### Cash Flows

**Shannon Sand** 

Agricultural Economics Extension Educator ssand2@unl.edu 308-696-6733



### Objectives

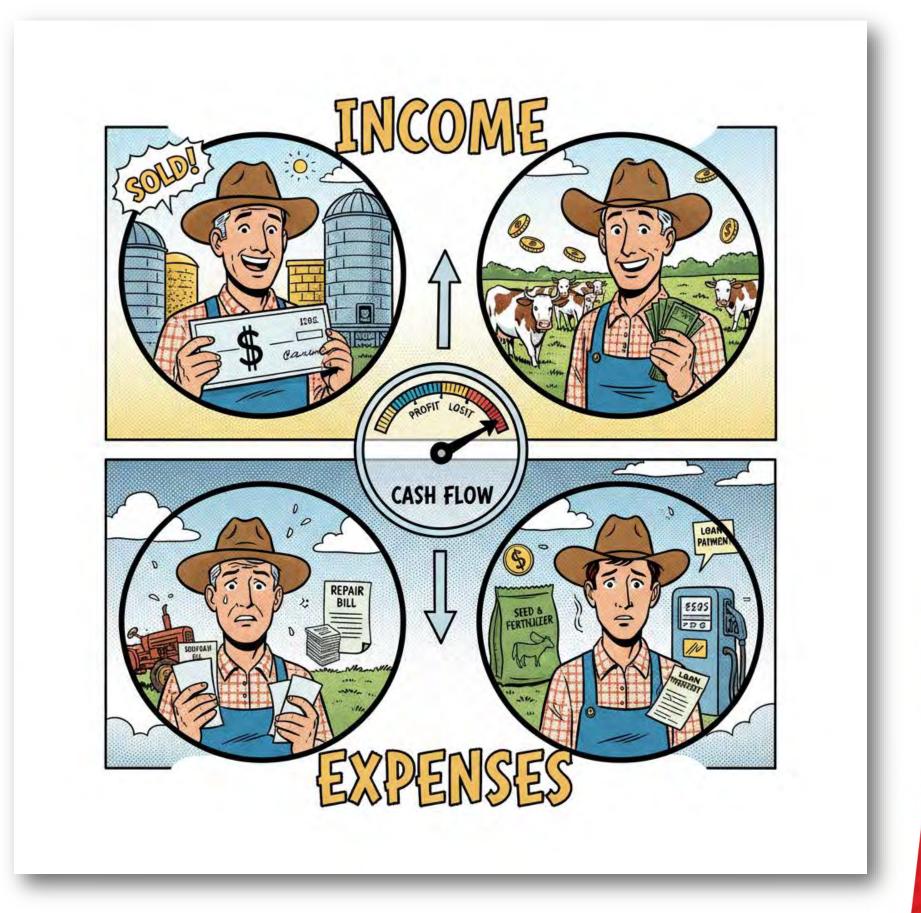
- Intro to farm financial analysis
- What is Cashflow?
- Why is it important?
- How is it constructed?
- How can Cashflows be used to make decisions?





### Cashflow

• The net amount of cash and cash equivalents being transferred in and out of a company. Cash received represents inflows, while money spent represents outflows.





### Types of Cashflow

- Operating cash flow: This refers to the net cash generated from a company's normal business operations. In actively growing and expanding companies, positive cash flow is required to maintain business growth.
- Investing cash flow: This refers to the net cash generated from a company's investment-related activities, such as investments in securities, the purchase of physical assets like equipment or property, or the sale of assets. In healthy companies that are actively investing in their businesses, this number will often be in the negative.
- **Financing cash flow:** This refers specifically to how cash moves between a company and its investors, owners, or creditors. It's the net cash generated to finance the company and may include debt, equity, and dividend payments.



## Importance of Cashflows





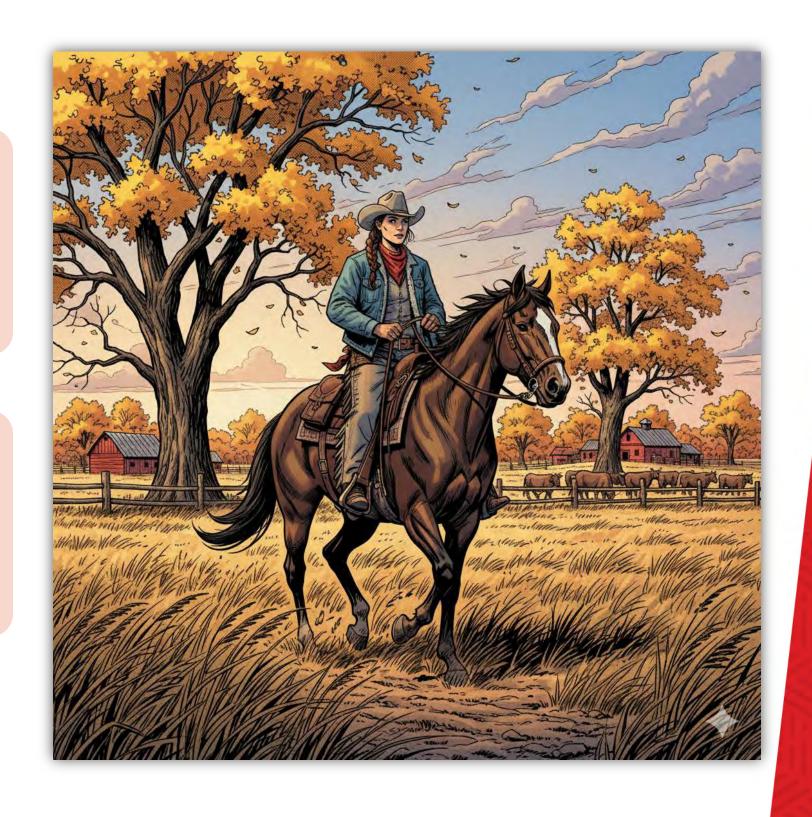
### Cashflow vs Profit



Cash flow refers to the net balance of cash moving into and out of a business at a specific point in time



Profit is the balance that remains when all of a business's operating expenses are subtracted from its revenues. It's what's left when the books are balanced, and expenses are subtracted from proceeds.



### What's not included?



Depreciation



Inventory changes



Changes in accounts receivable/payable



#### What's included?

- +Cash inflow from operations

  +Capital assets sales

  +Non-farm sources of income which should be included if used to pay farm bills
- -Cash outflow from operations
- -Capital asset purchases
- -Non-farm outflows of cash including family living
- -Debt service
- +New Borrowing
- =Net Cash flow



# What are some ways knowing our cashflow could be helpful?

- Forces the planning function of management
- Provides a means of communicating the amount and timing of financial needs to yourself, owners, managers, investors, lenders, etc.
- During times of low profitability cashflow can be a survival strategy





### Cashflow setup

Monthly

Quarterly

Twice year

Annual





# Quarterly Example

Cash inflow	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Beginning cash balance	\$5,000			
Sale of crop products		\$50,000		
Sale of livestock products	25,000			
Government payments				\$10,000
Total inflow	\$30,000	\$50,000		\$10,000
Cash expenditures				
Seed	\$10,000			
Fertilizer		\$20,000		
Feed	10,000			
Processing			\$10,000	
Marketing				\$5,000
Capital purchases		10,000		
Interest			5,000	
Debt payments			10,000	
Total expenditures	\$20,000	\$30,000	\$25,000	\$5,000
Quarterly net cash flow	\$10,000	\$20,000	-\$25,000	\$5,000
Cumulative net cash flow	\$10,000	\$30,000	\$5,000	\$10,000



# Examples

Operating - Cash Provided by Operating Activities  Gross cash farm income  Cash fam expenses  Investing - Cash Provided by Investing Activities  Sales of capital assets  Purchase of machinery, equipment, and farm buildings  Finnancing - Cash Provided by Financing Activities  Money borrowed  Principal Payments  Non-Farm Activities  Non-farm cash invested in the farm business  Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets)  Beginning of year cash  End of year cash  End of year cash  \$ 50,000.00  \$ 10,000.00  \$ 10,000.00  \$ 10,000.00  \$ 5,000.00  \$ 10,000.00  \$		Cash In		Cash Out
Gross cash farm income Cash fam expenses  Investing - Cash Provided by Investing Activities Sales of capital assets Purchase of machinery, equipment, and farm buildings  Finnancing - Cash Provided by Financing Activities Money borrowed Principal Payments  Non-Farm Activities Non-farm cash invested in the farm business Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets) Beginning of year cash End of year cash  \$ 50,000.00 \$ 40,000.00 \$ 10,000.00	Operating - Cash Provided by Operating Activities	2 2001 100		
Investing - Cash Provided by Investing Activities  Sales of capital assets  Purchase of machinery, equipment, and farm buildings  Finnancing - Cash Provided by Financing Activities  Money borrowed Principal Payments  Non-Farm Activities  Non-farm cash invested in the farm business  Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets)  End of year cash  \$ 500.00  \$ 10,000.00  \$ 12,000.00  \$ 75,000.00  \$ 5,000.00  \$ 10,000.00	APPLICATION OF THE TRANSPORT OF A SALE OF THE PROPERTY OF THE	\$ 50,000.00		
Sales of capital assets Purchase of machinery, equipment, and farm buildings  Finnancing - Cash Provided by Financing Activities Money borrowed Principal Payments  Non-Farm Activities Non-farm cash invested in the farm business Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets) End of year cash  \$ 500.00 \$ 10,000.00 \$ 10,000.00 \$ 75,000.00 \$ 10,000.00 \$ 10,000.00 \$ 10,000.00 \$ 10,000.00 \$ 10,000.00 \$ 10,000.00 \$ 10,000.00 \$ 10,000.00	Cash fam expenses		\$	40,000.00
Purchase of machinery, equipment, and farm buildings  Finnancing - Cash Provided by Financing Activities  Money borrowed Principal Payments  Non-Farm Activities  Non-farm cash invested in the farm business Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets)  Beginning of year cash End of year cash  \$ 100,000.00  \$ 12,000.00  \$ 12,000.00  \$ 75,000.00  \$ 75,000.00  \$ 10,000.00	Investing - Cash Provided by Investing Activities			
Finnancing - Cash Provided by Financing Activities  Money borrowed Principal Payments  Some Farm Activities Non-Farm Activities Non-farm cash invested in the farm business Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets) Beginning of year cash End of year cash  \$ 100,000.00  \$ 12,000.00  \$ 12,000.00  \$ 100,000.00  \$ 10,000.00	Sales of capital assets	\$ 500.00		
Money borrowed Principal Payments  Non-Farm Activities Non-farm cash invested in the farm business Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets) Beginning of year cash End of year cash  \$ 100,000.00 \$ 10,000.00 \$ 10,000.00 \$ 10,000.00	Purchase of machinery, equipment, and farm buildings		\$	10,000.0
Principal Payments  Non-Farm Activities  Non-farm cash invested in the farm business  Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets)  Beginning of year cash  End of year cash  \$ 12,000.00  \$ 75,000.00  \$ 10,000.00	Finnancing - Cash Provided by Financing Activities			
Non-Farm Activities  Non-farm cash invested in the farm business  Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets)  Beginning of year cash  End of year cash  \$ 100,000.00  \$ 75,000.00  \$ 10,000.00	Money borrowed	\$ 100,000.00		
Non-farm cash invested in the farm business  Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets)  Beginning of year cash  End of year cash  \$ 100,000.00  \$ 75,000.00  \$ 10,000.00	Principal Payments		\$	12,000.0
Cash withdrawn for family living, taxes, savings, etc.  Cash-on-Hand (from beginning and ending balance sheets)  Beginning of year cash  End of year cash  \$ 5,000.00  \$ 10,000.0	Non-Farm Activities			
Cash-on-Hand (from beginning and ending balance sheets)  Beginning of year cash  End of year cash  \$ 5,000.00  \$ 10,000.0	Non-farm cash invested in the farm business	\$ 100,000.00		
\$ 5,000.00	Cash withdrawn for family living, taxes, savings, etc.		\$	75,000.0
End of year cash \$ 10,000.0	Cash-on-Hand (from beginning and ending balance sheets)			
	Beginning of year cash	\$ 5,000.00		
Total Cash-In and Cash-Out \$255,500 \$147,0	End of year cash		\$	10,000.0
	Total Cash-In and Cash-Out	\$255,500		\$147,0
MICHIGAN STATE   Extension	UNIVERSITY Extension	Farm	Mame	

Statement of Cash Flows		2023			
Beginning cash balance		\$	5,000.00		
Gross cash farm income		\$	50,000.00		
Cash farm expenses	-	\$	40,000.00		
Cash provided by operating activities	- 5	\$	10,000.00		
Sale of capital assets		\$	500.00		
Purchase of machinery, equipment and farm buildings	-	\$	10,000.00		
Cash provided by investing activities	=	\$	(9,500.00		
Money borrowed		\$	100,000.00		
Principal payments	(+)	\$	12,000.00		
Personal income	+	\$	100,000.00		
Owner withdrawals and income taxes paid	-	\$	75,000.00		
Cash provided by financing activities	=	\$	113,000.00		
Net change in cash		\$	113,500.00		
Ending cash balance		\$	10,000.00		
Discrepancy		\$	108,500.00		
MICHIGAN STATE Extension		Fee	Number		
SHEEP CLEAR CO.	_	Farm	Name		

Note: The totals for the cash in and cash out should be approximately equal. If they are not, the discrepancy indicates unaccounted dollars exist in farm records.

If cash in and cash out are equal, this indicates farm records are reconciled and accurate for assessing historical performance (i.e., a financial analysis) and forward budget projecting (i.e., cash flow projections).

Accurate, reconciled records are essential in creating an enterprise analysis, which identifies a farm's cost of production(s).

Instructions Statement of Cash Flows

# Monthly

Monthly Cash Flow Budget	t For Year:	2022	Show Da	ita Entry Works	Step	1: Beginning	4		4: Inflows	(Others)		6: Outflov	vs (Operati	ions-	and recond	n/assistance f ciling Projecte	d annual and
						2: Last Year	Data				Ston	7: Outflov	us (Othors)		M	lonthly cash flo	
Beginning Balances For:								Step a	8: Inflows	ivew	Step	7. Outilov	vs (Others)			Projected less Annual	Projected/1
Cash on hand		,000													Annual	Cash Flow,	For
Term Debt (principal only)	: 5,0	000				User inp	ut in yel	llow-and	light gr	een shade	ed cells				Cash Flow	column F-	estimating
Operating Loan Debt (principal only)	: 2,0	000													(sum of all	column S	equal
	Last Year	Projected	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	months)	(near or	monthly
Beginning Cash Balance		10,000	10,000	22,000	19,750	18,000	11,000	9,500	84,500	84,500	84,500	84,500	84,500	159,500			
											A				1		
ows i rolli i arili operations	w Marketing Pl	an Worksheet	Corn Ma	rketing Plar	Soybe	an Marketi	ng Milk	Marketing	Plan F	eeder Cattle	Marketing	Fat Ca	ttle Marke	ting Plan			
y-shaded rows are <u>information</u> Grain	$\sim$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ne values are results ofing the "Marketing Plan Mill		0	0	0	0	0	0	0	0	0	0	0	0				
sets". They do not sutomatically	<u></u>		U	U	U	U	U	U	U		U	U	U		0	0	0
to the CASH FLOW. Sales must Mrkt Cattle	> <	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n sales	100,000													250,000	250,000	o o	20,833
sales et cattle sales (feeders and fats)	50,000							75,000					75,000		150,000	(25,000)	10 417
of other market items/products	50,000	125,000						75,000					75,000		150,000	(25,000) 0	10,417
nal cull livestock sales	3,000	3,000	3,000												3,000	0	250
sales	3,000		3,000												5,000	0	250
om work	0														0	0	0
ultural program payments (cash)	10,000														0	0	0
oans	10,000														0	0	0
insurance and disaster payments	1,200		12,000												12,000	(12,000)	0
onage dividends	0		22,000												12,000	0	0
al/lease income	0														0	0	0
income, investments from farm accounts	0														0	0	0
Other <sup>1</sup>		•													0	0	0
Other <sup>1</sup>															0	0	
Other Other															0	0	0
Total Inflow from Farm Operations	164 200	378,000	15,000	0	0	0	0	75,000	0	0	0	0	75,000	250,000	415,000	ò	
rota: injion jioni raim operations	107,200	378,000	13,000					73,000					75,000	230,000	415,000	(57,000)	
lows from Capital Asset Sales																	
ding livestock (other than normal cull sales	)														0	0	0
ninery and equipment															0	0	0
estate															0	0	0
lings															0	0	0
Other															0	0	
Total Inflow from Capital Asset Sales	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
lows from Non-Farm Sources																	
arm wages															0	0	0
est and Dividends r businesses & investments															0	0	0
															0	0	0
ributed Capital <sup>2</sup>															0	0	0
Other Total Inflow from Non-Farm Sources	. 0	0	0	0	n	0	0		n	n	n	О	0	0	0	0	0
Lasta unition from Non-Farm Sources		: //			-					. 11		11	1)	. 1)	. 0		. 0

# Monthly

See Information File, Understanding Cash Flow Analysis to help in understanding cash flow budgeting.

Enter your input values in shaded cells.

Name: Total Time Period:
Sand 12

					Individual Tin	ne Periods							Total for
CASH INFLOWS	January	February	March	April	May	June	July	August	September	October	November	December	All Periods
Cattle sales													\$0
Cull sales													\$0
Grain sales													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
Total Cash Inflows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

					Individual Tin	ne Periods							Total for
CASH OUTFLOWS	January	February	March	April	May	June	July	August	September	October	November	December	All Periods
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													\$0
													_

## Ag Budget Calculator (ABC)

#### **Monthly Cash Flow Feature**



Production	Year	Cash	Flow	Summary:
------------	------	------	------	----------

Category	ec)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Entered
Beginning Cash	\$0	\$25,000	\$23,626	\$20,141	\$10,381	\$-52,270	\$-160,466	\$-177,028	\$-276,090	\$-257,075	\$-394,466	\$-414,096	\$84,660	\$25,000.00
Revenue		\$2,111	+-		44		\$2,111	\$22,500	\$22,500	\$22,500	\$22,500	\$502,241	\$502,241	\$1,098,705.00
Labor		-		\$518	\$2,728	\$2,238	\$1,284	\$1,777		\$2,992	\$1,645	++	1,	\$13,179.90
Fuel				\$497	\$23,103	\$2,250	\$1,216	\$1,683	+	\$3,415	\$2,000	C++		\$34,162.82
<u>Materials</u>	65	70		\$5,260	\$33,335	\$100,224	\$12,689	\$114,618	17	77		144		\$266,125.78
Overhead		\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$153,485	\$38,485	\$3,485	\$3,485	\$226,820.00
Total Expenses		\$3,485	\$3,485	\$9,761	\$62,651	\$108,196	\$18,673	\$121,562	\$3,485	\$159,891	\$42,130	\$3,485	\$3,485	\$540,288.50
Ending Cash Balance		\$23,626	\$20,141	\$10,381	\$-52,270	\$-160,466	\$-177,028	\$-276,090	\$-257,075	\$-394,466	\$-414,096	\$84,660	\$583,417	\$583,416.53
e -														



#### Measures from the Cash-Flow Statement

The cash-flow statement provides information on a business's repayment capacity. Repayment capacity shows the borrower's (i.e. your) ability to repay debts on time. It includes non-farm income and as such is **not** a measure of business performance alone.

#### Recommended Repayment Capacity

Debt Coverage Ratio

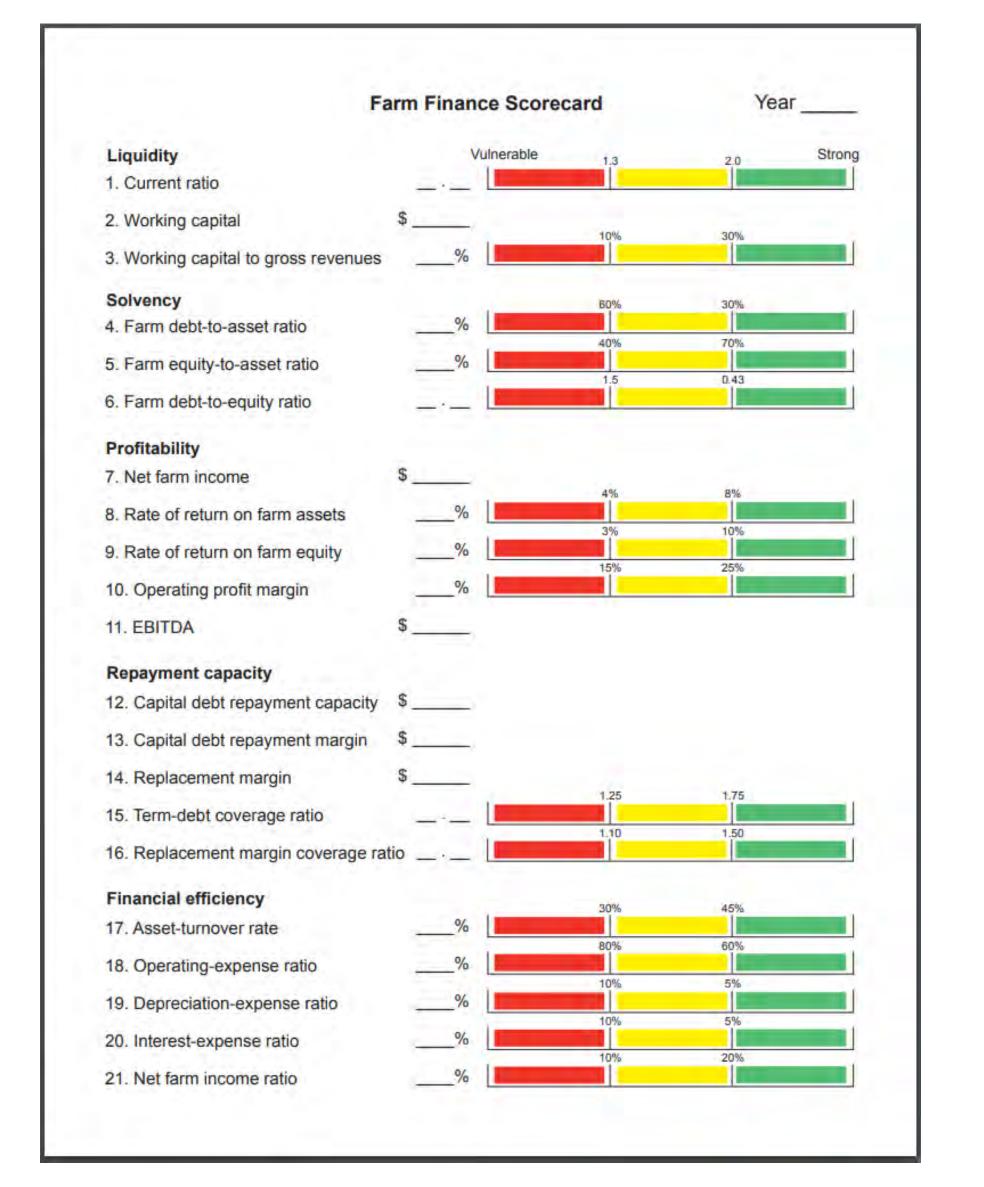
Indicates whether your business generated enough income to cover current interest expense and all intermediate and long-term debt payments.

Replacement Coverage Ratio

A ratio of less than 1.0 indicates that you did not generate enough income to cover debt payments and unfunded capital purchases.

Term Debt & Finance Lease Coverage Ratio\*

Indicates whether your business generated enough income to cover all intermediate and long-term debt payments. A ratio of less than 1.0 indicates the business had to liquidate inventories, run up open accounts, borrow additional funds, or sell assets to make scheduled payments.



#### Repayment Capacity\*\*

#### Debt Coverage Ratio

Repayment & Replacement Capacity

Total Debt Repayment

#### Replacement Coverage Ratio

Repayment & Replacement Capacity

[Total Debt Repayment (+) Unfunded Capital Expenditure]

#### Term Debt & Finance Lease Coverage Ratio

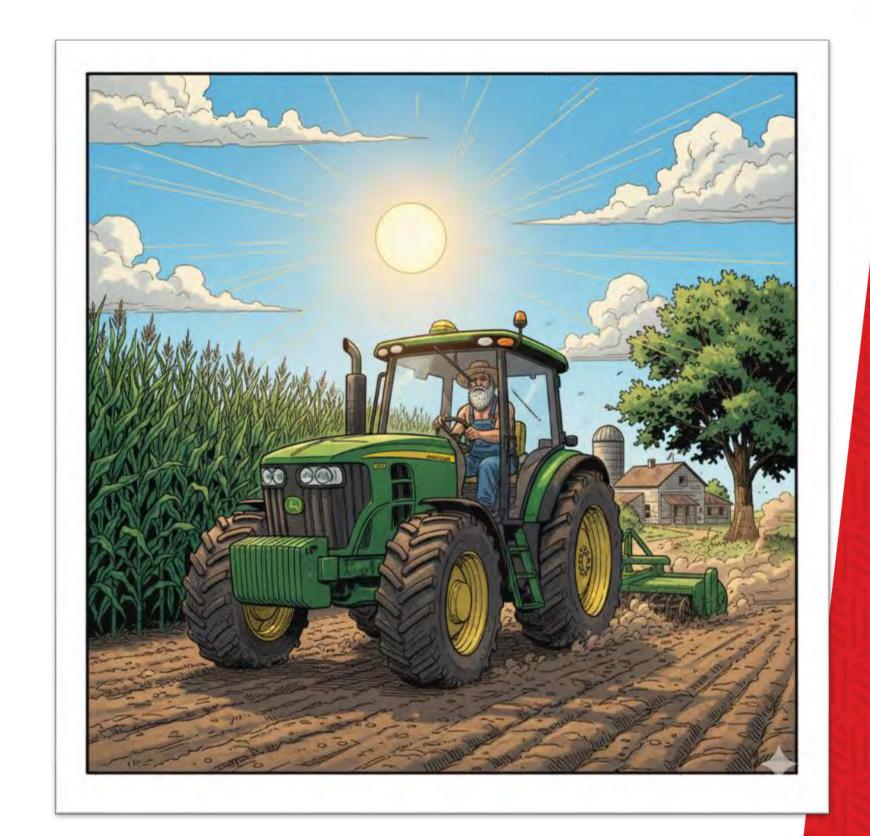
Term Debt Repayment & Replacement Capacity

Total Principle & Interest on Term Debt and Finance Leases



#### Decisions decisions

- Monitor and control cash out flows and inflows
- Help to plan for budgeting and cash needs
- Can help identify where ways to more efficiently time payments





### Questions?

- Shannon Sand
- Agricultural Economist
- ssand2@unl.edu
- 308-696-6733



#### References

- <a href="https://online.hbs.edu/blog/post/cash-flow-vs-profit">https://online.hbs.edu/blog/post/cash-flow-vs-profit</a>
- https://www.investopedia.com/terms/c/cashflow.asp
- <a href="https://farms.extension.wisc.edu/articles/cash-flow-budgeting/#:~:text=The%20cash%20flow%20budget%20does,income%20statement%20does%20not%20include">https://farms.extension.wisc.edu/articles/cash-flow-budgeting/#:~:text=The%20cash%20flow%20budget%20does,income%20statement%20does%20not%20include</a>.
- <a href="https://www.tcbk.com/business/agriculture/cash-flow#:~:text=By%20using%20the%20cash%20flow,to%20cover%20cash%20deficit%20periods.%22">https://www.tcbk.com/business/agriculture/cash-flow#:~:text=By%20using%20the%20cash%20flow,to%20cover%20cash%20deficit%20periods.%22</a>
- <a href="https://cropwatch.unl.edu/2018/cash-flow-budgeting-farms-and-ranches">https://cropwatch.unl.edu/2018/cash-flow-budgeting-farms-and-ranches</a>
- <a href="https://extension.okstate.edu/programs/farm-management-and-finance/e-farm-management-training/farm-ranch-balance-sheet-and-cash-flow-statement/">https://extension.okstate.edu/programs/farm-management-and-finance/e-farm-management-and-finance/e-farm-management-training/farm-ranch-balance-sheet-and-cash-flow-statement/</a>
- <a href="http://extension.msstate.edu/publications/farm-financial-analysis-series-cash-flow-statement#:~:text=The%20cash%20flow%20can%20be,be%20made%20during%20the%20year.">http://extension.msstate.edu/publications/farm-financial-analysis-series-cash-flow-statement#:~:text=The%20cash%20flow%20can%20be,be%20made%20during%20the%20year.</a>

