

# **Module 4**

## **Preparing Agricultural Financial Statements: The Balance Sheet**

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## **Learning Objectives**

The learning objectives for this module are for participants to:

- Know how farm balance sheets are developed and constructed for financing and business analysis purposes
- Understand the various components of the asset and liability classifications and how they are calculated
- Learn about leases and deferred taxes, and recognize how they can impact equity and financial management
- Be able to complete both business and personal balance sheets

## Module 4: Preparing Agricultural Financial Statements: The Balance Sheet

### Introduction

Now we will get into the tough part of our journey. You will need to focus because the road you travel when preparing financial statements is full of potholes and detours, so the journey is often dreaded by farmers and ranchers. Let's motor into a seminar in the back of Dave's Diner for an intense but necessary trip through financial statements. While this module will be concise in text it should challenge you with its exercises and applications.

Having a thorough understanding your business' financial performance is critical for success in today's increasingly competitive agricultural environment. Complete and accurate records and financial statements are the foundation materials required to analyze the financial condition and trends of your operation. All agricultural businesses, from small part-time farms to large commercial operations, require financial statements completed on a regular basis to track and assess financial progress, net worth growth, liquidity, profits, cash flow, and financial efficiency.

Financial statements include the balance sheet, income statement, statement of owner equity, statement of cash flows, and cash flow projections. Our discussion will focus on the three most commonly used financial statements: the balance sheet, income statement and cash flow projection. In this module, we will only cover the balance sheet.

#### **ROADSIDE CHAT #1: Is it really that important to understand and know how to prepare financial statements?**

Dr. Alex White and I were team teaching a class at Virginia Tech for agricultural technology students involved with production agriculture. Not highly motivated and engaged concerning financial statements, one student challenged us stating, "I will have my accountant do my financial statements. This is useless." Others agreed and supported his thinking.

Our response was if he wanted to pay higher interest rates, not survive an IRS audit, and didn't care about financial performance of the business, that was okay. He and his buddies were put in a team for the final class project, and we named them the F-troop! Their performance and grades were soon representative of their name. In real life, the team leader later filed bankruptcy and one team member served a prison sentence related to unethical business practices.

### Balance Sheet Considerations

The ownership structure of agricultural businesses is becoming increasingly complex. The traditional sole proprietorship is no longer the norm in agriculture. Combinations of partnerships, corporations, and limited liability companies (LLCs) are quickly emerging with one entity holding operating assets and another entity controlling the capital assets. It is essential to identify the entity for which the balance sheet is being prepared, such as business, personal, or a consolidation of both. Most lenders are interested in seeing separate and accurate balance sheets for each business entity, as well as a separate personal balance sheet. Providing your lender separate balance sheets for each entity will help your lender understand the makeup of your financial situation.

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### Timing

Financial statements are interrelated; therefore, proper timing of the statements is important to gain the most benefit. For analysis purposes, the timing of the balance sheet is important. Balance sheets are most useful when they consistently coincide with the timing of the income statement, usually at fiscal year-end, which is typically the end of the income period. The accrual adjusted income statement (discussed in the next module) utilizes data from the beginning and the end-of-year balance sheets, including changes in certain balance sheet accounts such as inventories, to reflect true profits.

### Balance Sheet

The balance sheet is a statement of financial position at a specific point in time. It can be thought of as a financial snapshot of a business. The balance sheet reflects the results of all past transactions; however, it does not reflect how the current financial position was obtained. A balance sheet consists of three main parts: assets, liabilities and owner equity.

The basis for the balance sheet is the fundamental accounting equation:

#### **Assets = Liabilities + Owner Equity**

This equation shows that the total assets of a business belong partially to claimholders and partially to the owners.

Refer to Exhibit 1 for a sample balance sheet. It can be intimidating if you are observing for the first time, but we will walk you through each component and section so you will have a better understanding when we finish.

## Module 4: Preparing Agricultural Financial Statements: The Balance Sheet

### Exhibit 1:

#### Balance Sheet - Beginning of Year

ASSETS			LIABILITIES		
	Cost	Market Value		Cost	Market Value
<b>CURRENT ASSETS</b>			<b>CURRENT LIABILITIES</b>		
Cash	\$ 6,750	6,750	Accounts payable	\$ 3,500	3,500
Marketable securities	\$ 2,500	5,500	Operating loans due within 1 year	\$ 45,000	45,000
Accounts receivable	\$ 600	600	Principal portion of long-term debt due within 1 year	\$ 34,000	34,000
Livestock held for sale	\$ 48,500	48,500	Accrued interest & expenses	\$ 10,500	10,500
Crops and feed	\$ 61,500	61,500	Estimated accrued taxes	\$ 8,600	8,600
Cash investment in crops	\$ 1,200	1,200	Accrued rents payable	\$ 1,300	1,300
Supplies	\$ 1,300	1,300	Deferred Tax liability on current assets including marketable securities		32,445
Prepaid expenses	\$ 500	500			
	\$				
<b>Total Current Assets</b>	<b>\$ 122,850</b>	<b>125,850</b>	<b>Total Current Liabilities</b>	<b>\$ 102,900</b>	<b>135,345</b>
<b>NON-CURRENT ASSETS</b>			<b>NON-CURRENT LIABILITIES</b>		
Machinery and equipment		85,500	Machinery & equipment loans (principal due beyond 12 months)	\$ 46,000	46,000
Cost 110,500		0			
Acc. Dep. 40,000	\$ 70,500	0	Real estate and building loans (principal due beyond 12 months)	\$ 175,000	175,000
Breeding livestock	\$ 22,500	22,500			
Retirement accounts	6,500	6,500	Deferred tax liabilities on non-current assets		69,650
Cash value of life insurance	\$ 8,100	8,100			
Securities not readily marketable	\$ 4,600	4,600			
Personal and recreational vehicles	13,100	13,100			
Household goods and personal items	8,000	8,000			
Farm real estate and buildings	0	495,000			
Cost 380,000					
Acc. Dep. 40,000	\$ 340,000	0			
<b>Total Non-Current Assets</b>	<b>\$ 473,300</b>	<b>643,300</b>	<b>Total Non-Current Liabilities</b>	<b>\$ 221,000</b>	<b>290,650</b>
			<b>Total Liabilities</b>	<b>\$ 323,900</b>	<b>425,995</b>
			<b>Owner's Equity</b>	<b>\$ 272,250</b>	<b>343,155</b>
<b>Total Assets</b>	<b>\$ 596,150</b>	<b>769,150</b>	<b>Total Liabilities + Owner's Equity</b>	<b>\$ 596,150</b>	<b>769,150</b>

### Assets

Assets include anything that is owned by the entity that has monetary value. Standard accounting practices value assets at cost, market value, or the lower of the cost or market value, depending on the preference of the person preparing or requesting the balance sheet.

Assets valued on a **cost basis** are listed at the historical cost less any accumulated depreciation. For example, valued on a cost basis, a tractor with an original cost of \$60,000 and accumulated depreciation of \$20,000 would be listed as a \$40,000 asset.

**Market valued assets** are listed at fair market value based on the asset's condition, location, market prices, or other relevant factors. Assets valued at the lower of cost or market value are assigned either the cost value or the market value, whichever is lower. Assets are separated into two categories or classes: current and non-current. A more detailed discussion of asset classification will follow.

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### **Liabilities**

Liabilities include all claims or financial obligations against a business by creditors, suppliers, or any other person or institution to which a debt is owed. Liabilities, like assets, are classified into current and non-current categories or classes. A more detailed discussion about these classifications will soon follow.

### **Owner Equity**

Owner equity, or net worth, is the difference between total assets and total liabilities. It reflects the owner's stake in the business and includes investment capital and retained earnings or profits. In a corporate business structure, owner equity will include stockholder's equity, additional paid-in capital and retained earnings. Stockholders equity is the investment stockholders have made to start or expand the business. Paid-in capital is additional cash or equity they have invested in the business. Retained earnings are business profits that have not been distributed to stockholders, but are reinvested in the business.

**ROAD TEST #1: Now let's see if you understand the balance sheet equation,  $\text{Assets} = \text{Liabilities} + \text{Owner Equity}$ . If assets are \$200,000 and liabilities are \$75,000, what is the amount of owner equity?**

- a. \$200,000
- b. \$125,000
- c. \$275,000

*The correct answer is b. \$125,000.*

*\$200,000 assets = \$75,000 liabilities + \$125,000 owner equity*

**Exhibit 2: Simplified Balance Sheet**

Current Assets	Current Liabilities
+ Non-Current Assets	+ Non-Current Liabilities
Total Assets	Total Liabilities
	+ Owner Equity
	Total Liabilities & Owner Equity

### **Assets**

#### **Current Assets**

Current assets are the first classification of assets appearing on a balance sheet. Current assets include items such as cash or assets that can be turned into cash within a year without disrupting normal business operations. Current assets also include any items that will be consumed within a year, such as feed or fertilizer supply.

Examples of current assets include:

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- *Cash* – Any cash on hand in checking or savings accounts.
- *Marketable securities* – Stock or other securities that are publicly traded and can be easily turned into cash. This would include only those securities which the owner intends to convert to cash within the year. Stock or other securities held for long-term investment or for retirement should be considered non-current assets.
- *Accounts receivable* – Any amounts owed to the business for products or services provided for which payment has not been received.
- *Marketable inventories* – Crops and livestock held for sale. Do not include breeding livestock, as they are considered non-current assets.

### **ROADSIDE CHAT #2: Breeding livestock could be sold any time, so isn't it a current asset?**

No. While breeding livestock could be sold for cash within a year, it is not considered a current asset because if livestock is sold outside normal replacement patterns, it would disrupt normal operations; therefore, it is considered a non-current asset. Some people will place expected cull livestock in current assets; however, this is risky because livestock can die.

- *Cash investment in growing crops* – The dollar amount of inputs invested in growing crops after planting, but before harvest.

### **ROADSIDE CHAT #3: How do I value crops growing in the field?**

Up until harvest, the crop is valued at its input cost. For example, 500 acres of corn with \$400 per acre input costs would be valued at \$200,000. This must be done to offset the operating loan or the business cash used to plant the crop so the financial picture is not distorted. Some individuals will use crop insurance or risk management programs to place a floor on potential losses in a given year, so they could use this worst case scenario value on the balance sheet.

- *Supplies* – Any items such as fertilizer, chemicals or feed that are on hand and scheduled to be used in the next year.
- *Prepaid expenses* – Items that have been paid for but not yet consumed in full (examples include insurance premiums, rent or lease payments, and certain taxes).

### **Non-current Assets**

The second classification of assets is non-current assets. These assets support production activities and are considered to have a life greater than one year. In agriculture, common non-current assets include machinery and equipment, breeding livestock, and securities that are not readily marketable or are intended to be held for long-term investment or retirement. Securities, including stock in cooperatives or lending institutions such as Farm Credit Services, and business retirement plans are not readily marketable, thus they are classified as non-current assets. Another major category of non-current assets is real estate, including land, buildings and improvements.

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If a personal balance sheet is prepared, non-current personal assets may be included, such as household furnishings and equipment, personal and recreational vehicles, and personal retirement accounts. A personal residence may also be included, if the balance sheet is prepared for a consolidated entity.

**ROAD TEST #2: Now let's classify some assets. Determine whether the following items are current assets, non-current assets, or not applicable.**

1. feeder pigs	Current	Non-Current	N/A
2. land	Current	Non-Current	N/A
3. dairy cows	Current	Non-Current	N/A
4. poultry buildings	Current	Non-Current	N/A
5. accounts payable	Current	Non-Current	N/A
6. prepaid expenses	Current	Non-Current	N/A

**The correct answers are 1. CA; 2. NCA; 3. NCA; 4. NCA; 5. N/A; 6. CA**

### Liabilities

Similar to assets, liabilities are also classified as either current or non-current. The liability section of the balance sheet should include all obligations as of the date of the balance sheet, classified based on repayment schedule.

#### **Current Liabilities**

Current liabilities include all debts and obligations that are due within the next 12 months. Examples of some common current liabilities are:

- *Accounts payable* – Money owed to suppliers or other businesses for products or services that your business has received but not yet made payment.
- *Operating loans* – Any outstanding balances on revolving or non-revolving operating lines of credit.
- *Commodity loans* – Commodity Credit Corporation (CCC) loans are technically operating loans; however, they should be included as current liabilities on the balance sheet.
- *Principal portion of term loans due within the next year* – The total amount of principal on term loans that is due to be paid within the year.
- *Accrued interest* – The amount of interest that has accumulated or accrued on all loans. This is the total amount of interest that would be due if all loans were paid off as of the day of the balance sheet – it is not the total amount of interest due to be paid in the next 12 months. So, interest that is projected to be paid in the future would not be included.



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- *Accrued income and property taxes* – Property taxes are typically paid in a period following when they are incurred, and income taxes are paid as frequent as every quarter, so the balance sheet will often reflect some accrued tax liability.
- *Other accrued expenses* – Items such as rents, leases and wages that have been utilized but not yet paid would be accrued expenses.
- *Credit card debt* – Credit card debt, including principal and interest, is included as a current liability.

It is common in agriculture for loans to be financed for one year with the option of renewal at the end of the year given acceptable repayment performance. If the lender is under no obligation to renew the loan at the end of the original agreement, the liability should be classified as a current liability. This treatment may distort financial ratios, but legally the entire obligation is due at the end of one year.

### ***Non-Current Liabilities***

Non-current liabilities capture all obligations that are due and payable beyond one year. The most common non-current liabilities are term loans used to finance machinery, equipment, breeding livestock, buildings, or real estate. The portion of the term loan due beyond 12 months is considered a non-current liability. However, remember that the principal amount due within 12 months is a current liability.

These current and non-current liability values can be determined along with accrued interest through the famous Four Step Process, which includes:

Step 1: What amount of interest is due within the next 12 months?

- Loan balance x annual interest rate
- *Appears on cash flow and income statement*

Step 2: What amount of principal is due within the next 12 months?

- Annual payment minus annual interest calculated in Step 1
- *Appears as current liability on the balance sheet*

Step 3: What amount of principal is due beyond one year?

- Loan balance minus principal due in 12 months calculated in Step 2
- *Appears as non-current liability on balance sheet*

Step 4: What amount of accrued interest is payable as of the date of the financial statement?

- Amount of annual interest from Step 1  $\div$  12 months = monthly interest due x number of months since last payment
- *Appears as current liability on balance sheet*

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**ROAD TEST #3: Let's try an example. Assume I owe a remaining balance of \$20,000 on a loan at a 7 percent annual interest rate. Annual payments are \$8000, due September 1, and I am preparing a statement as of January 1.**

1. What amount of interest is due within the next 12 months?  $\$20,000 \times 0.07 = \$1,400$  annual interest (appears on cash flow and income statement)
2. What amount of principal is due within the next 12 months?  $\$8,000$  payment -  $\$1,400$  annual interest =  $\$6,600$  principal due in 12 months (appears as current liability on balance sheet)
3. What amount of principal is due beyond one year?  $\$20,000 - \$6,600 = 13,400$  (appears as non-current liability on balance sheet)
4. What amount of accrued interest is payable as of the date of the financial statement?  $\$1,400$  annual interest  $\div$  12 months =  $\$117$  interest per month  $\times$  4 months interest accrued since last payment =  $\$468$  (appears as current liability on balance sheet)

### **Contingent Liabilities**

Another category of liabilities are contingent liabilities, which include such items as guarantees, pending lawsuits, co-signed notes with a family member or employee, and federal and state tax disputes. These items appear as footnotes or as an attached schedule to the balance sheet. These are not liabilities at the present time, but the potential for an obligation exists.

### **Owner Equity**

Remember that owner equity is the residual amount after liabilities are subtracted from assets according to the balance sheet equation. Owner equity reflects the owner's investment of capital into the business and any retained earnings which are generated over time. Retained earnings are profits that have been reinvested back into the business rather than withdrawn by the owner(s) or paid out in dividends in the case of a corporation.

**ROADSIDE CHAT #4: I am a young and beginning producer without much owner equity. Does my lender penalize me for this?**

Not necessarily. Many lenders will look for signs of your ability to generate income to pay debt, strong character and ethics. Many lenders will share stories of how a borrower's initial net worth of \$20,000 grew to \$2 million twenty years later. That's the fun part of their business: seeing producers' businesses succeed.

**ROADSIDE CHAT #5: When it is all said and done, what does a lender look for in my balance sheet?**

First, do you properly value assets and do you account for all your liabilities? Second, they look for trends in growth of net worth through earnings of the business.

Third, they look for resources to draw upon in case of financial adversity, like working capital and net worth.

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Fourth, they look for signs of discipline in savings and investment on the asset side of the balance sheet and similar patterns on the liability side of the balance sheet, regarding payment of debt.

### Asset Valuation

A balance sheet is only as valuable as the quality of the information used to prepare it. When valuing assets on a market basis, a conservative approach is preferred, based upon appraisals and recent sales data in the market. When preparing a balance sheet it is important to distinguish between possession and ownership of assets. If a partial interest in property is owned, then only that portion should be reflected as an asset on the balance sheet. Ownership issues also arise in the case of “life estates” and lease agreements.

When crop and livestock inventories are included on the balance sheet, they should be accompanied by a schedule detailing the amount and value of each item, indicating how the total value was derived.

Often a person is involved in more than one business venture. If so, information about assets and liabilities associated with other businesses should be reported. One business may show significant equity while another is heavily leveraged. Lenders are likely to request a consolidated balance sheet that combines all business and personal assets and liabilities.

### Valuing Leases

Numerous valuation issues arise when preparing balance sheets, which exceed the scope of this discussion. One issue that is important to discuss is that of capital leases for items such as tractors, combines, irrigation equipment, and storage structures. In the past, many lease obligations were simply included as footnotes to the balance sheet. However, these types of leases should be included on the balance sheet because the lease obligations impact the financial condition of the firm and its ability to repay financial obligations.

There are two types of leases: operating leases and capital leases. Operating leases allow the lessee the right to use an asset for a relatively short period of time. Operating leases should appear as a note to the balance sheet (unless prepaid or past due), similar to the rental of farmland. A capital lease is a direct substitute for purchase of the asset with borrowed money. It transfers substantially all the benefits and risks inherent in the ownership of the property to the lessee.

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### Exhibit 3:

		Balance Sheet Presentation of Capital Leases				
		Beginning of Period				
		Year 1	Year 2	Year 3	Year 4	Year 5
Initial Lease Value	\$50,000					
Annual Lease Payment: (Beginning of Period)	\$11,191					
Imputed Borrowing Rate:	10%					
Lease Term:	5 years					
		Non-Current Assets				
		Capital Leased Asset (initial lease value)				
		\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
		Less: Accumulated Depreciation				
		(8,190)	(17,199)	(27,108)	(38,009)	(50,000)
		\$ 41,810	\$ 32,801	\$ 22,892	\$ 11,991	-
		Current Liabilities				
		Current Portion of Capital Leases				
		\$ 9,009	\$ 9,909	\$ 10,901	\$ 11,991	-
		Non-Current Liabilities				
		Non-Current Portion of Capital Leases				
		\$ 32,801	\$ 22,892	\$ 11,991	-	-
		\$ 41,810	\$ 32,801	\$ 22,892	\$ 11,991	-
		Total Capital Lease Liabilities				

Exhibit 3 illustrates a five-year capital lease agreement for a storage structure. Annual payments due at the beginning of the period are \$11,991. Notice that the lease is treated similar to an equal payment, amortized loan and must be reflected as both an asset and a liability on the balance sheet. Although there is no interest rate stated in the agreement, \$11,991 annual payments for five years at an “imputed interest rate” of 10 percent results in a present value of \$50,000. This is the initial lease value (both asset and liability). Remember, it is the lease investment which is being put on the balance sheet, not the asset being leased.

The current and non-current allocations for leases are very similar to the procedure used for listing term loans on the balance sheet. That is, the current lease payment or payments due in next 12 months would be recorded under current liability and the amount due for the remainder of the lease would be a non-current liability. Make sure to offset the value as an asset, not to distort your financial statement.

In Exhibit 3, the asset is listed as a non-current asset each year. The principal due within the year and any accrued interest as of the date of the statement are listed as current liabilities. The remaining lease obligation is listed as a non-current liability.

### Deferred Taxes

As discussed earlier, assets can be valued on the balance sheet either on a cost or market value basis. A market value balance sheet reflects the impact of deferred tax liabilities (See Exhibits 1 & 4). Deferred taxes are the federal and state taxes that would be incurred if the business was liquidated.

Deferred taxes on current assets arise because many agricultural producers report income on a cash rather than on an accrual basis for income tax purposes. Therefore, they do not pay taxes on the accumulation of crop and livestock inventories over time. Income taxes would be due if inventories were sold, but the expenses associated with those inventories had been deducted as cash expenses in a previous reporting period. Deferred taxes may also be present on non-current assets. Some examples of deferred tax situations are:

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- Market value of assets exceeds cost less accumulated depreciation.
- Sale price of purchased breeding livestock exceeds the original cost.
- Sale of breeding livestock that has been raised with no tax basis.

Referring to Exhibit 1 for example, if machinery cost \$110,500 and has accumulated depreciation of \$40,000, the tax basis is \$70,500. However, if the machinery has a market value of \$85,500, then deferred taxes are due on the difference between market value and the tax basis, ( $\$85,500 - \$70,500 = \$15,000$ ). With a federal tax rate of 25% and a state tax rate of 5%, the producer would owe \$3,750 in federal taxes ( $0.25 \times \$15,000$ ) and \$750 in state taxes ( $0.05 \times \$15,000$ ) on the machinery if it were liquidated. These deferred taxes are referred to as deferred tax liabilities on non-current assets, and are listed in the non-current liabilities section of the balance sheet.

**ROADSIDE CHAT #6: Is it correct that I will never experience deferred taxes because I never paid any income taxes and showed a loss on my tax returns, which was written off against my spouse's non-farm income?**

No. People who minimize farm taxes or maximize business losses against off-farm income are quite vulnerable to deferred tax if they were to liquidate part or all of the business. For example, if a poultry and crop producer who rapidly depreciates the poultry houses or machinery and equipment for crops was to liquidate, the tax basis (i.e. cost minus accumulated depreciation) would be low. Thus, the difference between market value and cost would be taxed at the given rate and would be a financial obligation to Uncle Sam and possibly the state. Ouch! This is why some producers stay in business because they can't afford to sell out!

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### Exhibit 4:

#### Balance Sheet - End of Year

ASSETS			LIABILITIES		
	Cost	Market Value		Cost	Market Value
<b>CURRENT ASSETS</b>			<b>CURRENT LIABILITIES</b>		
Cash	\$ 1,800	1,800	Accounts payable	\$ 5,300	5,300
Marketable securities	\$ 2,500	5,800	Operating loans due within 1 year	\$ 41,000	41,000
Accounts receivable	\$ 900	900	Principal portion of long-term debt due within 1 year	\$ 35,500	35,500
Livestock held for sale	\$ 54,100	54,100	Accrued interest & expenses	\$ 9,400	9,400
Crops and feed	\$ 68,300	68,300	Estimated accrued taxes	\$ 8,800	8,800
Cash investment in crops	\$ 1,450	1,450	Accrued rents payable	\$ 1,300	1,300
Supplies	\$ 600	600	Deferred Tax liability on current assets including marketable securities		36,155
Prepaid expenses	\$ 350	350			
	\$				
<b>Total Current Assets</b>	<b>\$ 130,000</b>	<b>133,300</b>	<b>Total Current Liabilities</b>	<b>\$ 101,300</b>	<b>137,455</b>
<b>NON-CURRENT ASSETS</b>			<b>NON-CURRENT LIABILITIES</b>		
Machinery and equipment		87,500	Machinery & equipment loans (principal due beyond 12 months)	\$ 37,450	37,450
Cost 116,500		0			
Acc. Dep. 43,000	\$ 73,500	0	Real estate and building loans (principal due beyond 12 months)	\$ 149,400	149,400
Breeding livestock	\$ 20,500	20,500			
Retirement accounts	8,600	8,600	Deferred tax liability on non-current assets		75,635
Cash value of life insurance	\$ 8,650	8,650			
Securities not readily marketable	\$ 4,600	4,600			
Personal and recreational vehicles	11,900	11,900			
Household goods and personal items	8,000	8,000			
Farm real estate and buildings	0	509,000			
Cost 380,000					
Acc. Dep. 44,000	\$ 336,000	0			
<b>Total Non-Current Assets</b>	<b>\$ 471,750</b>	<b>658,750</b>	<b>Total Non-Current Liabilities</b>	<b>\$ 186,850</b>	<b>262,485</b>
			<b>Total Liabilities</b>	<b>\$ 288,150</b>	<b>399,940</b>
<b>Total Assets</b>	<b>\$ 601,750</b>	<b>792,050</b>	<b>Owner's Equity</b>	<b>\$ 313,600</b>	<b>392,110</b>
			<b>Total Liabilities + Owner's Equity</b>	<b>\$ 601,750</b>	<b>792,050</b>

### FINAL ROAD TEST

- Sample beginning and end of year balance sheets are provided (Exhibits 1 & 4). What are some observations you notice from beginning to end of year that would be indicative of financial performance? For example, cash has decreased by \$4,950 from the beginning to the end of the year.

Here are some items I noticed:

- Livestock for sale increased by \$5600
- Crops & feed increased \$6800
- Equipment cost increased \$6000
- Contribution to retirement \$2100, as long as interest and earnings had not been accrued to the account
- Acct payable increased \$1800
- Operating loan decreased \$4000
- \$8550 decrease in machinery loans
- \$25,600 decrease in real estate loan
- \$41,350 increase in cost basis equity

- Has the business illustrated in Exhibits 1 and 4 been successful this year?

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Your response could be yes or no. Yes, if the business is in the early stages of development, and the gain in net worth was earned or saved. No, if the business gain in net worth was inherited, a gift, or a result of inflated or appreciated asset values.

### Summary

Simply put, assets are items that you own and liabilities are your financial obligations. The difference in assets and liabilities results in equity. Specific categories, i.e. current and non-current, and cost and market value, are guideposts in the organization of the balance sheet. Proper documentation of leases and deferred taxes is imperative in painting a truthful financial picture of the business. The balance sheet is a financial statement that can be useful in obtaining credit, but also in management of your business, and tax planning. Balance sheets are the most useful when they are prepared accurately and consistently year after year.

Well, there you have it. We hope the information was not too technical and you now have a better understanding of one of the three most vital financial statements that both borrowers and lenders use to assess financial condition and performance. Good luck working on your own balance sheets.

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### Interactive Practice Exercise

Let's see if you are up to the challenge of filling in a partially completed balance sheet. Assume the balance sheet date is January 1.

Place the following items on the blank balance sheet in the correct sections. Round off in months rather than days when calculating accruals.

1. Prepaid insurance: annual payment of \$3,600 was paid Sept. 1.
2. Machinery and equipment: cost \$85,000; accumulated depreciation of \$30,000
3. Livestock held for sale: \$60,000
4. Accounts payable at feed store: \$2,000
5. Machinery loan balance remaining is \$26,000. The payment is \$12,000 per year. Annual interest rate is 9 percent. Last payment was made July 1.
6. Real estate loan balance remaining is \$50,000. The payment is \$15,000 per year. Annual interest rate is 6 percent. Last payment was made Nov. 1.

Balance Sheet - Beginning of Year					
ASSETS			LIABILITIES		
	Cost	Market Value		Cost	Market Value
<b>CURRENT ASSETS</b>			<b>CURRENT LIABILITIES</b>		
Cash	\$ 1,000	1,000	Accounts payable	\$	
Marketable securities	\$ 2,500	5,500	Operating loans due within 1 year	\$ 45,000	45,000
Accounts receivable	\$ 4,000	4,000	Principal portion of long-term		
Livestock held for sale	\$		debt due within 1 year	\$	
Crops and feed	\$ 25,000	25,000	Accrued interest & expenses	\$	
Cash investment in crops	\$ 1,500	1,500	Estimated accrued taxes	\$ 0	0
Supplies	\$ 1,000	1,000	Accrued rents payable	\$ 2,500	2,500
Prepaid expenses	\$		Deferred Tax liability on current assets		
	\$		including marketable securities		
<b>Total Current Assets</b>	<b>\$</b>		<b>Total Current Liabilities</b>	<b>\$</b>	
<b>NON-CURRENT ASSETS</b>			<b>NON-CURRENT LIABILITIES</b>		
Machinery and equipment		100,000	Machinery & equipment loans		
Cost			(principal due beyond 12 months)	\$	
Acc. Dep.	\$		Real estate and building loans		
Breeding livestock	\$ 50,000	50,000	(principal due beyond 12 months)	\$	
Retirement accounts	\$ 3,000	3,000	Deferred tax liability on non-current assets		
Cash value of life insurance	\$ 1,000	1,000			
Farm Credit Stock	\$ 1,000	1,000			
Farm real estate and buildings		200,000			
Cost	130,000				
Acc. Dep.	20,000				
	\$ 110,000				
<b>Total Non-Current Assets</b>	<b>\$</b>		<b>Total Non-Current Liabilities</b>	<b>\$</b>	
			<b>Total Liabilities</b>	<b>\$</b>	
			<b>Owner's Equity</b>	<b>\$</b>	
<b>Total Assets</b>	<b>\$</b>		<b>Total Liabilities + Owner's Equity</b>	<b>\$</b>	



## Module 4: Preparing Agricultural Financial Statements: The Balance Sheet

### Solution to Interactive Practice Exercise

1. **Prepaid Insurance:**  $\$3,600/12 \text{ months}=\$300$  per month x 4 months used= $\$1,200$   
 $\$3,600- \$1,200=\$2,400$  current asset
2. **Machinery and equipment:**  $\$85,000-\$30,000$  accumulated depreciation= $\$55,000$   
cost basis listed as non-current asset
3. **Livestock held for sale:**  $\$60,000$  current asset
4. **Accounts payable at feed store:**  $\$2,000$  current liability
5. **Machinery Loan: Four Step Process**
  1.  $\$26,000 \times 0.09=\$2,340$  interest paid annually
  2.  $\$2,340/12=\$195$  interest per month x 6 months= $\$1,170$  accrued interest from July 1 to January 1. (current liability)
  3.  $\$12,000$  payment- $\$2,340$  interest paid= $\$9,660$  principal due in 12 mo. (current liability)
  4.  $\$26,000-\$9,660=\$16,340$  principal due beyond 12 mo. (non-current liability)
6. **Real Estate Loan: Four Step Process**
  1.  $\$50,000 \times 0.06=\$3,000$  interest paid annually
  2.  $\$3,000/12=\$250$  interest per month x 2 months= $\$500$  accrued interest from November 1 to January 1. (current liability)
  3.  $\$15,000$  payment- $\$3,000$  interest paid= $\$12,000$  principal due in 12 mo. (current liability)
  4.  $\$50,000-\$12,000=\$38,000$  principal due beyond 12 mo. (non-current liability)

On the balance sheet, total principal portion of long term debt due within 1 year is  $\$9,660 + \$12,000= \$21,660$ .

Total accrued interest is  $\$1,170 + \$500 = \$1,670$

## Module 4: Preparing Agricultural Financial Statements: The Balance Sheet

### Balance Sheet - Beginning of Year

ASSETS			LIABILITIES		
	Cost	Market Value		Cost	Market Value
<b>CURRENT ASSETS</b>			<b>CURRENT LIABILITIES</b>		
Cash	\$ 1,000	1,000	Accounts payable	\$ 2,000	2,000
Marketable securities	\$ 2,500	5,500	Operating loans due within 1 year	\$ 45,000	45,000
Accounts receivable	\$ 4,000	4,000	Principal portion of long-term debt due within 1 year	\$ 21,660	21,660
Livestock held for sale	\$ 60,000	60,000	Accrued interest & expenses	\$ 1,670	1,670
Crops and feed	\$ 25,000	25,000	Estimated accrued taxes	\$ 0	0
Cash investment in crops	\$ 1,500	1,500	Accrued rents payable	\$ 2,500	2,500
Supplies	\$ 1,000	1,000	Deferred Tax liability on current assets including marketable securities		
Prepaid expenses	\$ 2,400	2,400			
	\$				
<b>Total Current Assets</b>	<b>\$ 97,400</b>	<b>100,400</b>	<b>Total Current Liabilities</b>	<b>\$ 72,830</b>	<b>72,830</b>
<b>NON-CURRENT ASSETS</b>			<b>NON-CURRENT LIABILITIES</b>		
Machinery and equipment		100,000	Machinery & equipment loans (principal due beyond 12 months)	\$ 16,340	16,340
Cost	85,000				
Acc. Dep.	30,000		Real estate and building loans (principal due beyond 12 months)	\$ 38,000	38,000
Breeding livestock	\$ 50,000	50,000			
Retirement accounts	\$ 3,000	3,000	Deferred tax liability on non-current assets		
Cash value of life insurance	\$ 1,000	1,000			
Farm Credit Stock	\$ 1,000	1,000			
Farm real estate and buildings		200,000			
Cost	130,000				
Acc. Dep.	20,000				
	\$ 110,000				
<b>Total Non-Current Assets</b>	<b>\$ 220,000</b>	<b>355,000</b>	<b>Total Non-Current Liabilities</b>	<b>\$ 54,340</b>	<b>54,340</b>
			<b>Total Liabilities</b>	<b>\$ 127,170</b>	<b>127,170</b>
			<b>Owner's Equity</b>	<b>\$ 190,230</b>	<b>328,230</b>
<b>Total Assets</b>	<b>\$ 317,400</b>	<b>455,400</b>	<b>Total Liabilities + Owner's Equity</b>	<b>\$ 317,400</b>	<b>455,400</b>

	Cost	Market value	Explanation (Cost vs. MV)
Total current assets	\$97,400	\$100,400	Marketable securities have gone up \$3000 since the purchase
Total Non-current assets	\$220,000	\$355,000	The accumulated depreciation on machinery, equipment and buildings/improvements has increased and the market value of the farm real estate assets have increased
Total Assets	\$317,400	\$455,400*	

\*If the business was liquidated and the assets were sold, a deferred tax obligation would occur on the difference between the market value and cost value times the tax rate at the time. Deferred tax liability occurs when an asset is liquidated. This is a reason that an excellent set of records with documentation is maintained to ascertain the tax liability.