

Farm Business Financial Planning Assistance

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Introduction



- Texas Farm Business Management and Benchmarking Education and Outreach Alliance
 - Project TEXW-2020-06880
 - Funded by the FBMB Competitive Grants Program, NIFA, USDA
- A collaboration between:
 - Texas A&M University Commerce (TAMUC)
 - West Texas A&M University (WTAMU)
 - Regional Texas A&M AgriLife Extension Service agencies
- Overall Goal:
 - Contribute to the well-being of agricultural producers
- Objectives:
 - Recruit Texas agricultural producers to participate and provide information for the farm financial database
 - Provide professional consulting services to interested agricultural producers about farm financial management, business analysis, credit analysis, financial benchmarking

Financial Benchmarking

- In simple words, the project is about Farm Business Management and Benchmarking
- **Benchmarking** is about comparing and studying "best practices"
- **Financial planning** is about preparing balance sheets, income statements, cash flows, budgeting, etc.
- Financial benchmarking seeks opportunities for
 - Reducing costs
 - Increasing revenues

Who Benefits?

- Ag research
- Ag education
- Ag extension programs
- Ag producers

How Producers Benefit?

- The project provides:
 - Professional consulting services
 - Business analysis
 - Credit analysis
 - Financial benchmarking

Why Are Financial Statements Important?

They are important for many reasons:

- Sole proprietors
 - Assess the financial health of a business
 - Assess if the business can expand
 - Access to credit
 - Assist in financial planning
 - Tax preparation
- Corporations
 - Provide information about the business to current owners, managers, potential investors, current or potential lenders, etc.

What Are the Project Resources/Tools?

- FINPACK financial software
- The national Farm
 Financial Management
 Database (FINBIN),
 supported by the USDA's
 National Institute of Food
 and Agriculture (NIFA)
- Center for Farm Financial Management, University of Minnesota
- Other project collaborators at A&M-Commerce







A&M-Commerce Project Team



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Other Collaborators at TAMUC



- Dr. Rafael Bakhtavoryan
 - Assistant Professor of Agribusiness
- Dr. Bob Williams
 - Professor of Agricultural and Family Education
- Dr. Curtis Jones
 - Assistant Professor of Plant and Soil Science
- Dr. Megan Owen
 - Assistant Professor of Animal Science
- Ms. Sara Allen
 - Hunt County Extension Agent for Agriculture and Natural Resources
- Dr. Mario Villarino
 - Hopkins County Extension Agent for Agriculture and Natural Resources
- Mr. Stephen Gowin
 - Rains County Extension Agent for Agriculture and Natural Resources

WTAMU Team



- Dr. Lal Almas
 - Associate Dean and Regents Professor of Agricultural Business and Economics
- Dr. Bridget Guerrero
 - Associate Professor of Agricultural Business and Economics
- Dr. Kunlapath Sukcharoen
 - Assistant Professor of Agricultural Business and Economics
- Dr. David Lust
 - Associate Professor of Animal Science
- Dr. Justin Benavidez
 - Assistant Professor and Extension Management Economist
 - Texas A&M AgriLife Extension Service for District 1 in Amarillo
- Ms. DeDe Jones
 - Risk Management Specialist
 - Texas A&M AgriLife Extension Service for District 1 in Amarillo

Financial Statements

- Income Statement
- Balance Sheet
- The Statement of Owner's equity
- The Statement of Cash Flows

Income Statement

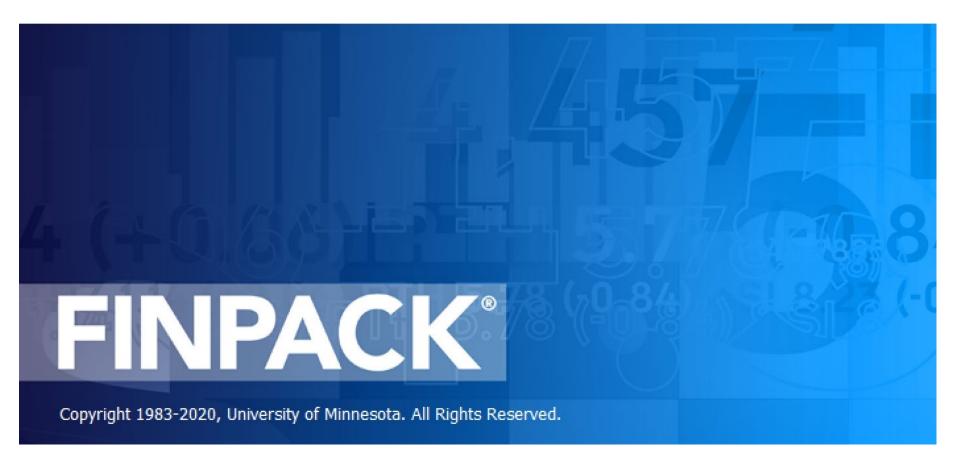
- An income statement measures the *performance* of a business (i.e., the performance of assets, management, and labor).
- Income statements often pertain to a year's length of time, but monthly, quarterly, and semiannual income statements can be prepared as well.

Balance Sheet

- A balance sheet reports the balances in assets, liabilities, and owner's equity as of a specific date.
- The dollar amount of assets must equal the dollar amount of liabilities plus the dollar amount of owner's equity for the balance sheet to balance.
- Assets = liabilities + owner equity
- Balance sheets can be completed at any time, but mostly prepared at end of accounting period (i.e., a calendar year or a fiscal year).
- Provides measures of solvency and liquidity.

Statement of Owner's Equity

- It is also called *Statement of Net Worth*.
 - It's the difference between a business assets and liabilities.
 - If all assets were sold and all debts were paid,
 owner's equity would be the amount left over.
 - It represents the net value of the business to the owner(s).
- It coordinates the income statement for a year with the beginning and ending balance sheets.



Financial Analysis (FINAN)

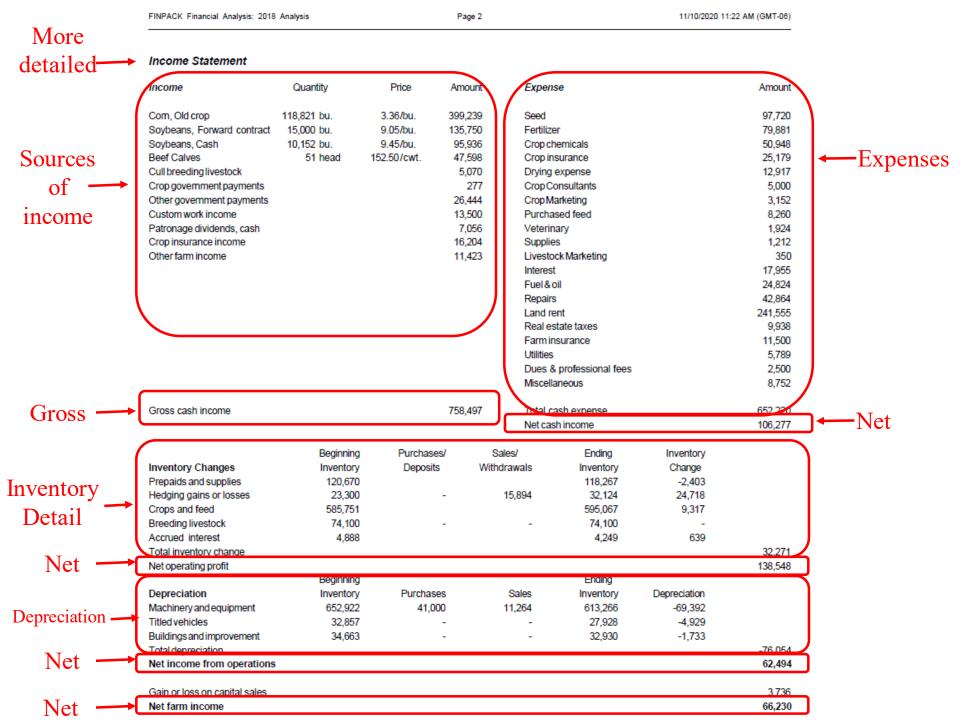
FINPACK'

FINPACK 2018 Analysis

Income Statement

2018 Financial Analysis Executive Summary							
ncome Statement			Financial Standards Measures				
Crop sales	630,925		Liquidity	Beg	En		
Crop inventory change	9,317		Current ratio	4.25	7.15		
Gross crop income		640,242	Working capital	569,088	642,55		
Livestock sales	47,598		Working capital to gross revenues	71.8 %	81.1 9		
Livestock inventory change	-						
Gross livestock income		47,598	Solvency (market)	Beg	En		
Government payments		26,721	Debt to asset ratio	32 %	31 9		
Other cash farm income		53,253	Debt to equity ratio	0.47	0.4		
Change in accounts receivable		-					
Gain or loss on hedging accts		24,718	Profitability	Cost	Market		
Change in other assets		-	Net farm income	66,230	80,39		
Gain or loss on breeding lvst		-	Rate of return on assets	1.3 %	1.6 9		
Gross farm income		792,532	Rate of return on equity	0.3 %	1.2 9		
			Operating profit margin	2.7 %	4.5 9		
Cash operating expense	634,265						
Change in prepaid exp and supplies	2,403		Repayment Capacity				
Change in growing crops	-		Term debt coverage ratio (farm only)		1.0		
Change in accounts payable	-		Replacement margin coverage ratio		0.9		
Depreciation	76,054						
Total operating expense		712,722	Efficiency	Cost	Market		
Interest paid	17,955		Asset turnover rate	46.9 %	34.6 9		
Change in accrued interest	-639		Operating expense ratio		80.3 9		
Total interest expense		17,316	Depreciation expense ratio		9.6 9		
Total expenses		730,038	Interest expense ratio		2.2 9		
			Net farm income ratio		7.99		
Net farm income from operations		62,494					
Gain or loss on capital sales		3,736	Other				
Net farm income		66,230	Term debt coverage (farm+personal)		1.0		
			Term debt to EBITDA		10		
Other Measures							
			Information Accuracy				
Total crop acres		1,174					
Cow-Calf Cows		57	Cash discrepancy		(
			Liability discrepancy				
Change in earned net worth	11,183	1 %	Cash discrepancy to gross revenue		0 9		
Change in market value net worth	28,695	2 %					

- Financial
 Ratios
 - Liquidity
 - Solvency
 - Profitability
 - Repayment Capacity
 - Efficiency
 - Other



More Detailed Financial Ratios

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	Profitability Measures		Cost	Market
A)	Net farm income from operations		62,494	76,658
	Rate of return on assets	(E/F)	1.3 %	1.6 %
	Rate of return on equity	(G/H)	0.3 %	1.2 %
	Operating profit margin	(E/I)	2.7 %	4.5 %
	Asset turnover rate	(I/F)	46.9 %	34.6 %
	EBITDA		155,864	170,028
B)	Change in market valuation		_	14,164
C)	Interest expense		17,316	17,316
	Value of unpaid oper labor & mgn		58,500	58,500
	Return on farm assets	(A+C-D)	21,310	35,474
	Average farm assets		1,671,382	2,266,149
	Return on farm equity	(A-D)	3,994	18,158
	Average farm net worth		1,357,877	1,556,604
1)	Value of farm production		784,272	784,272
	Liquidity Measures		Begin	End
(J)	Current assets		744,083	747,020
	Current liabilities		174,994	104,466
	Current ratio	(J/K)	4.25	7.15
	Working capital	(J-K)	569.088	642,554
	Change in working capital			3,466
	Working capital to gross revenue	S	71.8 %	81.1 %
	Solvency Measures (Mark	et)	Begin	End
			•	
L)	Total assets		2,460,185	2,448,064
	Total liabilities		739,692	698,876
	Total liabilities Net worth	(L-M)	739,692 1,720,493	698,876 1,749,188
	Total liabilities	(L-M)	739,692 1,720,493	698,876
	Total liabilities Net worth	(L-M)	739,692 1,720,493	698,876 1,749,188
	Total liabilities Net worth Net worth change		739,692 1,720,493 28 24 % 10 %	698,876 1,749,188 3,695
	Total liabilities Net worth Net worth change Current debt to assets		739,692 1,720,493 28 24 % 10 % 12 %	698,876 1,749,188 3,695 14 % 15 % 9 %
	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets	(K/J)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 %
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	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets ratio Repayment Capacity	(K/J)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 %
	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets ratio Repayment Capacity Net farm income from operations	(K/J)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 %
	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets ratio Repayment Capacity Net farm income from operations Depreciation	(K/J) (M/L) (+) (+) (-)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 %
	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets ratio Repayment Capacity Net farm income from operations Depreciation Personal income	(K/J) (M/L) (+) (+) (-) (-)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 %
(M)	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets ratio Repayment Capacity Net farm income from operations Depreciation Personal income Family living expense Income taxes accrued Interest on term debt	(K/J) (M/L) (+) (+) (-) (-) (+)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 % 62,494 76,054 17,087 61,247 9,556 22,697
(M)	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets ratio Repayment Capacity Net farm income from operations Depreciation Personal income Family living expense Income taxes accrued Interest on term debt Capital debt repayment capacity	(K/J) (M/L) (+) (+) (-) (-)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 % 62,494 76,054 17,087 61,247 9,556 22,697 107,530
(M) (O)	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets Total debt to assets ratio Repayment Capacity Net farm income from operations Depreciation Personal income Family living expense Income taxes accrued Interest on term debt Capital debt repayment capacity Scheduled term debt payments	(K/J) (M/L) (+) (+) (-) (-) (+)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 % 62,494 76,054 17,087 61,247 9,556 22,697 107,530 104,753
(N) (O) (P)	Total liabilities Net worth Net worth change Current debt to assets Intermediate debt to assets Long term debt to assets Personal debt to assets Total debt to assets ratio Repayment Capacity Net farm income from operations Depreciation Personal income Family living expense Income taxes accrued Interest on term debt Capital debt repayment capacity Scheduled term debt payments Capital debt repayment margin	(K/J) (M/L) (+) (+) (-) (-) (+)	739,692 1,720,493 28 24 % 10 % 12 % 4 %	698,876 1,749,188 3,695 14 % 15 % 9 % 3 % 29 % 62,494 76,054 17,087 61,247 9,556 22,697 107,530 104,753 2,776
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	Statement of Owner's Equity		
(a)	Beginning net worth		1,720,493
	Netfarmincome		66,230
	Personalincome	(+)	17,087
	Family living expense	(-)	61,247
	Income taxes accrued	(-)	9,556
	Change in personal assets	(+)	-1,331
	Change in nonfarm accounts payable	(+)	-
(b)	Total change in retained earnings	(=)	11,183
	Change in market value of capital assets		29,590
	Change in deferred liabilities	(-)	12,078
(d)	Total change in market valuation	=	17,512
(e)	Total change in net worth	(b+d)	28,695
	Ending net worth		1,749,188

Statement of Owner's Equity

Statement of Cash Flows

Statement of Cash Flows

(f)	Beginning cash balance (farm & persor	nal)	14,362
	Gross cash farm income		758,497
	Cash farm expenses	(-)	652,220
	Net cash from hedging transactions	(+)	15,894
(g)	Cash provided by operating activities	(=)	122,171
	Sale of machinery and equipment	(+)	15,000
	Purchase of machinery and equipment	(-)	41,000
	Purchase of personal assets	(-)	3,000
(h)	Cash provided by investing activities	(=)	-29,000
	Money borrowed		119,718
	Principal payments	(-)	170,106
	Personalincome	(+)	17,087
	Family living expense	(-)	61,247
	Income taxes paid	(-)	11,423
(i)	Cash provided by financing activities	(=)	-105,971
	Net change in cash	(g+h+i)	-12,800
	Ending cash balance (farm and person	al)	1,562

Livestock Summary

Crop Summary

Cow-Calf Cows Total acres owned Total crop acres 1,174 Number of cows 57.0 98.2 Crop acres owned 98 Pregnancy percentage Crop acres cash rented 1,076 Calving percentage 98.2 Crop acres share rented Weaning percentage 89.5 Percent crop acres owned 8 % Calves sold per cow 0.89 Average weaning weight 541 Machinery investment/crop acre (cost) 565 Lb. weaned/exposed female 484 Machinery investment/crop acre (market) 639 Avg wgt/ Beef Calves sold 612 Avg price / cwt. 160.00

Crop Yields	Acres	Yield
Corn	522.0	200.0 bu.
Soybeans	616.0	51.0 bu.
Hay	36.0	2.8 ton

Labor Summary

Total unpaid labor hours	3,500
Total hired labor hours	-
Total farm labor hours	3,500
Value of farm production per hour	224.08
Net farm income per unpaid hour	17.86
Average hourly hired labor wage	n/a

Crop Enterprise Analysis

		Corn		Sovbeans	
	Corn	Rented	Soybeans	Rented	Hay
	Owned	Cash Rented	Owned	Cash Rented	Owned
	Owned	Cash Nemed	Owned	Cash Nemed	Owned
Returns					
Acres	32.00	490.00	30.00	586.00	36.00
Unit	bu.	bu.	bu.	bu.	ton
Yield per acre	202.50	199.80	52.00	51.00	2.78
Share of production (%)	100.00	100.00	100.00	100.00	100.00
Value per unit	3.20	3.20	8.23	8.23	115.00
Total product value	648.00	639.36	427.96	419.73	319.44
Crop insurance	-	-	26.31	26.31	-
Other crop income	C40.00	-	42.93	42.93	240.44
Gross return per acre	648.00	639.36	497.20	488.97	319.44
Direct Expenses					
Seed	106.31	106.31	66.78	66.78	33.33
Fertilizer	98.23	98.23	43.63	43.63	7.64
Crop chemicals	41.76	41.76	49.49	49.49	13.89
Crop insurance	23.56	23.56	20.91	20.91	-
Drying expense	19.62	19.62	4.34	4.34	-
Land rent	4.00	222.73	4.70	222.73	-
Marketing Fuel & oil	4.03 24.29	4.03 24.29	1.70 19.87	1.70 19.87	13.25
Repairs	38.94	38.94	31.86	31.86	21.24
Operating interest	5.27	5.27	4.31	4.31	2.88
Total direct expenses	362.02	584.75	242.90	465.63	92.23
Return over direct expenses	285.98	54.61	254.30	23.33	227.22
Overhead Expenses					
Real estate taxes	99.38		99.38	_	99.38
Farm insurance	10.45	10.45	8.55	8.55	5.70
Utilities	4.98	4.98	4.08	4.08	2.72
Dues & professional fees	2.27	2.27	1.86	1.86	1.24
Interest on interm. debt	5.99	5.99	4.90	4.90	3.27
Interest on Ing term debt	52.50	-	52.50	-	52.50
Machinery depreciation	69.66	69.66	56.99	56.99	37.99
Building depreciation	1.49	1.49	1.22	1.22	0.81
Miscellaneous	7.95	7.95	6.51	6.51	4.34
Total overhead expenses	254.67	102.79	235.98	84.10	207.95
Total dir & ovhd expenses	616.69	687.54	478.88	549.73	300.18
Net return per acre	31.31	-48.18	18.32	-60.76	19.27
Government payments	-	-	0.45	0.45	-
Net return with govt pmts	31.31	-48.18	18.76	-60.31	19.27
Labor & management charge	53.15	53.15	43.49	43.49	28.99
Net return over lbr & mgt	-21.84	-101.33	-24.72	-103.80	-9.72
Cost of Production Per Unit	. =-				
Total direct expenses	1.79	2.93	4.67	9.13	33.20
Total dir & ovhd expenses	3.05	3.44	9.21	10.78	108.06
Less govt & other income	3.05	3.44	7.87	9.41	108.06
With labor & management	3.31	3.71	8.71	10.27	118.50
Net value per unit	3.20	3.20	8.23	8.23	115.00
Machinery cost per acre	138.87	138.87	113.62	113.62	75.75
Est. labor hours per acre	3.18	3.18	2.60	2.60	1.73

LIVESTOCK ENTERPRISE ANALYSIS -- Beef Cow-Calf

	Per Ci Produc		Pe Co		Enterpris Total	e
	Quantity	Value	Quantity	Value	Quantity	Value
Returns			, , , , , , , , , , , , , , , , , , , ,			
Beef Calves	82.76 lb.	132.42	547.58 lb.	876.12	31212.0 lb.	49939
Cull sales	17.24 lb.	13.44	114.04 lb.	88.95	6500.0 lb.	5070
Otherincome		-		-		_
Gross return	100.00 lb.	145.87	661.61 lb.	965.07	37712.0 lb.	55009
Gross margin	100.00 lb.	145.87	661.61 lb.	965.07	37712.0 lb.	55009
Direct Expenses						
Hay	768.99 lb.	32.93	5087.72 lb.	217.89	145.0 ton	12420
Com	1.70 bu.	5.52	11.23 bu.	36.49	640.0 bu.	2080
Protein Vit Minerals	53.03 lb.	6.63	350.88 lb.	43.86	10.0 ton	2500
Veterinary		5.10		33.75		1924
Supplies		3.21		21.26		1212
Utilities		1.54		10.16		579
Marketing		0.93		6.14		350
Fuel & oil		3.54		23.45		1337
Repairs		5.68		37.60		2143
Total direct expenses		65.09		430.61		24545
Return over direct expenses		80.78		534.46		30464
Overhead Expenses						
Real estate taxes		0.53		3.49		199
Farm insurance		1.52		10.09		575
Utilities		0.00		0.00		0
Dues & professional fees		0.33		2.19		125
Interest on interm. debt		0.34		2.24		128
Interest on Ing term debt		0.72		4.75		271
Machinery depreciation		3.94		26.08		1486
Building depreciation		0.46		3.04		173
Miscellaneous		1.16		7.68		438
Total overhead expenses		9.00		59.55		3395
Total dir & ovhd expense		74.09		490.17		27939
Net return		71.78		474.90		27070
Labor & management charge		7.76		51.32		2925
Net return over lbr & mgt		64.02		423.59		24145
Est. labor hours per unit		0.46		3.07		175
Cost of Prod Per Cwt. Produced		Information				
Total direct expenses		er of cows	57.0	Cows per FTE		912.0
Total dir & ovhd expenses	_	ancy percentage	98.2	Average weani		541
With other revenue adjustments		gpercentage	8.8	Lb. weaned/exp		484
With labor & management		ig percentage	98.2	Feed cost per		298.25
		ing percentage	89.5	Avg wgt/ Beef		612
	Calve	s sold per cow	0.89	Avg price / cwf	t.	160.00

Contributions to Overhead Expenses

Nonfarm Summary

		Contribution	Total		
Enterprise	Units	Per Unit	Contribution	Personal Income	Amount
Corn	522. Acres	68.79	35,910	Personal wages & salary	16,787
Soybeans	616. Acres	35.03	21,580	Personal business income	-
Hay	36.0 Acres	227.22	8,180	Personal rental income	-
Cow-Calf	57.0 Cow	534.46	30,464	Personal interest income	300
Total contributions			96,134	Personal cash dividends	-
				Tax refunds	-
Overhead expenses				Other personal income	-
Real estate taxes			9,938	Total personal income	17,087
Farm insurance			11,500		
Utilities			5,210		
Dues & professional fees			2,500		
Interest on interm. debt			6,388		
Interest on Ing term debt			5,416		
Machinery depreciation			74,321		
Building depreciation			1,733		
Miscellaneous			8,752		
Total overhead expense			125,758		
Total return over overhead ex	ре		-29,624		

Discrepancy (inflows - outflows)

0

Cash Accuracy Check

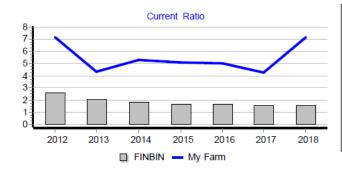
Beginning cash balance	14,362	Ending cash balance	1,562
Gross cash farm income	758,497	Total cash farm expense	652,220
Personalincome	17,087	Family living expense	61,247
Hedging account withdrawals	15,894	Hedging account deposits	-
Capital sales	15,000	Capital purchases	44,000
Money borrowed	119,718	Principal payments	170,106
Gifts and inheritances	-	Gifts given	-
Beginning personal savings	-	Ending personal savings	-
		Income taxes	11,423
Total inflows	940,558	Total outflows	940,558

Liabilities Check

Beginning liabilities		739,692
Money borrowed	(+)	119,718
Principal payments	(-)	170,106
Change in accounts payable	(+)	-2,506
Change in deferred liabilities	(+)	12,078
Ending liabilities calculated	(=)	698,876
Ending liabilities reported	(-)	698,876
Discrepancy	(=)	0

Crop & Feed Check

Crop	Com	Soybeans	All Hay
Beginning inventory	118,821	25,152	40
Produced	104,382	31,446	100
Purchased	-	-	40
Total sources	223,203	56,598	180
Sold	118,821	25,152	-
Fed	640	· -	145
Ending inventory	103,742	31,446	35
Total uses	223,203	56,598	180
Discrepancy	0	0	0



Working Capital to Gross Revenues 100 80 40 20 2012 2013 2014 2015 2016 2017 2018 ■ FINBIN — My Farm





Current Ratio

The extent to which current farm assets, if liquidated, would cover current farm liabilities.

Total current farm assets divided by total current farm liabilities.

Strong Greater than 2
Caution 2 to 1.3
Vulnerable Less than 1.3

Working Capital to Gross Revenues

Measures operating capital available against the size of the business.

Working capital divided by gross revenues.

Strong Greater than 30 Caution 30 to 10 Vulnerable Less than 10

Debt to Asset Ratio (mkt)

The proportion of total farm assets owed to creditors.

Total farm debt divided by total farm assets.

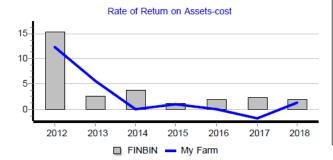
Strong Less than 30% Caution 30% to 60% Vulnerable Greater than 60%

Debt to Equity Ratio (mkt)

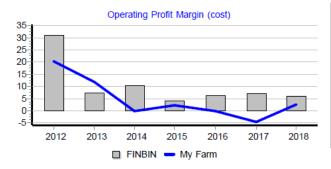
The relative amount of money borrowed as a percentage of equity capital.

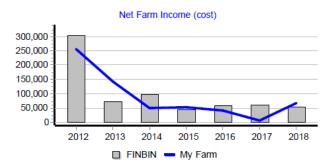
Farm debt divided by equity.

Strong Less than 0.43
Caution 0.43 to 1.5
Vulnerable Greater than 1.5



Rate of Return on Equity-cost 25 20 15 10 2012 2013 2014 2015 2016 2017 2018 ■ FINBIN — My Farm





Rate of Return on Assets-cost

The rate earned on the total business investment, equity and borrowed capital.

Net farm income + interest - value oper labor & mgmt divided by average farm assets.

Strong Greater than 8%
Caution 8% to 4%
Vulnerable Less than 4%

Rate of Return on Equity-cost

The rate earned on equity capital invested in the business.

Net farm income - value oper labor & mgmt divided by average farm net worth.

Strong Greater than 10% Caution 10% to 3% Vulnerable Less than 3%

Operating Profit Margin (cost)

Measures the operating efficiency of the business in terms of return as a percentage of gross income.

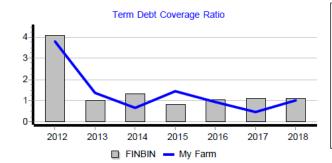
Net farm income + interest - value of labor & mgmt divided by the value of farm production.

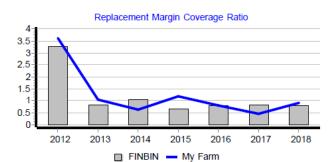
Strong Greater than 25%
Caution 25% to 15%
Vulnerable Less than 15%

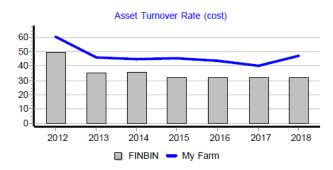
Net Farm Income (cost)

The net income from the farm that is available for owner withdrawals, income taxes and equity growth.

Cash income - cash expense + inventory change - depreciation.









Term Debt Coverage Ratio

The ability of the business to generate enough income to cover all scheduled intermediate and long term debt payments.

Net farm oper income + net nonfarm income + interest on term debt fam liv & taxes / term debt prin & int.

Strong Greater than 1.75
Caution 1.75 to 1.25
Vulnerable Less than 1.25

Replacement Margin Coverage Ratio

A ratio below 1.0 indicates you did not generate enough income to cover term debt payments and unfunded capital purchases.

Strong Greater than 1.5 Caution 1.5 to 1.1 Vulnerable Less than 1.1

Asset Turnover Rate (cost)

Measures efficiency of capital invested in the business in terms of the gross revenue generated by each dollar of investment.

Value of farm production divided by average farm assets.

Strong Greater than 45%
Caution 45% to 30%
Vulnerable Less than 30%

Operating Expense Ratio

The portion of gross revenue used to pay operating expenses.

Farm operating expense - interest expense divided by gross income.

Strong Less than 60%
Caution 60% to 80%
Vulnerable Greater than 80%

Comparative Balance Shee	ts (cost)							
	2011	2012	2013	2014	2015	2016	2017	2018
					C	ost and Market		
Current Assets								
Cash and checking	29,779	65,579	45,579	35,644	17,920	17,350	14,362	1,562
Prepaid exp. & supplies	116,016	112,225	133,632	134,216	135,046	136,770	120,670	118,267
Hedging accounts	2,733	2,733	2,733	23,300	23,300	23,300	23,300	32,124
Crop inventory	950,395	958,592	788,779	684,797	683,972	653,437	585,751	595,067
Total Current Assets	1,098,923	1,139,129	970,723	877,957	860,238	830,857	744,083	747,020
Intonocalista Assata								
Intermediate Assets Breeding livestock	26 157	27 722	E6 222	64 044	74.044	77 244	74 400	74 100
•	26,157	27,732	56,232	64,814	74,814	77,214	74,100	74,100
Machinery and equipment	266,825	380,229	755,729	737,156	701,440	668,251	652,922	613,266
Titled vehicles Total Intermediate Assets	20,990 313,972	17,841 425,802	15,165 827,126	12,890 814,860	45,476 821,730	38,654 784,120	32,857 759,879	27,928 715,294
Total Intermediate Assets	313,972	425,602	027,120	614,600	621,730	764,120	135,615	715,294
Long Term Assets								
Land	130,020	130,020	154,448	154,448	154,448	154,448	154,448	154,448
Buildings and improvements	47,155	44,797	42,557	40,429	38,408	36,487	34,663	32,930
Total Long Term Assets	177,175	174,817	197,005	194,877	192,856	190,935	189,111	187,378
Tatal Farms Assats	4 500 070	4 700 740	4 004 054	4 007 005	4 074 004	4 005 040	4 000 070	4 040 000
Total Farm Assets	1,590,070			1,887,695	, ,	1,805,912		
Total Personal Assets	119,774	130,703	172,703	172,433	171,349	176,559	174,993	176,662
Total All Assets	1,709,844	1,870,451	2,167,557	2,060,128	2,046,173	1,982,471	1,868,065	1,826,354
Current Liabillities								
Accrued interest	13,263	9,630	15,046	13,223	12,007	8,653	4,888	4,249
Total Current Loans	123,855	108,356	119,686	84,179	81,989	69,881	88,050	47,233
Principal due on term loans	44,455	41,656	89,025	68,693	74,595	87,931	82,056	52,984
Total Current Liabilities	181,573	159,642	223,756	166,096	168,591	166,466	174,994	104,466
Total laterman distallance	00.000	44.057	005 554	400 507	404 470	450.007	05.075	400.000
Total Intermediate Loans	80,068	44,257	205,551	193,507	184,472	150,897	85,675	122,622
Total Long Term Loans	135,866	129,996	123,752	117,131	110,104	94,667	78,349	60,903
Total Farm Liabilities	397,507	333,895	553,060	476,734	463,166	412,030	339,018	287,991
Total Personal Liabilities	30,000	30,000	30,000	30,000	8,000	8,000	8,000	6,133
Total All Liabilities	427,507	363,895	583,060	506,734	471,166	420,030	347,018	294,124
Familia								
Equity Retained earnings	1,282,336	1,506,556	1,584,498	1,553,394	1,575,006	1,562,441	1,521,047	1,532,230
Retained earnings chg	1,202,330	224,220	77,941	-31,103	21,612	-12,565	-41,394	11,183
Notailled earlilligs ong	U	224,220	11,341	-01,100	21,012	-12,000	-41,004	11,100

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Comparative Balance Shee	ts (market)							
	2011	2012	2013	2014	2015	2016	2017	2018
					С	ost and Market		
Current Assets								
Cash and checking	29,779	65,579	45,579	35,644	17,920	17,350	14,362	1,562
Prepaid exp. & supplies	116,016	112,225	133,632	134,216	135,046	136,770	120,670	118,267
Hedging accounts	2,733	2,733	2,733	23,300	23,300	23,300	23,300	32,124
Crop inventory	950,395	958,592	788,779	684,797	683,972	653,437	585,751	595,067
Total Current Assets	1,098,923	1,139,129	970,723	877,957	860,238	830,857	744,083	747,020
Intermediate Assets								
Breeding livestock	36,500	38,075	72,525	82,650	95,000	98,000	93,300	93,300
Machinery and equipment	361,500	465,437	815,887	794,298	754,868	737,236	723,509	709,966
Titled vehicles	37,059	31,500	26,775	22,759	50,012	42,510	36,134	30,713
Total Intermediate Assets	435,059	535,012	915,187	899,707	899,880	877,746	852,942	833,980
Long Term Assets								
Land	412,500	495,000	588,000	588,000	588,000	637,000	637,000	637,000
Buildings and improvements	56,000	53,200	50,540	48,013	45,612	43,332	41,165	39,107
Total Long Term Assets	468,500	548,200	638,540	636,013	633,612	680,332	678,165	676,107
Total Farm Assets		2,222,341						
Total Personal Assets	120,435	131,364	173,364	176,815	180,977	186,561	184,995	190,957
Total All Assets	2,122,917	2,353,705	2,697,814	2,590,492	2,574,707	2,575,496	2,460,185	2,448,064
O I in hillisin n								
Current Liabillities Accrued interest	12.262	0.620	15.046	13,223	12.007	0.652	4.888	4,249
	13,263	9,630	15,046	,	12,007	8,653	,	•
Total Current Loans	123,855	108,356	119,686	84,179	81,989	69,881	88,050	47,233
Principal due on term loans Total Current Liabilities	44,455	41,656	89,025	68,693	74,595	87,931	82,056	52,984
Total Current Liabilities	181,573	159,642	223,756	166,096	168,591	166,466	174,994	104,466
Total Intermediate Loans	80,068	44,257	205,551	193,507	184,472	150,897	85,675	122,622
Total Long Term Loans	135,866	129,996	123,752	117,131	110,104	94,667	78,349	60,903
	,	,	,.	,	,	,	,	,
Total Farm Liabilities	397,507	333,895	553,060	476,734	463,166	412,030	339,018	287,991
Total Personal Liabilities	30,000	30,000	30,000	30,000	8,000	8,000	8,000	6,133
Deferred liabilities	457,241	473,812	438,123	412,492	414,705	420,765	392,674	404,752
Total All Liabilities	884,749	•	1,021,183	919,226	885,871	840,795	739,692	698,876
	•	-	•			-		-
Equity								
Retained earnings	1,282,336	1,506,556	1,584,498	1,553,394	1,575,006	1,562,441	1,521,047	1,532,230
Market valuation equity	-44,168	9,442	92,134	117,872	113,830	172,260	199,446	216,959
Net worth	1,238,168	1,515,998	1,676,631	1,671,266	1,688,836	1,734,701	1,720,493	1,749,188
Net worth change	0	277,830	160,633	-5,365	17,570	45,865	-14,208	28,695

Comparative Trend							
•	2012	2013	2014	2015	2016	2017	2018
Profitability							
Gross farm income (accrual)	1,013,152	865,159	869,646	855,265	806,780	714,479	792,532
Total farm expense (accrual)	757,832	721,761	819,964	803,143	766,724	709,317	730,038
Net farm income from oper.	255,320	143,398	49,682	52,122	40,056	5,162	62,494
Rate of return on assets	12.4 %	5.5 %	0.0 %	0.9 %	-0.1 %	-1.8 %	1.3 %
Rate of return on equity	13.8 %	4.8 %	-1.8 %	-0.9 %	-1.7 %	-3.8 %	0.3 %
Operating profit margin	20.4 %	11.9 %	0.0 %	2.1 %	-0.3 %	-4.6 %	2.7 %
Asset turnover rate	60.6 %	46.1 %	44.7 %	45.3 %	43.4 %	40.4 %	46.9 %
11							
Liquidity Current ratio	7.14	4.34	5.29	5.10	4.99	4.25	7.15
Working capital	979,487	746,967	711,862	691,647	664,391	569,088	642,554
Working capital Working cap, to gross rev.	96.7 %	86.3 %	81.9 %	80.9 %	82.4 %	79.7 %	81.1 %
vvoiking cap. to gross rev.	30.1 /6	00.5 /6	01.5 /0	00.5 %	02.4 /0	13.1 /0	01.1 /0
Solvency (market)							
Total assets	2,353,705		2,590,492				2,448,064
Totalliabilities	837,707	1,021,183	919,226	885,871	840,795	739,692	698,876
Net worth	1,515,998	1,676,631	1,671,266	1,688,836	1,734,701	1,720,493	1,749,188
Debt to asset ratio	36 %	38 %	35 %	34 %	33 %	30 %	29 %
Repayment Capacity							
Term debt coverage ratio	3.79	1.36	0.65	1.45	0.94	0.47	1.03
Replacement coverage ratio	3.63	1.06	0.63	1.18	0.81	0.44	0.92
Efficiency							
Operating expense ratio	67.5 %	78.8 %	81.8 %	79.9 %	82.3 %	84.9 %	80.3 %
Interest expense ratio	2.6 %	4.0 %	2.9 %	3.5 %	2.7 %	2.7 %	2.2 %
more of expense rate	2.0 %		2.0 70	0.0 70	2 70	2	2.2 70
Other Cash Flows							
Personalincome	16,499	17,067	17,067	17,067	17,087	17,087	17,087
Owner draws/Adj. family living	74,752	65,500	65,506	59,554	57,599	62,099	61,247
Crop and Livestock Summar	v						
Total crop acres	,	_	_	_	_	_	1,174
Crop acres owned	_	_	_	_	_	_	98
Crop acres cash rented	_	_	_	_	_	_	1,076
•							
Corn							
Acres	-	-	-	-	-	-	522
Yield (bu.) / acre	-	-	-	-	-	-	200.0
Price / bu.	-	-	-	-	-	-	3.36
Hay							
Acres	_	-	_	-	-	_	36
Yield (ton) / acre	-	-	-	-	-	-	2.8
Soybeans							
Acres	_	_		_	_	_	616
Yield (bu.) / acre	-	-	-	-	-	-	51.0
Price / bu.	_	_	_	-	_	_	9.21
							0.21

Comparative Trend

	2012	2013	2014	2015	2016	2017	2018
Number of cows	-	-	-	-	-	-	57
Calves sold	-	-	-	-	-	-	51
Price / cwt.	-	-	-	-	-	-	152.50

Balance Sheet

ABC Farms

EINDACV'

FINPA	CK							_	1/1/2000
Current Assets	s		Value	Current Liabilities					Balance
Cash and checkin	ng		29,779	Accrued interest					14,712
Prepaid exp. & su Growing crops	uppl. (Schd B)		83,870	Accounts payable and of	her accru	ed expenses			
Accounts receive	able				Int		P&I		Principa
Hedging accounts			2,733	Current loans (Schd T)	Rate		Due		Balance
Other current ass			-	4NB-4th Ntl Opr	7.00		-		123,85
Crops (Schd G)	Quantity	Value/Unit		Government crop loans					
Com	110,850	1.70/bu.	188,445	Principal due within 12 mo	onths on te	rm liabilities			44,49
Soybeans	22,550	5.50/bu.	124,025						
Grass Hay	40	50.00/ton	2,000						
Crops under gov'	t Ioan		-						
Livestock held for			_						
Total Current A	Assets		430,852	Total Current Liabilitie	s				183,064
Intermediate A	ssets			Intermediate Liabilitie	s (Schd	U)			
		Cost	Market		Int	Principal	P&I	Principal	Interme
Brdg lvst (Schd I)	No.	Value	Value	Loan	Rate	Balance	Due	Due	Balance
Beef cows	48	24,000	33,600	John Deere Credit-Combin	ne 7.00	8,373	7,446	6,927	1,440
Heifers	5	1,500	2,000	4NB-Machinery	7.00	86,335	32,898	26,623	59,712
Bull	1	657	900	Ford Credit-Truck	6.50	24,346	6,875	5,454	18,89
Machinery and eq	uipment	266,825	361,500						
Titled vehicles (Se	chd K)	40,210	48,500						
Other intermediat	te assets	_	-						
Total Intermedi	ate Assets	333,192	446,500	Total Intermediate Lia	bilities				80,050
Long Term Ass	sets			Long Term Liabilities	(Schd V)				
		Cost	Market		Int	Principal	P&I	Principal	Lg Tem
Land (Schd M)	Acres	Value	Value	Loan	Rate	Balance	Due	Due	Balance
Homefarm	83	130,000	165,000	Parents-Farm	6.00	141,335	14,362	5,493	135,842
Buildings and imp		47,155	56,000						
Other long term a Total Long Term		177,155	221,000	Total Long Term Liabi	lities				135,84
Total Farm Acc	- ote	941 199	1 000 250	Total Farm Liabilities					398,956
Personal Assets		119,774	120,435	Personal Liabilities					000,00
Total Farm Ass	sets	941,199	1,098,352	Total Farm Liabilities	lities			Cost	
				Total Liabilities (d)(a)				Cost	Mari
				Total Liabilities (d)(e)		4-1	r_ ar	398,956	398,95
				Retained Earnings/Contrit	outed Capi	tai	[a-d]	662,017	
				Market valuation equity			[b-a]		157,81
Total Assets (a	I)(D)	1,060,973	1,218,787	Net Worth			[b-e]		819,83

Schedule	B:	Prepaid	expenses	and	supplies

	Expense		Value Per	
	Category	Quantity	Unit	Value
Fuel	Fuel & oil	-	-	800
Chemicals	Chemicals	-	-	20,300
Fertilizer	Fertilizer	-	-	27,984
Seed	Seed	-	-	34,786
Total prepaid expenses and suppli	ies			83,870

Schedule G: Crop inventory

			Value Per	
Crop	Description	Quantity	Unit	Value
Com		110,850 bu.	1.70	188,445
Soybeans		22,550 bu.	5.50	124,025
Grass Hay		40 ton	50.00	2,000
Total crop	inventory			314,470

Schedule I: Breeding livestock

	No.	Mkt Val	Cost	Market
	Head	Per Hd	Value	Value
Beef cows	48	700	24,000	33,600
Heifers	5	400	1,500	2,000
Bull	1	900	657	900
Total breeding livestock			26,157	36,500

Schedule K: Titled vehicles

	Model	
Make/Model	Year	Serial No./VIN
Ford 9000	1985	
Ford F-150	2003	

	Year	Pct.		Cost	Market
F	urchased	Ownersh	nip	Value	Value
	1998	100.00	%	18,720	25,000
	2003	100.00	%	21,490	23,500
				40,210	48,500

Schedule M: Land

Total titled vehicles

		Mkt Val	Cost	Market
	Acres	Per Acr	Value	Value
Home farm	82.5	2,000	130,000	165,000
Total land			130,000	165,000

Schedule P: Personal assets

		Mkt Val	Cost	Market
	Quantity	Per Unit	Value	Value
Savings and checking			-	-
Stocks and bonds			4,889	5,550
Other personal current assets			-	-
Furnishings and appliances			-	-
Personal vehicles			-	-
Cash value of life insurance			17,315	17,315
Retirement accounts			25,439	25,439
Personal business investment			-	-
Other intermediate assets			-	-
Personal real estate			-	-
Other long term assets			72,131	72,131
Total personal assets			119,774	120,435

Schedule T: Current loans

	Interest	Principal		Accrued	Normal	Past Due		Month	
	Rate	Balance		Interest	P & I	P & I		Due	Balance
4NB-4th Ntl Opr	7.00 %	123,855		5,819	-	-		-	123,855
Total current loans	ent loans 123,855			5,819	-				123,855
Schedule U: Intermediate loans									
	Interest	Principal	Accrued	Normal	Past Due	Month	Final	Principal	Intermed
	Rate	Balance	Interest	P & I	P & I	Due	Year	Due	Balance
John Deere Credit-Combine	7.00 %	8,373	295	7,446	-	multiple	2007	6,927	1,446
4NB-Machinery	7.00 %	86,335	5,298	32,898	-	2	2008	26,623	59,712
Ford Credit-Truck	6.50 %	24,346	-	6,875	-	multiple	2010	5,454	18,892
Total intermediate loans		119,054	5,594	47,219	-			39,004	80,050
Schedule V: Long term loans									
	Interest	Principal	Accrued	Normal	Past Due	Month	Final	Principal	Lg Term
	Rate	Balance	Interest	P & I	P&I	Due	Year	Due	Balance
Parents-Farm	6.00 %	141,335	3,299	14,362	-	multiple	2022	5,493	135,842
Total long term loans		141,335	3,299	14,362	-			5,493	135,842
Schedule Y: Ratio analysis				Cost	Market				
Current ratio				2.35	2.35				
Working capital				247,788	247,788				
Current percent in debt				42 %	42 %				
Intermediate percent in debt				24 %	18 %				
Long term percent in debt				77 %	61 %				
Personal percent in debt				- %	- %				
Total debt to asset ratio				38 %	33 %				
Total equity to asset ratio				62 %	67 %				
Total debt to equity ratio				0.60	0.49				

- We would like to know if you would like to participate.
- We need your help spreading the word about the project
- Any leads to agricultural producers that may be interested
- Additional information provided in flyers/handouts.
- Feedback Evaluation Form

Thanks!