

AGRICULTURE & BUSINESS MANAGEMENT
COLORADO STATE UNIVERSITY EXTENSION



ABM Decision Tools for Financial Analysis

ABM Training for Extension Professionals
December 15 & 16, 2022

CSU Agriculture & Business Management Team
<https://ABM.extension.colostate.edu>



COLORADO STATE UNIVERSITY
EXTENSION

Utilizing Financial Statements

Balance Sheets
Cash Flow Statements
Income Statements

Brent Young | ABM Economist
ABM Training for Extension Professionals
December 15 & 16, 2022

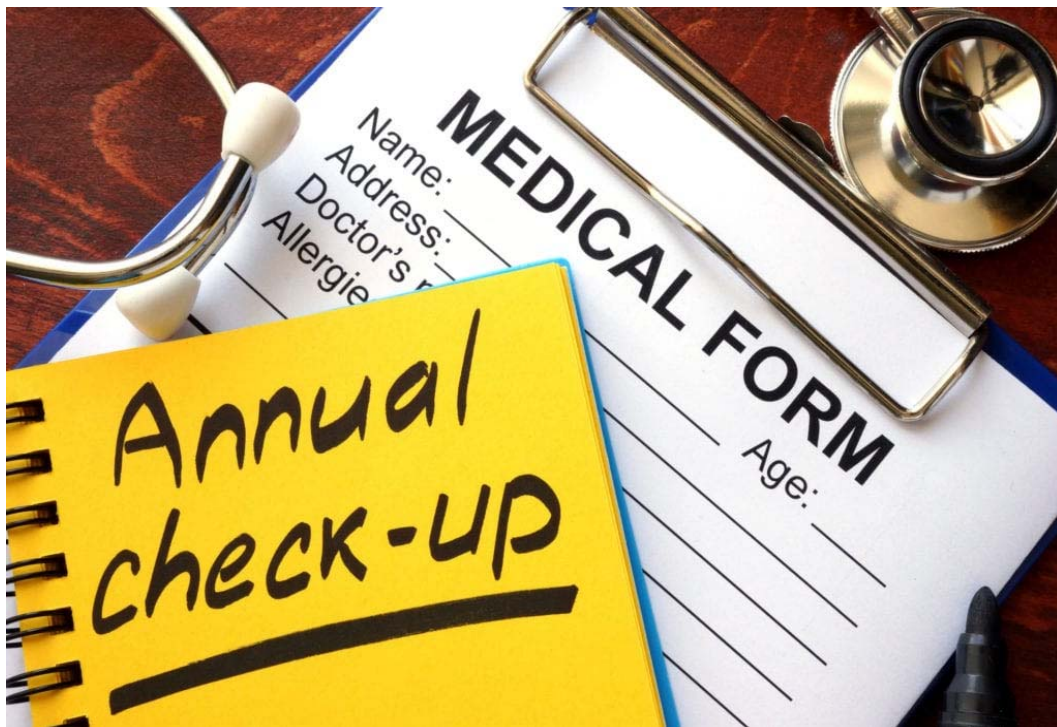


COLORADO STATE UNIVERSITY
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Balance Sheet

- ✓ A statement of the financial condition of a business or person at a specific point in time.
- ✓ Can provide a measure of business performance over a period of time.
- ✓ Assets – list of items owned.
- ✓ Liabilities – list of financial obligations.
- ✓ Net Worth – Portion of the value of the assets owned by the owner(s).

BALANCE SHEET ~ FARM/RANCH			
Farm/Ranch Name:		Noah's Ark Land and Cattle	Date:
Primary Contact:		Fred Flintstone	1/1/2024
CURRENT ASSETS		VALUE	CURRENT LIABILITIES
Farm/Ranch			Farm/Ranch
Cash & Savings	Schedule 1a	0	Operating Loan
Accounts Receivable	Schedule 2a	0	- Principal balance
Marketable Securities	Schedule 2a	0	- Interest due as of this date
Cash Value of Life Insurance	Schedule 4a2	0	Accounts Payable
Hedging Account Equity	Schedule 5a	0	Interest on Accounts Payable
Grain and Feed for Sale	Schedule 8a	0	Loans, 2-10 years
Grain and Feed for Use	Schedule 8a	0	- Principal due within 12 months
Supplies and Pre-Paid Expenses	Schedule 10a	0	- Interest owed as of this date
Investment in Growing Crops	Schedule 11a	0	Long-Term Debts & Mortgages
Market Livestock	Schedule 12a	0	- Principal due within 12 months
			- Interest owed as of this date
TOTAL VALUE OF CURRENT ASSETS		\$0	TOTAL CURRENT LIABILITIES
			\$0
INTERMEDIATE ASSETS		VALUE	INTERMEDIATE LIABILITIES
Farm/Ranch			Farm/Ranch
Breeding Livestock	Schedule 13a	0	Loans, 2-10 years
Machinery and Equipment	Schedule 15a	0	
Autos, Trucks, and Other Vehicles	Schedule 15a	0	
TOTAL VALUE OF INTERMEDIATE ASSETS		\$0	TOTAL INTERMEDIATE LIABILITIES
			\$0
LONG-TERM (NON-CURRENT) ASSETS		VALUE	LONG-TERM (NON-CURRENT) LIABILITIES
Farm/Ranch			Farm/Ranch - Principal Balances
Cash Value of Life Insurance	Schedule 16a	0	Long-Term Debts & Mortgages
Securities Not Readily Marketable	Schedule 16a	0	
Real Estate	Schedule 16a	0	
Other Assets	Schedule 17a	0	
TOTAL VALUE OF NON-CURRENT ASSETS		\$0	TOTAL NON-CURRENT LIABILITIES
			\$0
TOTAL VALUE OF ASSETS		\$0	TOTAL LIABILITIES
			\$0
			EQUITY or NET WORTH
			\$0
CURRENT RATIO		#DIV/0!	DEBT TO ASSET RATIO
WORKING CAPITAL		\$0	Debt TO EQUITY RATIO
			#DIV/0!



CSU's Balance Sheet



Completing a Balance Sheet, September 2020

By: Jeffrey E. Tranel, R. Brent Young, and Jenny Beiermann Agriculture and Business Management Economists

A balance sheet is a financial document listing all the assets and liabilities for a business or a person at a specific point in time. This Excel template allows a person to enter financial information for the farm or ranch business and personal (and non-farm/ranch business) financial information. The template will then generate three distinct balance sheets: one for the farm/ranch business, one for the

Input	Balance Sheet - Combined	Balance Sheet - FarmRanch	Balance Sheet - Personal	Schedule 1-2	Schedule 3-4	S
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CSU's Balance Sheet

As of what date are you completing the information?

1/1/2024

What is the farm/ranch's name?

Noah's Ark Land and Cattle

Under what type of legal entity does the farm/ranch operate?

Sub S - Subchapter S Corporation

If the farm/ranch operates under a legal structure other than a sole proprietorship, please list the names of all owners and their percentage of ownership or the number of shares owned. Enter the primary contact first.

Owner's Name	Ownership	
	Percent	Shares
Fred Flintstone	30.00%	
Wilma Flintstone	15.00%	
Barney Rubble	30.00%	
Betty Rubble	15.00%	
BamBam Rubble	5.00%	
Pebbles Flintstone-Rubble	5.00%	
Totals	100.00%	0

The personal information (assets and liabilities) is being entered for whom?

Fred & Wilma Flintstone



Input	Balance Sheet - Combined	Balance Sheet - FarmRanch	Balance Sheet - Personal	Schedule 1-2	Schedule 3-4	S
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CSU's Balance Sheet

BALANCE SHEET ~ COMBINED

Farm/Ranch Name: Noah's Ark Land and Cattle Date: 1/1/2024
 Primary Contact: Fred Flintstone Owner(s) of Personal Assets: Fred & Wilma Flintstone

CURRENT ASSETS		VALUE	CURRENT LIABILITIES		VALUE
Farm/Ranch					
Cash & Savings	Schedule 1a	0	Operating Loan		
Accounts Receivable	Schedule 3a	0	- Principal balance	Schedule 18a1	0
Marketable Securities	Schedule 3a	0	- Interest due as of this date	Schedule 18a2	0
Cash Value of Life Insurance	Schedule 4a2	0	Accounts Payable	Schedule 19a1	0
Other Assets		Schedule 17b	0		
TOTAL VALUE OF NON-CURRENT ASSETS		\$0	TOTAL NON-CURRENT LIABILITIES		\$0
TOTAL VALUE OF ASSETS		\$0	TOTAL LIABILITIES		\$0
			EQUITY or NET WORTH		\$0
CURRENT RATIO		#DIV/0!	DEBT TO ASSET RATIO		#DIV/0!
WORKING CAPITAL		\$0	Debt TO EQUITY RATIO		#DIV/0!
			- Principal due within 12 months		Schedule 21b2
			- Interest owed as of this date		Schedule 20b2
TOTAL VALUE OF CURRENT ASSETS		\$0	TOTAL CURRENT LIABILITIES		\$0

Input	Balance Sheet - Combined	Balance Sheet - FarmRanch	Balance Sheet - Personal	Schedule 1-2	Schedule 3-4	S
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CSU's Balance Sheet

Schedule 1-2

- 1a. Farm/Ranch Cash & Savings
- 1b. Personal Cash & Savings
- 2a. Farm/Ranch Accounts Receivable
- 2b. Personal Accounts Receivable

SCHEDULE 1a - FARM/RANCH CASH & SAVINGS			
	TYPE	BANK or INSTITUTION NAME	BALANCE
1			
2			
3			
4			
TOTAL			\$0

SCHEDULE 1b - PERSONAL CASH & SAVINGS			
	TYPE	BANK or INSTITUTION NAME	BALANCE
1			
2			
3			
4			
TOTAL			\$0

Farms/ranches and individuals often have checking and savings accounts. These "current assets" are liquid and can thus be used to purchase business related goods and services.

Schedule 1a: Enter the type, bank or institution where the money is held, and the balance as of the date of the balance sheet for each checking or savings account owned by the farm or ranch.

Schedule 1b: Enter the type, bank or institution where the money is held, and the balance as of the date of the balance sheet for each checking or savings account owned by the farm or ranch.

Input	Balance Sheet - Combined	Balance Sheet - FarmRanch	Balance Sheet - Personal	Schedule 1-2	Schedule 3-4	S
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CSU's Balance Sheet

- Schedule 1-2**
 - 1a. Farm/Ranch
 - 1b. Personal Ca
 - 2a. Farm/Ranch
 - 2b. Personal A
- Schedule 3-4**
 - 3a & 3b. Mark
 - 4a & 4b. Not F
- Schedule 5**
 - 5a & 5b. Hedg
- Schedule 6-7**
 - 6a & 6b. Life I
 - 7b. Retir

SCHEDULE 15a - FARM/RANCH MACHINERY & EQUIPMENT				
ITEM	DESCRIPTION (MAKE AND MODEL)	YEAR ACQUIRED	PERCENT OWNED	ESTIMATED MKT VALUE
1	Tractor			
2	Tractor			
3	Tractor			
4	Tractor			
5	ATV			
6	Combine			
7	Combine			
8	Platform			
9	Grain Head			

Schedule 15a
15a. Machinery and Equipment

What is a Statement of Cash Flows

- The cash flow statement summarizes the cash inflows (receipts) and outflows (expenditures) of a business over a specific time. The accounting period is usually one year divided into 12 monthly periods. The cash flow statement can be used in either of the following ways:
 - As a long-range projection or forecast of future operations (called pro forma or planning analysis).
 - As a historical (after the fact) record containing actual financial data.



CSU's Statement of Cash Flows



Financial Statements - Statement of Cash Flows, November 2020

By: Jeffrey E. Tranel, Jenny Beiermann, and R. Brent Young, Agriculture and Business Management Economists

A **Statement of Cash Flows** summarizes the cash inflows (receipts or income) and outflows (expenditures) of a business over a specific time period - typically monthly over one year. The statement is a projection of the amount and timing of cash expected to flow into and of the farm or ranch business during a future accounting period. It allows the manager or the lender to estimate the amount of cash and when that cash will be available (in the case of income) or needed (in the case of expenses).

A statement of cash flows is a useful management tool. The most important use is for planning. It provides an estimate of how the farm or ranch business will be operated for the next production year. It also establishes definite expectation that can be utilized as the framework for measuring or monitoring performance over the time period. Monitoring is particularly important if the cash flow statement is flowed closely. It allows the manager to identify potential cash flow problems. For example, if a rancher observes that veterinary expenses are exceeding the projected or anticipated amount, the manager can adjust cash outflows in other areas to keep within the budget.

This Excel template allows a person to enter financial information for the farm or ranch business and personal (and non-farm/ranch business) financial information. The user should first answer the questions shown below and then proceed to the cash flow statement by "clicking" on the tab found at the bottom of the screen. Data can be entered into any cell with blue colored numbers or a blank box. All other cells in the template have been locked.

Additional resources are available on CSU's Agriculture and Business Management web site: <https://abm.extension.colostate.edu>.

What is the name of the Farm/Ranch/Business?	<input type="text" value="Your Farm/Ranch Name"/>	What will be the beginning checking account balance?	<input type="text" value="\$0"/>
Under what type of legal entity does the farm/ranch operate?	<input type="text" value="Click on the icon to see a list of entity types."/>	What is the minimum amount desired in the checking account at the end of each month?	<input type="text" value="\$0"/>
Who is the primary contact for this farm or ranch?	<input type="text" value="Your Name"/>	What will be the interest rate for the operating loan?	<input type="text" value="0.000%"/>
For what year are the cash flows being projected?	<input type="text" value="2020"/>	What will be the operating loan balance at the beginning of the period [year]?	<input type="text" value="\$0"/>

Input Cash Flow Statement

CSU's Statement of Cash Flows

PROJECTED CASH FLOW STATEMENT - 2020 Your Farm/Ranch Name

	TOTAL	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
BEGINNING CASH BALANCE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OPERATING RECEIPTS													
Crops													
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Animals Raised													
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Animals Purchased for Resale													
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Income													
Custom Work	0	0	0	0	0	0	0	0	0	0	0	0	0
U.S.D.A Payments													
APC-CO, ARC-IC, PLC	0	0	0	0	0	0	0	0	0	0	0	0	0
EQIP, Etc.	0	0	0	0	0	0	0	0	0	0	0	0	0
Conservation (including CRP)	0	0	0	0	0	0	0	0	0	0	0	0	0
Animal Products (eggs, wool, honey, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0
Rents	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop Insurance Payments	0	0	0	0	0	0	0	0	0	0	0	0	0
Patronage Dividends	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Earned	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL OPERATING RECEIPTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CSU's Statements of Cash Flows

CAPITAL SALES

Land	0	0	0	0	0	0	0	0	0	0	0	0	0
Breeding Stock	0	0	0	0	0	0	0	0	0	0	0	0	0
Machinery	0	0	0	0	0	0	0	0	0	0	0	0	0
Other													
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

NON-FARM INCOME

Wages	0	0	0	0	0	0	0	0	0	0	0	0	0
Rents	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest & Dividends	0	0	0	0	0	0	0	0	0	0	0	0	0
Other													
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
<input type="text"/>	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

TOTAL CASH AVAILABLE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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CSU's Statements of Cash Flows

PROJECTED CASH FLOW STATEMENT - 2020
Your Farm/Ranch Name

	TOTAL	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
OPERATING EXPENSES													
Crops													
Seed	0	0	0	0	0	0	0	0	0	0	0	0	0
Herbicides	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Chemicals	0	0	0	0	0	0	0	0	0	0	0	0	0
Fertilizer	0	0	0	0	0	0	0	0	0	0	0	0	0
Irrigation Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
Irrigation - Assessments	0	0	0	0	0	0	0	0	0	0	0	0	0
Custom Work Hired	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop Consulting/Scouting	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance - Crop	0	0	0	0	0	0	0	0	0	0	0	0	0
Rent - Land	0	0	0	0	0	0	0	0	0	0	0	0	0
Rent - Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Livestock													
Feed - Hay	0	0	0	0	0	0	0	0	0	0	0	0	0
Feed - Protein, Salt, Minerals, Etc.	0	0	0	0	0	0	0	0	0	0	0	0	0
Rent - Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0
Rent - Animals	0	0	0	0	0	0	0	0	0	0	0	0	0
Vet & Medicine & A.I.	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Animals for Sale	0	0	0	0	0	0	0	0	0	0	0	0	0
Other													
Hedging	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel & Oil	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance - General	0	0	0	0	0	0	0	0	0	0	0	0	0
Repairs - Irrigation	0	0	0	0	0	0	0	0	0	0	0	0	0
Repairs - Mch. & Equip.	0	0	0	0	0	0	0	0	0	0	0	0	0
Repairs - Fencing & Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0
Labor - Wages	0	0	0	0	0	0	0	0	0	0	0	0	0
Labor - Benefits & Retirement	0	0	0	0	0	0	0	0	0	0	0	0	0
Labor - Workman's Comp	0	0	0	0	0	0	0	0	0	0	0	0	0
Labor - Travel	0	0	0	0	0	0	0	0	0	0	0	0	0
Freight/Trucking	0	0	0	0	0	0	0	0	0	0	0	0	0
Real Estate Taxes	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL OPERATING EXPENSES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CAPITAL PURCHASES													
Machinery & Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
Breeding Stock	0	0	0	0	0	0	0	0	0	0	0	0	0
Real Estate	0	0	0	0	0	0	0	0	0	0	0	0	0
Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CSU's Statements of Cash Flows

PROJECTED CASH FLOW STATEMENT - 2020
Your Farm/Ranch Name

	TOTAL	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SCHEDULED LOAN PAYMENTS													
Real Estate													
Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal	0	0	0	0	0	0	0	0	0	0	0	0	0
Machinery & Equipment													
Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal	0	0	0	0	0	0	0	0	0	0	0	0	0
Short-Term Debts													
Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Debt													
Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Debt													
Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal	0	0	0	0	0	0	0	0	0	0	0	0	0
Total - Interest	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - Principal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - P&I	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OTHER CASH OUTFLOWS													
Family Living	0	0	0	0	0	0	0	0	0	0	0	0	0
State Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	0
U.S. Income Tax & Social Security	0	0	0	0	0	0	0	0	0	0	0	0	0
Retirement Contributions	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL CASH OUTFLOWS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NET OF CASHFLOWS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

CSU's Statements of Cash Flows

SUMMARY OF CASH POSITION & OPERATING LOAN

Beginning Cash Balance	0	0	0	0	0	0	0	0	0	0	0	0	0
Net of Cashflows	0	0	0	0	0	0	0	0	0	0	0	0	0
Amount to be Borrowed	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Loan													
Beginning Operating Loan Balance	0	0	0	0	0	0	0	0	0	0	0	0	0
Amount Borrowed	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Accrued Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments													
Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Operating Loan Balance + Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Cash Balance	0	0	0	0	0	0	0	0	0	0	0	0	0

What is an Income Statement?

- An Income Statement:
 - Lists all sources of farm revenues
 - Describes the nature of farm expenses
 - Calculates Net Farm Income
- Multiple income statements can allow a farm manager to compare profitability to previous years and similar farm operations



Completing a Income Statement, November 2020

By: Jeffrey E. Tranel, Jenny Beiermann, and R. Brent Young, Agriculture and Business Management Economists

An income statement, also known as a profit and loss statement, measures the profitability of a business over a specific period of time. Because cash basis accounting, while allowing considerable flexibility, does not accurately reflect true net income and business performance, the income statement takes into account changes in inventories, accrued expenses, delayed revenues, and capital sales and purchases.

The income statement accounts for all outputs and inputs for the specified period - (1) receipts and expenses, regardless of cash basis or accrual basis; (2) changes in inventories; (3) changes in assets due to purchases and sales; (4) tax accrued; (5) family living expenses; and (6) adjustments in accounts payable and accounts receivable. The income statement measures true net farm income and returns to unpaid operator and family labor, return to operator's management and risk, and return to investment and owner's equity.

Complete the income statement by entering the requested data in the appropriate cell.

What is the beginning date of the period [i.e. year] for which you are completing this income statement?

What is the ending date of the period [i.e. year] for which you are completing this income statement?

What is the name of the farm/ranch or person for which this income statement is being completed?

Under what type of legal entity does this farm/ranch operate?

(click on the cell and then to select an entity from the dropdown list)

After entering the requested information, please proceed to each of the tab found at the bottom of the worksheet (i.e. "Cash Receipts") to enter specific data.

You will not enter data on the worksheet titled "Income Statement". It summarizes data entered on all other worksheets.

It is advised that you save a copy of the blank "decision tool" (Excel template) in order to avoid having to delete all entries when wanting to create a new income statement based on different information. Additionally, it is advised that you save a completed income statement as a separate file. This will allow you to edit any entries without having to re-enter all information.



INCOME STATEMENT

0

11/1/2021 - 12/31/2021

CASH FARM/RANCH RECEIPTS (INCOME)

Crop Sales	0
Market Livestock Sales	0
Breeding Livestock Sales	0
Government Payments	0
Custom Hire	0
Crop Insurance	0
Other Income	0
Costs of Goods Sold	0
A Total Cash Receipts (Income)	\$0

CASH FARM/RANCH EXPENSES

Car and Truck Expenses	0
Chemicals	0
Conservation Costs	0
Custom Hire	0
Employee Benefits	0
Feed	0
Fertilizer and Lime	0
Freight/Trucking	0
Gas, Fuel, and Oil	0
Insurance	0
Interest	0
Labor	0
Pension and Profit-sharing Plans	0
Rents/Lease Payments	0
Repairs and Maintenance	0
Seeds and Plants	0
Storage	0
Supplies	0
Taxes	0
Utilities	0
Veterinary, Breeding, and Medicine	0
Other	0
B TOTAL CASH EXPENSES	\$0

C Changes in Value of Inventories	0
D Depreciation	0
E Gains or Losses from Capital Sales	0
F Changes in Accounts Payable	0
G Changes in Accounts Receivable	0
H NET FARM INCOME (A - B + C - D + E + F + G)	\$0

Thank you



AGRICULTURE & BUSINESS MANAGEMENT
 COLORADO STATE UNIVERSITY EXTENSION

Financial Ratios

ABM Training for Extension Professionals
 December 15 & 16, 2022

*Jeffrey E. Tranel | ABM Economist
 jtranel@colostate.edu*



COLORADO STATE UNIVERSITY
 EXTENSION

Why do Financial Analysis?

- ❑ To measure and identify the financial strengths and weaknesses of a business.
- ❑ To provide an “early warning system” of developing financial problems.
- ❑ To make comparisons with previous years, other similar operations and “rule of thumb” benchmarks.
- ❑ To assist managers in decision-making.
- ❑ To help lenders and other creditors evaluate credit risk when acquiring a loan.

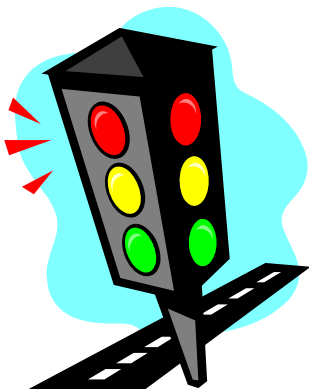


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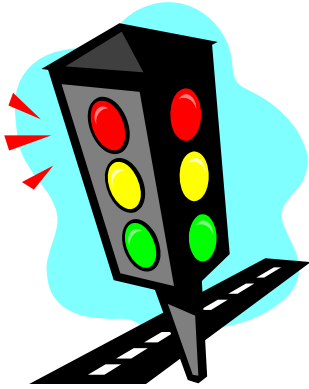


Benchmarks?



- Guidelines, general rules of thumb.
- Vary by industry, enterprises, risk preferences, age, etc.
- “Stop Light” Approach.
 - Green = financial strength + low risk
 - Yellow = moderate financial strength + moderate risk
 - Red = financial weakness + high risk
- Trends are better guide than single measure.

What to Measure?



1. Liquidity
2. Solvency
3. Profitability
4. Repayment Capacity
5. Financial Efficiency

"Understanding Your Financial Health Using Ratio Analysis"

Where is the Data?

Producer's Name	WYCO Cattle Company				
	Year 1	Year 2	Year 3	Year 4	Year 5
	2018	2019	2020	2021	2022
Balance Sheet Information					
Value of Current Assets	12,500	17,600	5,500	1,200	1,800
Value of Intermediate Assets	300,000	300,000	300,000	380,000	380,000
Value of Long-term Assets	1,280,000	1,280,000	1,280,000	1,280,000	1,280,000
Current Liabilities	25,000	30,000	30,000	40,000	36,000
Carry-over Operating Debt	0	0	65,000	0	0
Total Debt	600,000	590,000	575,000	610,000	591,000
Total Scheduled Debt Payments	20,000	20,000	20,000	28,000	28,000
Net Worth (Equity)	992,500	1,007,600	945,500	1,051,200	1,070,800
Income Statement Information					
Value of Production (Gross Farm Income)	160,000	180,000	105,000	200,000	198,000
Total Expenses	92,800	101,000	98,500	95,600	115,000
Value of Unpaid Family Labor	12,000	12,000	12,000	12,000	12,000
Interest Expense	4,600	5,000	7,800	8,500	8,350
Depreciation Expense	8,400	7,000	2,500	27,500	10,000
Capital Lease Payments	0	0	0	0	0
Other Information					
Income and Self-Employment Taxes	0	0	0	0	0
Non-farm Income Available to the Farm	0	0	0	0	0
Family Living Expenses	0	0	0	0	0

Where is the Data?

	2018	2019	2020	2021	2022
Liquidity Indicators					
Current Ratio	0.50	0.59	0.18	0.03	0.05
Working Capital	(\$12,500)	(\$12,400)	(\$24,500)	(\$38,800)	(\$34,200)
Intermediate Ratio					
Solvency Indicators					
Debt to Asset Ratio	46%	45%	45%	48%	46%
Equity to Asset Ratio	77%	78%	74%	82%	84%
Debt to Equity	60%	59%	61%	58%	55%
Profitability Indicators					
Rate of Return on Assets	5%	6%	0%	8%	6%
Rate of Return on Equity	6%	7%	-1%	9%	7%
Operating Profit Margin	37%	40%	2%	50%	40%
Financial Efficiency Indicators					
Asset Turnover Ratio	12%	14%	8%	16%	15%
Operating Expense Ratio	53%	52%	91%	34%	53%
Interest Expense Ratio	3%	3%	7%	4%	4%
Repayment Capacity Indicators					
Term Debt and Capital Lease Ratio	865%	935%	577%	843%	773%
Capital Debt Repayment Capacity	\$75,600	\$86,000	\$9,000	\$131,900	\$93,000

Financial Measure - Liquidity - Current Ratio

Liquidity measures the ability of a farm/ranch business to meet financial obligations as they come due in the ordinary course of business, without disrupting the normal operations of the business.

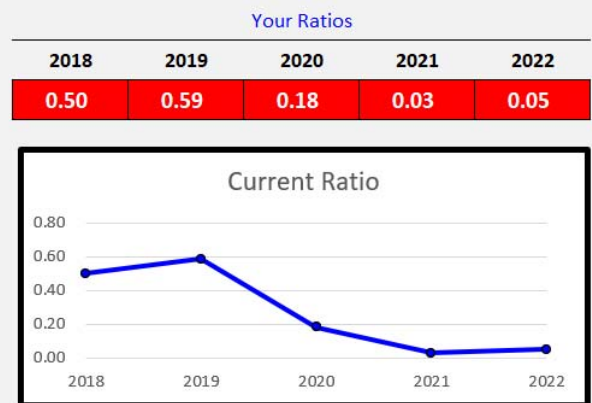
Current Ratio - an indicator of the extent to which current farm/ranch assets, if liquidated, would cover current farm/ranch liabilities. The higher the ratio, the greater the liquidity.

How to calculate? *Current Farm Assets / Current Farm Liabilities.*

What are the industry standards?

Green > 1.50	Yellow 1.00 - 1.50	Red < 1.00
------------------------	------------------------------	----------------------

Possible Actions for Improvement: Increase sales, decrease short term debt and other financial obligations, restructure debt to better reflect current assets, and evaluate a marketing plan to better time cash inflows and outflows.



Thank you



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AGRICULTURE & BUSINESS MANAGEMENT
COLORADO STATE UNIVERSITY EXTENSION

Developing Useful Budgets Cow-Calf Enterprise Budgeting Tool

Jenny Beiermann | ABM Economist

ABM Training for Extension Professionals



COLORADO STATE UNIVERSITY
EXTENSION

Enterprise Budgeting

- Most basic and important decision is choosing the combination of products or enterprises to produce
- Physical and financial plan for a specific crop or livestock enterprise
- Meant to be completed at the beginning of each year for you to budget your projected expenses based on your projected income
 - Similar to a SWOT analysis
- Yields, prices, and expenses entered should be what you expect under normal conditions

Enterprise Budgeting

- Enterprise budgets:
 - Comparing competing enterprise budgets side by side
 - Calculating returns above variable or total costs
 - Analyzing break-even price and yields
 - Comparison of production techniques
- Each budget should be developed on the basis of one small common unit
 - One acre of hay, corn, wheat, etc.
 - One head of livestock

Developing an Enterprise Budget

- Can be organized and presented in several different formats, but they typically contain four sections:
 1. Income/receipts
 2. Variable or operating expenses
 3. Fixed expenses
 4. Net Receipts

Step 1: Income/Receipts

- Estimate total production
 - Output or yield
- Estimate expected output price for selling your commodity
 - Be as realistic as possible

Step Two: Variable or Operating Expenses

- Estimate Variable costs
 - Anything that varies with the amount of product you produce
 - The out-of-pocket costs that must be incurred if the enterprise is produced or grown
 - Examples: hired labor, repairs, fuel, feed, supplies, veterinary medicine, etc.

Step 3: Fixed Expenses

- Assess fixed costs
 - Will occur and stay the same no matter how much you produce – even if you don't produce at all
 - Examples: depreciation, taxes, insurance, etc.
- Proration of these costs can be difficult
 - Especially when you have more than one crop or enterprise
 - Land charges are generally based on one of three acceptable methods:
 1. Interest opportunity based on current value of land
 2. Owner rental income
 3. Typical cash rent charge (market value)

Step Four: Net Receipts

- Calculating Net Receipts

Calculating Net Receipts

+ Income

- Variable or operating expenses


- Fixed expenses

+ / - Net Receipts

- Net receipts represent income which is left for the farmer/rancher and family to live on, pay debt, invest, or save


Break-Even Analysis


- Break-even occurs when total receipts equals total costs
- The point at which you have sold enough units to cover all your production costs
 - Both changes in prices and costs affect your break-even point
- Through a study of combinations of break-even prices/yields, a manager can form reasonable expectations of changes necessary to obtain a price and yield combination that will cover projected costs


 Break-even
Yield =

 Total Costs

  Total
Production

 Break-even
Price =

 Total Costs

  Sale Price

Limitations to Enterprise Budgets

- Biggest limitation to enterprise budgeting is lack of information
- Budgets deal with future actions
 - Can be difficult to make accurate estimates
- Estimates of prices, costs, yields may be imperfect
 - Decisions must be made on the best estimates available
 - The more you budget and sit down to analyze your business at the beginning of the year, the more accurate your budgets will become
- Failure to budget due to insufficient or imperfect data accomplishes nothing

ABM Team Enterprise Budgets

- The ABM Team develops budgets for major crop and livestock commodities grown in Colorado
- All templates can be adapted for your own operation
- <https://abm.extension.colostate.edu/enterprise-budgets/>



AGRICULTURE & BUSINESS MANAGEMENT
LIVESTOCK ENTERPRISE BUDGET
 COLORADO STATE UNIVERSITY EXTENSION

BEEF COW/CALF ENTERPRISE BUDGET

Estimated Costs and Returns

PRODUCTION ASSUMPTIONS

Exposed Females (Cows & Heifers)	350
Cows Per Bull	25
Cow Death Loss	3%
Cow Replacement Rate	12%
Bull Replacement Rate	25%
Weaned Calf Crop	91%
Percentage Steers	50%
Replacement Heifers Retained	15%

PRODUCTION SUMMARY

Total Calves Weaned (head)	318.5
Steers (head)	159
Total Heifers (head)	159.5
Heifers Retained (head)	52.5
Heifers Sold (head)	107
Yearling Heifers Sold (head)	0
Number of Bulls (head)	14

MANAGEMENT PRACTICES

1. Calves born March-May and weaned and sold October/November.
2. Feeding Period = 5 Months (Dec, Jan, Feb, Mar, Apr) / Grazing Period = 7 months
3. 1200 AUMs (400 cows, 3 months, \$4.58) of grazing on public lands

GROSS REVENUES FROM PRODUCTION

Animal Type	Head	Avg. Mkt Weight lbs	Net Sale Price \$/cwt	Value		
				Per Head \$/Hd	Total \$	Per Cow \$
Steers	159	650	1.85	12.03	1,912	5.46
Heifers	107	550	1.73	9.52	1,018	2.91
Yearling Heifers	0	800	145.00	1,160.00	-	-
Cull Cows	42	1,100	84.70	931.70	39,131	111.80
Cull Bulls	4	1,600	78.00	1,248.00	4,368	12.48
Other						
Total	311.5				\$46,429	\$132.66

PURCHASED FEED

Description	Unit	Lbs Per Day		Price		Cost	
		Per Cow	Days	Per Unit	Per Cow	Per Herd	
Alfalfa Hay	tons	20.00	150	100.00	150.00	52,500	
Grass Hay	tons	0.00	0	90.00	0.00	0	
Grain/Concentrates	lbs	0.00	0	0.00	0.00	0	
Protein Supplements	tons	1.60	90	250.00	18.00	6,300	
Salt/Mineral	tons	1.10	365	75.00	15.06	5,270	
Other Livestock Feed	dollars				0.00	0	
Subtotal of Livestock Feed		22.70			\$ 183.06	\$ 64,070	

PASTURE

Description	Unit	Quantity	Days	Price		Cost	
				Per Unit	Per Cow	Per Herd	
Pasture (owned)	head	400	210	2.00	84.00	29,400	
Pasture (leased)	head				0.00	0	
Pasture (public)	aums			13.74		4,809	
Other	head				0.00	0	
Subtotal of Livestock Feed					\$ 97.74	\$ 34,209	

LAND EXPENSES

Description	Unit	Quantity	Price		Cost	
			Per Unit	Per Cow	Per Herd	
Fert. & Chem.	acre	150	9.00	3.86	1,350	
Irrigation Supplies	dollars			0.00	0	
M&R Land and Bldgs.	dollars	2,200	1.00	6.29	2,200	
Insur. (Bld, Mach., Lvst.	dollars	4,923	1.00	14.07	4,923	
Other	dollars	0	1.00	0.00	0	
Subtotal of Land				\$ 24.21	\$ 8,473	

LIVESTOCK MEDICAL & BREEDING EXPENSES

Description	Unit	Quantity	Price		Cost	
			Per Unit	Per Cow	Per Herd	
Calf Vaccines	calves	350	7.50	7.50	2,625	
Breeding Vaccines	cows	350	3.60	3.60	1,260	
Other Vaccines				0.00	0	
Pregnancy Test	cows	350	2.50	2.50	875	
Bull Fertility Test	bulls	14	30.00	1.20	420	
Medical Supplies				0.00	0	
Other				0.00	0	
Subtotal of Livestock Medical and Breeding				\$ 14.80	\$ 5,180	

LIVESTOCK SUPPLIES

Description	Unit	Quantity	Price		Cost	
			Per Unit	Per Cow	Per Herd	
Feeding Supplies	each	350	3.24	3.24	1,134	
Tack				0.00	0	
Ear Tags	each	350	3.24	3.24	1,134	
Other				0.00	0	
Subtotal of Livestock Supplies				\$ 6.48	\$ 2,268	

MARKETING

Description	Unit	Quantity	Price		Cost	
			Per Unit	Per Cow	Per Herd	
Freight and Trucking	miles	320	4.50	4.11	1,440	
Selling Comm/Yardage	dollars	46,429	2.00%	2.65	929	
Brand Inspection	head	312	1.35	1.20	421	
Health Inspection	head	312	0.30	0.27	93	
Lodging/Meals Etc.				0.00	0	
Hedging Expense				0.00	0	
Other				0.00	0	
Subtotal of Marketing				\$ 8.24	\$ 2,883	

Machinery & Equipment

Description	Cost	
	Per Cow	Per Herd
Fuel and Lubrication	5.00	2,000
Maint. and Repairs	0.00	0
Equipment Leases	0.00	0
Machine Hire	0.00	0
Other	0.00	0
Subtotal of Machinery and Equipment	\$ 5.00	\$ 2,000

LABOR

Description	Unit	Quantity	Cost	
			Per Cow	Per Herd
Wages			0.00	0
FICA	8.00%		0.00	0
Employee Benefits			0.00	0
Contract Labor			0.00	0
Professional Fees			0.00	0
Workman's Comp			0.00	0
Other			0.00	0
Subtotal of Labor			\$ -	\$ -

INTEREST

Description	Principal	Term (years)	Rate	Cost	
				Per Cow	Per Herd
Operating Borrowings	134,392	0.50	5.00%	8.40	3,360
Non-Real Estate				0.00	0
Real Estate				0.00	0
Other Interest				0.00	0
Subtotal of Interest				\$ 8.40	\$ 3,360

NON-CASH EXPENSES

Description	Unit	Quantity	Cost	
			Per Cow	Per Herd
Depreciation - Bldg & Equip			15.00	6,000
Depreciation - Bulls			6.25	2,500
Depreciation - Other			0.00	0
Subtotal of Labor			\$ 21.25	\$ 8,500

GROSS REVENUES FROM PRODUCTION						
Animal Type	Head	Avg. Mkt Weight lbs	Net Sale Price \$/Cwt	Value		
				Per Head \$/Hd	Total \$	Per Cow \$
Steers	182	650	1.85	12.03	2,189	5.47
Heifers	122	550	1.73	9.52	1,161	2.90
Yearling Heifers	0	800	145.00	1,160.00	-	-
Cull Cows	48	1,100	84.70	931.70	44,722	111.80
Cull Bulls	4	1,600	78.00	1,248.00	4,992	12.48
Other					-	-
Total	356				\$53,063	\$132.66

DIRECT CASH OPERATING EXPENSES		
	Total	Per Cow
Purchased Feed and Pasture	112,319	280.80
Land	8,473	21.18
Livestock Medical and Breeding	5,920	14.80
Livestock Supplies	2,592	6.48
Marketing	3,089	7.72
Machinery and Equipment	2,000	5.00
Labor	0	0.00
Interest	3,360	8.40
Total Direct Cash Operating Expenses	\$137,752	\$344.38

NET RECEIPTS		
	Total	Per Cow
Gross Revenues	53,063	132.66
Total Direct Cash Operating Expenses	137,752	344.38
Non-Cash Expenses	8,500	21.25
Net Receipts	(\$93,189)	(\$232.97)

BEEF COW/CALF ENTERPRISE BUDGET

0

Estimated Costs and Returns

	Per Cow	Per Herd
GROSS REVENUES FROM PRODUCTION	\$132.66	\$53,063
TOTAL EXPENSES (cash and non-cash)	\$344.38	\$137,752
NET RECEIPTS FROM PRODUCTION (PROFIT / LOSS)	(\$211.72)	(\$84,689)

BREAK-EVEN PRICES FOR CALVES

Weaning Percent	Weaning Weight	Annual Cow Carrying Costs						
		350	400	450	500	600	700	344
75%	400	1.17	1.33	1.50	1.67	2.00	2.33	1.15
	500	0.93	1.07	1.20	1.33	1.60	1.87	0.92
	600	0.78	0.89	1.00	1.11	1.33	1.56	0.77
80%	400	1.09	1.25	1.41	1.56	1.88	2.19	1.08
	500	0.88	1.00	1.13	1.25	1.50	1.75	0.86
	600	0.73	0.83	0.94	1.04	1.25	1.46	0.72
85%	400	1.03	1.18	1.32	1.47	1.76	2.06	1.01
	500	0.82	0.94	1.06	1.18	1.41	1.65	0.81
	600	0.69	0.78	0.88	0.98	1.18	1.37	0.68
90%	400	0.97	1.11	1.25	1.39	1.67	1.94	0.96
	500	0.78	0.89	1.00	1.11	1.33	1.56	0.77
	600	0.65	0.74	0.83	0.93	1.11	1.30	0.64
95%	400	0.92	1.05	1.18	1.32	1.58	1.84	0.91
	500	0.74	0.84	0.95	1.05	1.26	1.47	0.73
	600	0.61	0.70	0.79	0.88	1.05	1.23	0.60

Calculation: Annual Cow Costs divided by Weaning Weight divided by Weaning Percent (as a decimal).

Thank you

