75	21.14
Fertilizer	17.22	24.76	15.57	14.05
Crop chemicals	6.79	4.73	10.85	0.87
Crop insurance	1.33	4.07	0.55	0.17
Fuel & oil	13.94	13.91	11.33	17.24
Repairs	26.35	28.79	18.36	28.72
Custom hire	4.76	24.32	0.90	2.95
Hired labor	1.14	-	-	-
Land rent	29.17	31.46	17.29	25.59
Operating interest	3.93	1.92	8.16	1.16
Miscellaneous	0.71	0.22	-	0.41
Total direct expenses per acre	134.99	165.38	124.75	112.31
Return over direct exp per acre	-46.64	-153.41	-66.89	26.03
<b>Overhead Expenses</b>				
Custom hire	2.17	0.52	3.65	0.27
Hired labor	9.66	5.78	4.40	16.64
Machinery & bldg leases	3.44	1.38	1.58	9.18
Farm insurance	3.36	2.59	6.59	2.80
Utilities	3.08	3.28	0.94	1.35
Dues & professional fees	1.63	1.87	2.70	1.12
Interest	9.27	10.10	7.95	14.96
Mach & bldg depreciation	19.72	24.99	14.31	23.94
Miscellaneous	2.40	5.08	2.08	0.67
Total overhead expenses per acre	54.72	55.60	44.19	70.93
Total dir & ovhd expenses per acre	189.71	220.98	168.94	183.24
Net return per acre	-101.36	-209.01	-111.08	-44.90
Lbr & mgt charge per acre	23.49	25.96	24.19	21.18
Net return over lbr & mgt	-124.85	-234.97	-135.27	-66.08
Government payments	8.39	12.61	8.16	4.36
Net return with govt payments	-116.46	-222.36	-127.11	-61.72
<b>Cost of Production</b>				
Total direct expense per ton	95.98	414.42	126.33	50.55
Total dir & ovhd exp per ton	134.89	553.74	171.08	82.48
With labor & management	151.60	618.79	195.57	92.01
Total exp less govt & oth income	137.00	587.20	187.31	84.97
Est. labor hours per acre	4.87	4.04	4.37	5.67

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Hay, Alfalfa on Owned Land</b>				
	<b>Avg. Of All Farms</b>	<b>Low 20%</b>	<b>40 - 60%</b>	<b>High 20%</b>
Number of fields	113	27	23	20
Number of farms	100	20	20	20
Acres	76.07	56.77	101.74	62.69
Yield per acre (ton)	3.12	2.32	2.93	4.46
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	66.42	42.31	73.45	79.33
Total product return per acre	207.08	97.97	215.52	353.72
Miscellaneous income per acre	10.84	2.40	29.12	-
Gross return per acre	217.92	100.37	244.64	353.72
<b>Direct Expenses</b>				
Seed	1.49	0.32	0.46	1.11
Fertilizer	11.96	15.05	12.57	8.71
Crop chemicals	1.91	0.92	4.44	3.06
Crop insurance	2.24	1.46	4.62	0.82
Fuel & oil	12.64	14.32	11.60	13.97
Repairs	25.73	30.94	26.46	24.38
Custom hire	4.00	1.53	9.53	2.29
Hired labor	1.09	-	3.96	0.06
Operating interest	4.50	4.79	4.98	4.51
Miscellaneous	2.82	0.40	5.19	1.03
Total direct expenses per acre	68.38	69.73	83.80	59.93
Return over direct exp per acre	149.53	30.64	160.83	293.79
<b>Overhead Expenses</b>				
Custom hire	5.76	5.29	2.91	6.60
Hired labor	8.29	5.32	3.73	15.00
Machinery & bldg leases	1.49	0.28	0.74	4.69
RE & pers. property taxes	4.74	4.10	5.44	4.65
Farm insurance	3.68	2.19	5.70	4.35
Utilities	3.59	3.74	4.58	1.65
Dues & professional fees	1.19	1.30	1.73	0.95
Interest	21.59	13.79	26.23	31.27
Mach & bldg depreciation	18.00	19.05	16.20	19.45
Miscellaneous	3.71	2.43	4.63	2.57
Total overhead expenses per acre	72.04	57.48	71.88	91.19
Total dir & ovhd expenses per acre	140.42	127.21	155.69	151.13
Net return per acre	77.49	-26.84	88.95	202.60
Lbr & mgt charge per acre	23.77	23.32	26.54	24.19
Net return over lbr & mgt	53.72	-50.	16 62.41	178.40
Government payments	9.31	8.18	11.68	7.25
Net return with govt payments	63.03	-41.98	74.08	185.66
<b>Cost of Production</b>				
Total direct expense per ton	21.93	30.11	28.56	13.44
Total dir & ovhd exp per ton	45.04	54.93	53.06	33.89
With labor & management	52.67	65.00	62.10	39.32
Total exp less govt & oth income	46.20	60.43	48.20	37.69
Est. labor hours per acre	4.45	4.01	3.92	6.98

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Hay, Alfalfa on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	89	17	18	17
Number of farms	81	16	17	16
Acres	88.01	56.79	134.87	48.18
Yield per acre (ton)	2.92	1.65	3.22	4.52
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	66.42	47.09	68.57	84.72
Other product return per acre	0.06	-	-	0.55
Total product return per acre	193.91	77.57	221.07	383.07
Miscellaneous income per acre	10.78	5.85	11.99	0.01
Gross return per acre	204.69	83.42	233.05	383.08
<b>Direct Expenses</b>				
Fertilizer	11.22	7.68	15.25	12.98
Crop chemicals	2.25	1.93	3.15	3.13
Crop insurance	2.37	0.38	4.04	0.41
Fuel & oil	11.35	12.06	10.93	13.16
Repairs	26.27	27.90	27.38	25.12
Custom hire	3.21	0.57	6.83	-
Hired labor	2.32	-	7.48	-
Land rent	32.31	28.81	38.08	30.84
Operating interest	4.84	4.73	6.82	3.22
Miscellaneous	3.66	0.76	7.94	2.61
Total direct expenses per acre	99.79	84.81	127.87	91.47
Return over direct exp per acre	104.90	-1.39	105.18	291.61
<b>Overhead Expenses</b>				
Custom hire	3.68	4.14	1.96	15.31
Hired labor	4.32	2.09	2.51	14.29
Machinery & bldg leases	3.01	0.55	1.17	3.12
Farm insurance	2.79	1.80	3.07	3.28
Utilities	3.30	3.86	4.25	1.32
Dues & professional fees	1.41	1.71	2.38	-
Interest 6.89 6.20 6.08 8.85				
Mach & bldg depreciation	15.53	15.30	15.56	20.80
Miscellaneous	3.47	3.38	5.43	1.61
Total overhead expenses per acre	44.40	39.04	42.41	68.58
Total dir & ovhd expenses per acre	144.18	123.85	170.28	160.05
Net return per acre	60.51	-40.43	62.77	223.03
Lbr & mgt charge per acre	23.24	26.09	25.46	19.38
Net return over lbr & mgt	37.27	-66.52	37.31	203.65
Government payments	8.29	9.30	8.18	6.37
Net return with govt payments	45.56	-57.23	45.49	210.02
<b>Cost of Production</b>				
Total direct expense per ton	34.19	51.48	39.66	20.26
Total dir & ovhd exp per ton	49.40	75.18	52.82	35.45
With labor & management	57.36	91.02	60.72	39.74
Total exp less govt & oth income	50.81	81.83	54.46	38.21
Est. labor hours per acre	3.89	3.95	4.01	6.12

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Hay, Mixed on Owned Land</b>				
	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	48	10	9	10
Number of farms	47	9	9	10
Acres	111.46	63.04	175.78	85.55
Yield per acre (ton)	2.25	1.06	2.28	2.84
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	39.31	36.63	36.46	50.15
Total product return per acre	88.55	38.90	83.22	142.57
Miscellaneous income per acre	2.54	0.32	5.98	2.15
Gross return per acre	91.09	39.21	89.20	144.72
<b>Direct Expenses</b>				
Fertilizer	11.65	4.46	14.78	10.76
Crop insurance	0.51	0.01	0.50	1.58
Fuel & oil	8.79	10.10	10.20	7.93
Repairs	15.95	12.26	17.05	16.92
Custom hire	1.03	0.79	0.86	-
Hired labor	0.17	-	0.57	-
Operating interest	1.51	2.18	0.91	0.99
Miscellaneous	2.16	0.49	3.26	2.65
Total direct expenses per acre	41.76	30.30	48.14	40.82
Return over direct exp per acre	49.33	8.92	41.06	103.90
<b>Overhead Expenses</b>				
Custom hire	3.58	0.55	3.86	9.41
Hired labor	6.04	1.55	9.06	5.90
Machinery & bldg leases	0.77	-	1.37	1.86
RE & pers. property taxes	4.00	5.54	3.78	3.36
Farm insurance	1.22	1.99	0.76	1.14
Utilities	1.11	0.90	1.11	0.99
Dues & professional fees	0.22	0.54	0.04	0.09
Interest	8.44	17.37	6.54	7.19
Mach & bldg depreciation	14.89	7.88	14.64	24.24
Miscellaneous	1.96	1.13	2.01	3.64
Total overhead expenses per acre	42.22	37.44	43.17	57.83
Total dir & ovhd expenses per acre	83.98	67.73	91.31	98.65
Net return per acre	7.11	-28.52	-2.11	46.07
Lbr & mgt charge per acre	14.70	15.29	13.92	11.72
Net return over lbr & mgt	-7.59	-43.81	-16.04	34.34
Government payments	3.97	5.04	2.90	4.64
Net return with govt payments	-3.62	-38.77	-13.13	38.98
<b>Cost of Production</b>				
Total direct expense per ton	18.54	28.53	21.09	14.36
Total dir & ovhd exp per ton	37.28	63.79	40.01	34.70
With labor & management	43.80	78.19	46.11	38.82
Total exp less govt & oth income	40.91	73.15	42.22	36.43
Est. labor hours per acre	3.15	3.47	3.15	3.71

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Hay, Mixed on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	42	9	8	11
Number of farms	37	7	8	8
Acres	99.57	83.89	114.25	84.51
Yield per acre (ton)	1.89	1.00	2.11	2.88
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	44.99	36.28	36.02	56.88
Total product return per acre	85.10	36.26	75.91	164.01
Miscellaneous income per acre	3.79	0.30	15.40	1.68
Gross return per acre	88.89	36.55	91.31	165.68
<b>Direct Expenses</b>				
Fertilizer	5.49	1.64	8.80	11.21
Crop insurance	0.75	0.14	1.92	1.09
Fuel & oil	7.96	8.13	8.39	9.31
Repairs	13.81	15.07	17.96	20.90
Custom hire	0.77	-	2.31	0.83
Land rent	13.98	9.44	14.00	18.59
Operating interest	2.55	3.33	1.27	2.55
Miscellaneous	1.13	1.48	1.56	0.72
Total direct expenses per acre	46.44	39.24	56.21	65.21
Return over direct exp per acre	42.45	-2.69	35.10	100.48
<b>Overhead Expenses</b>				
Custom hire	1.51	0.92	3.30	0.43
Hired labor	2.54	3.21	5.62	1.99
Machinery & bldg leases	0.29	-	0.47	0.59
Farm insurance	1.73	1.81	1.06	2.64
Utilities	2.00	2.19	2.82	1.63
Dues & professional fees	0.69	0.97	0.54	0.71
Interest	4.28	2.06	6.35	4.21
Mach & bldg depreciation	9.35	8.50	11.98	2.57
Miscellaneous	1.77	1.42	1.03	14.10
Total overhead expenses per acre	24.16	21.09	33.18	28.87
Total dir & ovhd expenses per acre	70.60	60.33	89.38	94.08
Net return per acre	18.29	-23.78	1.92	71.61
Lbr & mgt charge per acre	12.80	14.64	11.31	14.86
Net return over lbr & mgt	5.49	-38.42	-9.38	56.75
Government payments	4.61	3.58	5.60	10.11
Net return with govt payments	10.10	-34.85	-3.78	66.86
<b>Cost of Production</b>				
Total direct expense per ton	24.55	39.26	26.67	22.62
Total dir & ovhd exp per ton	37.33	60.37	42.41	32.63
With labor & management	44.09	75.02	47.77	37.78
Total exp less govt & oth income	39.65	71.14	37.81	33.69
Est. labor hours per acre	2.76	2.66	2.51	2.38

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

<b>Hay, Grass on Owned Land</b>				
	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	37	7	7	7
Number of farms	35	7	7	7
Acres	24.25	27.91	34.00	26.01
Yield per acre (ton)	1.94	1.14	1.80	2.84
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	45.00	31.31	37.48	64.88
Total product return per acre	87.10	35.56	67.46	184.44
Miscellaneous income per acre	-	-	-	-
Gross return per acre	87.10	35.56	67.46	184.44
<b>Direct Expenses</b>				
Fertilizer	1.94	7.56	-	1.43
Crop chemicals	3.04	-	-	14.46
Crop insurance	0.31	1.40	-	-
Fuel & oil	6.21	6.85	5.57	6.37
Repairs	15.59	22.74	10.03	17.84
Custom hire	0.84	2.20	-	1.10
Hired labor	1.27	0.24	-	6.02
Operating interest	1.39	0.84	1.26	3.11
Miscellaneous	1.49	0.44	0.09	5.74
Total direct expenses per acre	32.09	42.28	16.95	56.08
Return over direct exp per acre	55.01	-6.72	50.51	128.36
<b>Overhead Expenses</b>				
Custom hire	1.78	0.19	4.17	0.94
Hired labor	3.54	0.53	7.88	0.68
Machinery & bldg leases	0.44	-	1.15	0.06
RE & pers. property taxes	3.49	2.75	3.32	4.10
Farm insurance	1.80	1.96	1.51	2.65
Utilities	1.44	2.19	0.55	2.01
Dues & professional fees	0.83	1.14	-	1.64
Interest	12.39	7.92	13.41	21.92
Mach & bldg depreciation	8.60	6.76	9.57	8.16
Miscellaneous	0.87	1.01	0.23	2.19
Total overhead expenses per acre	35.19	24.44	41.79	44.36
Total dir & ovhd expenses per acre	67.28	66.73	58.74	100.44
Net return per acre	19.82	-31.16	8.72	84.00
Lbr & mgt charge per acre	13.60	11.43	8.24	16.18
Net return over lbr & mgt	6.21	-42.59	0.48	67.82
Government payments	3.34	2.35	1.98	6.87
Net return with govt payments	9.55	-40.24	2.46	74.69
<b>Cost of Production</b>				
Total direct expense per ton	16.58	37.23	9.42	19.73
Total dir & ovhd exp per ton	34.76	58.75	32.64	35.33
With labor & management	41.79	68.81	37.21	41.02
Total exp less govt & oth income	40.07	66.74	36.11	38.61
Est. labor hours per acre	3.18	2.25	2.88	3.10

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Hay, Grass on Cash Rent**

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	25	5	5
Number of farms	24	5	5
Acres	45.44	18.42	30.40
Yield per acre (ton)	1.81	1.89	3.18
Operators share of yield %	100.00	100.00	100.00
Value per ton	45.98	43.33	54.23
Total product return per acre	83.39	81.98	172.38
Miscellaneous income per acre	-	-	-
Gross return per acre	83.39	81.98	172.38
<b>Direct Expenses</b>			
Fertilizer	1.57	7.05	-
Crop chemicals	0.56	-	4.19
Fuel & oil	6.11	5.77	7.72
Repairs	11.82	18.39	12.42
Custom hire	0.28	0.58	-
Hired labor	0.23	-	1.74
Land rent	18.07	14.81	21.32
Operating interest	1.30	3.57	1.39
Miscellaneous	1.12	1.78	1.67
Total direct expenses per acre	41.06	51.95	50.44
Return over direct exp per acre	42.33	30.03	121.94
<b>Overhead Expenses</b>			
Custom hire	1.01	2.96	2.87
Hired labor	2.54	3.68	3.64
Machinery & bldg leases	0.84	0.53	1.07
Farm insurance	1.59	1.28	1.83
Utilities	0.60	1.32	1.25
Dues & professional fees	0.35	0.54	0.44
Interest	4.44	7.61	1.83
Mach & bldg depreciation	7.23	8.77	13.59
Miscellaneous	0.80	1.43	1.09
Total overhead expenses per acre	19.39	28.11	27.62
Total dir & ovhd expenses per acre	60.45	80.06	78.06
Net return per acre	22.94	1.92	94.31
Lbr & mgt charge per acre	11.28	24.40	11.89
Net return over lbr & mgt	11.66	-22.48	82.42
Government payments	1.84	2.81	6.31
Net return with govt payments	13.50	-19.68	88.73
<b>Cost of Production</b>			
Total direct expense per ton	22.64	27.46	15.87
Total dir & ovhd exp per ton	33.33	42.32	24.56
With labor & management	39.55	55.21	28.30
Total exp less govt & oth income	38.53	53.73	26.31
Est. labor hours per acre	2.90	4.60	2.28

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

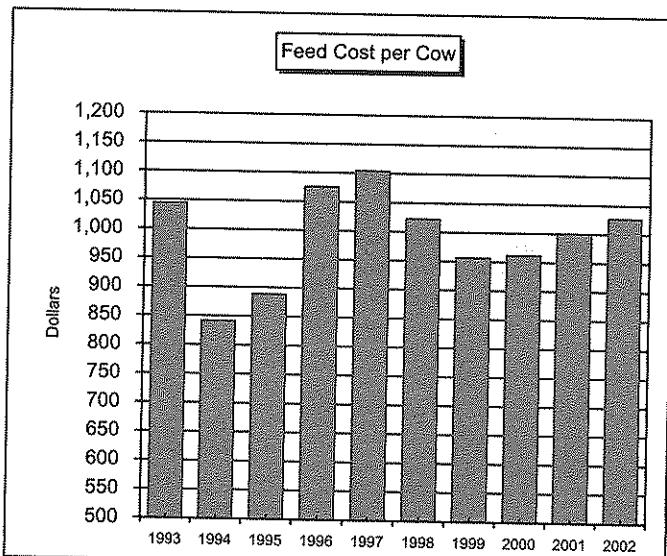
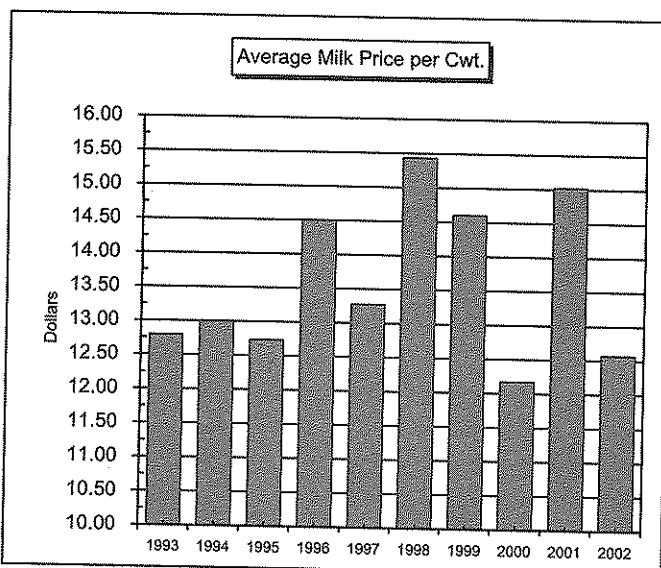
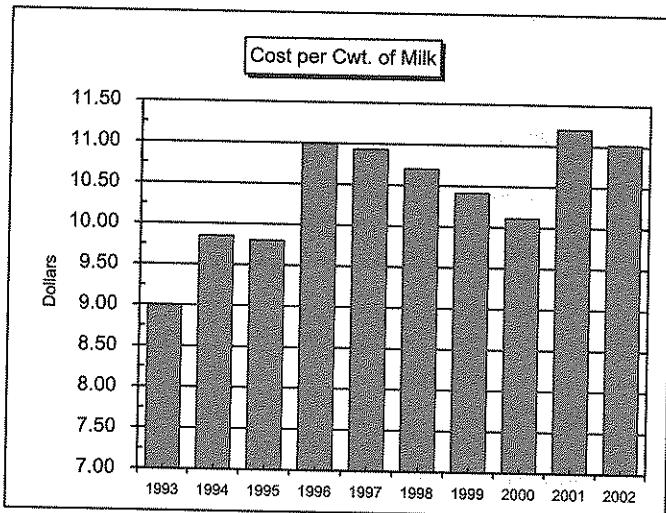
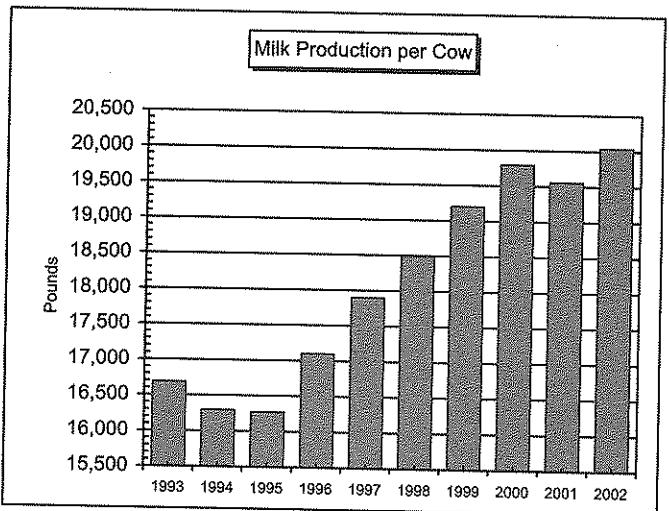
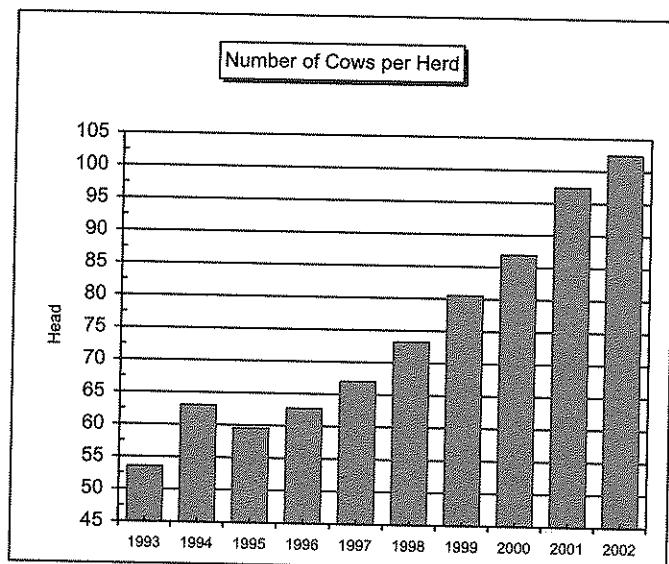
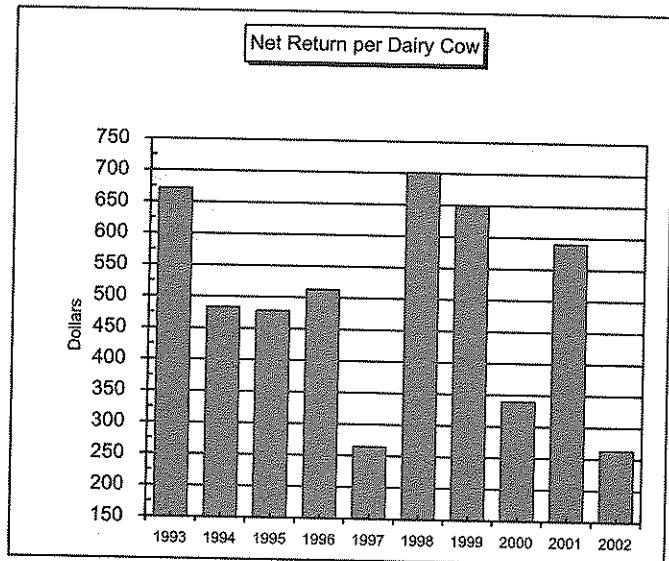
**Hay, Small Grain on Owned Land and Cash Rent**

	<u>Avg. Of All Farms Owned Land</u>	<u>Avg. Of All Farms Cash Rent</u>
Number of fields	9	7
Number of farms	9	7
Acres	38.28	27.23
Yield per acre (ton)	2.90	1.44
Operators share of yield %	100.00	100
Value per ton	32.75	25.96
Total product return per acre	95.12	37.47
Miscellaneous income per acre	2.39	11.97
Gross return per acre	97.50	49.44
<b>Direct Expenses</b>		
Seed	16.37	8.26
Fertilizer	8.22	8.05
Crop chemicals	0.96	0.32
Crop insurance	1.55	2.61
Fuel & oil	9.82	9.46
Repairs	21.39	21.27
Custom hire	0.57	2.05
Land rent	-	13.66
Operating interest	1.79	2.03
Miscellaneous	1.28	2.64
Total direct expenses per acre	61.94	70.36
Return over direct exp per acre	35.57	-20.93
<b>Overhead Expenses</b>		
Custom hire	4.30	3.47
Hired labor	4.48	3.08
Machinery & bldg leases	1.41	0.13
RE & pers. property taxes	5.06	-
Farm insurance	1.68	1.28
Utilities	1.39	2.54
Dues & professional fees	0.43	0.42
Interest	20.63	5.45
Mach & bldg depreciation	12.76	14.73
Miscellaneous	2.59	3.33
Total overhead expenses per acre	54.73	34.43
Total dir & ovhd expenses per acre	116.67	104.79
Net return per acre	-19.16	-55.35
Lbr & mgt charge per acre	18.09	15.09
Net return over lbr & mgt	-37.25	-70.44
Government payments	7.70	7.46
Net return with govt payments	-29.55	-62.98
<b>Cost of Production</b>		
Total direct expense per ton	21.33	48.75
Total dir & ovhd exp per ton	40.18	72.61
With labor & management	46.40	83.06
Total exp less govt & oth income	42.93	69.60
Est. labor hours per acre	2.94	2.57

**Crop Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Haylage, Alfalfa on Owned Land and Cash Rent**

	<u>Avg. Of All Farms Owned Land</u>	<u>Avg. Of All Farms Cash Rent</u>
Number of fields	17	13
Number of farms	16	13
Acres	74.14	66.16
Yield per acre (ton)	5.84	4.44
Operators share of yield %	100.00	100.00
Value per ton	36.81	38.46
Other product return per acre	-	11.22
Total product return per acre	215.08	181.98
Miscellaneous income per acre	7.51	0.66
Gross return per acre	222.59	182.64
<b>Direct Expenses</b>		
Fertilizer	7.95	12.38
Crop insurance	0.84	0.79
Fuel & oil	13.46	9.51
Repairs	29.70	22.59
Custom hire	1.46	1.07
Hired labor	1.86	0.72
Land rent	-	19.09
Machinery & bldg leases	-	0.64
Operating interest	2.00	1.50
Miscellaneous	2.61	2.36
Total direct expenses per acre	59.87	70.64
Return over direct exp per acre	162.72	112.00
<b>Overhead Expenses</b>		
Custom hire	3.62	3.09
Hired labor	8.89	8.30
Machinery & bldg leases	2.10	2.52
RE & pers. property taxes	4.39	-
Farm insurance	2.52	1.86
Utilities	1.21	1.69
Dues & professional fees	1.92	0.37
Interest	21.71	8.99
Mach & bldg depreciation	21.06	14.62
Miscellaneous	2.82	3.06
Total overhead expenses per acre	70.24	44.51
Total dir & ovhd expenses per acre	130.11	115.15
Net return per acre	92.47	67.49
Lbr & mgt charge per acre	26.01	21.02
Net return over lbr & mgt	66.46	46.47
Government payments	8.32	8.24
Net return with govt payments	74.78	54.71
<b>Cost of Production</b>		
Total direct expense per ton	10.25	15.91
Total dir & ovhd exp per ton	22.27	25.93
With labor & management	26.72	30.67
Total exp less govt & oth income	24.01	26.13
Est. labor hours per acre	6.11	5.29



**Livestock Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Dairy — Average Per Cwt Of Milk**

	<b>Avg. Of All Farms</b>		<b>Low 20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
	507	Quantity	103	Value	Quantity	101	Value	99
Number of farms								
Milk sold (lb)	99.58	12.52	99.07	11.95	99.64	12.38	99.59	12.80
Milk used in home (lb)	0.05	0.01	0.10	0.01	0.05	0.01	0.05	0.00
Milk fed to animals (lb)	0.37	0.04	0.83	0.09	0.31	0.04	0.36	0.04
Dairy Calves sold (hd)	0.00	0.12	0.00	0.22	0.00	0.11	0.00	0.09
Transferred out (hd)	0.00	0.40	0.00	0.41	0.00	0.33	0.00	0.40
Cull sales (hd)	0.00	0.56	0.00	0.68	0.00	0.60	0.00	0.52
Butchered (hd)	0.00	0.01	0.00	0.03	0.00	0.02	0.00	0.01
Less purchased (hd)	0.00	-0.58	0.00	-1.29	0.00	-0.73	0.00	-0.28
Less transferred in (hd)	0.00	-1.74	0.00	-1.94	0.00	-1.66	0.00	-1.56
Inventory change (hd)	0.00	0.19	0.00	-0.03	0.00	0.23	0.00	0.28
Total production	11.54		10.14		11.32		12.30	
Other income	0.79		0.90		0.75		0.83	
Gross return	12.33		11.04		12.07		13.13	
<b>Direct Expenses</b>								
Corn (bu.)	0.37	0.74	0.46	0.90	0.37	0.75	0.32	0.64
Corn Silage (lb.)	68.11	0.64	74.47	0.71	64.49	0.62	61.79	0.56
Hay, Alfalfa (lb.)	13.66	0.60	23.19	0.92	13.37	0.60	9.32	0.42
Haylage, Alfalfa (lb.)	33.86	0.70	35.81	0.76	33.85	0.68	31.48	0.61
Complete Ration (lb.)	5.64	0.59	8.71	0.60	6.68	0.72	6.04	0.69
Protein Vit Minerals (lb.)	12.72	1.56	13.80	1.83	11.84	1.46	12.05	1.46
Other feed stuffs	4.53	0.30	5.95	0.35	6.78	0.35	1.89	0.15
Breeding fees		0.14		0.15		0.13		0.15
Veterinary		0.47		0.51		0.51		0.43
BST		0.18		0.13		0.14		0.23
Livestock supplies		0.56		0.65		0.56		0.50
DHIA		0.07		0.08		0.07		0.07
Fuel & oil		0.15		0.18		0.16		0.12
Repairs		0.47		0.59		0.44		0.43
Custom hire		0.11		0.13		0.13		0.01
Hired labor		0.02		0.15		0.02		0.05
Machinery & bldg leases		0.04		0.06		0.13		0.12
Hauling and trucking		0.13		0.21		0.23		0.22
Marketing		0.22		0.23		0.04		0.09
Bedding		0.07		0.15		0.05		0.03
Operating interest		0.08		0.35		7.83		7.12
Total direct expenses	7.84		9.35		4.49	1.69	4.24	6.00
Return over direct expense								
<b>Overhead Expenses</b>								
Custom hire		0.08		0.04		0.07		0.09
Hired labor		1.11		0.45		1.09		1.31
Machinery & bldg leases		0.15		0.08		0.14		0.12
RE & pers. property taxes		0.05		0.06		0.05		0.03
Farm insurance		0.14		0.17		0.16		0.12
Utilities		0.30		0.39		0.29		0.27
Interest		0.58		0.69		0.63		0.48
Mach & bldg depreciation		0.59		0.54		0.59		0.61
Miscellaneous		0.19		0.20		0.16		0.20
Total overhead expenses	3.18		2.64		11.02	11.99	11.01	10.37
Total dir & ovhd expenses						-0.95	1.06	2.76
Net return		1.31						
Labor & management charge		0.90		1.32		0.83		0.84
Net return over lbr & mgt		0.42		-2.27		0.22		1.92
<b>Cost of Production</b>								
Total direct expense per cwt.	7.84		9.35				7.83	7.12
Total dir& ovhd expense per cwt.	11.02		11.99				11.01	10.37
With labor and management	11.91		13.31				11.85	11.20
With other revenue adjustments	12.15		14.32				12.20	10.91
Est. labor hours per unit		0.21		0.25		0.21		0.19
<b>Other Information</b>								
Avg. number of Cows	102.5		61.2				97.1	131.7
Milk produced per Cow	20,037		16,163				19,555	22,941
Culling percentage	26.4		25.9				27.7	26.6
Turnover rate	35.7		40.6				36.0	33.6
Percent of barn capacity	106.3		92.7				101.1	115.8
Lbs. milk/lb grain & conc.	2.4		2.0				2.4	2.7
Feed cost per cwt of milk	5.13		6.06				5.17	4.53
Feed cost per Cow	1,027.09		979.85				1,011.72	1,038.33
Avg. milk price per cwt.	12.57		12.06				12.42	12.85

**Livestock Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Dairy — Average Per Cow**

Number of farms	<b>Avg. Of All Farms</b>		<b>Low 20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
	507	103	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (lb)	19,953.50	2,508.98	16,012.67	1,931.11	19,484.85	2,420.43	22,845.70	2,935.51
Milk used in home (lb)	10.14	1.05	15.96	1.84	10.12	1.20	12.08	0.86
Milk fed to animals (lb)	73.31	7.53	134.00	14.38	60.24	7.24	82.95	8.13
Dairy Calves sold (hd)	0.12	23.80	0.07	36.19	0.04	21.83	0.14	21.04
Transferred out (hd)	0.66	80.42	0.61	67.04	0.60	65.17	0.73	91.75
Cull sales (hd)	0.26	113.05	0.26	109.87	0.28	118.29	0.27	119.68
Butchered (hd)	0.01	2.97	0.01	5.18	0.01	3.20	0.01	2.71
Less purchased (hd)	-0.10	-115.84	-0.16	-208.11	-0.11	-142.41	-0.06	-64.92
Less transferred in (hd)	-0.31	-348.25	-0.29	-313.97	-0.29	-325.43	-0.33	-357.15
Inventory change (hd)	0.04	37.62	0.03	4.81	0.03	44.00	0.05	63.73
Total production	2,311.35			1,638.72			2,213.52	
Other income		159.16		146.18			2,821.34	
Gross return	2,470.51			1,784.90			190.05	
<b>Direct Expenses</b>							3,011.39	
Corn (bu.)	74.62	148.57	74.77	146.03	72.78	145.71	73.13	146.63
Corn Silage (lb.)	13,647.20	129.08	12,035.75	114.77	12,611.56	121.73	14,174.37	128.13
Hay, Alfalfa (lb.)	2,737.70	120.09	3,747.45	148.49	2,614.20	117.83	2,137.34	96.10
Haylage, Alfalfa (lb.)	6,784.87	140.23	5,787.17	122.03	6,619.14	132.52	7,222.56	140.50
Complete Ration (lb.)	1,129.99	117.56	1,408.	14 96.27	1,305.57	140.98	1,386.65	157.76
Protein Vit Minerals (lb.)	2,548.42	312.09	2,231.18	295.60	2,314.38	284.88	2,764.74	335.66
Other feed stuffs	907.59	59.46	962.32	56.66	1,325.71	68.06	432.83	33.55
Breeding fees		28.47		24.97		25.16		34.05
Veterinary		94.92		82.57		99.69		97.83
BST		35.14		20.92		27.66		53.79
Livestock supplies		118.59		116.28		113.25		125.58
DHIA		14.62		13.60		14.10		15.84
Fuel & oil		30.12		28.92		31.86		27.04
Repairs		94.80		96.06		86.99		99.74
Custom hire		22.69		20.21		26.06		34.57
Hired labor		4.64		25.01		2.94		1.93
Hauling and trucking		26.32		33.50		24.75		27.93
Marketing		43.95		37.65		44.03		50.31
Bedding		13.19		7.06		13.02		21.35
Operating interest		15.93		24.67		9.82		5.89
Total direct expenses	1,570.49		1,511.27			1,531.05		1,634.18
Return over direct expense	900.02		273.63			829.43		1,377.21
<b>Overhead Expenses</b>								
Custom hire		15.21		7.02		13.18		21.16
Hired labor		222.04		72.44		213.08		300.72
Machinery & bldg leases		30.49		13.67		27.10		27.21
Farm insurance		27.81		28.26		31.10		27.89
Utilities		60.68		63.57		57.24		62.63
Interest		116.84		110.81		122.29		110.41
Mach & bldg depreciation		117.52		88.08		116.14		139.41
Miscellaneous		46.54		42.90		42.24		54.87
Total overhead expenses		637.14		426.75		622.36		744.29
Total dir & ovhd expenses	2,207.62		1,938.02			2,153.41		2,378.47
Net return	262.88		-153.12			207.07		632.92
Labor & management charge		179.37		213.47		163.27		
Net return over lbr & mgt	83.52		-366.59			43.80		192.00
440.92								
<b>Cost of Production</b>								
Total direct expense per cwt.		7.84		9.35		7.83		7.12
Total dir& ovhd expense per cwt.	11.02		11.99		11.01		10.37	
With labor and management	11.91		13.31		11.85		11.20	
With other revenue adjustments	12.15		14.32		12.20		10.91	
Est. labor hours per unit	41.88		40.93		42.00		43.18	
<b>Other Information</b>								
Avg. number of Cows	102.5		61.2		97.1		131.7	
Milk produced per Cow	20,037		16,163		19,555		22,941	
Culling percentage	26.4		25.9		27.7		26.6	
Turnover rate	35.7		40.6		36.0		33.6	
Percent of barn capacity	106.3		92.7		101.1		115.8	
Lbs. milk/lb grain & conc.	2.4		2.0		2.4		2.7	
Feed cost per cwt of milk	5.13		6.06		5.17		4.53	
Feed cost per Cow	1,027.09		979.85		1,011.72		1,038.33	
Avg. milk price per cwt.	12.57		12.06		12.42		12.85	

**Livestock Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
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**(Farms Sorted By Return to Overhead)**

**Dairy and Repl Heifers — Average Per Cow**

Number of farms	<b>Avg. Of All Farms</b>		<b>Low 20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
	331		67		66		65	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (lb)	19,967.22	2,516.57	15,887.22	1,895.39	19,670.63	2,451.64	22,721.70	2,921.69
Milk used in home (lb)	10.80	1.03	19.69	2.29	10.23	1.14	15.29	0.77
Milk fed to animals (lb)	69.13	6.61	105.83	12.74	70.27	5.62	65.44	6.79
Dairy Calves sold (hd)	0.39	88.97	0.37	127.44	0.36	96.98	0.39	78.43
Transferred out (hd)	1.05	467.41	1.12	427.17	1.09	403.62	1.15	546.68
Cull sales (hd)	0.30	123.17	0.31	134.93	0.28	120.18	0.30	132.00
Butchered (hd)	0.01	4.75	0.02	6.16	0.02	6.97	0.01	3.31
Less purchased (hd)	-0.14	-161.04	-0.29	-326.79	-0.11	-134.16	-0.06	-61.42
Less transferred in (hd)	-0.97	-456.01	-1.03	-424.51	-1.01	-389.56	-1.03	-526.96
Inventory change (hd)	0.07	67.66	0.05	13.23	0.02	42.39	0.10	109.64
Total production	2,659.10		1,868.04			2,604.83		3,210.93
Other income	164.27		167.40			171.46		192.15
Gross return	2,823.37		2,035.44			2,776.29		3,403.08
<b>Direct Expenses</b>								
Corn (bu.)	83.93	167.42	91.64	181.40	79.86	157.89	97.33	191.25
Corn Silage (lb.)	18,273.03	174.75	17,666.11	167.58	18,977.03	179.97	17,721.33	163.18
Hay, Alfalfa (lb.)	3,618.99	156.79	5,043.41	192.28	3,381.57	149.04	2,974.63	131.23
Hay, Grass & Other (lb.)	1,253.85	32.87	1,561.17	39.26	1,577.83	40.84	904.85	22.82
Haylage, Alfalfa (lb.)	7,854.38	157.68	6,518.97	130.87	8,950.11	185.09	8,936.19	172.41
Complete Ration (lb.)	1,325.87	154.72	1,016.11	136.31	1,300.91	152.49	1,360.51	198.00
Protein Vit Minerals (lb.)	2,723.02	342.93	2,309.74	298.56	2,800.30	356.28	3,068.99	382.03
Other feed stuffs	1,162.31	77.33	1,594.03	89.85	1,235.97	63.91	1,025.92	51.50
Breeding fees	36.96		30.36			29.19		48.06
Veterinary	107.56		86.02			107.40		118.38
BST	37.69		14.97			32.84		53.68
Livestock supplies	135.11		121.42			146.43		126.19
DHIA	14.85		13.33			16.07		17.24
Contract production exp.	29.19		-			18.21		40.03
Fuel & oil	34.18		33.24			39.22		35.50
Repairs	106.32		121.37			113.32		118.98
Custom hire	31.90		16.03			22.81		36.96
Hired labor	3.27		23.70			0.15		1.05
Hauling and trucking	27.48		32.83			25.15		26.25
Marketing	46.49		40.31			48.27		52.18
Bedding	14.24		4.88			12.17		24.83
Operating interest	11.96		17.22			9.18		7.12
Total direct expenses	1,901.72		1,791.81			1,905.91		2,018.88
Return over direct expense	921.65		243.63			870.38		1,384.20
<b>Overhead Expenses</b>								
Custom hire	14.32		5.23			15.03		16.06
Hired labor	252.68		73.13			207.21		367.42
Machinery & bldg leases	30.45		14.90			32.36		46.08
Farm insurance	32.07		33.43			39.26		33.73
Utilities	70.28		71.48			72.34		77.91
Dues & professional fees	6.84		3.64			3.81		15.56
Interest	130.65		127.84			141.81		102.56
Mach & bldg depreciation	133.12		86.01			129.44		166.92
Miscellaneous	40.96		36.36			34.60		48.36
Total overhead expenses	711.36		452.01			675.87		874.59
Total dir & ovhd expenses	2,613.08		2,243.82			2,581.78		2,893.47
Net return	210.29		-208.38			194.51		509.60
Labor & management charge	209.94		248.52			205.48		221.58
Net return over lbr & mgt	0.36		-456.91			-10.97		288.02
<b>Cost of Production</b>								
Total direct expense per cwt.	9.49		11.19			9.65		8.85
Total dir& ovhd expense per cwt.	13.03		14.01			13.07		12.69
With labor and management	14.08		15.56			14.11		13.66
With other revenue adjustments	12.59		14.78			12.50		11.58
Est. labor hours per unit	49.83		51.48			48.83		52.94
<b>Other Information</b>								
Avg. number of Cows	100.9		58.0			101.9		120.1
Milk produced per Cow	20,047		16,013			19,751		22,802
Culling percentage	29.6		31.4			28.2		29.9
Turnover rate	46.1		54.8			46.2		41.8
Percent of barn capacity	106.8		90.5			104.9		118.0
Lbs. milk/lb grain & conc.	2.1		1.8			2.2		2.2
Feed cost per cwt of milk	6.31		7.72			6.51		5.76
Feed cost per Cow	1,264.51		1,236.11			1,285.51		1,312.42
Avg. milk price per cwt.	12.60		11.93			12.46		12.86

**Livestock Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Dairy Replacement Heifers — Average Average Head**

Number of farms	<b>Avg. Of All Farms</b>		<b>Low 20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
	483		99	Value	97	Value	95	Value
Replacements sold (hd)	0.33	101.14	0.15	32.59	0.44	184.81	0.21	90.89
Transferred out (hd)	0.41	414.27	0.37	329.51	0.42	426.88	0.37	418.08
Cull sales (hd)	0.03	5.62	0.04	8.01	0.03	8.60	0.04	5.97
Butchered (hd)	0.01	1.96	0.01	2.85	0.00	2.24	0.00	2.44
Less purchased (hd)	-0.07	-43.52	-0.03	-14.43	-0.15	-59.54	-0.02	-12.01
Less transferred in (hd)	-0.69	-90.15	-0.65	-85.52	-0.69	-76.64	-0.65	-95.10
Inventory change (hd)	0.03	11.50	0.03	-19.93	-0.04	-76.38	0.11	160.55
Total production (hd)	0.00	400.81	0.00	253.08	0.00	409.96	0.00	570.83
Other income		3.30		-		0.07		2.89
Gross return		404.11		253.08		410.03		573.72
<b>Direct Expenses</b>								
Corn (bu.)	12.68	25.15	15.48	30.56	14.36	27.61	13.23	26.30
Corn Silage (lb.)	5,132.65	47.18	5,660.89	52.24	5,682.86	52.55	4,908.94	44.74
Hay, Alfalfa (lb.)	1,380.41	43.02	1,668.17	61.64	1,068.13	39.58	2,128.33	32.31
Hay, Grass & Other (lb.)	786.40	19.59	680.01	16.25	746.01	20.26	742.09	17.77
Haylage, Alfalfa (lb.)	1,191.14	23.09	1,559.82	29.86	1,203.37	25.11	895.84	17.88
Oatlage (lb.)	421.30	3.62	589.32	5.63	161.03	1.23	527.08	3.93
Complete Ration (lb.)	487.63	26.28	234.54	41.51	158.92	19.15	318.04	23.35
Milk (lb.)	41.81	4.50	28.82	3.10	54.91	6.15	35.36	3.16
Milk Replacer (lb.)	7.63	6.78	4.46	3.48	9.34	7.95	7.28	7.58
Protein Vit Minerals (lb.)	465.73	44.59	1,192.34	51.48	352.44	52.96	198.69	32.56
Other feed stuffs	324.08	14.09	567.90	10.76	204.56	14.82	313.11	18.57
Breeding fees		7.46		11.05		5.90		7.01
Veterinary		14.22		14.58		16.67		14.56
Livestock supplies		15.09		15.00		19.86		11.20
Contract production exp.		23.33		56.29		6.19		17.29
Fuel & oil		5.23		5.29		5.25		4.98
Repairs		16.98		20.55		16.98		14.74
Custom hire		8.27		2.06		2.53		6.66
Machinery & bldg leases		1.85		5.04		0.79		0.23
Livestock leases		2.62		3.02		-		0.01
Bedding		1.94		2.18		0.87		0.48
Operating interest		1.86		1.66		1.90		2.07
Total direct expenses	356.71		443.22		344.32		307.39	
Return over direct expense	47.40		-190.14		65.71		266.32	
<b>Overhead Expenses</b>								
Custom hire		2.27		2.36		3.18		1.77
Hired labor		31.90		34.74		26.95		26.32
Machinery & bldg leases		5.22		5.22		3.92		9.60
Farm insurance		4.81		5.20		5.66		4.37
Utilities		10.30		11.22		10.04		10.20
Dues & professional fees		1.06		2.24		0.76		0.73
Interest		17.27		14.28		19.96		12.91
Mach & bldg depreciation		19.64		18.17		23.53		15.44
Miscellaneous		6.86		7.88		7.63		5.26
Total overhead expenses	99.33		101.32		101.64		86.59	
Total dir & ovhd expenses	456.04		544.54		445.96		393.99	
Net return	-51.93		-291.45		-35.93		179.73	
Labor & management charge		33.76		33.50		37.88		31.94
Net return over lbr & mgt		-85.69		-324.96		-73.81		147.80
<b>Cost of Production</b>								
Total direct expense per head	639.11		1,064.49		631.87		423.91	
Total dir& ovhd expense per head	773.81		1,259.79		749.49		573.42	
With labor and management	819.58		1,324.37		793.33		628.56	
With other revenue adjustments	815.11		1,324.37		793.25		623.57	
Est. labor hours per unit	7.45		6.49		7.20		7.88	
<b>Other Information</b>								
No. purchased or trans in	66		60		69		51	
Number sold or trans out	64		47		71		44	
Average number of head	87		90		83		76	
Percentage death loss	5.8		6.5		5.4		4.2	
Feed cost per average head	257.87		306.50		267.37		228.16	
Feed cost/head sold+trans	349.68		590.80		309.40		393.92	
Avg. purchase weight	70		106		31			
Avg. sales weight	72		32		102		74	
Avg. purch price / head	640.43		574.28		389.37		662.98	
Avg. sales price / head	306.70		212.61		417.24		429.47	

**Livestock Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
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**(Farms Sorted By Return to Overhead)**

**Dairy Steers — Average Per Cwt. Produced**

Number of farms	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>40 - 60%</u>		<u>High 20%</u>	
	156	Quantity	31	Value	31	Quantity	31	Value
Dairy Steers sold (lb)	138.50	81.82	162.33	93.64	148.98	86.73	126.47	79.00
Transferred out (lb)	0.92	0.77	4.87	4.18	0.59	0.47	-	-
Cull sales (lb)	0.05	0.03	0.10	0.05	0.12	0.10	0.01	0.01
Butchered (lb)	2.33	1.61	2.63	1.62	2.17	1.57	2.86	1.88
Less purchased (lb)	-31.67	-24.99	-44.70	-34.23	-41.98	-29.41	-8.52	-9.89
Less transferred in (lb)	-8.55	-7.30	-12.52	-11.01	-5.97	-4.83	-15.09	-11.66
Inventory change (lb)	-1.57	0.39	-12.70	-12.64	-3.91	-0.09	-5.74	0.71
Total production (lb)	100.00	52.34	100.00	41.60	100.00	54.54	100.00	60.05
Other income		0.02				54.54		60.05
Gross return		52.36		41.60				
<b>Direct Expenses</b>								
Corn (bu.)	9.64	19.21	8.75	17.67	11.36	24.12	8.67	15.13
Corn Silage (lb.)	251.53	2.35	736.33	6.81	121.30	1.10	157.99	1.52
Hay, Alfalfa (lb.)	50.39	1.60	91.44	2.82	39.38	1.39	40.04	1.12
Hay, Grass & Other (lb.)	31.28	0.81	83.10	2.07	18.57	0.51	18.34	0.37
Haylage, Alfalfa (lb.)	25.09	0.46	154.52	2.73	-	-	-	-
Oatlage (lb.)	17.41	0.18	111.82	1.12	-	-	-	-
Complete Ration (lb.)	19.23	1.96	23.07	2.34	9.85	1.31	2.82	0.84
Milk Replacer (lb.)	0.84	0.66	0.67	0.43	0.85	0.69	0.21	0.15
Protein Vit Minerals (lb.)	118.64	8.60	56.39	8.48	41.61	7.96	432.02	8.05
Other feed stuffs	6.49	0.69	6.62	2.19	9.18	0.59	1.97	0.11
Veterinary		1.78		2.41		2.47		0.48
Livestock supplies		1.26		1.27		1.26		1.06
Fuel & oil		0.70		1.05		0.58		0.65
Repairs		2.64		3.10		2.47		1.71
Custom hire		0.25		0.24		0.46		0.03
Hauling and trucking		0.49		0.38		0.62		0.67
Marketing		0.72		1.23		0.60		0.44
Operating interest		1.11		2.10		0.99		1.02
Total direct expenses	45.49		58.45		47.12		33.34	
Return over direct expense	6.88		-16.85		7.42		26.71	
<b>Overhead Expenses</b>								
Hired labor		1.20		2.44		0.92		1.41
Machinery & bldg leases		0.27		0.64		0.24		0.14
RE & pers. property taxes		0.23		0.32		0.12		0.33
Farm insurance		0.79		1.26		0.70		0.57
Utilities		1.16		1.61		1.23		1.19
Interest		1.52		2.66		0.85		1.94
Mach & bldg depreciation		2.34		3.22		1.84		2.04
Miscellaneous		0.92		1.13		0.81		0.59
Total overhead expenses	8.43		13.29		6.70		8.21	
Total dir & ovhd expenses	53.91		71.75		53.82		41.55	
Net return	-1.55		-30.14		0.73		18.50	
Labor & management charge	4.79		4.30		4.85		4.11	
Net return over lbr & mgt	-6.34		-34.44		-4.13		14.39	
<b>Cost of Production</b>								
Total direct expense per cwt.	54.32		68.59		53.34		41.34	
Total dir& ovhd expense per cwt.	60.37		76.54		57.82		47.84	
With labor and management	63.81		79.11		61.06		51.09	
With other revenue adjustments	63.79		79.11		61.06		51.09	
Est. labor hours per unit	0.65		0.75		0.51		0.65	
<b>Other Information</b>								
No. purchased or trans in	66		59		79		46	
Number sold or trans out	61		63		83		44	
Percentage death loss	3.3		2.5		2.3		3.8	
Avg. daily gain (lbs)	2.15		1.83		2.30		2.04	
Lbs of conc / lb of gain	6.75		5.80		6.94		8.74	
Lbs of feed / lb of gain	8.63		11.42		8.00		9.70	
Feed cost per cwt of gain	36.52		46.67		37.66		27.29	
Feed cost per head	323.81		291.98		325.36		316.54	
Average purchase weight	393		459		459		248	
Average sales weight	1,292		1,125		1,331		1,364	
Avg purch price / head	309.84		351.28		321.71		287.33	
Avg sales price / cwt	59.08		57.68		58.21		62.46	

**Livestock Enterprise Analysis**  
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**Beef Cow-Calf — Average Per Cow**

Number of farms	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>40 - 60%</u>		<u>High 20%</u>	
	116	Value	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	199.32	173.88	154.67	151.20	224.93	191.48	188.28	153.93
Transferred out (lb)	243.04	212.03	197.94	172.04	273.00	236.28	320.99	283.23
Cull sales (lb)	117.65	67.93	142.13	97.07	138.77	79.80	101.12	63.28
Butchered (lb)	5.21	3.10	5.44	2.97	4.29	3.85	9.01	5.22
Less purchased (lb)	-63.25	-59.07	-46.33	-46.91	-35.33	-28.64	-21.02	-44.17
Less transferred in (lb)	-34.52	-31.30	-58.83	-52.04	-19.65	-33.54	-49.08	-28.72
Inventory change (lb)	62.80	52.83	10.09	-8.73	-62.40	-44.18	45.06	81.39
Total production (lb)	530.24	419.40	405.13	315.61	523.61	405.06	594.36	514.16
Other income			0.82	0.31		0.45		1.44
Gross return			420.22		315.92		405.51	515.59
<b>Direct Expenses</b>								
Corn (bu.)	2.96	5.87	7.50	14.93	3.18	6.27	0.60	1.19
Corn Silage (lb.)	3,765.33	34.02	4,571.30	43.09	3,710.55	34.51	1,730.83	15.47
Hay, Alfalfa (lb.)	2,134.42	57.65	4,324.66	129.19	1,780.18	54.31	2,369.87	53.56
Hay, Grass & Other (lb.)	5,077.15	93.17	3,587.54	79.01	5,796.98	91.11	5,050.19	88.62
Oats (bu.)	1.79	2.39	2.73	4.26	0.57	0.80	0.79	1.12
Pasture (aum)	5.13	30.19	3.00	29.71	6.53	33.43	4.75	29.12
Complete Ration (lb.)	128.57	7.07	-	-	132.56	10.02	8.43	0.93
Protein Vit Minerals (lb.)	118.24	17.04	174.42	24.01	129.41	16.72	106.36	18.57
Other feed stuffs	427.57	4.89	268.13	6.44	178.18	4.15	842.90	5.94
Breeding fees		3.68		12.70		2.10		2.25
Veterinary		19.64		17.22		20.26		18.65
Livestock supplies		10.33		20.84		5.41		8.63
Fuel & oil		9.44		10.81		9.40		8.91
Repairs		20.43		29.75		25.75		16.46
Livestock leases		4.01		14.72		-		-
Hauling and trucking		0.83		2.69		1.03		0.27
Marketing		7.47		19.78		7.14		4.22
Operating interest		4.85		3.18		5.91		4.95
Total direct expenses	332.96			462.33		328.33		278.85
Return over direct expense	87.26			-146.41		77.18		236.75
<b>Overhead Expenses</b>								
Custom hire		2.44		2.17		4.07		3.85
Hired labor		8.70		4.57		4.82		13.13
Machinery & bldg leases		1.32		3.08		0.98		1.00
RE & pers. property taxes		3.11		4.18		2.71		3.05
Farm insurance		7.74		10.82		9.06		7.16
Utilities		11.01		12.67		11.74		10.54
Dues & professional fees		1.60		3.39		1.01		0.85
Interest		19.56		20.08		16.22		27.15
Mach & bldg depreciation		19.24		16.79		24.34		23.68
Miscellaneous		6.19		12.96		3.96		5.49
Total overhead expenses	80.91			90.70		78.90		95.90
Total dir & ovhd expenses	413.87			553.03		407.23		374.74
Net return	6.34			-237.11		-1.73		140.85
Labor & management charge		58.85		71.68		53.98		61.49
Net return over lbr & mgt	-52.50			-308.79		-55.70		79.36
<b>Cost of Production</b>								
Total direct expense per cwt.		62.79		114.12		62.70		46.92
Total dir& ovhd expense per cwt.		78.05		136.51		77.77		63.05
With labor and management		89.15		154.20		88.08		73.40
With other revenue adjustments		82.36		151.13		85.89		63.94
Est. labor hours per unit		10.39		8.49		10.74		11.75
<b>Other Information</b>								
Number of cows		75.6		62.3		69.9		81.1
Pregnancy percentage		96.1		94.1		94.9		97.5
Pregnancy loss percentage		2.5		2.5		1.6		1.9
Culling percentage		11.2		13.6		12.5		10.5
Calving percentage		93.7		91.8		93.4		95.6
Weaning percentage		87.2		81.1		87.0		91.0
Calves sold per cow		0.80		0.71		0.86		0.83
Calf death loss percent		7.6		12.2		7.1		4.8
Average weaning weight		543		483		545		570
Lbs weaned/exposed female		473		391		474		519
Feed cost per cow		252.29		330.63		251.32		214.51
Avg wgt/Beef Calf sold		587		497		588		653
Avg price / cwt		87.24		97.75		85.13		81.76

**Livestock Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

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

Number of farms	<b>Avg. Of All Farms</b>		<b>Low 20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
			116		23		24	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	37.59	32.79	38.18	37.32	42.96	36.57	31.68	25.90
Transferred out (lb)	45.84	39.99	48.86	42.47	52.14	45.13	54.01	47.65
Cull sales (lb)	22.19	12.81	35.08	23.96	26.50	15.24	17.01	10.65
Butchered (lb)	0.98	0.58	1.34	0.73	0.82	0.73	1.52	0.88
Less purchased (lb)	-11.93	-11.14	-11.43	-11.58	-6.75	-5.47	-3.54	-7.43
Less transferred in (lb)	-6.51	-5.90	-14.52	-12.85	-3.75	-6.41	-8.26	-4.83
Inventory change (lb)	11.84	9.96	2.49	-2.15	-11.92	-8.44	7.58	13.69
Total production (lb)	100.00	79.10	100.00	77.90	100.00	77.36	100.00	86.51
Other income		0.15		0.08		0.09		0.24
Gross return		79.25		77.98		77.44		86.75
<b>Direct Expenses</b>								
Corn (bu.)	0.56	1.11	1.85	3.68	0.61	1.20	0.10	0.20
Corn Silage (lb.)	710.11	6.42	1,128.36	10.64	708.65	6.59	291.21	2.60
Hay, Alfalfa (lb.)	402.54	10.87	1,067.48	31.89	339.98	10.37	398.73	9.01
Hay, Grass & Other (lb.)	957.52	17.57	885.53	19.50	1,107.11	17.40	849.69	14.91
Oats (bu.)	0.34	0.45	0.67	1.05	0.11	0.15	0.13	0.19
Pasture (acres)	0.97	5.69	0.74	7.33	1.25	6.38	0.80	4.90
Complete Ration (lb.)	24.25	1.33	-	-	25.32	1.91	1.42	0.16
Protein Vit Minerals (lb.)	22.30	3.21	43.05	5.93	24.71	3.19	7.89	3.12
Other feed stuffs	80.64	0.92	66.18	1.59	34.03	0.79	141.82	1.00
Breeding fees		0.69		3.13		0.40		0.38
Veterinary		3.70		4.25		3.87		3.14
Livestock supplies		1.95		5.14		1.03		1.45
Fuel & oil		1.78		2.67		1.80		1.50
Repairs		3.85		7.34		4.92		2.77
Livestock leases		0.76		3.63		-		-
Hauling and trucking		0.16		0.66		0.20		0.05
Marketing		1.41		4.88		1.36		0.71
Operating interest		0.91		0.79		1.13		0.83
Total direct expenses		62.79		114.12		62.70		46.92
Return over direct expense		16.46		-36.14		14.74		39.83
<b>Overhead Expenses</b>								
Custom hire		0.46		0.53		0.78		0.65
Hired labor		1.64		1.13		0.92		2.21
Machinery & bldg leases		0.25		0.76		0.19		0.17
RE & pers. property taxes		0.59		1.03		0.52		0.51
Farm insurance		1.46		2.67		1.73		1.20
Utilities		2.08		3.13		2.24		1.77
Dues & professional fees		0.30		0.84		0.19		0.14
Interest		3.69		4.96		3.10		4.57
Mach & bldg depreciation		3.63		4.14		4.65		3.98
Miscellaneous		1.17		3.20		0.76		0.92
Total overhead expenses		15.26		22.39		15.07		16.13
Total dir & ovhd expenses		78.05		136.51		77.77		63.05
Net return		1.20		-58.53		-0.33		23.70
Labor & management charge		11.10		17.69		10.31		10.35
Net return over lbr & mgt		-9.90		-76.22		-10.64		13.35
<b>Cost of Production</b>								
Total direct expense per cwt.		62.79		114.12		62.70		46.92
Total dir& ovhd expense per cwt.		78.05		136.51		77.77		63.05
With labor and management		89.15		154.20		88.08		73.40
With other revenue adjustments		82.36		151.13		85.89		63.94
Est. labor hours per unit		1.96		2.10		2.05		1.98
<b>Other Information</b>								
Number of cows		75.6		62.3		69.9		81.1
Pregnancy percentage		96.1		94.1		94.9		97.5
Pregnancy loss percentage		2.5		2.5		1.6		1.9
Culling percentage		11.2		13.6		12.5		10.5
Calving percentage		93.7		91.8		93.4		95.6
Weaning percentage		87.2		81.1		87.0		91.0
Calves sold per cow		0.80		0.71		0.86		0.83
Calf death loss percent		7.6		12.2		7.1		4.8
Average weaning weight		543		483		545		570
Lbs weaned/exposed female		473		391		474		519
Feed cost per cow		252.29		330.63		251.32		214.51
Avg wgt/Beef Calf sold		587		497		588		653
Avg price / cwt		87.24		97.75		85.13		81.76

**Livestock Enterprise Analysis**  
**Farm Business Management Northwest Averages**  
**Northland Community and Technical College**  
**(Farms Sorted By Return to Overhead)**

**Beef, Background Beef — Average Per Head**

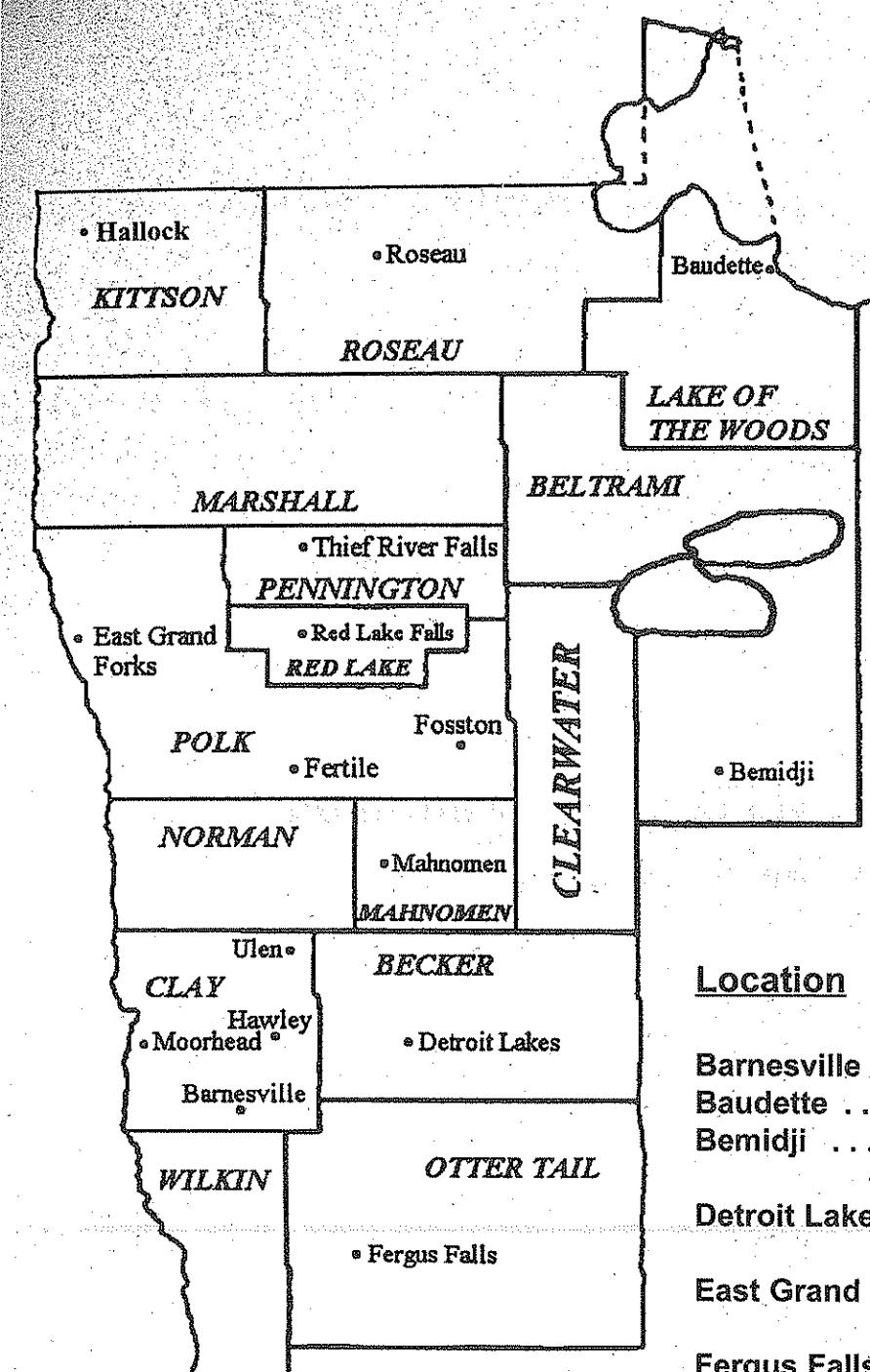
Number of farms	<u>Avg. Of</u> <u>All Farms</u>		<u>Low 20%</u>		<u>40 - 60%</u>		<u>High 20%</u>	
	25	5	5	Value	5	Value	5	Value
Backgnd Beef sold (lb)	763.82	574.11	1,354.72	1,074.67	810.65	584.06	565.28	435.35
Transferred out (lb)	76.15	58.92	57.82	53.13	45.25	37.74	52.01	40.11
Cull sales (lb)	28.04	21.46	-	-	3.04	1.49	177.71	137.47
Butchered (lb)	10.01	7.13	16.67	18.65	15.12	9.71	7.52	6.80
Less purchased (lb)	-249.84	-218.44	-386.96	-322.25	-284.41	-298.73	-34.74	-26.64
Less transferred in (lb)	-305.86	-259.83	-685.62	-569.32	-175.70	-159.64	-519.21	-430.88
Inventory change (lb)	-9.30	-21.51	-53.29	-71.08	-15.21	-13.70	129.86	83.19
Total production (lb)	313.02	161.86	303.34	183.79	398.74	160.93	378.44	245.40
Other income	0.15	-	-	-	-	-	-	-
Gross return	162.01	-	183.79	-	160.93	-	245.40	-
<b>Direct Expenses</b>								
Corn (bu.)	12.39	24.22	29.35	59.32	19.04	34.19	16.95	33.77
Corn Silage (lb.)	2,618.01	24.77	2,286.63	21.27	1,398.90	20.21	233.96	2.13
Hay, Alfalfa (lb.)	559.94	14.56	301.06	4.52	996.52	30.71	113.08	4.93
Hay, Grass & Other (lb.)	810.45	19.17	2,415.81	64.86	205.45	4.98	1,637.74	28.74
Oats (bu.)	2.31	6.13	3.29	5.26	1.02	1.83	6.69	9.21
Pasture (aum)	0.21	1.36	-	-	0.20	0.81	0.61	4.94
Stover (lb.)	36.73	0.61	-	-	96.09	1.20	94.70	2.17
Complete Ration (lb.)	458.15	11.80	675.05	31.22	1,420.70	14.20	53.48	14.42
Creep / Starter (lb.)	14.36	0.65	-	-	-	-	96.93	4.38
Protein Vit Minerals (lb.)	98.20	14.26	26.36	4.44	178.90	19.12	19.66	4.34
Other feed stuffs	0.29	3.60	-	-	-	-	0.97	0.44
Veterinary	9.46	-	29.71	-	-	-	-	-
Livestock supplies	5.19	-	13.14	-	-	-	5.77	-
Fuel & oil	2.58	-	3.84	-	-	-	9.18	-
Repairs	6.33	-	16.70	-	-	-	4.29	2.32
Custom hire	0.67	-	-	-	-	-	10.77	5.09
Hauling and trucking	4.51	-	20.23	-	-	-	2.82	-
Marketing	6.00	-	23.95	-	-	-	-	0.42
Operating interest	3.81	-	0.30	-	-	-	-	7.86
Total direct expenses	159.66	-	298.77	-	-	-	8.86	0.43
Return over direct expense	2.35	-	-114.98	-	-	-	169.13	140.54
-	-	-	-	-	-	-	-8.20	104.86
<b>Overhead Expenses</b>								
Custom hire	2.88	-	0.50	-	-	-	8.07	4.17
Hired labor	2.19	-	8.25	-	-	-	5.47	0.28
Machinery & bldg leases	0.46	-	2.30	-	-	-	0.44	-
RE & pers. property taxes	0.45	-	2.55	-	-	-	0.13	0.55
Farm insurance	1.59	-	4.63	-	-	-	1.35	2.34
Utilities	2.32	-	5.47	-	-	-	2.29	0.87
Dues & professional fees	0.25	-	0.22	-	-	-	0.83	0.19
Interest	4.31	-	24.00	-	-	-	2.39	1.51
Mach & bldg depreciation	5.56	-	20.71	-	-	-	7.93	3.41
Miscellaneous	1.72	-	6.33	-	-	-	0.72	3.41
Total overhead expenses	21.74	-	74.97	-	-	-	29.63	16.74
Total dir & ovhd expenses	181.40	-	373.74	-	-	-	198.76	157.28
Net return	-19.39	-	-189.94	-	-	-	-37.83	88.12
Labor & management charge	13.89	-	19.65	-	-	-	23.32	16.34
Net return over lbr & mgt	-33.28	-	-209.60	-	-	-	-61.15	71.78
<b>Cost of Production</b>								
Total direct expense per cwt.	75.10	-	87.98	-	-	-	73.61	60.04
Total dir& ovhd expense per cwt.	77.69	-	93.29	-	-	-	77.07	62.75
With labor and management	79.34	-	94.68	-	-	-	79.79	65.39
With other revenue adjustments	79.33	-	94.68	-	-	-	79.79	65.39
Est. labor hours per unit	2.21	-	2.47	-	-	-	2.90	2.93
<b>Other Information</b>								
No. purchased or trans in	105	-	84	-	-	-	108	-
Number sold or trans out	103	-	76	-	-	-	109	55
Percentage death loss	0.9	-	-	-	-	-	0.4	1.8
Avg. daily gain (lbs)	1.42	-	0.81	-	-	-	1.86	1.81
Lbs of conc / lb of gain	4.47	-	8.08	-	-	-	6.77	3.52
Lbs of feed / lb of gain	11.72	-	19.55	-	-	-	11.13	8.55
Feed cost per cwt of gain	38.69	-	62.93	-	-	-	31.91	28.93
Feed cost per head	121.12	-	190.89	-	-	-	127.25	109.47
Average purchase weight	496	-	512	-	-	-	490	430
Average sales weight	815	-	713	-	-	-	899	809
Avg purch price / cwt	87.43	-	83.28	-	-	-	105.03	76.69
Avg sales price / cwt	75.16	-	79.33	-	-	-	72.05	77.01

## **Northland Community and Technical College Mission Statement**

Northland Community and Technical College, an accredited college that provides technical and liberal arts education, is dedicated to creating a quality learning environment through partnerships with students, communities, businesses, and other educational institutions.

## **Farm Business Management Education Mission Statement**

Management Programs provide life-long learning instruction within our communities meeting the goals of a diverse business community.



## **NORTHLAND COMMUNITY AND TECHNICAL COLLEGE**

### **FARM BUSINESS MANAGEMENT PROGRAMS**

*Northwestern  
Minnesota*

#### **Location**

<b>Instructor</b>
Barnesville ..... Sheldon Schmiess
Baudette ..... Gerald Ausmus
Bemidji ..... Jim Sackett
Detroit Lakes ..... Steve Ziegler
Detroit Lakes ..... Mark Berg
East Grand Forks ..... Paul Ramsey
Fergus Falls ..... Ron Dvergsten
Fergus Falls ..... Joel Osowski
Fosston ..... Rudy Hasbargen
Hallock ..... Doug Fjerstad
Hawley/Fertile ..... Chad Anvinson
Mahnomen/Ulen ..... Dennis Olsen
Moorhead ..... Mike Lockhart
Moorhead ..... Rick Morgan
Moorhead ..... Greg Tullis
Red Lake Falls ..... Greg Kalinoski
Roseau ..... Duane Jaenicke
Thief River Falls ..... Greg Dvergsten
Marketing ..... Danie Packard
Marketing ..... Betsy Jensen