

## 2016 Minnesota FFA State Farm Business Management Practicum

Whitey and Lois Black are owner operators of Black Crop and Hog Farm. They run 815 acres of spring wheat, corn, and soybeans. Over the next several years they would like to continue to pay off the debt on their farm. They would like you to take a look at their records to assist them in assessing their efficiency in operating their farm and to start to look at how they can improve their profitability. Their farm business instructor has suggested that they compare their figures to the area average of the farms in the area to see where changes could be made. We have provided that information for you. The Southwestern Minnesota Annual Report will provide the area average data you will need for comparison.

We have provided the Black Farm Analysis for you to use in this packet:

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### Terminology & Definitions

Bu "" Bushels (Corn "" 60 pounds per bushel) (Soybeans "" 60 pounds/bushel) (Oats "" 36 pounds/bushel)

CWT"" 100 pounds of product T"" Ton (2,000 pounds)

Yield: Total volume of product per acre, generally expressed in bu, tons, or cwt.

Liquidity: The ability to meet cash obligations when needed. Solvency:

The ability to pay off all debt when the business is sold. Enterprise:

Income and Expense center for the business (Ex: Corn, Beet)

Cash Flow: Statement showing when & where cash moves through the operation.

Balance Sheet: Statement of Assets and Liabilities for the business at a point in time.

Direct Costs: Expenses, which vary depending on enterprise (variable costs).

Overhead Costs: Expenses that are incurred even if no production takes place. (Fixed costs)

Contribution to Overhead: Net dollars available after covering Direct Costs.

Value of Farm Prod.: Measure of Farm Income used to compare different operations on a more equal basis.

Balance Sheet Category: Type of Asset or Liability, such as: Current, Intermediate, Long Term, or Non Farm.

Current Ratio Balance Sheet ratio is calculated by dividing the Current Assets by the Current Liabilities.

Working Capital: A dollar amount calculated by subtracting total Current Liabilities from total Current Assets.

Debt to Asset Ratio: Balance Sheet ratio calculated by dividing the total Debt by the total Assets.

Net Capital Ratio: Balance Sheet Ratio calculated by taking the total Assets and dividing by total Liabilities.

Asset Turnover Rate: The Value of Farm Production divided by the dollar of investment (assets), as a percentage.

Rate of Return on Farm Assets: A percentage calculated by dividing the dollars of Return by the Total Farm Assets.

Market Value: Placing a value on all assets in the Balance Sheet, based on current market value.

Cost Value: Placing a value on capital assets in the Balance sheet, based on cost less depreciation.

Term Debt: Debt that has scheduled principal payments due over more than one year, which includes intermediate and long term loans.

Equity: Portion of assets that is owned, without a loan outstanding. (Net Worth)

### Rounding Answers

Unless otherwise instructed, round answers in the following manner:

Dollar Amounts- to the nearest dollar unless otherwise instructed.

Percentages - 1 decimal - 85.4%

General Numbers - 1 decimal 123.6

**2014 Financial Analysis Executive Summary**

**Income Statement**

Crop sales	576,522	
Crop inventory change	-171,347	
Gross crop income		405,175
Livestock sales	196,758	
Livestock inventory change	76,859	
Gross livestock income		273,617
Government payments		-
Other cash farm income	10,919	
Change in accounts receivable		51,202
Gain or loss on hedging accts		-
Change in other assets	-5,630	
Gain or loss on breeding lvst	-2,882	
<b>Gross farm income</b>		<b>732,401</b>
Cash operating expense	505,576	
Change in prepaid exp and supplies	24,664	
Change in growing crops		-
Change in accounts payable		-
Depreciation	67,172	
Total operating expense		597,412
Interest paid	1,846	
Change in accrued interest	-91	
Total interest expense		1,755
<b>Total expenses</b>		<b>599,167</b>
<b>Net farm income</b>		<b>133,234</b>

**Other Measures**

Total crop acres		827
Farrow-Fin Litters		116
Change in earned net worth	60,010	3 %
Change in market value net worth	102,269	5 %

**Financial Standards Measures**

	Beg	End
<b>Liquidity</b>		
Current ratio	3.10	3.47
Working capital	894,012	896,430
Working capital to gross revenues	122.1 %	122.4 %
<b>Solvency (market)</b>	<b>Beg</b>	<b>End</b>
Debt to asset ratio	35 %	33 %
Debt to equity ratio	0.54	0.48
<b>Profitability</b>	<b>Cost</b>	<b>Market</b>
Net farm income	133,234	179,039
Rate of return on assets	3.4 %	4.5 %
Rate of return on equity	4.1 %	6.7 %
Operating profit margin	12.5 %	19.4 %
<b>Repayment Capacity</b>		
Term debt coverage ratio (farm only)		52.40
Replacement margin coverage ratio		1.53
<b>Efficiency</b>	<b>Cost</b>	<b>Market</b>
Asset turnover rate	27.7 %	23.3 %
Operating expense ratio		72.4 %
Depreciation expense ratio		9.2 %
Interest expense ratio		0.2 %
Net farm income ratio		18.2 %
<b>Other</b>		
Term debt coverage (farm+personal)		52.40
Term debt to EBITDA		0.03

**Information Accuracy**

Cash discrepancy	-1
Liability discrepancy	0
Cash discrepancy to gross revenue	0 %

**Income Statement**

<b>Income</b>	<b>Quantity</b>	<b>Price</b>	<b>Amount</b>	<b>Expense</b>	<b>Amount</b>
Com	47,323 bu.	6.90/bu.	326,393	Seed	68,063
Soybeans	16,829 bu.	14.65/bu.	246,577	Fertilizer	70,378
Wheat, Spring	645 bu.	5.51/bu.	3,552	Crop chemicals	30,055
Raised Hogs	875 head	77.02/cwt.	196,758	Crop insurance	10,002
Patronage dividends, cash			9,589	Drying expense	6,450
Crop insurance income			716	Storage	17,055
Other farm income			614	Crop Custom hire	12,659
				Feeder livestock purchase	76,459
				Veterinary	5,934
				Supplies	15,452
				Interest	1,846
				Fuel & oil	23,363
				Repairs	17,009
				Hired labor	11,065
				Land rent	121,973
				Real estate taxes	4,711
				Farm insurance	4,387
				Utilities	7,309
				Miscellaneous	3,252
<b>Gross cash income</b>			<b>784,199</b>	<b>Total cash expense</b>	<b>507,422</b>
				<b>Net cash income</b>	<b>276,777</b>

<b>Inventory Changes</b>	<b>Beginning Inventory</b>	<b>Purchases</b>	<b>Sales</b>	<b>Ending Inventory</b>	<b>Inventory Change</b>
Prepays and supplies	184,716			160,052	-24,664
Accounts receivable	-			51,202	51,202
Crops and feed	1,068,545			897,198	-171,347
Market livestock	65,796			142,655	76,859
Breeding livestock	7,670	11,019	8,756	7,052	-2,882
Other assets	15,725	5,630	-	15,725	-5,630
Accrued interest	185			94	91
<b>Total inventory change</b>					<b>-76,371</b>
<b>Net operating profit</b>					<b>200,406</b>
<b>Depreciation</b>	<b>Beginning Inventory</b>	<b>Purchases</b>	<b>Sales</b>	<b>Ending Inventory</b>	<b>Depreciation</b>
Machinery and equipment	567,423	64,047	-	571,228	-60,242
Titled vehicles	-	-	-	-	-
Buildings and improvement	242,977	3,312	-	239,359	-6,930
<b>Total depreciation</b>					<b>-67,172</b>
<b>Net farm income</b>					<b>133,234</b>



**Crop Summary**

Total acres owned	189
Total crop acres	827
Crop acres owned	174
Crop acres cash rented	653
Crop acres share rented	-
Percent crop acres owned	21 %
Machinery investment/crop acre (cost)	689
Machinery investment/crop acre (market)	1,018

**Livestock Summary**

<b>Farrow-Fin Litters</b>	
Average number of sows	77.0
Litters farrowed	116
Litters per sow	1.51
Litters per crate	5.27
Pigs born per litter	11.27
Pigs weaned per litter	10.33
Pigs weaned per sow	15.56
Pigs sold per litter	7.54
Avg wgt/Raised Hogs sold	292

**Crop Yields**

	<b>Acres</b>	<b>Yield</b>
Com	416.7	167.3 bu.
Soybeans	399.7	50.8 bu.
Wheat, Spring	10.5	61.3 bu.

**Labor Summary**

Total unpaid labor hours	2,000
Total hired labor hours	1,000
Total farm labor hours	3,000
Value of farm production per hour	218.65
Net farm income per unpaid hour	66.62
Average hourly hired labor wage	11.07

**Crop Enterprise Analysis**

	<b>Corn Owned</b>	<b>Soybeans Owned</b>	<b>Soybeans Owned</b>	<b>Soybeans Cash Rented</b>	<b>Soybeans Cash Rented</b>	<b>Soybeans Cash Rented</b>	<b>Soybeans Cash Rented</b>
<b>Returns</b>							
Acres	68.20	37.95	67.75	74.00	38.70	38.60	74.80
Unit	bu.	bu.	bu.	bu.	bu.	bu.	bu.
Yield per acre	174.41	55.20	50.54	51.92	43.51	47.05	50.03
Share of production (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Value per unit	3.75	9.90	9.90	9.90	9.90	9.90	9.90
Total product value	654.05	546.52	500.33	514.00	430.79	465.76	495.26
Crop insurance	96.71	27.27	27.27	27.27	27.27	27.27	27.27
Other crop income	-	-	-	-	-	-	-
Gross return per acre	750.77	573.79	527.61	541.27	458.06	493.03	522.54
<b>Direct Expenses</b>							
Seed	108.19	39.95	39.95	39.95	39.95	39.95	39.95
Fertilizer	198.84	20.62	20.62	20.62	20.62	20.62	20.62
Crop chemicals	50.54	39.10	39.10	39.10	39.10	39.10	39.10
Crop insurance	10.88	13.51	13.51	13.51	13.51	13.51	13.51
Storage	40.93	-	-	-	-	-	-
Custom hire	6.93	7.88	7.88	7.88	7.88	7.88	7.88
Land rent	-	-	-	307.43	196.13	196.13	101.01
Fuel & oil	29.18	15.92	15.92	15.92	15.92	15.92	15.92
Repairs	19.92	10.86	10.86	10.86	10.86	10.86	10.86
Operating interest	1.86	1.01	1.01	1.01	1.01	1.01	1.01
Total direct expenses	467.27	148.86	148.86	456.29	344.99	344.99	249.87
Return over direct expenses	283.50	424.94	378.75	84.98	113.08	148.05	272.67
<b>Overhead Expenses</b>							
Hired labor	13.82	7.54	7.54	7.54	7.54	7.54	7.54
Real estate taxes	24.38	24.38	24.38	-	-	-	-
Farm insurance	5.14	2.80	2.80	2.80	2.80	2.80	2.80
Utilities	8.79	4.79	4.79	4.79	4.79	4.79	4.79
Interest on lng term debt	0.92	0.92	0.92	-	-	-	-
Machinery depreciation	84.66	46.18	46.18	46.18	46.18	46.18	46.18
Building depreciation	6.49	3.54	3.54	3.54	3.54	3.54	3.54
Miscellaneous	2.54	1.38	1.38	1.38	1.38	1.38	1.38
Total overhead expenses	146.73	91.54	91.54	66.24	66.24	66.24	66.24
Total dir & ovhd expenses	614.00	240.39	240.39	522.53	411.22	411.22	316.11
Net return per acre	136.76	333.40	287.21	18.74	46.84	81.81	206.43
Government payments	-	-	-	-	-	-	-
Net return with govt pmts	136.76	333.40	287.21	18.74	46.84	81.81	206.43
Labor & management charge	58.25	31.77	31.77	31.77	31.77	31.77	31.77
Net return over lbr & mgt	78.51	301.63	255.44	-13.03	15.06	50.04	174.66
<b>Cost of Production Per Unit</b>							
Total direct expenses	2.68	2.70	2.95	8.79	7.93	7.33	4.99
Total dir & ovhd expenses	3.52	4.35	4.76	10.06	9.45	8.74	6.32
Less govt & other income	2.97	3.86	4.22	9.54	8.82	8.16	5.77
With labor & management	3.30	4.44	4.85	10.15	9.55	8.84	6.41
Net value per unit	3.75	9.90	9.90	9.90	9.90	9.90	9.90
Machinery cost per acre	140.69	80.84	80.84	80.84	80.84	80.84	80.84
Est. labor hours per acre	3.28	1.79	1.79	1.79	1.79	1.79	1.79

**CROP ENTERPRISE ANALYSIS (continued)**

	<b>Soybeans Cash Rented</b>	<b>Soybeans Cash Rented</b>	<b>S. Wheat Cash Rented</b>	<b>Corn Cash Rented</b>	<b>Corn Cash Rented</b>	<b>Corn Cash Rented</b>	<b>Corn Cash Rented</b>
<b>Returns</b>							
Acres	30.40	37.50	10.50	73.70	39.15	38.95	68.20
Unit	bu.	bu.	bu.	bu.	bu.	bu.	bu.
Yield per acre	55.26	53.41	61.33	183.19	146.16	162.52	167.20
Share of production (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Value per unit	9.90	9.90	5.27	3.75	3.75	3.75	3.75
Total product value	547.11	528.79	323.23	686.96	548.08	609.44	627.00
Crop insurance	27.27	27.27	-	96.71	96.71	96.71	96.71
Other crop income	-	-	-	-	-	-	-
Gross return per acre	574.38	556.06	323.23	783.67	644.80	706.15	723.71
<b>Direct Expenses</b>							
Seed	39.95	39.95	38.00	108.19	108.19	108.19	108.19
Fertilizer	20.62	20.62	59.71	198.84	198.84	198.84	198.84
Crop chemicals	39.10	39.10	-	50.54	50.54	50.54	50.54
Crop insurance	13.51	13.51	6.76	10.88	10.88	10.88	10.88
Storage	-	-	-	40.93	40.93	40.93	40.93
Custom hire	7.88	7.88	25.05	6.93	6.93	6.93	6.93
Land rent	199.80	200.96	224.95	101.01	100.00	196.13	199.80
Fuel & oil	15.92	15.92	15.92	29.18	29.18	29.18	29.18
Repairs	10.86	10.86	10.86	19.92	19.92	19.92	19.92
Operating interest	1.01	1.01	1.01	1.86	1.86	1.86	1.86
Total direct expenses	348.66	349.82	382.27	568.28	567.27	663.40	667.07
Return over direct expenses	225.72	206.25	-59.05	215.39	77.53	42.75	56.65
<b>Overhead Expenses</b>							
Hired labor	7.54	7.54	7.54	13.82	13.82	13.82	13.82
Real estate taxes	-	-	-	-	-	-	-
Farm insurance	2.80	2.80	2.80	5.14	5.14	5.14	5.14
Utilities	4.79	4.79	4.79	8.79	8.79	8.79	8.79
Interest on lng term debt	-	-	-	-	-	-	-
Machinery depreciation	46.18	46.18	46.18	84.66	84.66	84.66	84.66
Building depreciation	3.54	3.54	3.54	6.49	6.49	6.49	6.49
Miscellaneous	1.38	1.38	1.38	2.54	2.54	2.54	2.54
Total overhead expenses	66.24	66.24	66.24	121.43	121.43	121.43	121.43
Total dir & ovhd expenses	414.89	416.05	448.51	689.71	688.70	784.83	788.50
Net return per acre	159.49	140.01	-125.28	93.96	-43.90	-78.68	-64.79
Government payments	-	-	-	-	-	-	-
Net return with govt pmts	159.49	140.01	-125.28	93.96	-43.90	-78.68	-64.79
Labor & management charge	31.77	31.77	31.77	58.25	58.25	58.25	58.25
Net return over lbr & mgt	127.71	108.24	-157.06	35.70	-102.16	-136.94	-123.04
<b>Cost of Production Per Unit</b>							
Total direct expenses	6.31	6.55	6.23	3.10	3.88	4.08	3.99
Total dir & ovhd expenses	7.51	7.79	7.31	3.77	4.71	4.83	4.72
Less govt & other income	7.01	7.28	7.31	3.24	4.05	4.23	4.14
With labor & management	7.59	7.87	7.83	3.56	4.45	4.59	4.49
Net value per unit	9.90	9.90	5.27	3.75	3.75	3.75	3.75
Machinery cost per acre	80.84	80.84	98.01	140.69	140.69	140.69	140.69
Est. labor hours per acre	1.79	1.79	1.79	3.28	3.28	3.28	3.28

**CROP ENTERPRISE ANALYSIS (continued)**

	<b>Corn Cash Rented</b>	<b>Corn Cash Rented</b>	<b>Soybeans Combined Owned</b>	<b>Soybeans Combined Cash Rented</b>	<b>Corn Combined Cash Rented</b>
<b>Returns</b>					
Acres	67.00	61.50	105.70	294.00	348.50
Unit	bu.	bu.	bu.	bu.	bu.
Yield per acre	169.15	154.63	52.21	50.23	165.85
Share of production (%)	100.00	100.00	100.00	100.00	100.00
Value per unit	3.75	3.75	9.90	9.90	3.75
Total product value	634.31	579.88	516.92	497.26	621.94
Crop insurance	96.71	96.71	27.27	27.27	96.71
Other crop income	-	-	-	-	-
Gross return per acre	731.02	676.59	544.19	524.53	718.66
<b>Direct Expenses</b>					
Seed	108.19	108.19	39.95	39.95	108.19
Fertilizer	198.84	198.84	20.62	20.62	198.84
Crop chemicals	50.54	50.54	39.10	39.10	50.54
Crop insurance	10.88	10.88	13.51	13.51	10.88
Storage	40.93	40.93	-	-	40.93
Custom hire	6.93	6.93	7.88	7.88	6.93
Land rent	200.96	225.01	-	200.94	171.96
Fuel & oil	29.18	29.18	15.92	15.92	29.18
Repairs	19.92	19.92	10.86	10.86	19.92
Operating interest	1.86	1.86	1.01	1.01	1.86
Total direct expenses	668.23	692.28	148.86	349.80	639.23
Return over direct expenses	62.80	-15.68	395.33	174.73	79.43
<b>Overhead Expenses</b>					
Hired labor	13.82	13.82	7.54	7.54	13.82
Real estate taxes	-	-	24.38	-	-
Farm insurance	5.14	5.14	2.80	2.80	5.14
Utilities	8.79	8.79	4.79	4.79	8.79
Interest on lng term debt	-	-	0.92	-	-
Machinery depreciation	84.66	84.66	46.18	46.18	84.66
Building depreciation	6.49	6.49	3.54	3.54	6.49
Miscellaneous	2.54	2.54	1.38	1.38	2.54
Total overhead expenses	121.43	121.43	91.54	66.24	121.43
Total dir & ovhd expenses	789.66	813.71	240.39	416.03	760.66
Net return per acre	-58.64	-137.12	303.80	108.50	-42.00
Government payments	-	-	-	-	-
Net return with govt pmts	-58.64	-137.12	303.80	108.50	-42.00
Labor & management charge	58.25	58.25	31.77	31.77	58.25
Net return over lbr & mgt	-116.89	-195.37	272.02	76.72	-100.26
<b>Cost of Production Per Unit</b>					
Total direct expenses	3.95	4.48	2.85	6.96	3.85
Total dir & ovhd expenses	4.67	5.26	4.60	8.28	4.59
Less govt & other income	4.10	4.64	4.08	7.74	4.00
With labor & management	4.44	5.01	4.69	8.37	4.35
Net value per unit	3.75	3.75	9.90	9.90	3.75
Machinery cost per acre	140.69	140.69	80.84	80.84	140.69
Est. labor hours per acre	3.28	3.28	1.79	1.79	3.28



**LIVESTOCK ENTERPRISE ANALYSIS -- Hogs, Farrow To Finish**

	<b>Per Cwt. Carcass Sold</b>		<b>Per Litter</b>		<b>Enterprise Total</b>	
	<b>Quantity</b>	<b>Value</b>	<b>Quantity</b>	<b>Value</b>	<b>Quantity</b>	<b>Value</b>
<b>Returns</b>						
Raised Hogs	134.29 lb.	103.43	2202.28 lb.	1696.19	255465.0 lb.	196758
Cull sales	7.59 lb.	4.60	124.44 lb.	75.48	14435.0 lb.	8756
Inventory change	37.09 lb.	24.43	608.32 lb.	400.63	70565.0 lb.	46473
Other income		-		-		-
Gross return	178.97 lb.	132.46	2935.04 lb.	2172.30	340465.0 lb.	251987
Purchased	-3.81 lb.	-5.79	-62.50 lb.	-94.99	-7250.0 lb.	-11019
Gross margin	175.16 lb.	126.67	2872.54 lb.	2077.31	333215.0 lb.	240968
<b>Direct Expenses</b>						
Complete Ration	145.24 lb.	40.19	2381.90 lb.	659.13	138.2 ton	76459
Com	6.92 bu.	25.97	113.56 bu.	425.83	13173.0 bu.	49396
Veterinary		3.12		51.16		5934
Supplies		8.12		133.21		15452
Hired labor		1.16		19.08		2213
Utilities		0.88		14.49		1681
Fuel & oil		2.46		40.28		4673
Repairs		2.24		36.66		4252
Operating interest		0.16		2.57		298
Total direct expenses		84.29		1382.39		160358
Return over direct expenses		42.37		694.91		80610
<b>Overhead Expenses</b>						
Real estate taxes		0.25		4.06		471
Farm insurance		0.58		9.45		1097
Utilities		0.00		0.00		0
Interest on lng term debt		0.06		0.92		106
Machinery depreciation		3.17		51.93		6024
Building depreciation		1.46		23.90		2772
Miscellaneous		0.85		14.02		1626
Total overhead expenses		6.36		104.28		12097
Total dir & ovhd expense		90.65		1486.67		172454
Net return		36.02		590.63		68514
Labor & management charge		8.41		137.84		15989
Net return over lbr & mgt		27.61		452.79		52524
Est. labor hours per unit		0.47		7.76		900
<b>Cost of Prod Per Cwt. Carcass Sold</b>						
Total direct expenses	84.29	<b>Other Information</b>				
Total dir & ovhd expenses	90.65	Average number of sows	77.0	Percent substandard hogs		4
With other revenue adjustments	92.17	Litters farrowed	116	Lb. of feed / lb. of gain		3.04
With labor & management	100.57	Litters per sow	1.51	Feed cost / cwt. of gain		37.77
		Litters per crate	5.27	Feed cost per litter		1,084.96
		Pigs born per litter	11.27	Avg wgt/Raised Hogs sold		292
		Pigs weaned per litter	10.33	Average carcass weight		227
		Pigs weaned per sow	15.56	Average price / cwt. carcass		101.80
		Pigs sold per litter	7.54			

**Contributions to Overhead Expenses**

Enterprise	Units	Contribution Per Unit	Total Contribution
Corn	416. Acres	112.83	47,016
Soybeans	399. Acres	233.07	93,158
Wheat, Spring	10.5 Acres	-59.05	-620
Farrow-Fin	116. Litter	694.91	80,610
Total contributions			220,164
<b>Overhead expenses</b>			
Hired labor			8,852
Real estate taxes			4,711
Farm insurance			4,387
Utilities			5,628
Interest on lng term debt			266
Machinery depreciation			60,242
Building depreciation			6,930
Miscellaneous			3,252
Total overhead expense			94,268
Total return over overhead expe			125,895

**Nonfarm Summary**

Personal Income	Amount
Personal wages & salary	54,351
Personal business income	-
Personal rental income	-
Personal interest income	-
Personal cash dividends	-
Tax refunds	-
Other personal income	-
Total personal income	54,351
<b>Family Living Expenses</b>	
Number of family members	2
Food and meals expense	10,000
Medical care	10,961
Health insurance	12,200
Cash donations	6,530
Household supplies	787
Clothing	3,600
Personal care	7,176
Gifts	3,000
Education	6,575
Utilities (household share)	3,525
Personal vehicle operating expenses	1,874
Household repairs	3,578
Life insurance payments	5,695
Miscellaneous	8,400
Total cash family living expense	83,901
Family living from the farm	-
Total family living	83,901
Furnishings and appliances	-
Personal vehicles	3,435
Personal business investment	-
Other intermediate assets	-
Personal real estate	22,072
Other long term assets	-
Personal savings and investments	19,713
Income and social security tax	52,375
Total personal expenditures	181,496

**Cash Accuracy Check**

Beginning cash balance	1,321	Ending cash balance	7,670
Gross cash farm income	784,199	Total cash farm expense	507,422
Personal income	54,351	Family living expense	83,901
Capital sales	13,454	Capital purchases	133,926
Money borrowed	360,000	Principal payments	426,203
Capital contributions	-	Capital distributions	829
Gifts and inheritances	2,000	Gifts given	3,000
Beginning personal savings	-	Ending personal savings	-
		Income taxes	52,375
Total inflows	1,215,325	Total outflows	1,215,326
		<b>Discrepancy (inflows - outflows)</b>	<b>-1</b>

**Liabilities Check**

Beginning liabilities		1,056,896
Money borrowed	(+)	360,000
Principal payments	(-)	426,203
Change in accounts payable	(+)	-11,202
Change in deferred liabilities	(+)	-15,038
Ending liabilities calculated	(=)	964,453
Ending liabilities reported	(-)	964,453
<b>Discrepancy</b>	<b>(*)</b>	<b>0</b>

**Crop & Feed Check**

Crop	Corn	Soybeans	S. Wheat	All Hay
Beginning inventory	121,363	33,129	-	-
Beginning CCC inventory	-	-	-	-
Produced	69,694	20,286	644	-
Purchased	-	-	-	-
Total sources	191,057	53,415	644	-
Sold	47,323	16,829	645	-
Fed	13,173	-	-	-
Ending inventory	131,488	36,843	-	-
Ending CCC inventory	-	-	-	-
Total uses	191,984	53,672	645	-
Discrepancy	-927	-257	-1	0

**Comparative Balance Sheets (cost)**

2014

**Current Assets**

Cash and checking	7,670
Prepaid exp. & supplies	160,052
Accounts receivable	51,202
Crop inventory	897,198
Livestock held for sale	142,655
<b>Total Current Assets</b>	<b>1,258,776</b>

**Intermediate Assets**

Breeding livestock	7,052
Machinery and equipment	571,228
Other intermediate assets	15,725
<b>Total Interim. Assets</b>	<b>594,004</b>

**Long Term Assets**

Land	249,050
Buildings & improvements	239,359
<b>Total Long Term Assets</b>	<b>488,409</b>

**Total Farm Assets** 2,341,189

Total Personal Assets 113,813

**Total All Assets** 2,455,002**Current Liabilities**

Accrued interest	94
Total Current Loans	360,000
Principal due on term loans	2,252
<b>Total Current Liabilities</b>	<b>362,346</b>

Total Intermediate Loans 0

Total Long Term Loans 4,758

**Total Farm Liabilities** 367,104

Total Personal Liabilities 30,000

**Total All Liabilities** 397,104**Equity**

Retained earnings	2,057,898
Retained earnings chg	0

**Comparative Balance Sheets (market)**

2014

**Current Assets**

Cash and checking	7,670
Prepaid exp. & supplies	160,052
Accounts receivable	51,202
Crop inventory	897,198
Livestock held for sale	142,655
<b>Total Current Assets</b>	<b>1,258,776</b>

**Intermediate Assets**

Breeding livestock	15,225
Machinery and equipment	857,785
Other intermediate assets	25,500
<b>Total Intermediate Assets</b>	<b>898,510</b>

**Long Term Assets**

Land	249,050
Buildings and improvements	344,425
Other long term assets	48,889
<b>Total Long Term Assets</b>	<b>642,364</b>

**Total Farm Assets** 2,799,650

Total Personal Assets 275,683

**Total All Assets** 3,075,333**Current Liabilities**

Accrued interest	94
Total Current Loans	360,000
Principal due on term loans	2,252
<b>Total Current Liabilities</b>	<b>362,346</b>

Total Intermediate Loans 0

Total Long Term Loans 4,758

**Total Farm Liabilities** 367,104

Total Personal Liabilities 30,000

Deferred liabilities 567,349

**Total All Liabilities** 964,453**Equity**

Retained earnings	2,057,898
Market valuation equity	52,981
Net worth	2,110,880
<b>Net worth change</b>	<b>0</b>

## Whitey Black Monthly Cash Flow Plan

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
<b>CASH INFLOWS</b>													
Beg cash bal	-71341	1000	1000	1000	1000	1000	1000	32687	105010	143155	198030	262367	-71341
Corn	90500	-	-	-	-	-	-	-	-	-	-	-	90500
Soybeans	88693	-	-	-	-	47092	51863	-	-	-	-	-	187648
Raised Hogs	360244	360244	366788	327161	325374	325374	320599	363916	321439	321439	321439	321439	4035456
Cull Stock	9892	9892	9892	9892	9892	9892	9892	9892	9892	9892	9892	9892	118704
Other Govt	-	-	-	-	-	-	-	-	-	48511	-	-	48511
Pat dividend	-	-	5000	-	-	-	-	-	-	-	-	-	5000
Total Inflow	477988	371136	382680	338053	336266	383358	383354	406495	436341	522997	529361	593698	4414478
<b>CASH OUTFLOWS</b>													
Seed	-	-	-	-	-	-	-	-	-	-	-	93450	93450
Fertilizer	-	-	-	-	-	-	-	-	-	-	-	72962	72962
Chemicals	-	-	-	-	-	-	-	-	-	-	-	31176	31176
Crop Insur.	-	-	-	-	-	-	-	-	-	8982	8766	-	17748
Drying fuel	-	-	-	-	-	-	-	-	-	-	7792	-	7792
Pur. Corn	-	-	-	-	23860	95759	71635	71635	71635	-	-	-	334524
Purch. Feed	105706	105523	105246	106880	110850	115047	93935	93935	93935	93935	93935	93935	1212862
Breeding	3173	3173	3173	3173	3173	3173	3173	3173	3173	3173	3173	3173	38076
Veterinary	13140	12995	12849	12849	12995	13140	11632	11632	11632	11632	11632	11632	147760
Supplies	2202	2173	2144	2144	2173	2202	1898	1898	1898	1898	1898	1898	24426
Fuel & Oil	3417	3417	3417	3417	3417	3417	3417	3417	3417	3417	3417	3417	41004
Repairs	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	15000
Cust hire	11222	11222	11222	11222	11222	11222	11222	11222	11222	11222	11222	11222	134664
Labor	27083	27083	27083	27083	27083	27083	27083	27083	27083	27083	27083	27083	324996
Land rent	34450	80726	-	-	-	-	-	-	-	80726	-	-	195902
Bldg leases	42924	42924	45324	42924	42924	42924	45324	42924	42924	42924	48024	42924	524988
Lvstk leases	-	18000	-	18000	-	18000	-	18000	-	18000	-	18000	108000
RE taxes	-	-	5409	-	-	-	-	-	-	5409	-	-	10818
Farm insur.	-	-	-	-	-	-	-	-	-	-	19775	19775	39550
Utilities	333	333	333	333	333	333	333	333	333	333	333	333	3996
Marketing	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	??????
Dues & Fees	250	250	1150	250	250	250	250	250	2050	250	250	550	6000
Misc.	750	750	750	750	750	750	750	750	750	750	750	750	9000
Accounts pay	481132	-	-	-	-	-	-	-	-	-	-	-	481132
Living/Draw	5417	5417	5417	5417	5417	5417	5417	5417	5417	5417	5417	5417	65004
Income taxes	-	-	11952	-	-	-	-	-	-	-	-	-	11952
Min end bal	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Tot outflows	735949	318736	240219	239192	249197	343467	280819	296419	280219	319901	248217	442447	3983777
Opr. Surplus	-257961	52400	142461	98861	87069	39891	102535	110076	156122	203096	281144	151251	430701
<b>ANNUAL OPERATING LOAN TRANSACTIONS &amp; BALANCES</b>													
Beg AO bal	-	299414	278080	178541	146606	87476	62996	-	-	-	-	-	-
AO borrowing	299414	-	-	-	-	-	-	-	-	-	-	-	299414
AO int. pay	-	-	1925	-	-	-	-	-	-	-	-	-	1925
AO princ pay	-	21334	99539	31935	59130	24480	62996	-	-	-	-	-	299414
End AO bal.	299414	278080	178541	146606	87476	62996	-	-	-	-	-	-	1053113
Accrued Int.	-	998	-	595	1084	1375	1585	1585	1585	1585	1585	1585	1585
End Cash Bal	1000	1000	1000	1000	1000	1000	32687	105010	143155	198030	262367	62570	62570

# Southwestern Minnesota

## Farm Business Management Association

### Annual Report

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**Financial Summary**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	109	21	22
<b>Income Statement</b>			
Gross cash farm income	1,086,085	1,111,824	2,407,839
Total cash farm expense	856,705	920,358	1,971,065
Net cash farm income	229,380	191,466	436,774
Inventory change	-49,479	-261,550	136,426
Depreciation	-70,801	-77,457	-112,918
Net farm income from operations	109,099	-147,540	460,282
Gain or loss on capital sales	9,296	875	43,773
Average net farm income	118,396	-146,665	504,054
Median net farm income	83,335	-42,218	246,639
<b>Profitability (cost)</b>			
Rate of return on assets	3.3 %	-7.4 %	10.5 %
Rate of return on equity	3.0 %	-12.7 %	13.4 %
Operating profit margin	9.6 %	-21.1 %	27.3 %
Asset turnover rate	34.0 %	34.9 %	38.4 %
<b>Liquidity &amp; Repayment (end of year)</b>			
Current assets	910,597	1,113,899	1,601,845
Current liabilities	348,450	484,273	596,109
Current ratio	2.61	2.30	2.69
Working capital	562,147	629,626	1,005,736
Working capital to gross inc	54.3 %	70.0 %	40.4 %
Term debt coverage ratio	1.40	-1.29	3.37
Replacement coverage ratio	0.97	-0.82	2.41
Term debt to EBITDA	1.99	-13.56	1.07
<b>Solvency (end of year at market)</b>			
Number of farms	109	21	22
Total assets	3,896,029	4,392,627	6,201,655
Total liabilities	1,357,656	1,680,945	2,096,521
Net worth	2,538,374	2,711,682	4,105,134
Total net worth change	139,199	85,176	406,439
Farm debt to asset ratio	37 %	40 %	35 %
Total debt to asset ratio	35 %	38 %	34 %
Change in total net worth %	6 %	3 %	11 %
<b>Nonfarm Information</b>			
Net nonfarm income	42,073	63,100	27,812
Farms reporting living expenses	41	7	7
Total family living expense	73,073	78,970	66,058
Total living, invest, cap. purch	140,853	190,555	65,259
<b>Crop Acres</b>			
Total crop acres	902	1,400	1,198
Total crop acres owned	208	220	302
Total crop acres cash rented	626	1,139	796
Total crop acres share rented	67	41	100
Machinery value per crop acre	528	395	571

**Financial Standards Measures**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	109	21	22
<b>Liquidity</b>			
Current ratio	2.61	2.30	2.69
Working capital	562,147	629,626	1,005,736
Working capital to gross inc	54.3 %	70.0 %	40.4 %
<b>Solvency (market)</b>			
Farm debt to asset ratio	37 %	40 %	35 %
Farm equity to asset ratio	63 %	60 %	65 %
Farm debt to equity ratio	0.58	0.66	0.54
<b>Profitability (cost)</b>			
Rate of return on farm assets	3.3 %	-7.4 %	10.5 %
Rate of return on farm equity	3.0 %	-12.7 %	13.4 %
Operating profit margin	9.6 %	-21.1 %	27.3 %
Net farm income	118,396	-146,665	504,054
EBITDA	207,104	-36,418	622,458
<b>Repayment Capacity</b>			
Capital debt repayment capacity	113,521	-103,182	439,568
Capital debt repayment margin	32,472	-182,965	309,163
Replacement margin	-3,008	-229,782	257,151
Term debt coverage ratio	1.40	-1.29	3.37
Replacement coverage ratio	0.97	-0.82	2.41
<b>Efficiency</b>			
Asset turnover rate (cost)	34.0 %	34.9 %	38.4 %
Operating expense ratio	80.0 %	104.0 %	75.0 %
Depreciation expense ratio	6.8 %	8.6 %	4.5 %
Interest expense ratio	2.6 %	3.7 %	2.0 %
Net farm income ratio	11.4 %	-16.3 %	20.2 %



**Farm Income Statement**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of</u> <u>All Farms</u>		<u>Avg. Of</u> <u>All Farms</u>
Number of farms	109	Number of farms	109
<b>Cash Farm Income</b>		<b>Cash Farm Expense</b>	
Barley	172	Seed	82,040
Corn	289,790	Fertilizer	68,554
Corn Silage	2,749	Crop chemicals	27,975
Hay, Alfalfa	54,074	Crop insurance	13,628
Hay, Mixed	393	Drying expense	7,267
Oats	303	Storage	333
Peas, Processing	461	Irrigation energy	160
Soybeans	236,626	Crop custom hire	3,068
Soybeans Seed	856	Crop miscellaneous	2,808
Sugar Beets	986	Consultants	1,493
Sweet Corn, Processing	786	Feeder livestock purchase	75,902
Wheat, Spring	510	Purchased feed	169,222
Wheat, Winter	420	Breeding fees	1,489
Miscellaneous crop income	1,418	Veterinary	7,335
Beef Cow-Calf, Beef Calves	2,570	Supplies	8,507
Beef Backgrounding	697	DHA	33
Beef Finishing	28,274	Contract production exp.	15,898
Dairy, Milk	90,063	Livestock insurance	721
Dairy, Dairy Calves	1,166	Livestock leases	719
Dairy Heifers (for sale)	3,256	Bedding	1,653
Dairy Finishing	10,513	Interest	26,239
Hogs, Farrow To Finish, Raised Hog	32,517	CCC buyback	19,960
Hogs, Finish Feeder Pigs	3,615	Fuel & oil	37,134
Sheep, Market Lamb Prod, Mkt Lambs	2,229	Repairs	42,719
Sheep, Market Lamb Prod, Wool	83	Custom hire	8,720
Hogs, Weaning to Finish	202,297	Hired labor	26,720
Dairy Backgrounding	213	Land rent	149,985
Cull breeding livestock	3,217	Machinery leases	8,052
Misc. livestock income	95	Building leases	4,264
Crop government payments	4,660	Real estate taxes	7,309
CRP payments	967	Farm insurance	11,033
Other government payments	6,531	Utilities	9,714
Custom work income	25,827	Hauling and trucking	2,762
Patronage dividends, cash	6,502	Marketing	3,356
Crop insurance income	46,994	Dues & professional fees	3,194
Property insurance income	599	Purchase of resale items	676
Sale of resale items	760	Miscellaneous	6,064
Contract livestock income	10,114	Total cash expense	856,705
Other farm income	12,785	Net cash farm income	229,380
<b>Gross Cash Farm Income</b>	<b>1,086,085</b>	<b>Inventory Changes</b>	
		Prepays and supplies	3,700
		Accounts receivable	31,046
		Hedging accounts	-11,753
		Other current assets	457
		Crops and feed	-96,026
		Market livestock	25,413
		Breeding livestock	2,739
		Other assets	-1,938
		Accounts payable	-2,153
		Accrued interest	-964
		Total inventory change	-49,479
		Net operating profit	179,901
		<b>Depreciation</b>	
		Machinery and equipment	-50,122
		Titled vehicles	-4,395
		Buildings and improvements	-16,284
		Total depreciation	-70,801
		Net farm income from operations	109,099
		Gain or loss on capital sales	9,296
		<b>Net farm income</b>	<b>118,395</b>

**Profitability Measures**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	109	21	22
<b>Profitability (assets valued at cost)</b>			
Net farm income from operations	109,099	-147,540	460,282
Rate of return on assets	3.3 %	-7.4 %	10.5 %
Rate of return on equity	3.0 %	-12.7 %	13.4 %
Operating profit margin	9.6 %	-21.1 %	27.3 %
Asset turnover rate	34.0 %	34.9 %	38.4 %
Farm interest expense	27,203	33,666	49,258
Value of operator lbr and mgmt.	60,594	74,240	89,463
Return on farm assets	75,709	-188,114	420,077
Average farm assets	2,326,980	2,558,241	4,017,531
Return on farm equity	48,506	-221,780	370,819
Average farm equity	1,602,334	1,740,406	2,770,615
Value of farm production	790,270	893,031	1,541,326

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	109	21	22
<b>Profitability (assets valued at market)</b>			
Net farm income from operations	186,081	122,373	480,829
Rate of return on assets	4.5 %	2.1 %	8.1 %
Rate of return on equity	5.8 %	2.0 %	11.1 %
Operating profit margin	19.3 %	9.2 %	28.6 %
Asset turnover rate	23.3 %	23.1 %	28.2 %
Farm interest expense	27,203	33,666	49,258
Value of operator lbr and mgmt.	60,594	74,240	89,463
Return on farm assets	152,690	81,800	440,624
Average farm assets	3,392,077	3,872,783	5,467,574
Return on farm equity	125,487	48,134	391,366
Average farm equity	2,159,105	2,407,421	3,512,803
Value of farm production	790,270	893,031	1,541,326

**Liquidity & Repayment Capacity Measures**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	109	21	22
<b>Liquidity</b>			
Current ratio	2.61	2.30	2.69
Working capital	562,147	629,626	1,005,736
Working capital to gross inc	54.3 %	70.0 %	40.4 %
Current assets	910,597	1,113,899	1,601,845
Current liabilities	348,450	484,273	596,109
Gross revenues (accrual)	1,036,070	899,705	2,491,067
<b>Repayment capacity</b>			
Net farm income from operations	109,099	-147,540	460,282
Depreciation	70,801	77,457	112,918
Personal income	42,073	63,100	27,812
Family living/owner withdrawals	-88,421	-84,671	-130,017
Cash discrepancy	103	357	308
Payments on personal debt	-2,303	-2,195	-1,418
Income taxes paid	-37,977	-34,824	-62,773
Interest on term debt	20,145	25,135	32,455
Capital debt repayment capacity	113,521	-103,182	439,568
Scheduled term debt payments	-81,049	-79,783	-130,405
Capital debt repayment margin	32,472	-182,965	309,163
Cash replacement allowance	-35,479	-46,817	-52,012
Replacement margin	-3,008	-229,782	257,151
Term debt coverage ratio	1.40	-1.29	3.37
Replacement coverage ratio	0.97	-0.82	2.41

**Balance Sheet at Cost Values**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of</u> <u>All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
Number of farms	109		21		22	
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	51,009	70,268	94,248	133,181	9,087	52,439
Prepaid expenses & supplies	126,238	129,939	162,928	125,712	167,402	228,796
Growing crops	48	0	0	0	0	0
Accounts receivable	45,178	76,224	41,050	47,955	76,547	157,508
Hedging accounts	9,013	6,007	13,929	9,156	18,995	12,857
Crops held for sale or feed	527,372	440,833	712,194	545,182	689,387	615,109
Crops under government loan	58,026	53,302	229,587	243,231	23,409	10,364
Market livestock held for sale	104,436	129,849	21,544	9,482	401,863	524,772
Other current assets	3,670	4,174	0	0	0	0
<b>Total current farm assets</b>	<b>924,991</b>	<b>910,597</b>	<b>1,275,480</b>	<b>1,113,899</b>	<b>1,386,690</b>	<b>1,601,845</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	29,789	30,880	4,045	4,669	122,865	129,003
Machinery and equipment	454,875	470,939	532,193	512,157	662,895	718,212
Titled vehicles	20,767	20,022	32,570	30,640	16,316	17,776
Other intermediate assets	69,930	65,682	22,225	23,152	241,714	220,110
<b>Total intermediate farm assets</b>	<b>575,361</b>	<b>587,523</b>	<b>591,033</b>	<b>570,618</b>	<b>1,043,789</b>	<b>1,085,101</b>
<b>Long Term Farm Assets</b>						
Farm land	485,286	524,394	576,864	604,150	740,754	838,321
Buildings and improvements	291,998	307,758	261,608	256,545	570,648	591,109
Other long-term assets	42,563	44,735	36,500	42,233	85,711	91,093
<b>Total long-term farm assets</b>	<b>819,846</b>	<b>876,886</b>	<b>874,973</b>	<b>902,928</b>	<b>1,397,113</b>	<b>1,520,523</b>
<b>Total Farm Assets</b>	<b>2,320,198</b>	<b>2,375,005</b>	<b>2,741,485</b>	<b>2,587,445</b>	<b>3,827,592</b>	<b>4,207,469</b>
<b>Total Nonfarm Assets</b>	<b>303,597</b>	<b>325,668</b>	<b>239,434</b>	<b>256,456</b>	<b>339,528</b>	<b>390,712</b>
<b>Total Assets</b>	<b>2,623,795</b>	<b>2,700,673</b>	<b>2,980,919</b>	<b>2,843,901</b>	<b>4,167,120</b>	<b>4,598,180</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	6,734	7,701	9,163	7,888	9,020	12,953
Accounts payable	20,371	22,437	16,941	30,449	55,337	59,415
Current notes	208,099	225,902	218,752	261,974	398,240	413,236
Government crop loans	23,249	27,021	92,947	124,122	8,442	4,964
Principal due on term debt	60,904	65,389	54,648	59,840	97,950	105,541
<b>Total current farm liabilities</b>	<b>319,358</b>	<b>348,450</b>	<b>392,452</b>	<b>484,273</b>	<b>568,990</b>	<b>596,109</b>
<b>Total intermediate farm liab.</b>	<b>110,600</b>	<b>97,740</b>	<b>133,769</b>	<b>117,862</b>	<b>135,382</b>	<b>120,820</b>
<b>Total long term farm liabilities</b>	<b>300,857</b>	<b>313,532</b>	<b>360,192</b>	<b>359,569</b>	<b>531,949</b>	<b>540,581</b>
<b>Total farm liabilities</b>	<b>730,814</b>	<b>759,722</b>	<b>886,414</b>	<b>961,704</b>	<b>1,236,320</b>	<b>1,257,510</b>
<b>Total nonfarm liabilities</b>	<b>71,287</b>	<b>67,686</b>	<b>62,065</b>	<b>52,272</b>	<b>46,413</b>	<b>77,316</b>
<b>Total liabilities</b>	<b>802,101</b>	<b>827,407</b>	<b>948,479</b>	<b>1,013,976</b>	<b>1,282,733</b>	<b>1,334,826</b>
<b>Net worth (farm and nonfarm)</b>	<b>1,821,694</b>	<b>1,873,266</b>	<b>2,032,440</b>	<b>1,829,925</b>	<b>2,884,387</b>	<b>3,263,354</b>
Net worth change		51,571		-202,515		378,968
Percent net worth change		3 %		-10 %		13 %
<b>Ratio Analysis</b>						
Current farm liabilities / assets	35 %	38 %	31 %	43 %	41 %	37 %
Intermediate farm liab. / assets	19 %	17 %	23 %	21 %	13 %	11 %
Long term farm liab. / assets	37 %	36 %	41 %	40 %	38 %	36 %
Total debt to asset ratio	31 %	31 %	32 %	36 %	31 %	29 %

**Balance Sheet at Market Values**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
	109		21		22	
Number of farms						
	<u>Beginning</u>	<u>Ending</u>	<u>Beginning</u>	<u>Ending</u>	<u>Beginning</u>	<u>Ending</u>
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	51,009	70,268	94,248	133,181	9,087	52,439
Prepaid expenses & supplies	126,238	129,939	162,928	125,712	167,402	228,796
Growing crops	48	0	0	0	0	0
Accounts receivable	45,178	76,224	41,050	47,955	76,547	157,508
Hedging accounts	9,013	6,007	13,929	9,156	18,995	12,857
Crops held for sale or feed	527,372	440,833	712,194	545,182	689,387	615,109
Crops under government loan	58,026	53,302	229,587	243,231	23,409	10,364
Market livestock held for sale	104,436	129,849	21,544	9,482	401,863	524,772
Other current assets	3,670	4,174	0	0	0	0
<b>Total current farm assets</b>	<b>924,991</b>	<b>910,597</b>	<b>1,275,480</b>	<b>1,113,899</b>	<b>1,386,690</b>	<b>1,601,845</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	41,955	42,761	4,531	8,405	173,988	167,072
Machinery and equipment	660,865	682,789	800,470	795,797	924,658	972,146
Titled vehicles	30,003	29,280	48,847	47,004	27,698	28,363
Other intermediate assets	73,449	73,259	33,967	49,183	243,737	223,179
<b>Total intermediate farm assets</b>	<b>806,272</b>	<b>828,089</b>	<b>887,815</b>	<b>900,389</b>	<b>1,370,080</b>	<b>1,390,760</b>
<b>Long Term Farm Assets</b>						
Farm land	1,168,790	1,278,726	1,423,340	1,674,623	1,586,346	1,774,658
Buildings and improvements	395,978	418,468	287,389	291,700	807,131	837,238
Other long-term assets	45,959	47,529	48,332	55,046	87,444	92,955
<b>Total long-term farm assets</b>	<b>1,610,727</b>	<b>1,744,722</b>	<b>1,759,061</b>	<b>2,021,369</b>	<b>2,480,921</b>	<b>2,704,852</b>
<b>Total Farm Assets</b>	<b>3,341,990</b>	<b>3,483,408</b>	<b>3,922,356</b>	<b>4,035,657</b>	<b>5,237,691</b>	<b>5,697,457</b>
<b>Total Nonfarm Assets</b>	<b>376,726</b>	<b>412,622</b>	<b>315,474</b>	<b>356,970</b>	<b>444,095</b>	<b>504,198</b>
<b>Total Assets</b>	<b>3,718,716</b>	<b>3,896,029</b>	<b>4,237,830</b>	<b>4,392,627</b>	<b>5,681,786</b>	<b>6,201,655</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	6,734	7,701	9,163	7,888	9,020	12,953
Accounts payable	20,371	22,437	16,941	30,449	55,337	59,415
Current notes	208,099	225,902	218,752	261,974	398,240	413,236
Government crop loans	23,249	27,021	92,947	124,122	8,442	4,964
Principal due on term debt	60,904	65,389	54,648	59,840	97,950	105,541
<b>Total current farm liabilities</b>	<b>319,358</b>	<b>348,450</b>	<b>392,452</b>	<b>484,273</b>	<b>568,990</b>	<b>596,109</b>
<b>Total intermediate farm liab.</b>	<b>110,600</b>	<b>97,740</b>	<b>133,769</b>	<b>117,862</b>	<b>135,382</b>	<b>120,820</b>
<b>Total long term farm liabilities</b>	<b>300,857</b>	<b>313,532</b>	<b>360,192</b>	<b>359,569</b>	<b>531,949</b>	<b>540,581</b>
<b>Total farm liabilities</b>	<b>730,814</b>	<b>759,722</b>	<b>886,414</b>	<b>961,704</b>	<b>1,236,320</b>	<b>1,257,510</b>
<b>Total nonfarm liabilities</b>	<b>71,287</b>	<b>67,686</b>	<b>62,065</b>	<b>52,272</b>	<b>46,413</b>	<b>77,316</b>
<b>Total liab. excluding deferreds</b>	<b>802,101</b>	<b>827,407</b>	<b>948,479</b>	<b>1,013,976</b>	<b>1,282,733</b>	<b>1,334,826</b>
<b>Total deferred liabilities</b>	<b>517,440</b>	<b>530,248</b>	<b>662,845</b>	<b>666,969</b>	<b>700,358</b>	<b>761,695</b>
<b>Total liabilities</b>	<b>1,319,541</b>	<b>1,357,656</b>	<b>1,611,324</b>	<b>1,680,945</b>	<b>1,983,091</b>	<b>2,096,521</b>
<b>Retained earnings</b>	<b>1,821,694</b>	<b>1,873,266</b>	<b>2,032,440</b>	<b>1,829,925</b>	<b>2,884,387</b>	<b>3,263,354</b>
Market valuation equity	577,481	665,108	594,066	881,757	814,308	841,779
<b>Net worth (farm and nonfarm)</b>	<b>2,399,175</b>	<b>2,538,374</b>	<b>2,626,506</b>	<b>2,711,682</b>	<b>3,698,695</b>	<b>4,105,134</b>
<b>Net worth excluding deferreds</b>	<b>2,916,615</b>	<b>3,068,622</b>	<b>3,289,352</b>	<b>3,378,651</b>	<b>4,399,052</b>	<b>4,866,829</b>
Net worth change		139,199		85,176		406,439
Percent net worth change		6 %		3 %		11 %
<b>Ratio Analysis</b>						
Current farm liabilities / assets	35 %	38 %	31 %	43 %	41 %	37 %
Intermediate farm liab. / assets	14 %	12 %	15 %	13 %	10 %	9 %
Long term farm liab. / assets	19 %	18 %	20 %	18 %	21 %	20 %
Total debt to asset ratio	35 %	35 %	38 %	38 %	35 %	34 %
Debt to assets excl. deferreds	22 %	21 %	22 %	23 %	23 %	22 %

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**Statement Of Cash Flows**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	109	21	22
Beginning cash (farm & nonfarm)	61,885	98,448	10,658
<b>Cash Provided By Operating Activities</b>			
Gross cash farm income	1,086,085	1,111,824	2,407,839
Total cash farm expense	-856,705	-920,358	-1,971,065
Net cash from hedging transactions	-8,747	-27,931	-21,487
Cash provided by operating	220,633	163,535	415,287
<b>Cash Provided By Investing Activities</b>			
Sale of breeding livestock	3,551	124	17,475
Sale of machinery & equipment	8,200	12,606	8,792
Sale of titled vehicles	598	-	274
Sale of farm land	10,588	-	52,395
Sale of farm buildings	2	-	9
Sale of other farm assets	3,209	312	380
Sale of nonfarm assets	11,220	5,200	13,980
Purchase of breeding livestock	-1,782	-1,098	-3,462
Purchase of machinery & equip.	-72,947	-45,940	-137,955
Purchase of titled vehicles	-4,102	-6,214	-5,542
Purchase of farm land	-41,732	-27,286	-110,553
Purchase of farm buildings	-32,045	-10,004	-51,972
Purchase of other farm assets	-3,436	-1,168	-9,403
Purchase of nonfarm assets	-29,057	-29,067	-35,349
Cash provided by investing	-147,732	-102,535	-260,931
<b>Cash Provided By Financing Activities</b>			
Money borrowed	482,120	714,991	775,389
Principal payments	-465,334	-683,500	-756,131
Personal income	42,073	63,100	27,812
Family living/owner withdrawals	-88,385	-84,576	-130,017
Income and social security tax	-33,220	-32,049	-38,677
Capital contributions	5,382	-	26,666
Capital distributions	-3,398	-	-16,837
Dividends paid	-37	-95	-
Cash gifts and inheritances	8,927	667	4,693
Gifts given	-2,817	-	-4,227
Other cash flows	-	-	-
Cash provided by financing	-54,688	-21,462	-111,329
Net change in cash balance	18,213	39,537	43,028
Ending cash (farm & nonfarm)	80,201	138,342	53,994
Discrepancy	-103	-357	-308

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**Crop Production and Marketing Summary**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	109	21	22
<b>Acreage Summary</b>			
Total acres owned	208	257	287
Total crop acres	902	1,400	1,198
Crop acres owned	208	220	302
Crop acres cash rented	626	1,139	796
Crop acres share rented	67	41	100
Total pasture acres	8	14	14
Percent crop acres owned	23 %	16 %	25 %
Mach invest/crop acre cost	528	395	571
Mach invest/crop acre market	767	604	789
<b>Average Price Received (Cash Sales Only)</b>			
Soybeans per bushel	12.73	12.78	12.87
Corn per bushel	4.35	4.22	4.40
Hay, Grass per ton	92.11	-	-
Hay, Alfalfa per ton	104.52	-	-
Corn Silage per ton	38.69	-	-
<b>Average Yield Per Acre</b>			
Corn (bushel)	166.57	167.32	168.13
Soybeans (bushel)	48.26	48.80	48.24
Hay, Alfalfa (ton)	4.16	-	5.15
Corn Silage (ton)	21.46	-	23.18
Hay, Grass (ton)	2.02	-	-
Oats (bushel)	68.80	-	-

**Household and Personal Expenses**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	41	7	7
Average family size	2.8	2.1	2.6
<b>Family Living Expenses</b>			
Food and meals expense	8,485	6,879	9,698
Medical care	5,224	3,382	8,265
Health insurance	5,907	3,787	3,798
Cash donations	5,633	2,324	3,864
Household supplies	8,026	6,948	6,282
Clothing	2,649	2,002	3,048
Personal care	1,379	1,128	1,494
Child / Dependent care	581	1,322	-
Alimony and child support	-	-	-
Gifts	4,269	6,818	5,165
Education	1,620	61	849
Recreation	5,125	10,175	4,697
Utilities (household share)	3,742	4,504	3,624
Personal vehicle operating exp	5,318	4,737	3,615
Household real estate taxes	554	306	503
Dwelling rent	-	-	-
Household repairs	2,329	3,829	1,883
Personal interest	1,406	1,865	1,533
Disability / Long term care ins	528	756	156
Life insurance payments	2,928	2,609	3,168
Personal property insurance	484	639	36
Miscellaneous	6,647	14,899	3,931
Total cash family living expense	72,833	78,970	65,608
Family living from the farm	239	-	450
Total family living	73,073	78,970	66,058
<b>Other Nonfarm Expenditures</b>			
Income taxes	41,492	49,942	33,365
Furnishing & appliance purchases	243	324	-
Nonfarm vehicle purchases	2,860	1,938	6,621
Nonfarm real estate purchases	9,142	714	-
Other nonfarm capital purchases	1,681	9,425	-
Nonfarm savings & investments	12,602	49,242	-40,335
Total other nonfarm expenditures	68,020	111,585	-350
Total cash family living investment & nonfarm capital purch	140,853	190,555	65,259

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**Crop Enterprise Analysis**  
**Southwest Minnesota Farm Business Management Association**  
**(Farms Sorted By Return to Overhead)**

**Corn on Owned Land**

**Soybeans on Owned Land**

	<u>Avg. Of All Farms</u>		<u>Avg. Of All Farms</u>
Number of farms	62	Number of farms	61
Yield per acre (bu.)	163.87	Yield per acre (bu.)	47.76
Operators share of yield %	100.00	Operators share of yield %	100.00
Value per bu.	3.83	Value per bu.	10.10
Other product return per acre	0.67	Total product return per acre	482.51
Total product return per acre	628.55	Hedging gains/losses per acre	0.52
Hedging gains/losses per acre	1.77	Crop insurance per acre	36.20
Crop insurance per acre	107.61	Other crop income per acre	7.95
Other crop income per acre	7.86	Gross return per acre	527.18
Gross return per acre	745.79		
<b>Direct Expenses</b>		<b>Direct Expenses</b>	
Seed	131.68	Seed	63.64
Fertilizer	145.83	Fertilizer	41.81
Crop chemicals	33.47	Crop chemicals	40.53
Crop insurance	17.73	Crop insurance	15.20
Drying expense	17.67	Fuel & oil	23.29
Storage	0.43	Repairs	30.86
Packaging and supplies	0.25	Custom hire	8.03
Fuel & oil	29.14	Hired labor	1.25
Repairs	42.11	Machinery leases	0.63
Custom hire	10.64	Hauling and trucking	0.32
Hired labor	1.39	Operating interest	5.17
Machinery leases	0.44	Miscellaneous	2.60
Hauling and trucking	0.50	Total direct expenses per acre	233.34
Marketing	0.60	Return over direct exp per acre	293.84
Operating interest	7.09		
Miscellaneous	2.01	<b>Overhead Expenses</b>	
Total direct expenses per acre	440.99	Hired labor	8.95
Return over direct exp per acre	304.80	Machinery leases	2.03
<b>Overhead Expenses</b>		Building leases	1.85
Hired labor	11.15	RE & pers. property taxes	28.92
Machinery leases	2.27	Farm insurance	8.75
Building leases	4.10	Utilities	5.01
RE & pers. property taxes	28.16	Dues & professional fees	3.43
Farm insurance	10.20	Interest	47.10
Utilities	6.18	Mach & bldg depreciation	61.87
Dues & professional fees	3.58	Miscellaneous	2.87
Interest	44.44	Total overhead expenses per acre	170.76
Mach & bldg depreciation	75.77	Total dir & ovhd expenses per acre	404.11
Miscellaneous	4.55	Net return per acre	123.08
Total overhead expenses per acre	190.40		
Total dir & ovhd expenses per acre	631.39	Government payments	5.85
Net return per acre	114.40	Net return with govt pmts	128.93
Government payments	5.07	Labor & management charge	44.90
Net return with govt pmts	119.47	Net return over lbr & mgt	84.02
Labor & management charge	54.68		
Net return over lbr & mgt	64.78	<b>Cost of Production</b>	
<b>Cost of Production</b>		Total direct expense per bu.	4.89
Total direct expense per bu.	2.69	Total dir & ovhd exp per bu.	8.46
Total dir & ovhd exp per bu.	3.85	Less govt & other income	7.40
Less govt & other income	3.10	With labor & management	8.34
With labor & management	3.44		
Net value per unit	3.84	Net value per unit	10.11
Machinery cost per acre	152.39	Machinery cost per acre	119.53
Est. labor hours per acre	3.12	Est. labor hours per acre	2.46

**Livestock Enterprise Analysis**  
**Minnesota Statewide Farm Management Database**  
**SW Farm Bus Mgmt Associaion and MnSCU FBM**  
**(Farms Sorted By Return to Overhead)**

**Hogs, Farrow To Finish -- Average Per Litter**

**Hogs, Farrow To Finish -- Average Per Cwt. Carcass Sold**

	Avg. Of All Farms	
Number of farms	11	
	Quantity	Value
Raised Hogs sold (lb)	1,824.5	1,387.58
Transferred out (lb)	10.1	11.35
Cull sales (lb)	40.2	30.65
Other income		-8.44
Purchased (lb)	-3.7	-7.78
Inventory change (lb)	301.7	252.45
Gross margin		1,665.80
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	2,031.3	477.38
Complete Ration (lb.)	41.7	9.54
Corn (bu.)	87.0	321.12
Other feed stuffs (lb)	69.7	8.79
Breeding fees		15.38
Veterinary		60.04
Supplies		63.15
Fuel & oil		13.74
Repairs		16.30
Custom hire		2.78
Hired labor		47.97
Livestock leases		39.10
Utilities		13.39
Total direct expenses		1,088.67
Return over direct expense		577.14
<b>Overhead Expenses</b>		
Hired labor		20.95
Building leases		51.67
Farm insurance		17.28
Utilities		9.72
Interest		5.66
Mach & bldg depreciation		26.76
Miscellaneous		20.19
Total overhead expenses		152.24
Total dir & ovhd expenses		1,240.91
Net return		424.90
Labor & management charge		48.32
Net return over lbr & mgt		376.58
<b>Cost of Production/Cwt. Carcass Sold</b>		
Total direct expense per unit		83.08
Total dir & ovhd expense per unit		94.69
With other revenue adjustments		93.79
With labor and management		97.47
Est. labor hours per unit		4.35
<b>Other Information</b>		
Average number of sows		372.4
Litters farrowed		807
Litters per sow		2.17
Litters per crate		7.78
Pigs born per litter		11.63
Pigs weaned per litter		10.01
Pigs weaned per sow		21.09
Pigs sold per litter		6.66
Percent substandard hogs		2
Lb. of feed / lb. of gain		3.23
Feed cost / cwt. of gain		37.58
Feed cost per litter		816.82
Avg wgt/Raised Hogs sold		274
Avg price / cwt.		76.05
Average carcass weight		201
Average price / cwt. carcass		104.32

	Avg. Of All Farms	
Number of farms	11	
	Quantity	Value
Raised Hogs sold (lb)	139.23	105.89
Transferred out (lb)	0.77	0.87
Cull sales (lb)	3.07	2.34
Other income		-0.64
Purchased (lb)	-0.28	-0.59
Inventory change (lb)	23.02	19.26
Gross margin		127.12
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	155.01	36.43
Complete Ration (lb.)	3.18	0.73
Corn (bu.)	6.64	24.50
Other feed stuffs (lb)	5.32	0.67
Veterinary		4.58
Supplies		5.20
Fuel & oil		1.05
Repairs		1.24
Custom hire		0.21
Hired labor		3.66
Livestock leases		2.98
Utilities		1.02
Operating interest		0.79
Total direct expenses		83.08
Return over direct expense		44.04
<b>Overhead Expenses</b>		
Hired labor		1.60
Building leases		3.94
RE & pers. property taxes		0.30
Farm insurance		1.32
Utilities		0.74
Interest		0.43
Mach & bldg depreciation		2.04
Miscellaneous		1.24
Total overhead expenses		11.62
Total dir & ovhd expenses		94.69
Net return		32.42
Labor & management charge		3.69
Net return over lbr & mgt		28.74
<b>Cost of Production/Cwt. Carcass Sold</b>		
Total direct expense per unit		83.08
Total dir & ovhd expense per unit		94.69
With other revenue adjustments		93.79
With labor and management		97.47
Est. labor hours per unit		0.33
<b>Other Information</b>		
Average number of sows		372.4
Litters farrowed		807
Litters per sow		2.17
Litters per crate		7.78
Pigs born per litter		11.63
Pigs weaned per litter		10.01
Pigs weaned per sow		21.09
Pigs sold per litter		6.66
Percent substandard hogs		2
Lb. of feed / lb. of gain		3.23
Feed cost / cwt. of gain		37.58
Feed cost per litter		816.82
Avg wgt/Raised Hogs sold		274
Avg price / cwt.		76.05
Average carcass weight		201
Average price / cwt. carcass		104.32

# 2016 Minnesota FFA State Farm Business Management Practicum

### Part 1 Financial Summary - Total Points = 30 (one decimal place unless otherwise stated)

#	Question	Answer
1	Did the Black Farm have an increase or decrease in crop inventory?	Decrease 2
2	What changed more on a percentage basis - Earned or Market Value net worth?	Market 2
3	Total crop acres on Black Farm that are owned? (zero decimals)	174 2
4	Did the Black Farm debt to asset ratio increase, decrease or stay the same?	Decrease 2
5	What was the Black Farm rate of return on equity at cost?	4.1% 2
6	Total operating expenses were what percent of gross farm income for the Black Farm?	81.6% 2
7	How much did the Black Farm's working capital improve during 2014?	\$2,418 2
8	What are the financial comparisons for the following:	
	a. Who had more total crop acres - Area Average or Black Farms	Area Average 2
	b. Total debt to asset ratio for the Area Average at market	35% 2
	c. Rate of return on farm equity for the Area Average at cost	3.0% 2
	d. Operating profit margin for the Black Farm at cost	12.5% 2
	e. Replacement coverage ratio for the Area Average (2 decimals)	0.97% 2
	f. Operating expense ratio for the Black Farm at market	72.4% 2
9	Who had the largest operating expense ratio	Area Average 2
10	Who had the largest asset turnover rate (cost)	Area Average 2

### Part 2 Profitability, Liquidity and Repayment Capacity - Total Points = 22

1	Calculate the items from the profitability measures page:	
	a. Ending current ratio for Black Farm (round to 2 decimals)	3.47 2
	b. Return on farm equity at cost for the Black Farm	\$79,936 2
	c. Asset turnover rate at cost for Area Average	34.0% 2
	d. Beginning current debt to assets for Black Farm as a percent	32.3% 2
	e. Capital debt repayment capacity (farm only) for the Black Farm	\$129,890 2
	f. Average farm equity at market for the Area Average	\$2,159,105 2
	g. Return on farm equity at cost for the Area Average	\$48,506 2
	Area Average	Area Average 2
2	Who has the largest scheduled term debt payment? Black Farm or Area Average	SS 1
3	If the Black Farm sells \$3,000 in corn and places it in their farm checking account:	
	a. Their current ratio would be: Higher (H) Lower (L) or Stay the Same (SS) choose one	SS 1
	b. Their net worth would be: Higher (H) Lower (L) or Stay the Same (SS) choose one	SS 1
	c. Their total assets would be: Higher (H) Lower (L) or Stay the Same (SS) choose one	SS 1
4	If the Black Farm would sell breeding sows for \$3,000 and use the money to go on vacation	
	a. Their current ratio would be: Higher (H) Lower (L) or Stay the Same (SS) choose one	SS 1
	b. Their net worth would be: Higher (H) Lower (L) or Stay the Same (SS) choose one	L 1
	c. Their total assets would be: Higher (H) Lower (L) or Stay the Same (SS) choose one	L 1

# 2016 Minnesota FFA State Farm Business Management Practicum

#	Question	Answer	Pts
<b>Part 3 Farm Income Statement - Total Points = 10</b>			
1	What percent of the total cash expense did the Black Farm spend on purchasing seed? Round to closest whole %	13%	2
2	What is the 3rd highest cash expense for the Black Farm?	Fertilizer	2
3	What was the breeding livestock inventory change for Black Farm	<del>(12,862)</del>	2
4	Who had the largest amount of depreciation? Black Farm or Area Average	Area Average	2
5	What is the Area Average breeding livestock inventory change?	\$2,739	2
<b>Part 4 Statement of Owner's Equity and Cash Flows - Total Points = 6</b>			
1	What was the Black Farm Family living expense?	\$83,901	2
2	How much did the Black Farm pay in income taxes?	\$52,375	2
3	What was the farm & personal ending cash balance for the Black Farm?	\$7,670	2
<b>Part 5 Comparative Balance Sheet at Cost and Market - Total Points = 12</b>			
1	What was the Black Farms market valuation equity at market?	\$52,981	2
2	What was the Black Farms net worth at market?	\$2,110,880	2
3	What was the value of the Black Farms building and improvement at cost?	\$239,359	2
4	The biggest difference in intermediate assets between cost and market for Black Farm is due to what asset category?	Machinery and Equipment	2
5	What are the year end total liabilities at market for the Area Average?	\$1,357,656	2
6	What is the at cost total farm assets for Black Farms?	\$2,341,189	2
<b>Part 6 Projected Cash Flow for Black Farms - Total Points = 24</b>			
1	What is the Black Farm beginning cash balance?	<del>(71,341)</del>	1
2	What is the largest projected single expense item for the Black Farm?	Purchased feed	1
3	What month does the Black Farm expect to have their largest operating outflow?	January	1
4	What month do they expect to have the greatest inflow disregarding beginning cash balance?	January	1
5	How much are the Black Farms projected marketing costs during the year?	\$30,000	2
6	What is the maximum amount of operating loan debt projected for the Black Farm?	\$299,414	2
7	What percent of the total outflows are the outflows in the first 3 months of the year? (zero decimals)	33%	2
8	What percent of the total farm inflows in the last 3 months of the year? (zero decimals)	37%	2
9	What percent of the total inflows are from corn and soybeans? (zero decimals)	6%	2
10	What is the last month the Black's will need to borrow money for their AO loan?	January	2
11	How much will be paid in AO interest payments?	\$1,925	2
12	What percent of the total outflows are the following:		2
	a. Seed (one decimal)	2.3%	2
	b. Purchased feed (one decimal)	30.4%	2
	c. Land rent (one decimal)	4.9%	2

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#	Question	Answer
<b>Part 7 Crop Enterprise Analysis - Total Points = 30</b>		
1	The Black Farm has how many acres of owned corn? (one decimal)	68.2
2	The Black Farm corn yield per acre for all corn was?	167.3 bushels
3	Did the Black's have a higher corn yield on the owned or rented land?	Owned
4	What crop had the highest gross return per acre for the Black Farm? (corn, soybeans, spring wheat)	corn
5	What crop had the highest crop chemical cost per acre for the Black Farm? (corn, soybeans, spring wheat)	corn
6	What crop had the highest return over direct expenses for the Black Farm? (corn owned, soybean owned, spring wheat)	soybeans owned
7	What were the soybeans on the Black Farm valued at?	\$9.90
8	What was the second highest direct expense item per acre for the Black Farm owned soybean crop?	crop chemicals
9	If corn is worth \$4 per bu., what is the breakeven yield to cover dir & ovhd expenses for the Area Average owned land?	157.8 bushels
10	What was the Area Average net return over labor and management for soybeans on owned land?	\$84.02
11	What was the Area Average second largest direct expense item for soybeans on owned land?	fertilizer
12	Compare the Black Farm with the Area Average for the following on owned land:	
	a. Which had the highest yield per acre for corn?	Black Farms
	b. Which had the highest yield per acre for soybeans?	Black Farms
	c. Which had the highest seed corn cost per acre for corn?	Area Average
	d. Which had the lowest fertilizer cost per acre for soybeans?	Black Farms
	e. Which had the highest custom hire cost for corn?	Area Average
	f. Which had the lowest fuel and oil cost for corn?	Area Average
	g. Which had the lowest repairs expense cost for corn?	Black Farms
	h. Which had the lowest total hired labor expenses for soybeans?	Black Farms
<b>Part 8 Livestock Enterprise Analysis - Total Points = 30</b>		
1	Black Farms hog enterprise had how many sows?	77
2	How many bushels of corn were fed per CWT carcass sold on the Black Farms?	6.92 bushels
3	How many tons of complete ration were fed to the Black Farms hog enterprise?	138.2 tons
4	Who had the higher average carcass selling weight - Black Farm or Area Average?	Black Farms
5	Who produced the cheapest pork based on cost of production per CWT carcass sold with labor and management?	Area Average
6	What was the average price per CWT carcass received for the Black Farm hogs?	\$101.80
7	Who had the most litters per crate? - Black Farm or Area Average?	Area Average
8	The net return over labor and management per CWT carcass sold for the Area Average was?	\$28.74
9	What is the feed cost per CWT of gain produced on the Black Farm?	\$37.77
10	Did the Area Average feed their hogs any feed stuffs other than corn?	Yes
11	What is the Black Farm veterinary expense per litter?	\$51.16
12	Complete ration and corn are what % of the total direct expenses on the Black Farm? (1 decimal)	78.5%
13	Building depreciation is what percent of the Black Farm total overhead expenses? (1 decimal)	22.9%
14	How much did the Area Average spend on corn per CWT carcass sold?	\$24.50
15	What was the lb. of feed/lb. of gain for the Area Average farrow to finish? (2 decimals)	3.23

# 2016 Minnesota FFA State Farm Business Management Practicum

## Part 9 Family Living - Total Points = 16

- 1 How much did the Black's spend per person on food and meals? (0 decimals)
- 2 How much did the Area Average spend per person on food and meals? (0 decimals)
- 3 How much did the Black Farm spend on health insurance? (total cost)
- 4 What percent of their total cash family living expense was spent on medical care for the Black Farm? (1 decimal)
- 5 What did the Area Average spend on medical care? (0 decimals)
- 6 Who spent more per person on cash donations? Black Farm or Area Average
- 7 Did the Black Farms spend money on a personal vehicle this year?
- 8 Who paid the highest amount for household utilities per person? Black Farm or Area Average
- 9 How much did the Area Average pay per person for medical expenses? (0 decimals)

## Part 10 Income Tax Management - Total Points = 10

- 1 Determine how the following would affect the farm tax liability: Increase (I) Decrease (D) No Affect (NA)
  - a. Collect money owed from custom work.
  - b. Put money into a Roth IRA.
  - c. Delay sales of market hogs until the next year.
  - d. Delay all possible December expenses.
  - e. Sell capital items that you no longer use for a loss.
  - f. Pay wages to friend.
  - g. Make advanced purchases of seed and fertilizer.
- 2 What is the form that a farmer must provide to his worker which states earnings for the tax year?
- 3 If a raised hog worth \$100 dies, can you deduct the value on your taxes?

## Part 11 Commodity Marketing - Total Points = 10

- 1 For the following use 5,000 bushel contracts:
  - a. You buy 5 July corn contracts for \$4.50/bu. And later sell them for \$4.30/bu. Is this a profit or loss on futures?
  - b. If the commission is \$50 per contract, how much was the profit or loss on the transaction?
- 2 You are bearish on soybeans and want to make a move in futures, would you go long or short?
- 3 This years corn crop is planted and you would like to hedge 1/2 of the potential crop using futures contracts

The current CBOT prices are:

Month	Price	Estimated Bases	Month	Price	Estimated Bases
May (this year)	\$4.40	\$ .20 (under)	December (this year)	\$4.35	\$ .25 (under)
July (this year)	\$4.45	\$ .20 (under)	March (next year)	\$4.35	\$ .25 (under)
September (this year)	\$4.10	\$ .20 (under)			

- a. The two months that would work best to hedge this year's crop, would be March and \_\_\_\_\_?
- b. If you had no storage and plan to sell at harvest, which delivery month would you use?
- c. Which month would give you the best outcome?
- d. Would you buy or sell the contracts?
- e. What would be the estimated realized price received per bushel, ignoring commissions?
- f. If you store the crop and offset the hedge in March, would you buy or sell the contracts?
- g. What realized price would you receive in March if you sell the corn for \$4.30 cash with no future basis change?

Answer  
 \$5,000  
 \$3,030  
 \$12,200  
 13.1%  
 \$5,224  
 Black Farms  
 Yes  
 Black Farms  
 \$1,866

I  
 NA  
 D  
 I  
 D  
 D  
 D  
 W-2  
 No

Loss  
 (\$750)  
 Short

December  
 December  
 December  
 Sell  
 \$4.10  
 Buy  
 \$4.10