

Unit B: Understanding the Purpose of Record Keeping for Agribusinesses



Lesson 3: Understanding Balance Sheets, Cash Flow, and Income Statements

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Understanding the Balance Sheet

- A **balance sheet** is a financial statement that summarizes the assets, liabilities, and net worth of a business.
 - A properly prepared balance sheet will identify what a business owns and owes and its net worth on any specific date.
 - The balance sheet should be prepared using the inventory record sheet and other necessary information.



Understanding the Balance Sheet

- **Assets** are items owned by the business and have value. The main categories on the asset side of a balance sheet include the amount of current assets and long-term assets.
 - **Current assets** are those items owned that will be used up or sold within one year.
 - Cash is the amount of money that the business has available to spend immediately.
 - **Accounts receivable** are money claims due to the business by others.
 - **Inventory** is the merchandise held for sale and the materials used in the process of production.

Balance Sheet			
John Doe Apple Orchard			
Date _____			
Assets		Liabilities	
Current Assets		Current Liabilities	
Cash		Accounts Payable	
Accounts Receivable		Loan Payments	
Inventory		Rent Payments	
Total Current Assets	_____ (1)	Total Current Liabilities	_____ (4)
Long-Term Assets		Long-Term Liabilities	
Machinery and Equipment		Mortgage	
Animals for Breeding		Loans	
Land owned			
Buildings owned			
Total Long-Term Assets	_____ (2)	Total Long-Term Liabilities	_____ (5)
Total Assets (add lines 1-2)	_____ (3)	Total Liabilities (add lines 3-4)	_____ (6)
		Net Worth (3 minus 6)	_____

Understanding the Balance Sheet

- **Long-term assets** are those items with useful lives of greater than one year.
 - These assets are the capital items that a business owns.
 - Long-term assets include: machinery or equipment, animals kept for breeding, buildings owned, and land owned by the business.
- Total assets are the sum of current and long-term assets of a business.

Balance Sheet			
John Doe Apple Orchard			
Date _____			
Assets		Liabilities	
Current Assets		Current Liabilities	
Cash		Accounts Payable	
Accounts Receivable		Loan Payments	
Inventory		Rent Payments	
Total Current Assets	_____ (1)	Total Current Liabilities	_____ (4)
Long-Term Assets		Long-Term Liabilities	
Machinery and Equipment		Mortgage	
Animals for Breeding		Loans	
Land owned			
Buildings owned			
Total Long-Term Assets	_____ (2)	Total Long-Term Liabilities	_____ (5)
Total Assets (add lines 1-2)	_____ (3)	Total Liabilities (add lines 3-4)	_____ (6)
		Net Worth (3 minus 6)	_____

Understanding the Balance Sheet

- **Liabilities** are debt obligations, or money to be repaid after borrowing it from another person or organization. There are three categories on the liability side of the financial statement. They are current liabilities, long-term liabilities, and total liabilities.
 - **Current liabilities** are those liabilities due within a one-year period.
 - **Accounts payable** are money owed to others by the business.
 - Loans listed under current liabilities are loan payments due within one year
 - Rent payments are money owed for using land, buildings, or other items that are owned by another business or individual.

Balance Sheet			
John Doe Apple Orchard			
Date _____			
Assets		Liabilities	
Current Assets		Current Liabilities	
Cash		Accounts Payable	
Accounts Receivable		Loan Payments	
Inventory		Rent Payments	
Total Current Assets	_____ (1)	Total Current Liabilities	_____ (4)
Long-Term Assets		Long-Term Liabilities	
Machinery and Equipment		Mortgage	
Animals for Breeding		Loans	
Land owned			
Buildings owned			
Total Long-Term Assets	_____ (2)	Total Long-Term Liabilities	_____ (5)
Total Assets (add lines 1-2)	_____ (3)	Total Liabilities (add lines 3-4)	_____ (6)
		Net Worth (3 minus 6)	_____

Understanding the Balance Sheet

- **Long-term liabilities** include bonds, secured and unsecured long-term notes, and debentures.
 - A **debenture** is a voucher or certificate that acknowledges a debt owed by the signer.
- Total liabilities are the sum of the current and long-term liabilities of a business.

Balance Sheet			
John Doe Apple Orchard			
Date _____			
Assets		Liabilities	
Current Assets		Current Liabilities	
Cash		Accounts Payable	
Accounts Receivable		Loan Payments	
Inventory		Rent Payments	
Total Current Assets	_____ (1)	Total Current Liabilities	_____ (4)
Long-Term Assets		Long-Term Liabilities	
Machinery and Equipment		Mortgage	
Animals for Breeding		Loans	
Land owned			
Buildings owned			
Total Long-Term Assets	_____ (2)	Total Long-Term Liabilities	_____ (5)
Total Assets (add lines 1-2)	_____ (3)	Total Liabilities (add lines 3-4)	_____ (6)
		Net Worth (3 minus 6)	_____

Understanding the Balance Sheet

- Net worth equals total assets minus total liabilities.
- The balance sheet shows the financial health of a business at a given point in time. This financial statement determines the ability for a business to pay all debts by selling all assets.

Balance Sheet			
John Doe Apple Orchard			
Date _____			
Assets		Liabilities	
Current Assets		Current Liabilities	
Cash		Accounts Payable	
Accounts Receivable		Loan Payments	
Inventory		Rent Payments	
Total Current Assets _____		Total Current Liabilities _____	
Long-Term Assets		Long-Term Liabilities	
Machinery and Equipment		Mortgage	
Animals for Breeding		Loans	
Land owned			
Buildings owned			
Total Long-Term Assets _____		Total Long-Term Liabilities _____	
Total Assets (add lines 1-2) _____		Total Liabilities (add lines 3-4) _____	
		Net Worth (3 minus 6) _____	

Understanding the Income Statement

- A ***income statement*** is a statement detailing the profits and losses of a business over a given period of time, such as monthly, quarterly, or yearly.
 - An income statement can also be called a profit and loss statement.
 - There are three main sections of a income statement: revenue, expenses, and non-business income.
 - The income statement should be prepared using the basic financial records (expense and income record sheets.)

Understanding the Income Statement

- **Revenue** is cash receipts from services performed or products sold during the time period shown on the income statement.
 - Commodities sold are the agribusiness products sold.
 - **Custom work** is any service or work completed for another individual or business in exchange for payment

Income Statement	
John Doe Apple Orchard	
From Date _____	To Date _____
Revenue	
Cash	
Commodities sold:.....\$	(1)
Custom work:.....\$	(2)
Exchange	
Commodities sold:.....\$	(3)
Custom work:.....\$	(4)
Change in inventory.....(+/-)	(5)
Value of agribusiness production (Add lines 1-5).....\$	
	(a)
Expenses	
Cash	
Operating expenses.....\$	(6)
Exchange	
Operating expenses.....\$	(7)
Total operating expenses (Add lines 6-7).....\$	
	(b)
NET AGRIBUSINESS INCOME (a minus b).....\$	
	(c)
Non-Business Income	
Wages from non-business activities.....\$	(8)
NET NON-BUSINESS INCOME (Transfer line 8).....\$	
	(d)
NET INCOME (Add lines a-d).....\$	

Understanding the Income Statement

- The change in inventory must be included in the income statement. The change in inventory equals the total value of inventory on the first day of the time period minus the total value of inventory on the last day of the time period.
 - When recording this change in inventory, be sure to record a positive or negative sign so that the calculation in the total value of agribusiness production is accurate.

Income Statement	
John Doe Apple Orchard	
From Date _____	To Date _____
Revenue	
Cash	
Commodities sold:.....\$	(1)
Custom work:.....\$	(2)
Exchange	
Commodities sold:.....\$	(3)
Custom work:.....\$	(4)
Change in inventory.....(+/-)	(5)
Value of agribusiness production (Add lines 1-5).....\$	
	(a)
Expenses	
Cash	
Operating expenses.....\$	(6)
Exchange	
Operating expenses.....\$	(7)
Total operating expenses (Add lines 6-7).....\$	
	(b)
NET AGRIBUSINESS INCOME (a minus b).....\$	
	(c)
Non-Business Income	
Wages from non-business activities.....\$	(8)
NET NON-BUSINESS INCOME (Transfer line 8).....\$	
	(d)
NET INCOME (Add lines a-d).....\$	

Understanding the Income Statement

- Expenses are the costs related to producing a good or service.
 - **Operating expenses** are any regular expenses incurred for the activities of the business.

Income Statement	
John Doe Apple Orchard	
From Date	To Date
Revenue	
Cash	
Commodities sold:.....\$	(1)
Custom work:.....\$	(2)
Exchange	
Commodities sold:.....\$	(3)
Custom work:.....\$	(4)
Change in inventory.....(+/-)	(5)
Value of agribusiness production (Add lines 1-5).....\$	(a)
Expenses	
Cash	
Operating expenses.....\$	(6)
Exchange	
Operating expenses.....\$	(7)
Total operating expenses (Add lines 6-7).....\$	(b)
NET AGRIBUSINESS INCOME (a minus b).....\$	(c)
Non-Business Income	
Wages from non-business activities.....\$	(8)
NET NON-BUSINESS INCOME (Transfer line 8).....\$	(d)
NET INCOME (Add lines a-d).....\$	

Understanding the Income Statement

- Included in the income statement is any non-business income earned by the business owner. This is useful when calculating a family's net income, but should not be used when calculating the net income of the agribusiness.
- **Net income** is revenue minus expenditures.

Income Statement	
John Doe Apple Orchard	
From Date	To Date
Revenue	
Cash	
Commodities sold.....\$	(1)
Custom work:.....\$	(2)
Exchange	
Commodities sold.....\$	(3)
Custom work:.....\$	(4)
Change in inventory.....(+/-)	(5)
Value of agribusiness production (Add lines 1-5).....\$	(a)
Expenses	
Cash	
Operating expenses.....\$	(6)
Exchange	
Operating expenses.....\$	(7)
Total operating expenses (Add lines 6-7).....\$	(b)
NET AGRIBUSINESS INCOME (a minus b).....\$	(c)
Non-Business Income	
Wages from non-business activities.....\$	(8)
NET NON-BUSINESS INCOME (Transfer line 8).....\$	(d)
NET INCOME (Add lines a-d).....\$	

Understanding Cash Flow Statements

- Cash flow statements are also used to help businesses analyze their financial standing. A **cash flow statement** indicates the amount of income and cash expenses for a business in a given period of time.
 - An accurate cash flow statement enables a business to manage expenses more effectively.
 - The cash flow statement should be prepared using the basic financial records (expense and income record sheets.)
- Cash flow statements may be used in two ways: as a record of the past, also called actual cash flow, or a projection for the future.
 - It is important to indicate on the cash flow statement if it is an actual or projected cash flow.

Understanding Cash Flow Statements

- The income and expenses should be recorded for each month under the appropriate column. Because information is recorded in this manner, it is easy to see when funds will be needed.
 - An operating loan may be obtained to manage expenses when funds are needed. **Operating loans** are those that are borrowed and repaid within one year.
 - The agribusiness owner may also consider making modifications to the business transactions such as storing some commodities to sell at a later time or waiting to purchase items until the following year.
 - Another option that may be considered is adding another enterprise to bring in income when needed.
 - Many factors need to be considered before this option is selected because not only will another enterprise bring in more income, but it will incur more expenses as well.

Understanding Cash Flow Statements

- Previous cash balance must be listed in the first row of the cash flow statement. This is the amount of money that the business has
- Operating income is any income from the production or services provided by the agribusiness.
- Capital income is any income from the sale of a capital items.
 - Livestock for breeding or equipment are examples of capital items that may be sold.
- Total Cash Available is the sum of operating and capital income.

Cash Flow Statement												
John Doe Apple Orchard												
Projected or Actual												
Date From						Date To						
	January	February	March	April	May	June	July	August	September	October	November	December
Previous cash balance												
Operating Income:												
Capital Income:												
TOTAL CASH AVAILABLE												
Operating Expenses:												
Capital Expenses:												
TOTAL CASH REQUIRED												
CASH AVAILABLE LESS REQUIRED												

Understanding Cash Flow Statements

- Operating Expenses are regular expenses incurred from the production of goods or rendering of services.
- Capital Expenses are monies paid for capital items that are purchased for the business.
- Total Cash Required is the sum of operating expenses and capital expenses.

Cash Flow Statement												
John Doe Apple Orchard												
Projected or Actual												
Date From						Date To						
	January	February	March	April	May	June	July	August	September	October	November	December
Previous cash balance												
Operating Income:												
Capital Income:												
TOTAL CASH AVAILABLE												
Operating Expenses:												
Capital Expenses:												
TOTAL CASH REQUIRED												
CASH AVAILABLE LESS REQUIRED												

Understanding Cash Flow Statements

- Cash Available Less Required is total cash available minus total cash required.
 - This is the money remaining after the given time period.

Cash Flow Statement												
John Doe Apple Orchard												
Projected or Actual												
	Date From					Date To						
	January	February	March	April	May	June	July	August	September	October	November	December
Previous cash balance												
Operating Income:												
Capital Income:												
TOTAL CASH AVAILABLE												
Operating Expenses:												
Capital Expenses:												
TOTAL CASH REQUIRED												
CASH AVAILABLE LESS REQUIRED												

Examining the health of an agribusiness

- The balance sheet, income statement, and cash flow statement are related and indicate the health of the business.
- The health of a business is determined by the business's ***feasibility, risk, and profitability.***

Feasibility

- Feasibility is how well the business can complete a plan successfully.
- This is measured by determining the *liquidity*.

Feasibility

- Liquidity is the ability to pay bills and debts as they become due without disrupting normal business activities.
- Liquidity is measured in three ways: ***working capital, current ratio, and cash flow coverage ratio.***

Liquidity

- Working capital measures whether current assets are greater than current liabilities.
 - The balance sheet helps determine working capital. Working capital is measured by current assets minus current liabilities.
 - The higher the value of working capital, the greater liquidity a business has. Adequate working capital varies from one business to another business depending on the size and needs of the business.

Liquidity

- The current ratio shows how well the current assets would cover current liabilities if the current assets need to be sold to pay current debts.
 - The balance sheet helps determine the current ratio. The current ratio is current assets divided by current liabilities
 - An acceptable current ratio is 1. A current ratio of 1.5 would allow a business to withstand major price changes or catastrophes. The higher the ratio, the more liquid the business.

Liquidity

- The cash flow coverage ratio looks closely at the major categories that affect cash flow.
 - The actual cash flow statement helps determine the cash flow coverage ratio. The cash flow coverage ratio is beginning cash plus all cash received from operations divided by all cash paid for operations and all liability payments.
 - Like working capital and the current ratio, the higher the value or ratio, the more liquid the business.

Risk

- When operating a business, risk is always present.
 - This risk includes not earning a profit as well as a plan not being able to be completed as anticipated.
 - Risk is determined by considering the ***solvency*** of a business.

Risk



- Solvency measures total assets as compared to total liabilities.
- Solvency is measured in three ways: ***debt-to-asset ratio, equity-to-asset ratio, and debt-to-equity ratio.***

Solvency

- The debt-to-asset ratio measures the value of the assets owed to money lenders if assets needed to be sold to repay these debts.
 - The balance sheet helps determine the debt-to-asset ratio. The debt-to-asset ratio is total liabilities divided by total assets.
 - The lower the ratio, the more risk the business will endure.

Solvency

- The equity-to-asset ratio measures the proportion of the total assets paid for by the business.
 - The balance sheet helps determine the equity-to-asset ratio. The equity-to-asset ratio is total owner's equity (net worth) divided by total assets.
 - The higher the ratio, the more risk the business will endure.

Solvency

- The debt-to-equity ratio compares the debt to equity instead of assets.
 - The balance sheet helps determine the debt-to-equity ratio. The debt-to-equity ratio is total liabilities divided by total owner's equity.
 - The lower the ratio, the more risk the business will endure.

Profitability

- The profitability of a business is essential for its survival. Profitability is how much money a business earns after expenses.
- Profitability is measured in three ways: ***return on assets, return on equity, and operating profit margin ratio.***

Profitability

- The return on assets measures how fast money is made in comparison to the assets of a business.
 - The income statement helps determine the return on assets. The return on assets is the net income from the business minus any unpaid labor to the business owner divided by the total assets.
 - The higher the ratio, the more profitable the business.

Profitability

- The return on equity measures how fast money is made in comparison to the owner's equity of a business.
 - The income statement helps determine the return on equity. The return on equity is the net income from the business minus any unpaid labor to the business owner divided by the total owner's equity.
 - The higher the ratio, the more profitable the business.

Profitability

- The operating profit margin ratio measures the money returned to capital per dollar of gross revenue earned.
 - The income statement helps determine the operating profit margin ratio. The operating profit margin ratio is the net income from the business minus any unpaid labor to the business owner divided by the value of agribusiness production.
 - The higher the ratio, the more profitable the business.

Review

- What is a balance sheet and how is it used?
- What is an income statement and how is it used?
- What is a cash flow statement and how is it used?
- How is the health of an agribusiness determined using financial statements?