Module 4
The Balance Sheet

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Learning Objectives

The learning objectives of this module are to:

- Illustrate how to classify agricultural business assets and liabilities
- Organize and develop both a business and personal balance sheet
- Discuss some of the methods of determining values of assets and liabilities
- Examine factors lenders focus on in preparing and communicating the financial picture of the balance sheet
- Provide an opportunity to complete a balance sheet exercise before you embark on developing your own balance sheet

Introduction

Now, let us move on with our journey and learn about the balance sheet, a financial statement that illustrates how much an individual or business is worth financially.

One of the first financial statements your lender will request is a balance sheet for the business and a personal balance sheet as well. The balance sheet is a statement of financial position at a specific point in time. Analogous to a photo, it is the financial snapshot of the business. Over time, it is similar to a photo album illustrating where the business started financially and where it is currently, as well as where it is going in the future. Today, separate balance sheets are often prepared for the business and the personal or family side. This is to reduce the co-mingling of business and personal assets and liabilities. Separation also allows one to analyze business performance based solely on the resources deployed in that business.

PODCAST #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 leaders 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 still the dominant form of ownership 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.

Balance Sheet Components

The balance sheet consists of three main components: assets, liabilities, and owner's equity (also referred to as net worth). The standard balance sheet accounting equation is:

Assets = Liabilities + Owner's Equity

Promise Farms Case Introduction

The following is an introduction to Troy and Tami Tiller and Promise Farms. This case will be used throughout the modules to illustrate important concepts.

Troy and Tami Tiller operate a diversified crop and livestock farm near Anywhere, United States. They are in their mid-thirties and have two children, Tim and Terry. They purchased Promise Farms seven years ago after working in business and industry for six years. Tami works off the farm part-time while juggling a schedule with the care of the two children who are in elementary school.

The Tillers are very ambitious people utilizing off farm income to purchase the family farm a few years ago. They are very frugal and have made significant progress financially after a small inheritance of $30,000 and two small timber tract land parcels from their rich Uncle Tyrone.

The farm consists of a cattle herd, field crops and some older poultry houses. The chickens are contracted with a regional integrator. The excess crops that are not fed to the cattle are sold with a marketing plan that uses hedging and options. They also sell replacement heifers to local farms as they have established a good reputation for quality livestock.
The Tillers' goal has been to build financial equity through accelerated repayment of equipment, buildings, and real estate loans.

Module 4: The Balance Sheet

The Tillers operate the business as a sole proprietorship and engage a farm accountant, a crop and livestock consultant as well as Troy's father, Preston, a retired military officer, in busy times of planting and harvesting. Troy's mom and Tami's parents have passed away in recent years.

The couple has attended financial seminars and other educational opportunities sponsored by Farm Credit, banks and agribusinesses. One of the educational leaders, Cole Davis, suggested that they conduct more formal planning and develop a business plan to upgrade their financial and business acumen.

Let's learn the principles of business planning and financial analysis by using Promise Farms as a case example.

The Tiller's Balance Sheet for the Beginning of the Year is shown here.

Module 4: The Balance Sheet

Exhibit 1- Balance Sheet- Beginning of Year

Balance Sheet - Beginning of Year
Promise Farms
January 1, Year A

ASSETS				LIABILITIES & OWNER'S EQUITY		
Current Assets		Cost	Market Value	Current Liabilities	Cost	Market Value
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		
Livestock held for sale		48,500	48,500	debt due within 1 year	34,000	34,000
Crops and feed		61,500	61,500	Accrued interest & expenses	10,500	10,500
Cash investment in crops		1,200	1,200	Estimated accrued taxes	8,600	8,600
Supplies		1,300	1,300	Accrued rents payable	1,300	1,300
Prepaid expenses		500	500			
Total Current Assets		$122,850	$125,850	Total Current Liabilities	$102,900	$102,900
Intermediate Assets				Intermediate Liabilities		
Machinery and equipment			85,500	Machinery & Equipment Loan		
Cost	110,500			(Principal due beyond 12 months)	46,000	46,000
Acc. Depreciation	40,000	70,500				
Breeding livestock		22,500	22,500			
Beef Replacement Heifers		6,500	6,500			
Beef Replacement Heifers		8,100	8,100			
Horses		8,000	8,000			
Total Intermediate Assets		$115,600	$130,600	Total Intermediate Liabilities	$46,000	$46,000
Long Term Assets				Long Term Liabilities		
Timber Tract #1		4,600	4,600	Real Estate and building loans		
Timber Tract #2		13,100	13,100	(Principal due beyond 12 months)	175,000	175,000
Farm real estate and building			495,000	Total Long Term Liabilities	$175,000	$175,000
Cost	380,000					
Acc. Depreciation	40,000	340,000		Total Liabilities	$323,900	$323,900
Total Long Term Assets		$357,700	$512,700	Total Owner's Equity	$272,250	$445,250
TOTAL ASSETS		$596,150	$769,150	TOTAL LIABILITIES & OWNER'S EQUITY	$596,150	$769,150

Assets

Assets include anything that is owned by the business that has monetary value. The assets can be valued at cost or market value. Conservatively, some may use the lower of market value or cost, depending upon preference. Market value assets are listed at fair market value. Condition of the assets, location, market prices, and economic cycles can influence the value. Some will use the guidance of lenders to place a value, while others will use the Blue Book value for equipment and machinery. Still others may use an appraiser or auction market sheets to determine value. For example, on beef cattle this would be replacement cost of cows and calves. The general rule is to be conservative in values, particularly on the assets that have appreciated in value such as land.

Others will value assets on a cost basis, which is historical cost less any accumulated depreciation. For example, a tractor with original cost of $100,000 with accumulated depreciation over the years of $30,000 would be listed on the balance sheet as a $70,000 asset.

Assets are classified in two or three categories depending upon the detail of the balance sheet. Typically, when using a two-category balance sheet, assets are classified as either current or non-current. A three-category balance sheet would include current, intermediate, and long-term assets. Moving forward, we will utilize the three category statement to illustrate the case.

Current assets include assets that can be turned into cash within one year or otherwise within the current operating cycle, without disrupting normal operations. Current assets may include items consumed or turned into income within the year such as feed to include silage, soybeans, shelled corn in storage, haylage, baled hay or crops growing in the field. Cash and livestock inventory are also examples of current assets. Prepaid expenses such as insurance, fertilizer, seed, feed, supplies, and collectible accounts receivable possibly from custom work, milk checks and cash investment in crops (dollar amount invested in the crops currently growing in the field) are also examples of current assets.

Intermediate assets include those that support production and have a life span generally of one to ten years. Examples of intermediate assets are machinery, equipment, and breeding livestock such as beef and dairy cows and heifers and replacements.

Long term assets are those assets with a life of ten years or more such as real estate/land, buildings, and building improvements such as fences, working pens, holding areas, timber tracts, etc.

If a personal balance sheet is prepared, the current assets will include cash, money markets, CD's and checking accounts. Intermediate personal assets could include household furnishings, personal vehicles, and retirement accounts. The personal residence or a lake home would be a long-term asset.

PODCAST #2: 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 as a value on the balance sheet.

Module Challenge 1

Assign an asset term and asset classification to each asset listed.

Term:
C = Current
I = Intermediate
L = Long Term

Balance Sheet Classification:
B = Business Balance Sheet
P = Personal Balance Sheet

Current/ Intermediate/ Long Term	**Business/ Personal**	**Asset**
		Cash
		Accounts receivable – hay sales
		Beef replacement heifers
		Prepaid land rent
		Retirement accts. (IRA & 401k)
		Crop sprayer
		Corn growing in field
		Farm real estate
		Lake house
		Poultry buildings

Liabilities

Now that the assets on the left side of the balance sheet have been classified, we need to look at the right side of the balance sheet, namely the liabilities, or what the business owes. Liabilities can be current or non-current, or if you desire, you can include the intermediate classification as well. Similar to current assets, they will have similar time classifications. The liability section of the balance sheet includes obligations current to the date the balance sheet was created.

Current liabilities include all debts due within the next 12 months or current operating cycle. This includes accounts payable, operating loan balances, accrued expenses such as rent, taxes, and interest accrued on loans, wages, etc. Another current liability is the principal portion of intermediate and long-term loan payments due within 12 months. Often your lender can be a good source for this information as they have up to date specifics on these amounts. A mortgage rate calculator can be useful as well.

Intermediate liabilities are obligations due beyond 12 months but usually within 10 years. This would include principal amount on loans for machinery/equipment and breeding livestock such as beef and dairy cows.

Long term liabilities are those due in ten years and over, such as loans for real estate, improvements, and buildings. Again, loan principal balances can be obtained from your lender for accuracy.

As with personal assets, personal liabilities can be classified as current, intermediate or long term. Credit card debt is usually classified as a current liability, while personal car or truck payments are intermediate liabilities, and a home mortgage would be classified as long term. Be careful with this as many people do not pay off their credit card balance monthly, and some make only the minimum payment required. If this is the case, it is more of an intermediate liability versus current.

Leases

Many young and beginning producers will lease equipment, facilities and even in some cases livestock. Capital lease payments should be included in the liabilities section. Capital lease payments due within 12 months would be a current liability, and those beyond 12 months would be an intermediate liability. If it is a capital lease, do not forget to place the leased asset in the proper category on the asset side of the balance sheet.

Differences between Capital and Operating Lease

Here is an example to explain the difference between a capital lease and an operating lease. An operating lease could be renting the neighbor's land or an hourly lease on a piece of equipment without a specific buyout at the end of the lease term. A capital lease such as a leased tractor, building, etc. will have specific terms and buyout in the agreement to make it legal, binding, and compliant with the Internal Revenue Service.

Exhibit 2: Balance Sheet Presentations of Capital Leases

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

Exhibit 2 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 2, 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.

Module Challenge 2

Assign a liability term and liability classification to each liability listed.

Term:
C = Current
I = Intermediate
L = Long Term

Balance Sheet Classification:
B = Business Balance Sheet
P = Personal Balance Sheet

Current/ Intermediate/ Long Term	**Business/ Personal**	**Liability**
		Feed account over 90 days
		Remaining balance on beef cattle loan
		Operating line of credit
		Credit card debt – personal use
		Principal due in 12 months on poultry barn loan
		Tractor lease payment due in 6 months
		Machinery repair account
		Student loan
		Balance on land loan
		Remaining balance on home mortgage

Owner's Equity: What are you worth financially?

Now that we have identified the assets and liabilities for the business and personal balance sheets, the next step is to determine the financial worth of the business or personal entity. Owner's equity is the residual amount after all liabilities are subtracted from assets in line with the balance sheet equation. For a quick example, if assets total $100,000, and liabilities are $40,000, then the owner's equity is $60,000. This owner's equity reflects the individual's investment of capital into the business, or any retained earnings or profits invested back into the business over time. Ideally, lenders prefer to see increases in net worth driven by retained profits (versus driven by asset appreciation) over time.

PODCAST #3: 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, ethics and a business plan that is executed. 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.

Module Challenge 3

How much is this business worth financially?

Business Assets	Value	Business Liabilities	Amount
Current Assets	$25,000	Current Liabilities	$15,000
Intermediate Assets	$50,000	Intermediate Liabilities	$15,000
Long Term Assets	$75,000	Long Term Liabilities	$20,000
Total Assets	**$150,000**	**Total Liabilities**	**$50,000**

The total owner's equity would be:

A. $65,000
B. $100,000
C. $200,000
D. None of the above

Common Questions, Tips, and Terminology on Balance Sheets

What about cosigned notes, pending lawsuits, and federal and state tax disputes?
These are known as contingent liabilities. These items will appear as footnotes on the bottom of the balance sheet or as an attached schedule. While these are not liabilities at the present time, there is potential for an obligation. Any co-signed note, if not meeting the standards of the loan agreement, can have detrimental impacts on one's credit report and overall financial situation and possible income tax implications if the loan is written off or forgiven.

Crop and livestock inventories:
It is really important to have a schedule or attachment to accompany the balance sheet that contains details on the amount of inventory (number of bushels, number of head, tons, etc.) with a value, as well as how that value was derived. Often a lender will conduct an inspection to verify values. See sample schedules in Appendix.

Consolidated balance sheet:
Sometimes, a business person is involved in multiple business ventures, has multiple partners, or assets, and/or liabilities associated with other businesses. In this case,

lenders will often request a consolidated balance sheet of all businesses, personal assets, and liabilities with which that person is involved.

PODCAST #4: 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.
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.

Exhibit 3- Balance Sheet- End of Year

Balance Sheet- End of Year
Promise Farms
December 31, Year A

ASSETS				LIABILITIES & OWNER'S EQUITY		
Current Assets		**Cost**	**Market Value**	**Current Liabilities**	**Cost**	**Market Value**
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		
Livestock held for sale		54,100	54,100	debt due within 1 year	35,500	35,500
Crops and feed		68,300	68,300	Accrued interest & expenses	9,400	9,400
Cash investment in crops		1,450	1,450	Estimated accrued taxes	8,800	8,800
Supplies		600	600	Accrued rents payable	1,300	1,300
Prepaid expenses		350	350			
Total Current Assets		**$130,000**	**$133,300**	**Total Current Liabilities**	**$101,300**	**$101,300**
Intermediate Assets				**Intermediate Liabilities**		
Machinery and equipment			87,500	Machinery & Equipment Loan		
Cost	110,500			(Principal due beyond 12 months)	37,450	37,450
Acc. Depreciation	40,000	73,500				
Breeding livestock		20,500	20,500			
Beef Replacement Heifers		8,600	8,600			
Beef Replacement Heifers		8,650	8,650			
Horses		8,000	8,000			
Total Intermediate Assets		**$119,250**	**$133,250**	**Total Intermediate Liabilities**	**$37,450**	**$37,450**
Long Term Assets				**Long Term Liabilities**		
Timber Tract #1		4,600	4,600	Real Estate and building loans		
Timber Tract #2		11,900	11,900	(Principal due beyond 12 months)	149,400	149,400
Farm real estate and building			509,000	**Total Long Term Liabilities**	**$149,400**	**$149,400**
Cost	380,000					
Acc. Depreciation	40,000	336,000		**Total Liabilities**	**$288,150**	**$288,150**
Total Long Term Assets		**$352,500**	**$525,500**	**Total Owner's Equity**	**$313,600**	**$503,900**
TOTAL ASSETS		**$601,750**	**$792,050**	**TOTAL LIABILITIES & OWNER'S EQUITY**	**$601,750**	**$792,050**

Module Challenge 4

The beginning and ending balance sheets are provided (Exhibits 1 & 3). 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 end of the year. (Refer to the Appendix for some additional observations.)

Exhibit 4- Personal Balance Sheet

Personal Balance Sheet
Troy & Tami Tiller
12/31/XX

ASSETS		**LIABILITIES & OWNER'S EQUITY**	
Current Assets		**Current Liabilities**	
Cash	$ 2,000	**Credit Card Debt**	$ 6,000
Savings	$ 3,000	**Current Portion Term Debt**	$ 6,000
IRA	$ 4,000		
Stocks & Bonds	$ 9,000		
Total Current Assets	**$ 18,000**	**Total Current Liabilities**	**$ 12,000**
Intermediate Assets		**Intermediate Liabilities**	
Car	$ 24,000	**Car Loan**	$ 14,000
Truck	$ 20,000	**Truck Loan**	$ 12,000
Motorcycle	$ 16,000		
Camper/RV	$ 16,000		
Total Intermediate Assets	**$ 76,000**	**Total Intermediate Assets**	**$ 26,000**
Long Term Assets		**Long Term Liabilities**	
Home & Furnishings	$120,000	**Mortgage on Home**	$ 60,000
Total Long Term Assets	**$120,000**	**Total Long Term Liabilities**	**$ 60,000**
TOTAL ASSETS	**$214,000**	**TOTAL LIABILITIES**	**$ 98,000**
		TOTAL OWNER'S EQUITY	**$ 116,000**
		TOTAL LIABILITIES & OWNER'S EQUITY	**$ 214,000**

Take a look at the Tiller's personal balance sheet. Notice a modest amount of savings as well as investment in cars, trucks, camper, motorcycle and modest home is reported. Liabilities include credit card debt, car and truck payments along with a mortgage on their home of $60,000. This results in $98,000 in total liabilities and will net a modest personal owner's equity of $116,000.

Example of Personal Disclosure List

Item:	Answers
Credit score	778/780
Credit report	Yes
Life insurance	$800,000
Disability insurance	2/3 Salary
Health insurance	Yes
Liability insurance- business	$2,000,000
Crop insurance	Business
Livestock insurance	Business
Equipment insurance	Business
Will	Yes
Legal business entities	Yes
Co-signed notes	No
Pending lawsuits	No
Alimony	No
Child support	No
Judgements	No
Bankruptcies in past 10 years	No

Lenders will require borrowers to complete personal disclosure questions which are usually attached to the bottom of the balance sheet. These questions could be either on the business or personal balance sheet. The degree and extent will vary by lender and there's no generic format.

Here are some examples of disclosure questions that may be asked by the lender:

a. Are you obligated as a cosigner or guarantor on any other obligations?
b. Are you a party to a lawsuit?
c. Are you obligated to pay alimony or child support?
d. Are there any judgments of record against you?
e. Have you been a debtor in bankruptcy in the last 10 years?
f. Are any of your taxes delinquent or under dispute?
g. Does anyone else own an interest in the property listed on the balance sheet?

This disclosure list is important for lenders to assess risk, or potential risk in a given situation. For example, credit scores and credit reports provide a quantitative and qualitative view of the credit history and some of the credit transactions.

Life insurance disclosure is valuable to determine what the implications would be in a worst-case scenario, for example the loss of a partner or spouse.

Disability insurance is critical in determining exposure. It would cover if one were to become partially or totally disabled. Disability is a much higher probability in farming

than many other occupations since farmers deal with animals and machinery and are often in isolated situations.
Health insurance coverage and the degree of coverage, i.e. deductibles, are major risks to many producers and their families. One of the major reasons that businesses file bankruptcy is due to the lack of medical coverage or because of medical costs not covered by insurance.

Insurances such as liability coverage for livestock and equipment along with crop insurance are very important in the risk management equation.

The disclosure of wills, estate plans, and legal entities that one operates under is very necessary in determining short-run and long-run potential risk.

Other factors, such as cosigned notes, pending lawsuits, child support, and alimony, along with judgments and bankruptcy provides a transparent picture not only for the lender but for an advisory team such as an accountant and lawyer in developing agreements and understanding specific business situations.

PODCAST #5: What are lender red flags on a balance sheet?

This list is not inclusive, here are a few items that trigger red flags in a balance sheet: a buildup of account payables, failure to disclose liabilities, high wages payables, delinquent taxes (income or real estate), having more than seven sources of credit or split lines of credit.

Summary

In summary 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.

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 principal due in 12 months is $9,660. $16,340 is the principal due beyond 12 months.
6. Real estate loan balance remaining is $50,000. Principal due within 12 months is $12,000. The principal due beyond 12 months is $21,660.

Interactive Practice Balance Sheet

January 1, Year A

ASSETS		Cost	Market Value
Current Assets		**Cost**	**Market Value**
Cash		$ 1,000	$ 1,000
Marketable securities		$ 2,500	$ 5,500
Accounts receivable		$ 4,000	$ 4,000
Livestock held for sale		$	$
Crops and feed		$ 25,000	$ 25,000
Cash investment in crops		$ 1,500	$ 1,500
Supplies		$ 1,000	$ 1,000
Prepaid expenses		$	$
Total Current Assets		$	$
Intermediate Assets			
Machinery and equipment			$ 100,000
Cost	$		
Acc. Depreciation	$	$	
Breeding livestock		$ 50,000	$ 50,000
Replacements #1		$ 3,000	$ 3,000
Replacements #2		$ 1,000	$ 1,000
Farm Credit Stock		$ 1,000	$ 1,000
Total Intermediate Assets		$	$
Long Term Assets			
Farm real estate and building			$ 200,000
Cost	$130,000		
Acc. Depreciation	$20,000	$ 110,000	
Total Long Term Assets		$	$
TOTAL ASSETS		$	$

LIABILITIES & OWNER'S EQUITY	Cost	Market Value
Current Liabilities	**Cost**	**Market Value**
Accounts payable	$	$
Operating loans due within 1 year	$45,000	$ 45,000
Principal portion of long-term debt due within 1 year	$	$
Accrued interest & expenses	$ 1,670	$ 1,670
Estimated accrued taxes	$ -	$ -
Accrued rents payable	$ 2,500	$ 2,500
Total Current Liabilities	$	$
Intermediate Liabilities		
Machinery & Equipment Loan (Principal due beyond 12 months)	$	$
Total Intermediate Liabilities	$	$
Long Term Liabilities		
Real estate and building loan (Principal due beyond 12 months)	$	$
Total Long Term Liabilities	$	$
TOTAL LIABILITIES	$	$
Total Owner's Equity	$	$
TOTAL LIABILITIES & OWNER'S EQUITY	$	$

Solution to Interactive Practice Exercise

1. **Prepaid Insurance**: $3,600/12 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. $26,000x.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. $50,000x.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

Interactive Practice Balance Sheet

January 1, Year A

ASSETS		Cost	Market Value
Current Assets			
Cash		$ 1,000	$ 1,000
Marketable securities		$ 2,500	$ 5,500
Accounts receivable		$ 4,000	$ 4,000
Livestock held for sale		$ 60,000	$ 60,000
Crops and feed		$ 25,000	$ 25,000
Cash investment in crops		$ 1,500	$ 1,500
Supplies		$ 1,000	$ 1,000
Prepaid expenses		$ 2,400	$ 2,400
Total Current Assets		**$ 97,400**	**$ 100,400**
Intermediate Assets			
Machinery and equipment			$ 100,000
Cost	$85,000		
Acc. Depreciation	$30,000	$ 55,000	
Breeding livestock		$ 50,000	$ 50,000
Replacements #1		$ 3,000	$ 3,000
Replacements #2		$ 1,000	$ 1,000
Farm Credit Stock		$ 1,000	$ 1,000
Total Intermediate Assets		$ 110,000	$ 155,000
Long Term Assets			
Farm real estate and building			$ 200,000
Cost	$130,000		
Acc. Depreciation	$20,000	$ 110,000	
Total Long Term Assets		$ 110,000	$ 200,000
TOTAL ASSETS		**$ 317,400**	**$ 455,400**

LIABILITIES & OWNER'S EQUITY	Cost	Market Value
Current Liabilities		
Accounts payable	$ 2,000	$ 2,000
Operating loans due within 1 year	$ 45,000	$ 45,000
Principal portion of long-term debt due within 1 year	$ 21,660	$ 21,660
Accrued interest & expenses	$ 1,670	$ 1,670
Estimated accrued taxes	$ -	$ -
Accrued rents payable	$ 2,500	$ 2,500
Total Current Liabilities	**$ 72,830**	**$ 72,830**
Intermediate Liabilities		
Machinery & Equipment Loan		
(Principal due beyond 12 months)	$26,000	$26,000
Total Intermediate Liabilities	**$ 26,000**	**$ 26,000**
Long Term Liabilities		
Real estate and building loan		
(Principal due beyond 12 months)	$ 38,000	$ 38,000
Total Long Term Liabilities	**$ 38,000**	**$ 38,000**
TOTAL LIABILITIES	**$ 136,830**	**$ 136,830**
Total Owner's Equity	**$ 180,570**	**$ 318,570**
TOTAL LIABILITIES & OWNER'S EQUITY	**$ 317,400**	**$ 455,400**

Appendix

Module Challenge 1 Answer Key

Current/ Intermediate/ Long Term	Business/ Personal	Asset
C	B or P	Cash
C	B	Accounts receivable – hay sales
I	B	Beef replacement heifers
C	B	Prepaid land rent
I	P	Retirement accts. (IRA & 401k)
I	B	Crop sprayer
C	B	Corn growing in field
L	B	Farm real estate
L	P	Lake house
L	B	Poultry buildings

Module Challenge 2 Answer Key

Current/ Intermediate/ Long Term	Business/ Personal	Liability
C	B	Feed account over 90 days
I	B	Remaining balance on beef cattle loan
C	B	Operating line of credit
C	P	Credit card debt – personal use
C	B	Principal due in 12 months on poultry barn loan
C	B	Tractor lease payment due in 6 months
C	B	Machinery repair account
I	P	Student loan
L	B	Balance on land loan
L	P	Remaining balance on home mortgage

Module Challenge 3 Answer Key

B. $150,000 total assets -$50,000 total liabilities = $100,000 owner's equity

Module Challenge 4 Answer Key

Here are some of the observations:

1. Livestock for sale increased $5,600

2. Crops and feed increased $6,800
3. Equipment cost increased $6,000
4. Contribution to retirement $2,100, as long as interest and earnings had not been accrued to the account
5. Accounts payable increased $1,800
6. Operating loan decreased $4,000
7. $8,550 decrease in machinery loans
8. $25,600 decrease in real estate loan
9. $41,350 increase in cost basis equity

Sample Balance Sheet Schedules

Enter your input values in shaded cells.

Schedules of Assets and Liabilities

Name | Date

Schedule A. Farm Checking, Savings and Hedging Account Balances	
Description	Ending Balance
Total	$0
Hedging accounts balances (total)	

Schedule B. Crops Held for Sale or Feed				
Description	Quantity	Unit	Price	Value
				$0
				$0
				$0
				$0
				$0
				$0
Total				$0

Schedule C. Investment in Annual Growing Crops			
Description	Acres	$/acre	Value
			$0
			$0
Total	0		$0

Schedule D. Commercial Feed on Hand				
Description/Species	Quantity	Unit	Price	Value
				$0
				$0
Total				$0

Schedule E. Prepaid Expenses				
Description	Quantity	Unit	Price	Value
				$0
				$0
Total				$0

Schedule F. Market Livestock					
Description	Number	Average Weight (lbs.)	Total Weight (lbs.)	Price per Pound	Value
			0		$0
			0		$0
Total					$0

Schedule G. Supplies on Hand				
Description	Quantity	Unit	Price	Value
				$0
				$0
Total				$0

Module 4: The Balance Sheet

Schedule H. Accounts Receivable[1]		Schedule I. Unpaid Cooperative Distributions	
Description	Value	Description	Value
		(a) Total value from previous year	
		(b) Value of distributions earned this year	
		(c)Value of distributions paid in cash this year	
Total	$0	Total value this year (a+b+c)	

[1]Include product sales, government program payments and crop insurance payments earned but not yet received.

Schedule J. Breeding Livestock			
Description	Number	Price per Head	Value
			$0
			$0
			$0
			$0
			$0
			$0
Total	0		$0

Schedule K. Machinery and Equipment						
Description	(a) Previous Cost Value	(b) Cost of Purchases and Trades	(c) Revenue from Items Sold	(d) Depreciation Rate 10%	New Cost Value (a + b - c - d)	Current Market Value (estimate)
				$0	$0	
Total	$0	$0	$0	$0	$0	$0

Schedule L. Buildings and Depreciable Improvements						
Description	(a) Previous Cost Value	(b) Cost of Purchases and Trades	(c) Revenue from Items Sold	(d) Depreciation Rate 5%	New Cost Value (a + b - c - d)	Current Market Value (estimate)
				$0	$0	
				$0	$0	
Total	$0	$0	$0	$0	$0	$0

Schedule M. Farmland						
Description	(a) Number of Acres	(b) Cost of New Purchases	(c) Revenue from Land Sold	(d) Cost Value	Current Market Value, $ per Acre	Total Current Market Value
Acres owned all year						
		xxx	xxx	xxx		$0
		xxx	xxx	xxx		$0
Beginning of the year		xxx	xxx	$0	xxx	xxx
Acres sold this year		xxx			xxx	xxx
Acres purchased this year			xxx	$0		$0
Nondepreciable improvements made to land			xxx	$0	xxx	$0
Total at end of year	-	$0	$0	$0	xxx	$0

Schedule N. Farm Securities and Certificates (farm-related stocks, bonds, shares, etc.)				
Description	Beginning Value	Value of New Purchases & Investments	Value Sold or $ of Cash Withdrawn	Ending Value
				$0
				$0
				$0
Total	$0	$0	$0	$0

Schedule O. Farm Accounts Payable	
Description	Value
Total	$0

Schedule P. Farm Taxes Due	
Description	Value
Total	$0

Schedule Q. Current Notes and Credit Lines				
Source and Purpose	Interest Rate - %	Date Loan Rcd. or Last Payment Made	Balance Owed	Accrued Interest
				$0
				$0
Total			$0	$0

Schedule R. Fixed Notes and Contracts						
Source and Purpose	Interest Rate - %	Date Loan Rcd. or Last Payment	Balance Owed	Principal Due, Next 12 mos.	Principal Due Beyond 12 mos.	Accrued Interest
					$0	$0
					$0	$0
					$0	$0
					$0	$0
Total			$0	$0	$0	$0

Source: Ag Decision Maker - Iowa State University Extension and Outreach