

2019 MN FFA Farm Management Practicum Data Sheets

John Bacon operates a corn, soybean, and wean to finish hog farm in Southern Minnesota. John has provided the data from their 2018 year for you to review and analyze. Please use the data provided to help answer the questions. Please place all answers on the scantron provided.

Only the pages that you need to answer the practicum have been provided.

Terminology & Definitions

Bushels = Bu. (Wheat = 60 pounds/bushel) (Barley = 48 pounds/bushel) (Corn = 56 pounds/bushel)

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

Yield: Total volume of product per acre, generally expressed in bushels, 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, Dairy)

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

Balance Sheet: Statement listing 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 Production: Measure of Farm Income used to compare different operations on a more equal basis.

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

Current Ratio Balance: Sheet ratio 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 gross 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, 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 – 2 decimals – \$100.12.

Percentages – 1 decimal – 85.4%.

General Numbers – 1 decimal – 123.6

R1

FINPACK

John Bacon
1/1/2018 - Consolidated Balance Sheet

Current Assets				Value	Current Liabilities				Balance	
Cash and checking				38,852	Accrued interest				5,517	
Prepaid expenses and supplies				399,036	Accounts payable and other accrued expenses				50,000	
Growing crops				-						
Accounts receivable				618,650						
Hedging accounts				130,000						
Other current assets				-						
Crop inventory										
	Quantity	Value/Unit			Int	P & I	Principal			
Com	376,584	3.35/bu.	1,261,556	Rate	Due	Due	Balance			
Mixed Hay	15,400	1.000/ton	15,400	MyHome Bank-LOC	4.50	-	1,019,000			
				MyHome Bank-Operating	4.00	-	797,000			
				MyHome Bank-Operating 2	4.50	-	40,000			
Livestock held for					Principal due within 12 months on term liabilities				222,575	
	No.	Value/Unit		Total Current Liabilities				2,124,092		
Wean-Fin Pig	12,547	52.66/cwt.	911,321							
Total Current Assets				3,374,815						
Intermediate Assets				Cost	Market	Intermediate Liabilities (Schd V)				
		Value	Value	Value	Value	Int	Principal	P & I	Principal	Intermed
Breeding livestock		-	-	Loan	Rate	Balance	Due	Due	Due	Balance
Machinery and equipment	2,049,930	2,277,700		Farm Credit -Preferred	5.50	31,636	7,257	-	-	31,636
Titled vehicles	188,300	178,300		JDCC-JD8310	2.60	56,421	28,638	28,266	28,155	28,155
Other intermediate assets	-	1,000		JDCC-JD9560RT	2.90	83,943	29,222	26,960	56,983	56,983
				JDCC-S860 Combine	3.50	148,750	27,917	24,838	123,912	123,912
				JDCC-Sprayer	2.90	299,365	55,082	47,013	252,352	252,352
				JDCC-Bean Head	2.90	61,007	16,374	14,730	46,277	46,277
				JDCC-Corn Head	2.90	65,200	22,866	21,109	44,091	44,091
Total Intermediate Assets	2,238,230	2,457,000		Total Intermediate Liabilities				583,406		
Long Term Assets				Cost	Market	Long Term Liabilities (Schd W)				
		Value	Value	Value	Value	Int	Principal	P & I	Principal	Lg Term
Land		-	-	Loan	Rate	Balance	Due	Due	Due	Balance
Buildings and improvements	387,600	502,600		Farm Credit -Feed Mill	4.15	349,586	67,014	59,659	289,927	289,927
Other long term assets	788,125	788,125		MyHome Bank-Pretty Sow	0.00	731,794	-	-	731,794	731,794
Total Long Term Assets	1,175,725	1,290,725		Total Long Term Liabilities				1,021,721		
Total Farm Assets	6,788,770	7,122,540		Total Farm Liabilities				3,729,219		
Personal Assets	-	-		Personal Liabilities				-		
									Cost	Market
				Total Liabilities (d)(e)				3,729,219	3,729,219	
				Retained Earnings/Contributed Capital				[a-d]	3,059,551	
				Market valuation equity				[b-a]		333,770
Total Assets (a)(b)	6,788,770	7,122,540		Net Worth				[b-e]		3,393,321

I certify that my statements on this balance sheet are true, complete, and correct to the best of my knowledge and belief.

Signature(s) _____ Date _____

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FINPACK

John Bacon
1/1/2019 - consolidated Balance Sheet

Current Assets			Value	Current Liabilities				Balance	
Cash and checking (Schd A)			33,982	Accrued interest				12,709	
Prepaid exp. & suppl. (Schd B)			431,017	Payables & accr exp (Schd T)				232,750	
Growing crops			-						
Accounts receivable (Schd D)			487,321						
Hedging accounts (Schd E)			152,000						
Other current assets			-						
Crops (Schd G)				Int		P & I	Principal		
	Quantity	Value/Unit		Rate		Due	Balance		
Corn			198,000	5.00		-	1,144,000		
			3.50/bu.	5.00		-	412,000		
			693,000	Principal due within 12 months on term liabilities				263,794	
Mkt Ivst (Schd H)									
	No.	Value/Unit							
Wean-FinPig			14,880						
			64.53/cwt.						
Total Current Assets			3,163,187	Total Current Liabilities				2,065,253	
Intermediate Assets				Intermediate Liabilities (Schd V)					
		Cost	Market	Int	Principal	P & I	Principal	Intermed	
		Value	Value	Rate	Balance	Due	Due	Balance	
Breeding livestock			-	Loan					
Machinery (Schd J)			1,756,428	Farm -Ted - Prefer	5.50	26,885	7,257	241	26,644
Titled vehicles (Schd K)			186,210	JDCC-JD8310	2.80	29,250	28,638	28,445	805
Other intermed. (Schd L)			-	JDCC-JD9560RT	2.90	57,155	29,222	27,682	29,473
			1,000	JDCC-S860Combine	3.50	126,039	27,917	25,308	100,731
				JDCC-Sprayer	2.90	252,965	55,082	48,264	204,701
				JDCC-BeanHead	2.90	46,492	16,374	15,121	31,371
				JDCC-CornHead	2.90	44,225	22,866	21,674	22,551
				MyHome Bank-Sprayer	5.00	40,000	9,240	7,550	32,450
				MyHom-ManureTanker	5.00	100,000	22,581	22,159	77,841
				Farm Service Agency-Bin	3.00	196,000	19,740	13,778	182,222
Total Intermediate Assets			1,942,638	Total Intermediate Liabilities				708,789	
Long Term Assets				Long Term Liabilities (Schd W)					
		Cost	Market	Int	Principal	P & I	Principal	Lg Term	
		Value	Value	Rate	Balance	Due	Due	Balance	
Land			-	Loan					
Bldgs & improve. (Schd N)			655,600	Farm Credit -Feed Mill	4.15	297,080	67,014	53,572	243,508
Other long term (Schd O)			788,125	MyHome Bank-Pretty Sow	0.00	570,713	-	-	570,713
Total Long Term Assets			1,443,725	Total Long Term Liabilities				814,221	
Total Farm Assets			6,549,550	Total Farm Liabilities				3,588,263	
Personal Assets			-	Personal Liabilities				-	
Total Assets (a)(b)			6,549,550	Total Liabilities (d)(e)				3,588,263	
			7,372,238	Retained Earnings/Contributed Capital				[a-d] 2,961,287	
				Market valuation equity				[b-a] 822,688	
				Net Worth				[b-e] 3,783,975	

I certify that my statements on this balance sheet are true, complete, and correct to the best of my knowledge and belief.

Signature(s) _____

Date _____

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John Bacon : 1/1/2010 - consolidated Balance Sheet

<i>Schedule A: Cash and checking</i>		Value
Source: John Bacon		
Checking		32,515
Source: JB Crop		
Farm Checking		1,467
Total cash and checking		33,982

Schedule B: Prepaid expenses and supplies

	Expense Category	Quantity	Value Per		Value
			Unit		
Source: John Bacon					
Feed		-	-		125,000
Source: JB Crop					
Manure 1200 ac	Fertilizer	-	-		109,000
Seed & Fert	Seed	-	-		168,017
Total prepaid expenses and supplies					431,017

Schedule D: Accounts receivable

	Quantity	Value Per		Value
		Unit		
Source: JB Crop				
Corn Deferred	-	-		487,321
Total accounts receivable				487,321

Schedule E: Hedging accounts

	Quantity	Value Per		Value
		Unit		
Source: John Bacon				
hog hedge acct	-	-		152,000
Total hedging accounts				152,000

Schedule G: Crop Inventory

Crop	Description	Quantity	Value Per		Value
			Unit		
Source: JB Crop					
Corn	Open	198,000 bu.	3.50		693,000
Total crop inventory					693,000

Schedule H: Livestock held for sale

Livestock	Description	Number Of Head	Average Weight	Value Per	
				Unit	Value
Source: John Bacon					
Wean-Fin Pig	Mauldwins	4,900	25	268.16/cwt.	328,500
Wean-Fin Pig	K South	2,450	250	48.03/cwt.	294,167
Wean-Fin Pig	TLP N	2,400	130	64.62/cwt.	201,600
Wean-Fin Pig	TLP S	2,400	150	56.00/cwt.	201,600
Wean-Fin Pig	KNorth	2,400	260	48.24/cwt.	301,000
Wean-Fin Pig	Z Barn	330	260	45.45/cwt.	39,000
Total livestock held for sale					1,365,867

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John Bacon : 1/1/2019 - consolidated Balance Sheet

Schedule J: Machinery and equipment

Make/Model	Model Year	Serial No./VIN	Year Purchased	Purchase Price	Pct. Ownership	Cost Value	Market Value
Source: JB Crop							
JD 9580RT	2014		-	-	100.00 %	200,475	275,000
JD 8310RT	2014		-	-	100.00 %	138,510	190,000
JD 8345	-		-	-	100.00 %	145,800	200,000
JD 326D Skidsteer	-		-	-	100.00 %	43,740	60,000
JD 5680 Combine	-		-	-	100.00 %	201,751	276,750
JD 618 C Corn Head	-		-	-	100.00 %	101,331	139,000
JD 635 Bean Head	-		-	-	100.00 %	62,694	66,000
Header Trailer	-		-	-	100.00 %	10,935	15,000
JD DB60 36R Planter	-		-	-	100.00 %	131,220	180,000
Planter Tracks	-		-	-	100.00 %	21,870	30,000
CIH 670 Ripper	-		-	-	100.00 %	36,450	50,000
CNH 54.5' Digger	-		-	-	100.00 %	32,805	45,000
CIH 330 Turbo Disc	-		-	-	100.00 %	40,095	55,000
Dryer	-		-	-	100.00 %	109,350	150,000
Kilbros 1935 Grain Cart	-		-	-	100.00 %	21,870	30,000
Fast Sprayer 120' 1900 ga	-		-	-	100.00 %	36,450	50,000
Hagie STS 12 w.att	-		-	-	100.00 %	277,713	360,950
NH3 Applicator	-		-	-	100.00 %	7,290	10,000
Chopper Rump	-		-	-	100.00 %	7,290	10,000
Nuhn 6750 Manure Tank	-		2018	-	100.00 %	121,500	150,000
GPS & Flowmeter	-		-	-	100.00 %	7,290	10,000
Total machinery and equipment						1,756,428	2,392,700

Schedule K: Titled vehicles

Make/Model	Model Year	Serial No./VIN	Year Purchased	Purchase Price	Pct. Ownership	Cost Value	Market Value
Source: John Bacon							
Feed Truck	-		-	-	100.00 %	40,000	30,000
Feed Truck 18 T	-		-	-	100.00 %	25,000	25,000
Source: JB Crop							
Int Semi 9200	-		-	-	100.00 %	20,400	24,000
Int Semi 9200	-		-	-	100.00 %	20,400	24,000
43' Wilson Grain Trailer	-		-	-	100.00 %	17,000	20,000
43' Wilson Grain Trailer	-		2014	-	100.00 %	17,000	20,000
42' Wilson Grain Trailer	-		-	-	100.00 %	34,000	40,000
JD Gator	-		-	-	100.00 %	7,650	9,000
6000 Manure Tanker	1986		2018	5,600	100.00 %	4,760	5,600
Total titled vehicles						186,210	197,600

Schedule L: Other intermediate assets

	Quantity	Year Purchased	Purchase Price	Mkt Value Per Unit	Cost Value	Market Value
Source: JB Crop						
United FCS Stock	-	-	-	-	-	1,000
Total other intermediate assets					-	1,000

Schedule H: Buildings and improvements

	Year Purchased	Purchase Price	Cost Value	Market Value
Source: John Bacon				
Feed Mill 100%	2011	-	285,000	400,000
Source: JB Crop				
17 Depreciation	-	-	-5,400	-5,400
Irrigator	-	-	27,000	27,000
Irrigator	-	-	21,000	21,000
Irrigator/ Well / Electn	-	-	60,000	60,000
Tile 18	2018	32,000	32,000	32,000
141K Bin	2018	236,000	236,000	236,000
Total buildings and improvements			655,600	770,600

Schedule O: Other long term assets

	Quantity	Year Purchased	Purchase Price	Mkt Value Per Unit	Cost Value	Market Value
Source: John Bacon						
Pretty Sow 50%	-	-	-	-	788,125	847,151
Total other long term assets					788,125	847,151

Schedule T: Accounts payable and other accrued expenses

Expense Category	Balance
Source: John Bacon	
Weaned Pigs	232,750
Total accounts payable and other accrued expen	232,750

Schedule U: Current loans

	Interest Rate	Principal Balance	Accrued Interest	Normal P & I	Past Due P & I	Month Due	Balance
Source: John Bacon							
MyHome Bank-LOC	5.00 %	1,144,000	-	-	-	-	1,144,000
Source: JB Crop							
MyHome Bank-Opeartng	5.00 %	412,000	-	-	-	-	412,000
Total current loans		1,556,000	-	-	-		1,556,000

Schedule V: Intermediate loans

	Interest Rate	Principal Balance	Accrued Interest	Normal P & I	Past Due P & I	Month Due	Final Year	Principal Due	Intermed Balance
Source: JB Crop									
Farm -Ted - Prefer	5.50 %	26,895	5,517	7,257	-	12	-	241	26,644
John Deere Credit-JD 8310	2.60 %	29,250	-	28,638	-	3	-	28,445	805
JDCC-JD 9560RT	2.90 %	57,155	-	29,222	-	11	-	27,692	29,473
JDCC-S860 Combine	3.50 %	128,039	-	27,917	-	7	-	25,308	100,731
John Deere Credit-Sprayer	2.90 %	252,665	-	55,082	-	11	-	48,284	204,701
JDCC-Bean Head	2.90 %	48,492	-	16,374	-	11	-	15,121	31,371
JDCC-Corn Head	2.90 %	44,225	-	22,866	-	11	-	21,674	22,551
MyHome Bank-Sprayer	5.00 %	40,000	-	9,240	-	10	-	7,550	32,450
MyHome Bank-ManureTanker	5.00 %	100,000	-	22,581	-	1	-	22,159	77,841
Farm Service Agency-Bin	3.00 %	196,000	-	19,740	-	12	2030	13,778	182,222
Total intermediate loans		619,011	5,517	238,917	-			210,222	708,799

Schedule W: Long term loans

	Interest Rate	Principal Balance	Accrued Interest	Normal P & I	Past Due P & I	Month Due	Final Year	Principal Due	Lg Term Balance
Source: John Bacon									
Farm Credit -Feed M8	4.15 %	297,090	7,192	67,014	-	6	-	53,572	243,508
MyHome Bank-Pretty Sow	0.00 %	570,713	-	-	-	-	-	-	570,713
Total long term loans		867,793	7,192	67,014	-			53,572	814,221

2018 Financial Analysis Executive Summary

Income Statement

Crop sales	2,074,412	
Crop inventory change	-583,956	
Gross crop income		1,490,456
Livestock sales	3,186,390	
Livestock inventory change	454,546	
Gross livestock income		3,640,936
Government payments		206,147
Other cash farm income		1,100,716
Change in accounts receivable		-131,329
Gain or loss on hedging accts		356,119
Change in other assets		-
Gain or loss on breeding lvtst		-
Gross farm income		6,663,045
Cash operating expense	6,247,950	
Change in prepaid exp and supplies	-31,981	
Change in growing crops	-	
Change in accounts payable	182,750	
Depreciation	230,213	
Total operating expense		6,628,932
Interest paid	125,185	
Change in accrued interest	7,192	
Total interest expense		132,377
Total expenses		6,761,309
Net farm income		-98,264

Other Measures

Total crop acres		3,131
Wean-Fin Pig sold or transferred out		23,862
Change in earned net worth	-98,264	-3 %
Change in market value net worth	1,506,005	66 %

Financial Standards Measures

Liquidity	Beg	End
Current ratio	1.59	1.53
Working capital	1,250,723	1,097,934
Working capital to gross revenues	18.8 %	16.5 %
Solvency (market)	Beg	End
Debt to asset ratio	68 %	49 %
Debt to equity ratio	2.13	0.95
Profitability	Cost	Market
Net farm income	-98,264	1,506,005
Rate of return on assets	-1.2 %	21.0 %
Rate of return on equity	-7.1 %	45.9 %
Operating profit margin	-2.6 %	49.4 %
Repayment Capacity		
Term debt coverage ratio (farm only)		0.64
Replacement margin coverage ratio		0.47
Efficiency	Cost	Market
Asset turnover rate	46.3 %	42.6 %
Operating expense ratio		96.0 %
Depreciation expense ratio		3.5 %
Interest expense ratio		2.0 %
Net farm income ratio		-1.5 %
Other		
Term debt coverage (farm+personal)		0.64
Term debt to EBITDA		6.07

Information Accuracy

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

Income Statement

<i>Income</i>	Quantity	Price	Amount	<i>Expense</i>	Amount
Com	501,912 bu.	3.38/bu.	1,698,291	Seed	93,707
Soybeans	44,762 bu.	8.40/bu.	376,121	Fertilizer	255,190
Wean-FinPig	23,862 head	49.39/cwt.	3,186,390	Crop chemicals	174,948
Livestock govt payments			110,856	Crop insurance	73,214
Other government payments			95,291	Crop Hauling and trucking	35,362
Custom work income			844,715	Feeder livestock purchase	1,082,880
Patronage dividends, cash			9,303	Purchased feed	2,493,835
Crop insurance income			163,045	Veterinary	111,149
Other farm income			26,053	Livestock Hauling and trucking	110,848
Contract livestock income			57,600	Interest	125,185
				Fuel & oil	123,074
				Repairs	35,750
				Repair, machinery	179,990
				Custom hire	6,350
				Hired labor	118,908
				Owner wages & benefits	115,200
				Land rent	738,561
				Building leases	306,120
				Real estate taxes	14,119
				Farm insurance	72,854
				Utilities	79,675
				Dues & professional fees	16,462
				Miscellaneous	9,754
Gross cash income			6,567,665	Total cash expense	6,373,135
				Net cash income	194,530

	Beginning Inventory	Purchases/ Deposits	Sales/ Withdrawals	Ending Inventory	Inventory Change
Inventory Changes					
Prepays and supplies	399,036			431,017	31,981
Accounts receivable	618,650			487,321	-131,329
Hedging gains or losses	130,000	234,881	569,000	152,000	356,119
Crops and feed	1,276,956			693,000	-583,956
Market livestock	911,321			1,365,867	454,546
Other assets	788,125	-	-	788,125	-
Accounts payable	50,000			232,750	-182,750
Accrued interest	5,517			12,709	-7,192
Total inventory change					-62,581
Net operating profit					131,949
	Beginning Inventory	Purchases	Sales	Ending Inventory	Depreciation
Depreciation					
Machinery and equipment	2,049,930	-	70,979	1,756,428	-222,523
Titled vehicles	188,300	5,600	-	186,210	-7,690
Buildings and improvement	387,600	268,000	-	655,600	-
Total depreciation					-230,213
Net farm income					-98,264

Profitability Measures		Cost	Market	Statement of Owner's Equity		
(A)	Net farm income from operations	-98,264	1,506,005	(a)	Beginning net worth	2,277,970
	Rate of return on assets (E/F)	-1.2 %	21.0 %		Net farm income	-98,264
	Rate of return on equity (G/H)	-7.1 %	45.9 %		Personal income (+)	-
	Operating profit margin (E/I)	-2.6 %	49.4 %		Family living expense (-)	-
	Asset turnover rate (I/F)	46.3 %	42.6 %		Income taxes accrued (-)	-
	EBITDA	264,326	1,868,595		Change in personal assets (+)	-
					Change in nonfarm accounts payable (+)	-
(B)	Change in market valuation	-	1,604,269	(b)	Total change in retained earnings (=)	-98,264
(C)	Interest expense	132,377	132,377		Change in market value of capital assets	488,918
(D)	Value of unpaid oper labor & mgmt	115,000	115,000		Change in deferred liabilities	-1,115,352
(E)	Return on farm assets (A+C-D)	-80,887	1,523,382	(d)	Total change in market valuation =	1,604,269
(F)	Average farm assets	6,669,160	7,247,389			
(G)	Return on farm equity (A-D)	-213,264	1,391,005	(e)	Total change in net worth (b+d)	1,506,005
(H)	Average farm net worth	3,010,419	3,030,972		Ending net worth	3,783,975
(I)	Value of farm production	3,086,330	3,086,330			
Liquidity Measures		Begin	End	Statement of Cash Flows		
(J)	Current assets	3,374,815	3,163,187	(f)	Beginning cash balance (farm & personal)	38,852
(K)	Current liabilities	2,124,092	2,065,253		Gross cash farm income	6,567,665
	Current ratio (J/K)	1.59	1.53		Cash farm expenses (-)	6,373,135
	Working capital (J-K)	1,250,723	1,097,934		Net cash from hedging transactions (+)	334,119
	Change in working capital	-152,789		(g)	Cash provided by operating activities (=)	528,649
	Working capital to gross revenues	18.8 %	16.5 %		Sale of machinery and equipment (+)	70,979
					Purchase of titled vehicles (-)	5,600
					Purchase of farm buildings (-)	268,000
Solvency Measures (Market)		Begin	End	(h)	Cash provided by investing activities (=)	-202,621
(L)	Total assets	7,122,540	7,372,238		Money borrowed	1,603,873
(M)	Total liabilities	4,844,571	3,588,263		Principal payments (-)	1,934,771
	Net worth (L-M)	2,277,970	3,783,975		Personal income (+)	-
	Net worth change	1,506,005			Family living expense (-)	-
	Current debt to assets (K/J)	63 %	65 %		Income taxes paid (-)	-
	Intermediate debt to assets	24 %	27 %	(i)	Cash provided by financing activities (=)	-330,898
	Long term debt to assets	79 %	50 %		Net change in cash (g+h+i)	-4,870
	Total debt to assets ratio (M/L)	68 %	49 %		Ending cash balance (farm and personal)	33,982
Repayment Capacity						
	Net farm income from operations		-98,264			
	Depreciation (+)		230,213			
	Personal income (+)		-			
	Family living expense (-)		-			
	Income taxes accrued (-)		-			
	Interest on term debt (+)		31,795			
(N)	Capital debt repayment capacity (=)		163,744			
(O)	Scheduled term debt payments		254,370			
(P)	Capital debt repayment margin (N-O)		-90,626			
(Q)	Cash replacement allowance		91,599			
	Replacement margin (P-Q)		-182,225			
	Term debt coverage ratio (N/O)		0.64			
	Replacement coverage ratio (N/O-Q)		0.47			

R10

John Bacon Financial Analysis: 2018 consolidated

Crop Summary

Total crop acres	3,131
Crop acres owned	-
Crop acres cash rented	3,131
Crop acres share rented	-
Percent crop acres owned	- %
Machinery investment/crop acre (cost)	668
Machinery investment/crop acre (market)	806

Livestock Summary

Wean-Fin Pig	
Number sold or trans out	23,862
Avg wgt / Wean-Fin Pig sold	270
Avg sales price / cwt.	49.39

<i>Crop Yields</i>	<i>Acres</i>	<i>Yield</i>
Com	2,279.0	168.2 bu.
Soybeans	852.0	67.8 bu.

Labor Summary

Total unpaid labor hours	1,500
Total hired labor hours	6,000
Total farm labor hours	7,500
Value of farm production per hour	411.51
Net farm income per unpaid hour	-65.51
Average hourly hired labor wage	39.02

Crop Enterprise Analysis

	<i>Com</i> <i>Cash Rented</i>	<i>Soybeans</i> <i>Cash Rented</i>
Returns		
Acres	2279.00	852.00
Unit	bu.	bu.
Yield per acre	168.20	67.80
Share of production (%)	100.00	100.00
Value per unit	3.50	8.65
Total product value	588.70	586.43
Crop insurance	52.07	52.07
Other crop income	-	111.84
Gross return per acre	640.77	750.35
Direct Expenses		
Seed	116.00	41.00
Fertilizer	82.00	12.10
Crop chemicals	31.00	48.00
Crop insurance	23.38	23.38
Hired labor	18.99	18.99
Land rent	235.89	235.89
Utilities	6.36	6.36
Hauling and trucking	11.29	11.29
Fuel & oil	22.43	12.23
Repair, machinery	65.60	35.78
Operating interest	5.66	3.09
Total direct expenses	618.60	448.11
Return over direct expenses	22.17	302.24
Overhead Expenses		
Hired labor	0.00	0.00
Farm insurance	13.28	7.24
Utilities	0.00	0.00
Dues & professional fees	3.00	1.64
Interest on interm. debt	12.59	6.87
Machinery depreciation	83.91	45.77
Miscellaneous	3.56	1.94
Total overhead expenses	116.33	63.45
Total dir & ovhd expenses	734.93	511.57
Net return per acre	-94.16	238.79
Government payments		
Government payments	-	-
Net return with govt pmts	-94.16	238.79
Labor & management charge	41.95	22.88
Net return over lbr & mgt	-136.11	215.90
Cost of Production Per Unit		
Total direct expenses	3.68	6.61
Total dir & ovhd expenses	4.37	7.55
Less govt & other income	4.06	5.13
With labor & management	4.31	5.47
Net value per unit		
Net value per unit	3.50	8.65
Machinery cost per acre	184.53	100.65
Est. labor hours per acre	1.09	0.60

LIVESTOCK ENTERPRISE ANALYSIS -- Hogs, Weaning to Finish

	Per Cwt. Carcass Sold		Per Head		Enterprise Total	
	Quantity	Value	Quantity	Value	Quantity	Value
Returns						
Wean-Fin Pig	129.87 lb.	64.14	267.72 lb.	132.21	6452127.0 lb.	3186390
Inventory change	7.77 lb.	9.15	16.03 lb.	18.86	386230.0 lb.	454546
Other income		-		-		-
Gross return	137.65 lb.	73.29	283.74 lb.	151.07	6838357.0 lb.	3640936
Purchased	-6.67 lb.	-21.80	-13.74 lb.	-44.93	-331201.0 lb.	-1082880
Gross margin	130.98 lb.	51.49	270.00 lb.	106.14	6507156.0 lb.	2558056
Direct Expenses						
Complete Ration	350.33 lb.	31.94	722.14 lb.	65.84	8702.0 ton	1586897
Veterinary		2.24		4.61		111149
Custom hire		0.13		0.26		6350
Hired labor		1.20		2.47		59454
Utilities		1.20		2.48		59756
Hauling and trucking		2.23		4.60		110848
Fuel & oil		1.24		2.55		61537
Repairs		0.72		1.48		35750
Operating interest		0.47		0.97		23278
Total direct expenses		41.37		85.27		2055019
Return over direct expenses		10.13		20.87		503037
Overhead Expenses						
Building leases		6.16		12.70		306120
Farm insurance		0.73		1.51		36427
Utilities		0.00		0.00		0
Dues & professional fees		0.17		0.34		8231
Interest on interm. debt		0.70		1.43		34551
Interest on lng term debt		0.25		0.51		12239
Total overhead expenses		8.00		16.50		397568
Total dir & ovhd expense		49.37		101.76		2452587
Net return		2.12		4.38		105469
Labor & management charge		2.32		4.78		115100
Net return over lbr & mgt		-0.19		-0.40		-9631
Est. labor hours per unit		0.09		0.19		4500
Cost of Prod Per Cwt. Carcass Sold						
Total direct expenses	54.01					
Total dir & ovhd expenses	62.02					
With other revenue adjustments	62.02					
With labor & management	64.33					
Other Information						
No. purchased or trans in			25,477		Hired labor per head	2.47
Number sold or trans out			23,862		Average purchase weight	13
Percentage death loss			2.3		Avg wgt / Wean-Fin Pig sold	270
Percent substandard hogs			1		Avg purch price / head	42.50
Avg. daily gain (lb.)			1.19		Avg sales price / cwt.	49.39
Lb. of feed / lb. of gain			2.67		Average carcass weight	209
Feed cost per cwt. of gain			24.39		Average price / cwt. carcass	63.69
Feed cost per head			65.84			

Planned vs Actual**Income Statement**

Cash Farm Income	Unit	Planned Quantity	Planned Value	Actual Quantity	Actual Value
Com	bu.	376,584	1,251,240	501,912	1,698,291
Soybeans	bu.	88,160	793,440	44,762	376,121
Wean-Fin Pig	lb.	6,078,072	3,887,396	6,452,127	3,186,390
Livestock govt payments			-		110,856
Other government payments			-		95,291
Custom work income			675,000		844,715
Patronage dividends, cash			5,000		9,303
Crop insurance income			-		163,045
Other farm income			-		26,053
Contract livestock income			-		57,600
Gross cash farm income			6,612,075		6,567,665
Seed			311,385		93,707
Fertilizer			207,000		255,190
Crop chemicals			128,775		174,948
Crop insurance			89,238		73,214
Drying expense			17,250		-
Hauling and trucking			-		146,210
Feeder livestock purchase			1,200,000		1,082,880
Purchased feed			2,019,505		2,493,835
Veterinary			121,125		111,149
Supplies			34,607		-
Interest			146,516		125,185
Repair, machinery			-		179,990
Real estate taxes			-		14,119
Fuel & oil			150,000		123,074
Repairs			135,000		35,750
Custom hire			175,000		6,350
Hired labor			100,000		118,908
Owner wages & benefits			65,000		115,200
Land rent			784,500		738,561
Building leases			314,000		306,120
Farm insurance			40,000		72,854
Utilities			90,000		79,675
Marketing			6,000		-
Dues & professional fees			6,500		16,462
Miscellaneous			15,000		9,754
Total cash farm expense			6,156,401		6,373,135
Net cash farm income			455,675		194,530
Inventory change			109,144		-62,581
Depreciation			-261,865		-230,213
Net farm income			302,953		-98,264

Cash Flows

Cash Inflows	Planned	Actual
Beginning cash balance	38,852	38,852
Gross cash farm income	6,612,075	6,567,665
Personal income	-	-
Capital sales	-	70,979
Money borrowed	1,457,367	1,603,873
Hedge account withdrawal	-	569,000
Total inflows	8,108,294	8,850,369
Cash Outflows		
Cash farm expense	6,156,401	6,373,135
Family living	80,000	-
Income taxes	-	-
Capital purchases	-	273,600
Principal payments	1,871,394	1,934,771
Hedge account deposits	-	234,881
Ending cash balance	500	33,982
Total outflows	8,108,294	8,850,369

Livestock

Wean-Fin Pigs sold	28,943	23,862
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Ending Inventories

Hay	15,400	-
Corn	353,625	198,000
Wean-Fin Pig	12,547	14,880

Crop Production

Crop	Unit	Planned Acres	Planned Yield	Planned Production	Actual Acres	Actual Yield	Actual Production
Com	bu.	1,725.0	205.0	353,625	2,279.0	168.2	383,328
Soybeans	bu.	1,520.0	58.0	88,160	852.0	67.8	57,762

Household and Personal Expenses
Southern Minnesota Farm Business Management Data
(Farms Sorted By Net Farm Income)

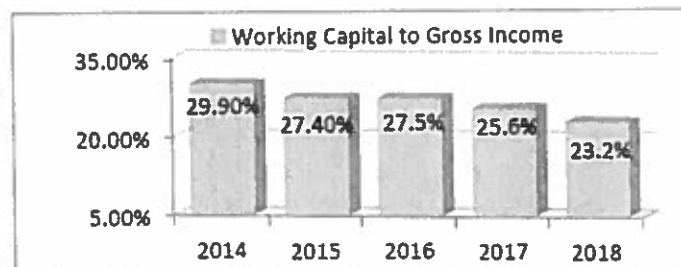
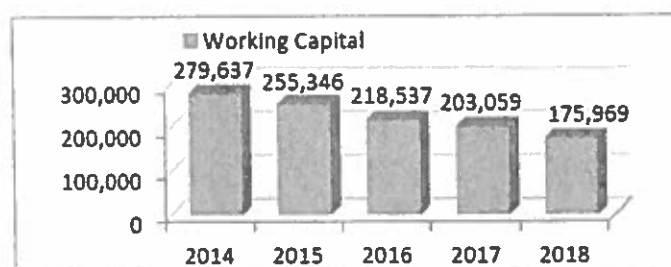
R14

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	320	56	63	84
Average family size	2.8	2.6	2.7	3.1
Family Living Expenses				
Food and meals expense	8,297	8,213	8,629	9,130
Medical care	3,933	3,798	3,712	4,196
Health insurance	5,666	6,259	4,217	7,844
Cash donations	2,289	1,923	1,699	3,053
Household supplies	5,259	4,388	2,895	8,113
Clothing	1,876	1,592	1,561	2,444
Personal care	3,673	2,136	2,782	5,983
Child / Dependent care	556	197	961	524
Alimony and child support	125	-	90	249
Gifts	2,151	2,427	1,739	2,259
Education	1,390	965	488	2,181
Recreation	3,891	3,169	2,938	5,764
Utilities (household share)	2,971	3,181	2,269	3,363
Personal vehicle operating exp	3,271	3,324	3,354	3,314
Household real estate taxes	480	529	212	937
Dwelling rent	164	128	377	179
Household repairs	1,769	1,605	1,888	1,831
Personal interest	1,381	1,745	970	1,681
Disability / Long term care ins	478	180	180	537
Life insurance payments	3,554	4,707	2,517	3,927
Personal property insurance	457	433	183	844
Miscellaneous	4,986	7,213	4,176	5,176
Total cash family living expense	58,617	58,111	47,836	73,524
Family living from the farm	210	296	200	103
Total family living	58,828	58,407	48,036	73,627
Other Nonfarm Expenditures				
Income taxes	12,720	8,901	7,317	20,838
Furnishing & appliance purchases	372	139	280	635
Nonfarm vehicle purchases	3,344	3,522	4,171	2,766
Nonfarm real estate purchases	5,661	5,780	927	16,605
Other nonfarm capital purchases	-2,290	5,840	2,900	-16,718
Nonfarm savings & investments	7,903	-1,045	548	22,727
Total other nonfarm expenditures	27,710	23,137	16,143	46,854
Total cash family living investment & nonfarm capital purch	86,327	81,248	63,978	120,378

Financial Trend Summary
Southern Minnesota Farm Business Management Data

R15

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Income Statement					
Gross Cash Farm Income	925,932	840,341	791,868	774,349	759,254
Total Cash Farm Expense	776,714	724,501	683,984	680,554	675,400
Net Cash Farm Income	149,218	115,841	107,885	93,795	83,855
Inventory Change	4,824	-23,760	-8,742	9,243	-5,271
Depreciation	-58,851	-56,164	-54,856	-51,355	-49,741
Net Farm Income From Operations	95,191	35,915	44,287	51,683	28,843
Gain or Loss on Capital Sales	1146	1,155	2,456	2,558	4,023
Average Net Farm Income	96,337	37,070	46,742	54,241	32,866
Median Net Farm Income	39,913	22,434	33,071	25,337	20,655
Profitability (Cost)					
Rate of Return on Assets	3.7%	0.8%	1.4%	1.9%	1.0%
Rate of Return on Equity	3.5%	-1.7%	-0.7%	0.0%	-2.0%
Operating Profit Margin	10.1%	2.5%	4.4%	5.8%	3.2%
Asset Turnover Rate	36.5%	33.0%	32.1%	32.2%	32.3%
Liquidity & Repayment (end of year)					
Current Assets	631,535	578,379	568,571	561,180	523,498
Current Liabilities	351,898	353,033	350,034	358,121	347,528
Current Ratio	1.79	1.64	1.62	1.57	1.51
Working Capital	279,637	255,346	218,537	203,059	175,969
Working Capital to Gross Income	29.90%	27.40%	27.5%	25.6%	23.2%
Term Debt Coverage Ratio	1.33	0.77	0.90	1.02	0.91
Replacement Coverage Ratio	1.05	0.60	0.68	0.75	0.67
Term Debt to EBITDA	2.97	4.26	4.23	4.12	4.92
Solvency (Market)					
Number of Farms	1,347	1,287	1,380	1,420	1,460
Total Assets	3,089,636	2,987,149	3,063,428	3,103,692	2,969,437
Total Liabilities	1,280,133	1,271,496	1,292,302	1,323,581	1,291,735
Net Worth	1,809,503	1,715,654	1,771,126	1,780,111	1,667,702
Net Worth Change	86,583	34,810	51,239	64,497	30,522
Farm Debt to Asset Ratio	43%	45%	45%	45%	49%
Total Debt to Asset Ratio	41%	43%	42%	43%	46%
Change in Total Net Worth %	5%	2%	3%	4%	1%
Nonfarm Information					
Net Nonfarm Income	34,228	36,528	36,099	35,787	41,383
Farms Reporting Living Expenses	409	368	338	352	320
Total Family Living Expense	66,073	62,829	60,731	59,601	58,828
Total Living, Invest, & Cap Purch	110,312	101,316	86,584	87,463	86,327
Crop Acres					
Total Crop Acres	697	683	693	699	699
Total Crop Acres Owned	198	184	186	187	174
Total Crop Acres Cash Rented	484	483	493	497	511
Total Crop Acres Share Rent	16	16	14	14	14
Machinery Value Per Crop Acre	861	879	880	851	812

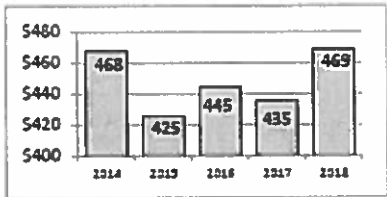


Selected Crop & Livestock Enterprise Trend Summary
Southern Minnesota Farm Business Management Data

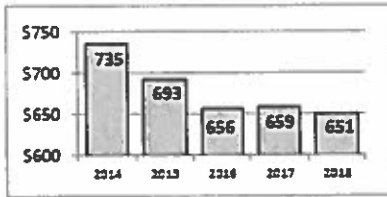
R16

	2014	2015	2016	2017	2018
Alfalfa Hay					
Yield per Acre	4.9	5.4	5.7	5.5	5.1
Value per Ton	\$175.22	\$146.49	\$125.77	\$126.55	\$129.88
Fuel, Oil, Repairs per Acre	\$116.80	\$81.54	\$86.00	\$87.35	\$93.15
Total Dir & Ovhd Exp per Acre	\$468.01	\$425.20	\$444.60	\$435.17	\$468.56
Net Return per Acre	\$404.09	\$363.36	\$269.75	\$260.62	\$200.01
Total Direct Expenses per Ton	\$55.30	\$46.12	\$41.79	\$41.13	\$48.31
Total Dir & Ovhd Exp per Ton	\$95.58	\$79.41	\$78.75	\$79.35	\$91.25

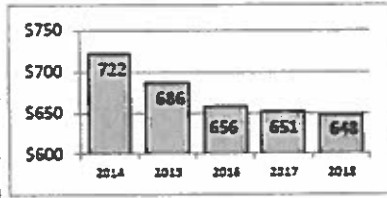
Total Dir&Ovhd Expense



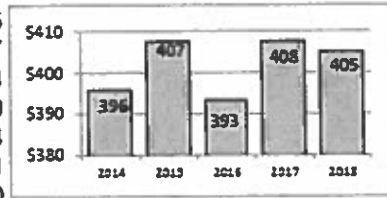
Corn					
Yield per Acre	165.4	207.2	206.4	215.1	183.0
Value per Bushel	\$3.90	\$3.50	\$3.33	\$3.19	\$3.46
Fuel, Oil, Repairs per Acre	\$83.90	\$69.38	\$65.11	\$68.67	\$73.08
Total Dir & Ovhd Exp per Acre	\$735.06	\$692.79	\$656.07	\$658.67	\$651.00
Net Return per Acre	\$71.74	\$39.05	\$46.61	\$45.26	\$24.97
Total Direct Expenses per Bu.	\$3.04	\$2.22	\$2.11	\$2.01	\$2.36
Total Dir & Ovhd Exp per Bushel	\$4.44	\$3.34	\$3.18	\$3.05	\$3.56



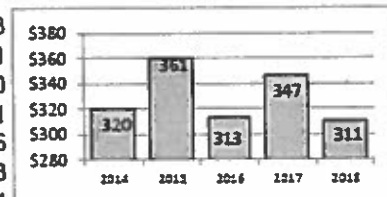
Corn Silage					
Yield per Acre	20.4	24.7	23.7	23.8	22.8
Value per Ton	\$35.59	\$32.60	\$31.83	\$31.20	\$32.59
Fuel, Oil, Repairs per Acre	\$119.85	\$83.07	\$84.09	\$78.34	\$79.40
Total Dir & Ovhd Exp per Acre	\$721.80	\$686.41	\$656.49	\$651.19	\$647.77
Net Return per Acre	\$127.48	\$118.76	\$112.18	\$101.40	\$117.81
Total Direct Expenses per Ton	\$24.63	\$19.34	\$18.95	\$18.47	\$19.27
Total Dir & Ovhd Exp per Ton	\$35.35	\$27.81	\$27.66	\$27.34	\$28.39



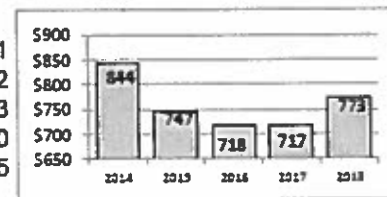
Soybeans					
Yield per Acre	48.1	60.3	62.1	56.4	55.5
Value per Bushel	\$10.12	\$8.62	\$9.39	\$9.23	\$8.67
Fuel, Oil, Repairs per Acre	\$52.88	\$44.42	\$42.01	\$45.30	\$47.24
Total Dir & Ovhd Exp per Acre	\$395.82	\$407.40	\$393.11	\$407.53	\$405.10
Net Return per Acre	\$145.53	\$116.85	\$200.18	\$127.05	\$188.74
Total Direct Expenses per Bu.	\$4.58	\$3.82	\$3.52	\$4.00	\$4.11
Total Dir & Ovhd Exp per Bushel	\$8.23	\$6.76	\$6.34	\$7.23	\$7.30



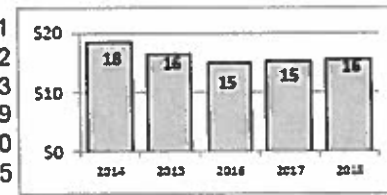
Spring Wheat					
Yield per Acre	52.5	63.7	61.9	62.9	31.3
Value per Bushel	\$5.32	\$4.96	\$4.78	\$6.20	\$5.41
Fuel, Oil, Repairs per Acre	\$40.57	\$39.46	\$35.45	\$46.26	\$43.00
Total Dir & Ovhd Exp per Acre	\$320.40	\$361.09	\$312.75	\$346.52	\$311.21
Net Return per Acre	\$32.83	\$37.44	\$28.19	\$116.67	-\$15.46
Total Direct Expenses per Bu.	\$4.34	\$3.08	\$2.67	\$3.03	\$5.03
Total Dir & Ovhd Exp per Bushel	\$7.39	\$5.67	\$5.06	\$5.51	\$9.94



Beef Cow Calf-Includes Bkgd					
Price Rcv'd/Cwt Calf Sold	\$212.33	\$206.46	\$156.42	\$147.47	\$147.81
Total Feed Cost/Cow	\$508.48	\$438.89	\$412.73	\$395.34	\$443.22
Return over Feed/Cow	\$786.66	\$425.07	\$220.56	\$302.85	\$271.23
Net Return/Cow	\$451.63	\$117.23	-\$84.29	-\$19.01	-\$58.70
Total Direct & Ovhd Expenses	\$843.51	\$746.72	\$717.58	\$717.20	\$773.15



Dairy Cows-Non Org. and Org.					
Production/Cow	23,765	24,034	24,399	24,687	23,791
Price Rcv'd/Cwt Milk	\$24.36	\$17.75	\$16.20	\$17.72	\$16.62
Total Feed Cost/Cwt Milk	\$10.22	\$8.77	\$7.71	\$7.80	\$8.13
Return over Feed/Cwt Milk	\$14.13	\$8.98	\$8.49	\$9.92	\$8.49
Net Return/Cwt Milk	\$5.26	\$1.20	\$0.44	\$1.38	-\$0.10
Total Direct & Ovhd Expenses	\$18.38	\$16.22	\$14.87	\$15.22	\$15.55



Farm Income Statement (continued)
Southern Minnesota Farm Business Management Data
(Farms Sorted By Net Farm Income)

R17

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	1460	292	292	292
Cash Farm Expense				
Seed and plants	60,498	92,259	38,647	96,550
Fertilizer	53,573	81,889	29,645	89,361
Crop chemicals	28,996	42,084	17,927	46,966
Crop insurance	12,847	18,978	7,729	21,124
Drying expense	6,899	11,532	3,852	10,392
Storage	1,555	2,305	906	2,229
Irrigation energy	329	275	105	963
Packaging and supplies	176	499	130	55
Crop miscellaneous	2,422	2,919	1,577	4,492
Crop consultants	1,221	2,299	674	1,920
Feeder livestock purchase	38,969	66,563	19,011	78,066
Purchased feed	81,022	202,963	39,648	82,727
Breeding fees	2,523	6,728	819	2,572
Vetennary	7,018	17,313	3,273	7,176
Supplies	7,125	19,526	2,474	6,024
DHA	588	1,512	243	498
Contract production exp.	6,737	18,190	1,590	9,355
Livestock insurance	155	445	17	164
Livestock leases	713	1,571	684	832
Grazing fees	76	142	106	11
Govt program expense	81	229	7	15
Bedding	3,514	11,176	1,219	2,455
Livestock consultants	198	764	9	51
Interest	39,178	74,788	22,469	48,471
Fuel & oil	27,286	45,764	14,031	40,360
Repairs	42,376	68,052	22,578	62,916
Custom hire	16,800	26,336	8,391	23,438
Hired labor	40,809	92,685	11,393	64,059
Land rent	111,147	185,930	59,254	172,857
Stock/quota lease	149	127	90	523
Machinery leases	6,755	13,305	2,610	12,448
Building leases	6,786	8,702	2,430	12,979
Real estate taxes	7,897	10,961	4,615	12,222
Farm insurance	12,127	19,075	6,759	17,446
Utilities	12,163	20,461	6,507	17,363
Hauling and trucking	4,714	9,278	2,157	7,013
Marketing	3,392	7,685	1,683	3,884
Dues & professional fees	3,759	5,733	1,950	5,927
Purchase of resale items	6,518	2,941	5,954	14,206
Miscellaneous	16,305	12,694	4,994	48,334
Total cash expense	675,400	1,206,673	348,158	1,028,447
Net cash farm income	83,855	45,568	44,934	206,192
Inventory Changes				
Prepays and supplies	-2,100	-17,380	1,392	8,109
Accounts receivable	10,079	4,289	5,974	25,062
Hedging accounts	3,100	1,799	1,898	7,618
Other current assets	1,806	-219	317	7,679
Crops and feed	-12,752	-52,402	-6,532	10,891
Market livestock	-2,698	-15,172	-669	5,029
Breeding livestock	-490	-2,121	527	494
Other assets	1,287	-2,968	-227	9,726
Accounts payable	-1,933	-5,200	-1,030	716
Accrued interest	-1,570	-3,237	-600	-2,083
Total inventory change	-5,271	-92,612	1,049	73,241
Net operating profit	78,584	-47,044	45,983	279,433
Depreciation				
Machinery and equipment	-32,681	-56,011	-16,347	-48,977
Titled vehicles	-4,231	-5,433	-2,374	-6,169
Buildings and improvements	-12,829	-16,809	-6,772	-24,347
Total depreciation	-49,741	-78,253	-25,492	-79,493
Net farm income from operations	28,843	-125,297	20,491	199,940
Gain or loss on capital sales	4,023	-664	790	17,886
Net farm income	32,866	-125,961	21,281	217,827

Crop Enterprise Analysis
Southern Minnesota Farm Business Management Data
(Farms Sorted By Return to Overhead)

R18

Corn on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	927	185	186	186
Acres	335.20	295.75	333.35	294.18
Yield per acre (bu.)	179.48	167.87	178.12	196.24
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.48	3.43	3.48	3.50
Other product return per acre	0.49	0.09	-	1.52
Total product return per acre	624.81	576.28	620.57	687.91
Hedging gains/losses per acre	2.96	1.49	1.36	3.68
Crop insurance per acre	40.79	34.36	40.43	39.94
Other crop income per acre	5.69	3.43	5.87	10.79
Gross return per acre	674.25	615.56	668.23	742.32
Direct Expenses				
Seed and plants	112.13	118.51	113.62	107.61
Fertilizer	116.60	134.33	121.80	102.39
Crop chemicals	35.47	37.78	35.15	34.04
Crop insurance	19.20	19.23	18.64	19.10
Drying expense	19.37	22.78	18.51	18.61
Storage	2.54	4.40	2.43	0.96
Fuel & oil	27.29	29.89	26.10	26.18
Repairs	42.45	47.05	38.14	38.85
Custom hire	11.93	17.63	12.34	8.12
Hired labor	4.40	5.91	2.94	2.88
Land rent	215.77	236.52	209.86	188.94
Machinery leases	4.52	7.36	3.50	4.30
Utilities	1.87	2.96	1.65	1.40
Hauling and trucking	1.80	2.17	1.60	1.33
Marketing	1.82	2.39	1.74	1.44
Operating interest	16.19	20.88	15.13	11.87
Miscellaneous	3.19	4.78	2.59	4.05
Total direct expenses per acre	636.55	714.57	625.75	572.06
Return over direct exp per acre	37.70	-99.01	42.48	170.25
Overhead Expenses				
Hired labor	11.35	7.45	11.87	14.07
Machinery leases	2.76	2.00	3.56	3.31
Building leases	1.70	1.15	1.98	0.89
Farm insurance	10.19	10.99	9.61	10.84
Utilities	5.49	4.05	4.84	6.99
Dues & professional fees	3.49	3.29	4.00	3.21
Interest	6.68	7.06	6.86	6.74
Mach & bldg depreciation	46.82	44.62	40.97	52.20
Miscellaneous	6.48	6.24	6.06	7.00
Total overhead expenses per acre	94.96	86.85	89.75	105.24
Total dir & ovhd expenses per acre	731.51	801.42	715.50	677.31
Net return per acre	-57.26	-185.86	-47.27	65.01
Government payments	0.74	0.62	0.37	0.67
Net return with govt pmts	-56.52	-185.23	-46.89	65.68
Labor & management charge	47.64	45.32	45.41	51.87
Net return over lbr & mgt	-104.16	-230.56	-92.31	13.81
Cost of Production				
Total direct expense per bu.	3.55	4.26	3.51	2.92
Total dir & ovhd exp per bu.	4.08	4.77	4.02	3.45
Less govt & other income	3.79	4.54	3.75	3.16
With labor & management	4.06	4.81	4.00	3.43
Net value per unit	3.49	3.44	3.49	3.52
Machinery cost per acre	134.74	148.00	126.07	130.73
Est. labor hours per acre	2.55	2.53	2.53	2.65

Crop Enterprise Analysis
Southern Minnesota Farm Business Management Data
(Farms Sorted By Return to Overhead)

R19

Soybeans on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	843	168	168	169
Acres	292.40	272.40	299.90	243.63
Yield per acre (bu.)	53.99	48.62	52.86	60.35
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.73	8.58	8.72	8.88
Other product return per acre	0.07	-	-	0.40
Total product return per acre	471.40	417.42	460.75	536.40
Hedging gains/losses per acre	3.52	0.99	3.73	9.54
Crop insurance per acre	26.40	28.89	32.04	29.38
Other crop income per acre	87.48	75.38	89.09	99.39
Gross return per acre	588.80	522.67	585.60	674.71
Direct Expenses				
Seed and plants	57.18	60.45	58.50	53.42
Fertilizer	19.82	27.13	17.73	17.89
Crop chemicals	47.17	50.18	45.94	44.27
Crop insurance	20.26	22.35	19.61	20.14
Storage	0.98	1.52	0.78	0.41
Fuel & oil	17.36	18.06	17.17	16.54
Repairs	27.27	30.94	26.37	22.37
Custom hire	9.06	12.48	8.86	5.33
Hired labor	3.22	4.29	1.61	1.86
Land rent	211.65	229.62	211.22	190.39
Machinery leases	3.59	3.44	4.64	2.47
Utilities	1.48	1.92	1.32	0.98
Hauling and trucking	0.93	0.29	0.59	1.62
Marketing	1.36	1.68	1.26	0.94
Operating interest	10.25	15.72	8.61	7.05
Miscellaneous	2.80	2.93	3.13	2.31
Total direct expenses per acre	434.37	483.00	427.33	387.98
Return over direct exp per acre	154.43	39.67	158.27	286.73
Overhead Expenses				
Hired labor	6.65	4.22	6.36	9.21
Machinery leases	1.73	1.53	1.15	1.64
Building leases	0.98	0.95	0.83	0.59
Farm insurance	7.12	7.58	7.32	6.99
Utilities	3.34	3.32	3.10	4.01
Dues & professional fees	2.43	2.31	2.64	2.67
Interest	4.40	5.00	3.83	4.61
Mach & bldg depreciation	29.81	27.86	26.26	33.55
Miscellaneous	4.50	4.90	5.00	4.34
Total overhead expenses per acre	60.75	57.68	56.49	67.60
Total dir & ovhd expenses per acre	495.13	540.68	483.82	455.58
Net return per acre	93.67	-18.01	101.78	219.13
Government payments	0.68	1.26	0.38	0.91
Net return with govt pmts	94.35	-16.75	102.16	220.04
Labor & management charge	31.56	30.79	33.39	32.85
Net return over lbr & mgt	62.79	-47.54	68.77	187.19
Cost of Production				
Total direct expense per bu.	8.05	9.93	8.08	6.43
Total dir & ovhd exp per bu.	9.17	11.12	9.15	7.55
Less govt & other income	6.98	8.93	6.78	5.24
With labor & management	7.57	9.56	7.42	5.78
Net value per unit	8.80	8.61	8.79	9.04
Machinery cost per acre	88.15	94.35	83.35	81.23
Est. labor hours per acre	1.62	1.55	1.52	1.73

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

R20

Hogs, Weaning to Finish -- Average Per Cwt. Carcass Sold

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>40 - 60%</u>		<u>High 20%</u>	
	26		5		5		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Number of farms								
Wean-Fin Pig sold (lb)	135.10	67.21	135.12	59.76	135.23	66.79	135.24	70.08
Transferred out (lb)	0.01	0.00	0.08	0.05	-	-	-	-
Cull sales (lb)	0.98	0.20	-	-	2.58	0.54	0.31	0.05
Government payments		0.72		-		0.71		0.88
Other income		1.91		0.04		2.24		2.70
Purchased (lb)	-8.14	-23.31	-7.07	-19.42	-7.70	-23.24	-8.36	-23.39
Transferred in (lb)	-0.22	-0.72	-0.08	-0.20	-0.64	-2.11	-	-
Inventory change (lb)	0.27	0.14	1.03	-3.43	-1.70	-2.28	-5.03	0.07
Gross margin		46.15		36.80		42.63		50.39
Direct Expenses								
Protein Vit Minerals (lb.)	71.58	13.49	47.32	11.43	91.74	16.06	67.83	12.72
Complete Ration (lb.)	42.59	4.84	0.99	0.77	17.84	1.81	58.39	5.42
Com (bu.)	3.33	11.02	4.82	16.55	3.26	10.56	2.97	9.99
Protein Supplement (lb.)	2.64	0.43	41.50	6.75	-	-	-	-
DDGS, dry (lb.)	34.38	2.47	3.21	0.25	43.82	3.23	39.44	2.69
Other feed stuffs (lb)	0.88	0.14	0.87	0.14	0.27	0.16	1.90	0.21
Veterinary		1.87		3.46		2.40		1.24
Supplies		1.44		1.05		1.67		1.25
Contract production exp.		1.41		2.77		-		1.62
Repairs		0.74		1.75		0.35		0.69
Custom hire		1.00		-		1.85		0.61
Hired labor		0.58		0.05		0.27		1.06
Hauling and trucking		0.89		0.14		1.25		0.84
Marketing		0.35		0.93		0.56		0.13
Operating interest		0.62		2.47		0.43		0.35
Total direct expenses		41.29		48.52		40.61		38.82
Return over direct expense		4.85		-11.71		2.02		11.57
Overhead Expenses								
Hired labor		1.09		3.76		1.02		0.36
Building leases		4.75		-		6.36		6.22
Mach & bldg depreciation		0.97		0.83		0.94		1.02
Miscellaneous		2.05		1.79		1.83		1.52
Total overhead expenses		8.87		6.38		10.14		9.11
Total dir & ovhd expenses		50.16		54.89		50.76		47.93
Net return		-4.01		-18.09		-8.12		2.46
Labor & management charge		1.56		2.38		0.66		1.65
Net return over lbr & mgt		-5.57		-20.47		-8.78		0.81
Cost of Production/Cwt. Carcass Sold								
Total direct expense per unit		64.99		71.56		67.71		62.08
Total dir & ovhd expense per unit		73.85		77.94		77.85		71.19
With other revenue adjustments		71.23		77.90		74.91		67.62
With labor and management		72.79		80.28		75.57		69.27
Est. labor hours per unit		0.13		0.23		0.08		0.09
Other Information								
No. purchased or trans in		17,020		5,304		29,014		28,100
Number sold or trans out		15,366		4,981		25,791		26,758
Percentage death loss		6.3		5.3		10.6		4.1
Percent substandard hogs		2		1		3		2
Avg daily gain (lb.)		1.57		1.52		1.65		1.46
Lb. of feed / lb. of gain		2.62		2.50		2.63		2.73
Feed cost per cwt. of gain		25.31		27.81		24.90		25.40
Feed cost per head		66.77		72.80		66.92		66.92
Hired labor per head		3.45		7.72		2.72		3.05
Average purchase weight		15		13		15		15
Avg wgt / Wean-Fin Pig sold		266		271		276		255
Avg purch price / head		42.60		36.86		46.15		41.91
Avg sales price / cwt.		49.75		44.23		49.39		51.82
Average carcass weight		201		203		209		191
Average price / cwt. carcass		66.78		59.32		66.25		69.65

Monthly Cash Flow Plan Executive Summary

Projected Cash Flow Summary

Total operating inflow		7,169,571
Total operating outflow	(-)	6,741,113
Capital purchases	(-)	-
Capital sales	(+)	-
New credit	(+)	-
Loan payments	(-)	389,466
Net cash flow	(=)	38,992
Beginning cash balance	(+)	33,982
Operating loan borrowings	(+)	1,666,134
Operating loan principal payments	(-)	1,738,608
Ending cash balance	(=)	500

Beginning operating loan balance	1,556,000
Peak operating loan balance (Apr)	2,031,205
Ending operating loan balance	1,483,526

Projected Change in Working Capital

Change in cash	-33,482
Change in current inventories	(+) 638,006
Change in operating loan balance	(-) -72,474
Change in princ due on term loans	(-) -20,118
Estimated change in working capital	(=) 697,116

Projected Income Statement

Gross cash farm income	7,169,571
Inventory change - income items	(+) 659,633
Gross revenue	(=) 7,829,204
Cash farm operating expense	6,630,613
Interest expense	(+) 125,270
Depreciation	(+) 287,730
Inventory change - expense items	(+) 21,627
Total farm expense	(=) 7,065,239
Net farm income	763,964

Projected Earned Net Worth Change

Net farm income	763,964
Family living expense	(-) 110,500
Income taxes accrued	(-) -
Earned net worth change	(=) 653,464

Term Debt Coverage

Net farm income from operations		763,964
Depreciation	(+)	287,730
Personal income	(+)	-
Family living expense	(-)	110,500
Income taxes accrued	(-)	-
Interest on term debt	(+)	40,094
Capital debt repayment capacity	(=)	981,288
Term debt payments		305,931
Capital debt repayment margin		675,358
Term debt coverage ratio		3.21

Financial Standards Measures

Liquidity	Beginning	Ending
Current ratio	1.5	1.9
Working capital	1,097,934	1,795,050
Working capital to gross revenue	14.0 %	22.9 %
Solvency (market)		
Debt to asset ratio	48.7 %	42.0 %
Debt to equity ratio	0.9	0.7
Profitability (market)		
Net farm income		763,964
Rate of return on assets		11.8 %
Rate of return on equity		18.6 %
Operating profit margin		22.4 %
EBITDA		1,175,324
Repayment Capacity		
Term debt coverage ratio (farm)		3.21
Replacement margin coverage ratio		2.85
Efficiency		
Asset turnover rate (market)		52.8
Operating expense ratio		85.0 %
Depreciation ratio		3.7 %
Interest expense ratio		1.6 %
Net farm income ratio		9.8 %
Other		
Term debt coverage (farm+personal)		3.21
Term debt to EBITDA		1.30

Shocks to Farm Term Debt Coverage Ratio

10% decrease in gross income	0.65
10% increase in operating expenses	1.03
3% increase in interest rates	2.63

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CASH INFLOWS													
Beg cash bal	33982	500	500	500	500	500	500	500	500	500	500	500	33982
Corn	-	-	-	-	175000	360000	175200	-	-	-	360000	462500	1532700
Soybeans	-	-	-	-	-	-	-	-	-	-	202800	-	202800
Wean-Fin Pig	-	630000	315000	315000	341250	393750	409500	414750	367500	367500	341250	341250	4236750
Custom work	56250	56250	56250	56250	62083	62083	62083	56250	56250	62083	62083	62083	710000
Other farm	487321	-	-	-	-	-	-	-	-	-	-	-	487321
Total inflow	577553	686750	371750	371750	578833	816333	647283	471500	424250	430083	966633	866333	7203553
CASH OUTFLOWS													
Seed	-	-	-	-	-	-	-	-	-	-	330000	-	330000
Fertilizer	-	-	-	238000	-	-	-	-	-	-	-	-	238000
Chemicals	-	-	-	-	-	96000	-	-	-	-	-	-	96000
Crop insur.	-	-	-	-	-	-	-	-	41200	82400	-	-	123600
Drying fuel	-	-	-	-	-	-	-	-	-	-	28000	28000	56000
Feeder Ivsttk	102500	-	213200	213200	-	213200	-	213200	-	213200	-	213200	1381700
Purch. feed	206482	206482	206482	206482	206482	206482	206482	206482	206482	206482	206482	206482	2477783
Veterinary	10308	10308	10308	10308	10308	10308	10308	10308	10308	10308	10308	10308	123690
Supplies	2945	2945	2945	2945	2945	2945	2945	2945	2945	2945	2945	2945	35340
Fuel & oil	2500	2500	2500	11500	11500	11500	2500	2500	2500	11500	11500	2500	75000
Repairs	2083	2083	11083	11083	2083	2083	2083	2083	11083	11083	2083	11083	70000
Cust hire	10000	10000	10000	23750	23750	23750	23750	10000	10000	10000	10000	10000	175000
Labor	9583	9583	9583	9583	13333	13333	9583	9583	9583	13333	13333	9583	130000
Land rent	-	-	-	416000	-	-	-	-	-	416000	-	-	832000
Bldg leases	26167	26167	26167	26167	26167	26167	26167	26167	26167	26167	26167	26167	314000
Farm insur.	-	15000	-	-	10000	-	-	15000	-	-	10000	-	50000
Utilities	8333	8333	8333	5833	5833	5833	5833	5833	5833	8333	8333	8333	85000
Marketing	500	500	500	500	500	500	500	500	500	500	500	500	6000
Dues & fees	433	433	5867	5867	433	433	433	433	433	433	433	867	16500
Misc.	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	15000
Living/Draw	9208	9208	9208	9208	9208	9208	9208	9208	9208	9208	9208	9208	110500
Min end bal	500	500	500	500	500	500	500	500	500	500	500	500	500
Tot. outflow	392793	305293	517926	1192176	324293	623493	301543	515993	337993	1023643	671043	540926	6741613
Opr. surplus	184760	381457	-146176	-820426	254541	192841	345741	-44493	86257	-593559	295591	325407	461940

R23

John Bacon Cash Flow Plan: 2019 consolidated

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
LOAN PAYMENTS													
JDCC-Bean..	-	-	-	-	-	-	-	-	-	-	16374	-	16374
FSA-Bin	-	-	-	-	-	-	-	-	-	-	-	19740	19740
JDCC-Corn..	-	-	-	-	-	-	-	-	-	-	22866	-	22866
JDCC-JD8310	-	-	28638	-	-	-	-	-	-	-	-	-	28638
JDCC-JD95..	-	-	-	-	-	-	-	-	-	-	29222	-	29222
MyHom-Manu..	22581	-	-	-	-	-	-	-	-	-	-	-	22581
JDCC-S860..	-	-	-	-	-	-	27917	-	-	-	-	-	27917
JDCC-Sprayer	-	-	-	-	-	-	-	-	-	-	55082	-	55082
MyHom-Spra..	-	-	-	-	-	-	-	-	-	9240	-	-	9240
Farm-Ted..	-	-	-	-	-	-	-	-	-	-	-	7257	7257
Farm-Feed..	-	-	-	-	-	67014	-	-	-	-	-	-	67014
MyHom-PreL..	-	-	-	-	-	-	-	-	-	-	-	-	-
Tot loan pay	22581	-	28638	-	-	67014	27917	-	-	9240	123544	26997	305931
Surp. or def	162179	381457	-174814	-820426	254541	125827	317824	-44493	86257	-602799	172047	298411	156009
ANNUAL OPERATING LOAN TRANSACTIONS & BALANCES													
Beg AO bal	1556000	1393821	1012364	1187178	2031205	1776664	1650838	1333014	1377507	1291250	1894049	1722002	1556000
AO borrowing	-	-	174814	844027	-	-	-	44493	-	602799	-	-	1666134
AO int. pay	-	-	-	23601	-	-	-	-	-	-	-	59934	83535
AO prin. pay	162179	381457	-	-	254541	125827	317824	-	86257	-	172047	238477	1738608
End AO bal.	1393821	1012364	1187178	2031205	1776664	1650838	1333014	1377507	1291250	1894049	1722002	1483526	1483526
Accrued int.	7132	13520	18160	-	9310	17453	25019	31129	37442	43361	52042	-	-
End cash bal	500	500	500	500	500	500	500	500	500	500	500	500	500

CROP & LIVESTOCK PRODUCTION

Enterprise	Units	Production Per Unit	Share	Operator Production
Corn	2800.0 Acres	190.0 bu.	100	532,000 bu.
Soybeans	400.0 Acres	60.0 bu.	100	24,000 bu.
Total crops	3200 Acres			

CROP & LIVESTOCK SUMMARY

	Beg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Corn														
Produced	bu.	-	-	-	-	-	-	-	-	-	532000	-	-	532000
Sold	bu.	-	-	-	-	50000	100000	48000	-	-	-	100000	125000	423000
Price	\$/bu.	-	-	-	-	3.50	3.60	3.65	-	-	-	3.60	3.70	3.62
Inventory	bu.	198000	198000	198000	198000	198000	148000	48000	-	-	532000	432000	307000	307000
Soybeans														
Produced	bu.	-	-	-	-	-	-	-	-	-	24000	-	-	24000
Sold	bu.	-	-	-	-	-	-	-	-	-	-	24000	-	24000
Price	\$/bu.	-	-	-	-	-	-	-	-	-	-	8.45	-	8.45
Inventory	bu.	-	-	-	-	-	-	-	-	-	24000	-	-	-
Wean-Fin Pig														
Purchased	head	2500	-	5200	5200	-	5200	-	5200	-	5200	-	5200	33700
Price	\$/head	41.00	-	41.00	41.00	-	41.00	-	41.00	-	41.00	-	41.00	41.00
Sold	head	-	5000	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	30000
Price	\$/cwt.	-	60.00	60.00	60.00	65.00	75.00	78.00	79.00	70.00	70.00	65.00	65.00	67.25
Inventory	head	14880	17380	12380	15080	17780	15280	17980	15480	18180	15680	18380	15880	18580

PROJECTED INVENTORY CHANGE

Commodity	Begin Inventor	\$/Unit	Begin Value	Ending Inventory	\$/Unit	Ending Value	Change
Corn	198,000	3.50	693,000	307,000	3.50	1,074,500	381,500
Wean-Fin Pig	14,880	91.79	1,365,867	18,580	93.56	1,738,321	372,454
Accounts receivable			487,321			475,000	-12,321
Hedging accounts			152,000			70,000	-82,000
Other current assets			0			0	0
Total income items			2,698,188			3,357,821	659,633
Prepaid expenses & supplies			431,017			375,000	-56,017
Growing crops			0			0	0
Accounts payable		(End)	200,000		(Beg)	232,750	32,750
Accrued interest		(End)	11,069		(Beg)	12,709	1,640
Total expense items			642,086			620,459	-21,627
Total inventories			3,340,274			3,978,280	638,006

CROP ENTERPRISES

	Corn	Soybeans
Acres	2800.0	400.0
Yield per acre	190.0 bu.	60.0 bu.
Share of production	100%	100%

Expenses Per Acre

Seed	112.00	41.00
Fertilizer	85.00	-
Chemicals	30.00	30.00
Crop insur.	41.00	22.00
Drying fuel	20.00	-
Fuel & oil	0.73	0.61
Repairs	0.69	0.57
Cust hire	54.69	54.69
Labor	1.27	1.06
Land rent	260.00	260.00
Bldg leases	-	-
Farm insur.	0.49	0.41
Utilities	0.83	0.69
Marketing	0.06	0.05
Dues & fees	0.16	0.13
Oper. int.	0.82	0.68
Intern. int.	9.02	9.02
Lng term int	-	-
Mach. depr.	81.24	54.16
Bldg. depr.	-	-
Misc.	4.69	4.69
Total expenses	702.70	479.77

Other Information**Cost of Production**

Total expenses	3.70 /bu.	8.00 /bu.
Less govt & other income	3.70 /bu.	8.00 /bu.
With labor & mgt	3.70 /bu.	8.00 /bu.
Machinery cost per acre	146.38	119.06

LIVESTOCK ENTERPRISES

Hogs, Weaning
to
Finish

Budget unit Head
Avg number of budget units 39612.0

Expenses Per Budget Unit

Feeder Ivstk	41.00
Purch. feed	70.00
Veterinary	3.50
Supplies	1.00
Fuel & oil	1.84
Repairs	1.71
Cust hire	-
Labor	3.18
Land rent	-
Bldg leases	7.93
Farm insur.	1.22
Utilities	2.08
Marketing	0.15
Dues & fees	0.40
Oper. int.	2.04
Interm. int.	-
Lng term int	0.28
Mach. depr.	-
Bldg. depr.	0.97
Misc.	-
Total expenses	137.31

Other Information**Cost of Production**

Product	Wean-Fin Pig
Total expenses	65.39 /cwt.
Less govt & other income	65.39 /cwt.
With labor & mgt	65.39 /cwt.
Feed cost	33.33 /cwt.
Feed cost	70.00/Head

2019 State FFA Farm Business Management CDE Practicum

Section 1: Balance Sheets

Utilize the data from John Bacon Farm balance sheets provided on pages R1-R6

1. What is the total current assets for 1.1.18
 - a. \$2,124,092
 - b. \$7,122,540
 - c. \$3,374,815
 - d. \$3,163,187

2. What is the total farm liabilities for 1.1.18
 - a. \$2,124,092
 - b. \$3,729,219
 - c. \$3,393,321
 - d. \$2,065,253

3. What is the total current liabilities for 1.1.19
 - a. \$2,065,253
 - b. \$3,374,815
 - c. \$3,588,263
 - d. \$3,163,187

4. Calculate the current ratio for 1.1.19
 - a. .65
 - b. 1.19
 - c. 1.59
 - d. 1.53

5. Calculate the working capital for 1.1.19
 - a. -\$1,097,934
 - b. \$1,097,934
 - c. \$3,588,263
 - d. \$1,250,723

6. Calculate the working capital for 1.1.18
 - a. \$1,250,723
 - b. -\$1,250,723
 - c. \$3,393,321
 - d. \$18,506

7. What is the change in working capital from 2018 to 2019
 - a. \$152,789
 - b. \$15,789
 - c. \$390,654
 - d. -\$152,789

8. Calculate the market value based Debt to Asset ratio for 1.1.19
 - a. 48.7%
 - b. 54.8%
 - c. 52.4%
 - d. 54.9%

9. What percent in current debt is John Bacon Farm on 1.1.19
 - a. 153%
 - b. 62.9%
 - c. 65.3%
 - d. 63.5%

10. How many bushels of corn does John Bacon have on hand on 1.1.19
 - a. 376,584
 - b. 15,400
 - c. 14,880
 - d. 198,000

11. How many Wean-Finish pigs does John Bacon have on hand 1.1.19
 - a. 12,547
 - b. 14,880
 - c. 911,321
 - d. 1,365,867

12. On 1.1.19, John Bacon had an accounts payable for \$232,750 for weaned pigs. If the purchase price per head was \$40, how many weaned pigs does John Bacon owe for?

- a. 5,819 pigs
- b. 14,880 pigs
- c. 5,918 pigs
- d. 12,547 pigs

13. What is the balance in the John Bacon Checking Account on 1.1.19

- a. \$33,982
- b. \$32,515
- c. \$1,467
- d. \$38,852

14. On 1.1.19, what piece of equipment has the highest debt payment per year?

- a. John Deere 8310
- b. John Deere S860 Combine
- c. John Deere Sprayer
- d. Manure Tanker

15. On the 1.1.19 balance sheet, current assets are what percent of total market value of farm assets?

- a. 43%
- b. 57%
- c. 47%
- d. 53%

Section 2: Financial Analysis / Income Statement

For Sections 2 – 4 utilize the data from John Bacon's Financial Analysis on pages R7-R13

16. What was the Gross Farm Income for John Bacon in 2018?

- a. -\$98,264
- b. \$6,567,665
- c. \$6,663,045
- d. \$194,530

17. What was the Net Cash Income for John Bacon in 2018?

- a. -\$98,264
- b. \$6,567,665
- c. \$6,663,045
- d. \$194,530

18. How many total acres did John Bacon farm in 2018?

- a. 3131 acres
- b. 2279 acres
- c. 852 acres
- d. 668 acres

19. What was the change in earned net worth in 2018?

- a. \$1,506,005
- b. -\$98,264
- c. -\$230,213
- d. -\$62,581

20. What percent of John Bacon's income is going towards operating expenses?

- a. 10%
- b. 101%
- c. 96%
- d. 14%

21. How much did John Bacon's working capital change from the beginning to the ending of 2018?

- a. \$152,789
- b. \$15,789
- c. \$390,654
- d. -\$152,789

22. What was the net operating profit for John Bacon in 2018?

- a. -\$98,264
- b. \$194,530
- c. \$131,949
- d. -\$230,213

23. What inventory item accounted for the largest change for John Bacon in 2018?

- a. Accounts Receivable
- b. Crops & Feed
- c. Market Livestock
- d. Hedging Gains or Losses

24. What was the price per cwt. that John Bacon received for his Wean to Finish Hogs in 2018?
- \$49.39
 - \$3,186,390
 - \$42.50
 - \$54.01
25. After corn and hogs, what was the next highest income source for John Bacon in 2018?
- Soybeans
 - Crop Insurance
 - Government Payments
 - Custom Work Income
26. What farm enterprise are the two highest expense accounts associated with on John Bacon's 2018 income statement?
- Corn
 - Soybeans
 - Wean to Finish Hogs
 - Other
27. All repairs were what percent of John Bacon's total cash expense in 2018?
- 3.4%
 - 0.6%
 - 2.8%
 - 1.6%
28. What is the total depreciation expense included in John Bacon's 2018 income statement?
- \$0
 - \$230,213
 - \$222,523
 - \$7,690
29. What was John Bacon's 2018 ending net worth?
- \$3,086,330
 - \$33,982
 - \$3,783,975
 - \$2,277,970

30. Which of the three major liability categories showed an increase in debt to asset ratio from beginning to ending 2018?

- a. Current liabilities
- b. Intermediate liabilities
- c. Long Term liabilities
- d. A and B

31. How many total bushels of soybeans did John Bacon produce in 2018?

- a. 44,762 bushels
- b. 67.8 bushels
- c. 57,766 bushels
- d. 88,160 bushels

32. What was the average weight that John Bacon sold his Wean to Finish Pigs?

- a. 209 #
- b. 284 #
- c. 290 #
- d. 270 #

33. How many Wean to Finish Pigs did John Bacon sell in 2018?

- a. 25,477 pigs
- b. 23,862 pigs
- c. 14,880 pigs
- d. 22,578 pigs

Section 3: Planned vs Actual

34. For John Bacon's farm, what expense item had the biggest difference from planned vs actual expense?

- a. Seed
- b. Fertilizer
- c. Land Rent
- d. Crop Chemical

35. The income of Wean to Finish Hogs was planned higher than what actually happened for John Bacon in 2018. Why did John receive so much less income than planned?

- a. Fewer Pounds were sold than planned
- b. More Pounds, but fewer total pigs, were sold than planned
- c. Price per pound sold was lower than planned
- d. Price per pound sold was higher than planned

36. What was the biggest contributor to the difference in planned vs actual Net Farm income for John Bacon?

- a. Gross Cash Farm Income
- b. Total Cash Farm Expense
- c. Inventory Change
- d. Depreciation

37. For John Bacon, what is the difference in Wean to Finish Pigs on Inventory that he planned vs what he actually has on hand at the end of the year?

- a. 12,547 pigs
- b. 14,880 pigs
- c. 4,333 pigs
- d. 2,333 pigs

Section 4: Enterprise Analysis

38. What is John Bacon's cost of production per bushel for corn with labor and management charges?

- a. \$3.68
- b. \$4.31
- c. \$4.06
- d. \$4.37

39. What is the primary reason the gross return per acre for John Bacon's soybean enterprise was greater than the average farm in 2018?

- a. His yield was higher than the average farm
- b. His price received per bushel was higher than the average farm
- c. His direct costs were lower than the average farm
- d. His total costs were lower than the average farm

40. What would the net return per acre be if John Bacon had only received \$8.00 per bushel for soybeans in 2018?

- a. \$542.40
- b. \$706.31
- c. \$176.71
- d. \$ 194.76

41. How many pounds did the average pig gain in John Bacon's Wean to Finish Hog enterprise in 2018?
- a. 209 #
 - b. 270 #
 - c. 257 #
 - d. 283 #
42. In John Bacon's Wean to Finish Hog enterprise, what expense was the second highest for 2018?
- a. Feed
 - b. Building Leases
 - c. Veterinary
 - d. Fuel & Oil
43. How many pounds of feed did the average hog eat on John Bacon's farm in 2018?
- a. 722 lbs
 - b. 350 lbs
 - c. 2.67 lbs
 - d. 65.84 lbs

Section 5: Family Living

For this sections 5 and 6 use the data provided on page R14 – R20

44. According to the 2018 Household & Personal Expenses summary, what is the average Total Cash family living expense with investments and nonfarm capital purchases per family member?
- a. \$86,327
 - b. \$58,828
 - c. \$227,710
 - d. \$30,831
45. In 2018, what percent of the total family living expense was health insurance for the average family?
- a. 6.9%
 - b. 9.6%
 - c. 6.6%
 - d. 8.7%

46. Which of the following expenses listed would be the most difficult to reduce?
- Gifts
 - Clothing
 - Medical Care
 - Recreation
47. In 2018, which nonfarm expenditure was the highest expense for the average farm?
- Income Tax
 - Food and meals
 - Nonfarm real estate purchase
 - Nonfarm savings & investments.
48. For the average farm in 2018, what percent of nonfarm expenditures was used for nonfarm savings and investments?
- 28.5%
 - 9.2%
 - 13.4%
 - 20.4%
49. For the average farm in 2018, if the farm contributed \$30,500 towards total family living with investments and nonfarm capital purchases, how much off-farm (non-farm) income would need to be made to make up the difference?
- \$28,328
 - \$116,827
 - \$89,328
 - \$55,827
50. In 2018, the average farm spent how many dollars per month on food and meals?
- \$8,297
 - \$3,607
 - \$691
 - \$791

Section 6: Annual Reports

51. According to the Financial Trend Summary, what year did Southern Minnesota Farms have the highest Gross Cash Farm Income?
- 2014
 - 2015
 - 2016
 - 2017

52. According to the Financial Trend Summary, what has been the amount of working capital change over the 5 year history?
- a. \$103,668
 - b. -\$103,668
 - c. \$24,291
 - d. -\$24,291
53. Based on the information provided in the Financial Trend Summary, how many years did Term Debt Coverage Ratio dip below 1.00?
- a. 1
 - b. 2
 - c. 3
 - d. 4
54. According to the Crop Enterprise Trend Summary, what year had the highest corn yields?
- a. 2015
 - b. 2016
 - c. 2017
 - d. 2018
55. According to the Crop Enterprise Trend Summary, what year did farmers receive the highest value per bushel for soybeans?
- a. 2014
 - b. 2015
 - c. 2016
 - d. 2017
56. On the 2018 Farm Income Statement, what was the largest cash farm expense item for the average farm?
- a. Purchased Feed
 - b. Seed
 - c. Land Rent
 - d. Repairs

57. According to the 2018 Farm Income Statement, what percent of Total Cash Expense was spent on Crop Insurance for the High 20% profit farms?
- 1.9%
 - 2.1%
 - 2.2%
 - 1.6%
58. According to the 2018 Farm Income Statement, what profitability group spent the least on interest and farm insurance?
- They all spent the same
 - Low 20% profitability group
 - 40-60% profitability group
 - High 20% profitability group
59. In 2018, the Corn on Cash Rent Enterprise data shows the average farm paid how much for operating interest?
- \$16.19
 - \$6.68
 - \$15.13
 - \$6.86
60. In 2018, what was the average cost of production, using only direct expenses for Corn on Cash Rent?
- \$731.51
 - \$636.55
 - \$3.55
 - \$4.08
61. For Corn on Cash Rent in 2018, on the high 20% profit farms, what percent of direct expenses was seed, fertilizer, and chemical?
- 41.5%
 - 42.7%
 - 18.8%
 - 33.6%
62. What is the difference in 2018 corn yields between the average farm and the John Bacon Farm?
- 28.04 bushels
 - 9.92 bushels
 - Same
 - 11.28 bushels

63. How much more did John Bacon pay for land rent on corn acres than the High 20% profit farms in 2018?
- \$20.12
 - \$46.95
 - \$26.03
 - He did not pay more
64. Who paid the most for corn seed per acre in 2018?
- Low 20% Profit Farms
 - 40-60% Profit Farms
 - High 20% Profit Farms
 - John Bacon Farm
65. In 2018, what was the total dollar amount received by the low 20% profit farms for crop insurance and other crop income per acre for soybeans on cash rented land?
- \$113.88
 - \$104.27
 - \$121.13
 - \$128.77
66. When looking at the 2018 Soybeans on Cash Rent enterprise, what was the difference in Net Return per Acre between the High 20% and Low 20% profit farms?
- \$125.46
 - \$132.30
 - \$201.12
 - \$237.32
67. Who had the highest soybean yield (on cash rented acres) in 2018?
- Low 20% Profit Farms
 - 40-60% Profit Farms
 - High 20% Profit Farms
 - John Bacon Farm
68. Who had the highest Direct & Overhead Cost of Production for soybeans in 2018?
- Low 20% Profit Farms
 - 40-60% Profit Farms
 - High 20% Profit Farms
 - John Bacon Farm

69. Using the 2018 Hog, Weaning to finish statewide livestock enterprise analysis, what was the average purchase price per head?
- \$41.91
 - \$42.60
 - \$36.86
 - \$46.15
70. According to the 2018 Wean to Finish Hog Enterprise, what profitability groups had a positive return over labor and management?
- Low 20% farms
 - 40-60% farms
 - High 20% Farms
 - Both C & D

Section 7: Marketing

For the marketing section, use the data table provided to find the information needed to answer the following questions.

CORN	Oct 19	Dec 19	Jan 20	March 20	May 20	June 20
Futures	3.97	4.01	4.08	4.10	4.28	4.28
Basis	-.30	-.25	-.30	-.30	-.25	-.35

71. What would the cash price per bushel be if John Bacon sold his corn out of the field at harvest in October 2019?
- \$3.67
 - \$3.97
 - \$4.27
 - \$4.17
72. What would be the cash price if John Bacon contracted corn to be delivered in March 2020?
- \$4.10
 - \$4.40
 - \$3.80
 - \$3.63

73. John Bacon has decided that he has enough storage capacity to hold his corn for a while. Assuming today's cash market information and storage costs of \$.05 per bushel per month, what would be best month to sell his corn?
- October
 - January
 - May
 - June
74. Currently, which month has the worst basis?
- December
 - March
 - May
 - June
75. If John Bacon sold 10,000 bushels of corn in October 2019 out of the field and another 10,000 bushels of corn in January 2020, calculating all storage costs and basis, what would the average cash price per bushel received for these 20,000 bushels? (Include necessary storage costs and basis).
- \$3.67
 - \$3.65
 - \$3.63
 - \$3.61
76. John entered into a Hedge-To-Arrive (HTA) contract for June 2020. When he delivers the grain in June, he expects the basis to narrow to \$0.25. Considering the \$0.05 storage cost per bushel, per month, what price can John expect to receive when he delivers corn in June?
- \$4.03
 - \$3.93
 - \$3.58
 - \$3.48

Section 8: Cash Flow

For Sections 8-9 use the data provided on pages R21-R26

77. What is the total amount of operating loan borrowings predicted in the 2019 cash flow projection?
- \$1,738,608
 - \$1,483,526
 - \$1,393,821
 - \$1,666,134

78. What is the projected Net Farm Income for 2019?

- a. \$38,992
- b. \$7,169,571
- c. \$763,964
- d. \$653,464

79. What is the projected Term Debt Coverage Ratio for 2019?

- a. 3.21
- b. 2.63
- c. 1.9
- d. 2.85

80. What would the Term Debt Coverage Ratio be if there was a 10% decrease in gross income for this 2019 projection?

- a. 0.65
- b. 1.03
- c. 3.21
- d. 2.63

81. The 2019 Cash Flow Projection shows a cash surplus after paying operating expenses and servicing term debt

- a. True
- b. False

82. In 2019, the projected ending operating balance is larger than the beginning operating loan balance

- a. True
- b. False

83. What percent of the 2019 cash inflows is corn sales?

- a. 21.2%
- b. 22.7%
- c. 79.8%
- d. 33.3%

84. John Bacon is predicted to have a better working capital position at the end of 2019 vs the end of 2018?

- a. True
- b. False

85. Which income item is expected to be the largest contributor to the farm's cash inflows in 2019?
- Corn
 - Soybeans
 - Wean to Finish Hogs
 - Custom Work
86. What is the largest projected cash operating expense for 2019?
- Land Rent
 - Feeder Livestock
 - Purchased Feed
 - Seed
87. In which month will the farm borrow the largest amount on the Annual Operating Loan?
- February
 - April
 - July
 - October
88. What is the expected peak of the operating loan in 2019?
- \$1,556,000
 - \$1,666,134
 - \$1,483,526
 - \$2,031,205
89. How many bushels of corn are planned to be sold in 2019?
- 24,000 bushels
 - 532,000 bushels
 - 423,000 bushels
 - 125,000 bushels
90. How many dollars of Family Living expense are anticipated for 2019?
- \$0
 - \$110,500
 - \$9,208
 - \$15,000

Section 9: Budgeting

91. What is the estimated yield for soybeans in the 2019 cash flow projection?
- 68.7 bushels
 - 24,000 bushels
 - 60 bushels
 - 190 bushels
92. What is the estimated per acre fertilizer cost for corn in 2019?
- \$85.00
 - None
 - \$112.00
 - \$95.00
93. What should the farm expect as a per acre return over total expenses if soybeans are priced at \$8.25 per bushel?
- \$479.77
 - \$495.00
 - \$15.23
 - \$15.00
94. What is the break-even price needed per bushel to cover total expenses for corn in the 2019 cash flow projection?
- \$3.70
 - \$2.70
 - \$4.70
 - \$146.38
95. If all corn bushels were priced at \$3.75 per bushel, how many bushels would need to be produce to cover total expenses?
- 190 bushels
 - 169 bushels
 - 187 bushels
 - 177 bushels
96. If John only produces 54 bushels of soybeans per acre, what does the breakeven price per bushel adjust to?
- \$8.00
 - \$8.88
 - \$8.68
 - \$8.70

97. If land rent increases to \$275 per acre, what would the cost of production to cover total expenses become?
- a. \$3.70
 - b. \$3.80
 - c. \$3.67
 - d. \$3.78
98. What is the estimated feed cost per head for the wean to finish hog enterprise in 2019?
- a. \$33.33
 - b. \$41.00
 - c. \$70.00
 - d. \$65.00
99. Considering the 2019 wean to finish budget information, what percent of total expenses are feeder livestock and purchased feed?
- a. 29.9%
 - b. 51.0%
 - c. 80.8%
 - d. 75.8%
100. For the 2019 wean to finish hog budget, what would the total expense per head be if purchased feed was \$65.00 and feeder livestock purchases were \$40.25 on a per head basis?
- a. \$131.56
 - b. \$132.31
 - c. \$136.56
 - d. \$143.06

2019 State FFA Farm Management CDE Practicum ANSWERS

1	C
2	B
3	A
4	D
5	B
6	A
7	D
8	A
9	C
10	D
11	B
12	A
13	B
14	C
15	A
16	C
17	D
18	A
19	B
20	C
21	D
22	C
23	B
24	A
25	D

26	C
27	A
28	B
29	C
30	D
31	C
32	D
33	B
34	A
35	C
36	B
37	D
38	B
39	A
40	D
41	C
42	B
43	A
44	D
45	B
46	C
47	A
48	A
49	D
50	C

51	A
52	B
53	C
54	C
55	A
56	C
57	B
58	C
59	A
60	C
61	B
62	D
63	B
64	A
65	B
66	D
67	D
68	A
69	B
70	C
71	A
72	C
73	C
74	D
75	C

76	C
77	D
78	C
79	A
80	A
81	A
82	B
83	A
84	A
85	C
86	C
87	B
88	D
89	C
90	B
91	C
92	A
93	C
94	A
95	C
96	B
97	D
98	C
99	C
100	A