Your Net Worth Statement

Ag Decision Maker

File C3-20

Would you like to know more about the current financial situation of your farming operation? A simple listing of the property you own and the debts you owe can provide valuable insights. Such a listing is called a **net worth statement**, or sometimes a financial statement, or balance sheet.

The net worth statement is based on the relationship:

assets = liabilities + net worth, or
assets - liabilities = net worth

Most farm businesses are made up of a combination of land, livestock, crops, and machinery acquired with debt (liabilities) or contributed by the operator (net worth or owner's equity). The net worth statement is like a **photograph** of these assets and liabilities on a given date.

Comparing net worth statements made at the end of each year over several years can help you measure the progress of your farm business. The net worth statement also helps you judge the ability of the farm operation to pay off current debts and take on additional ones.

Developing the Statement

A net worth statement may include only the farm business, or it may include household and personal assets and debts as well. For business analysis purposes, only information pertaining to the farming operation is needed. Information about non-farm assets and liabilities can be added in a separate section and used for analyzing debt repayment capacity. For a farm partnership, include only items owned or owed by the partnership, not by the partners individually.

Most families make out a net worth statement as of December 31 or January 1 because this is the end of their accounting year. However, it is possible to develop a statement at any date and as often as needed. A blank form for completing a net worth statement is available at the end of this publication. If you want to create your own net worth statement, an income statement, cash flow statement, and calculate financial performance measures, use *Decision Tool* **Complete Financial Statements** or the blank worksheets available in ISU Extension and Outreach publication *FM 1824/AgDM C3-56,* **Farm Financial Statements**.

Valuing Assets

Assets are generally listed on the left-hand side and liabilities on the right-hand side. Both assets and liabilities are divided into current and fixed items.

Current assets include cash, bank accounts, crops, livestock, and supplies that will normally be sold or used within a year.

List the current balances for all your savings and checking accounts used for farm receipts and expenses. If you obtain your current checking account balance from your bank, remember to subtract the value of any checks that are still outstanding.

The key to correctly listing current assets is to accurately estimate both the number and value of items on hand. ISU Extension and Outreach publication *FM 1490/AgDM C1-40*, **Suggested Closing Inventory Prices,** is helpful for valuing current assets.

For market livestock, begin with an up-to-date inventory of the number of head and estimated weight for each class of livestock. Value them at current market prices, minus potential marketing and transportation costs. Check with local markets or use local prices available from newspapers, radio, or other sources of marketing information.

- Value young livestock at feeder animal prices.
- Value heavier livestock at their estimated weight times the current slaughter market price.
- Use an average of feeder and market livestock prices for animals at intermediate weights.

For grain and feed, including hay, silage, straw, and supplements:

- Begin with accurate estimates of bushels, tons, bales, etc., on hand.
- Include grain under warehouse receipt at an elevator. Also include grain delivered under a deferred pricing (price later) contract if the price has not yet been established or payment received.
- Value crops at current market price, or their contracted price, minus marketing costs. Check with local markets or use local prices available through newspapers, radio, or other sources.

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- Include grain under a USDA marketing loan. Value it at the current market price or the loan rate, whichever is higher, because you have the option of repaying the loan at a lower rate if the price is below the loan rate. Include the marketing loan as a current liability.
- When grain or livestock have been "hedged" by selling futures contracts on a commodity exchange, value these contracts by subtracting the trading price of the contract on the date of the net worth statement from the original selling price (hedged price) of the contract. The result is the gain or loss that would be incurred by closing out the hedges, which sometimes could be a negative number. The physical commodity that has been hedged should be valued at its current market price, just like an unhedged commodity (see Example 1).
- Value commercial feed at its purchase cost.

Example 1. Valuing Grain

A farm has 40,000 bushels of corn in storage. The current market price (net of transportation cost) is $3.40. A total of 10,000 bushels have been forward contracted to a local elevator for $3.60 per bushel, for future delivery. Another 10,000 bushels were hedged by selling futures contracts for $3.95 per bushel. These same contracts are trading at $3.79 per bushel today.

The corn inventory would be valued as follows:

20,000 bushels unpriced, @ $3.40	$68,000
10,000 bushels forward contracted, @ $3.60	36,000
10,000 bushels hedged, @ $3.40 (cash price)	34,000
Gain on futures contract, 10,000 bu. @ ($3.95-$3.79)	1,600
Total	$139,600

Other current assets include:

- Supplies on hand, such as seed corn, chemicals, medications, and fuel.
- Prepaid expenses, such as payment made for feed to be delivered in the coming year. Show this as an asset only if you have already paid for it or if you show the obligation to pay for it as a liability.
- Money invested in a future crop such as for fall-applied fertilizer. Growing crops generally should be given a value equal to the costs of production already incurred.
- Accounts receivable, such as the payment a neighbor might owe you for custom combining, or government payments to be received for past production.

Fixed assets are those used in farm production, but not intended to be sold or converted directly into marketable products during the year (except for breeding livestock to be culled).

For breeding and dairy livestock:

- Begin with an accurate count of each species and type of livestock.
- Cows or ewes should be valued according to a conservative dairy or breeding value. For sows that are replaced more rapidly, an estimated slaughter value is suggested.
- Avoid making large year-to-year changes in values placed on breeding stock, which can cause large paper increases or decreases in net worth. Establishing a base value for each class of breeding stock and using it each year is recommended.

For machinery, equipment, and vehicles:

- Your tax depreciation schedule should provide a complete inventory.
- Use the depreciated or remaining value (cost minus total depreciation allowed, including depreciation for the past year), under the **cost value** column. However, if very rapid tax depreciation methods have been used, such as "expensing," you may want to start with a value that is closer to fair market value.
- Once a total remaining value has been determined, it can be adjusted in following years by this formula:

  Value of machinery (or equipment or vehicles) at the beginning of the year
  + net cost of machinery added (purchases or cash difference on a trade)
  - the value of machinery sold or junked
  - depreciation expense for the year (economic, not income tax values)
  = machinery value at the end of the year
  (see Example 2).

Example 2. Machinery Depreciation Adjustment

Value, beginning of year	$95,834
+ Net purchases	+7,630
– Sales	–4,000
– Depreciation (estimated at 10%)	–9,583
= Value, end of year	$89,881

- Use a conservative market value under the market value column, or adjust the previous year's value for purchases, sales, and depreciation. Use the same depreciation expense value that you show on your net income statement.

Do not include machinery, equipment, or breeding livestock that you are leasing, unless they are shown on your tax depreciation schedule.

For perennial or long-term crops such as alfalfa, orchard crops, or some vegetables, sum up all the costs incurred for establishing the crop and depreciate that amount over its productive life.

Other fixed assets include land, buildings, and other improvements. They often have the largest dollar value of any assets on the net worth statement. On some statements, fixed assets are divided into intermediate and long-term assets.

List the cost basis of farm real estate under the cost value column:

- Your original basis is the price you paid for the farm.
- If you received the property through gift, you retain the giver's basis.
- If you inherited the property, the basis is the value used for calculating federal estate taxes.
- Adjust the original basis by adding the cost of improvements made and subtracting the depreciation taken on improvements.

List owned farm real estate at a conservative current value in the **market value** column.

- List the value of improvements separately from real estate. Use the remaining value for depreciable improvements.
- Reduce market value land prices to allow for broker's commission and other selling costs that might have to be paid if the farm were sold.

Shares in other farming entities such as a sow cooperative should also be shown under fixed assets.

Personal assets such as family bank accounts, retirement accounts, stocks and bonds, household goods, vehicles, housing, or other real estate can be listed separately at the bottom of the assets side of the statement.

Listing Liabilities

Liabilities are generally listed on the right-hand side of the net worth statement and include all debts and obligations to pay that the farm business or family has on the date of the statement. Liabilities are usually listed according to the length of time before they become due. You may want to list the creditor's name and the purpose of each liability, as well as the amount, on a separate page.

Current liabilities are those due within the next 12 months.

- Include debts such as operating notes, feeder livestock notes, or the outstanding balance on a credit line with a bank or other lender.
- Accounts payable, such as an unpaid open account with a feed mill or attorney, should also be shown, as well as unpaid wages, custom charges, and farm property taxes due.
- Contractual obligations, such as a cash rent leasing agreement or a machinery operating lease, are generally not shown. However, if they are included in liabilities, the value of the rights that you have as a result of the contract should also be shown as an asset. These are generally given the same value as the liability.
- List principal payments due on fixed liabilities within the next 12 months (see Example 3).

Example 3. Installment Loans

A $40,000 loan for machinery is payable in four annual installments of $10,000 each, plus interest at 10 percent on the unpaid balance. Show the $10,000 due this year as a current liability and the remaining $30,000 as a fixed liability.

- Calculate the amount of unpaid interest accrued on all liabilities as of the date of the statement. Multiply the outstanding principal of each debt by its respective interest rate, then multiply by the fraction of a year that has passed since the last payment, or since the loan was received if no payments have been made yet (see Example 4).

Example 4. Interest Accrued as of January 1

a. Operating note, borrowed April 1:
$75,000 X 8% X 9/12 yr. = $4,500

b. Machinery loan, $40,000 owed since August 1:
$40,000 X 10% X 5/12 yr. = $1,667

c. Land contract, $126,000 outstanding, last payment made March 1:
$126,000 X 8% X 10/12 yr. = $8,400

Total interest accrued = $14,567

Fixed liabilities include debts payable more than one year in the future.

- Loans for breeding stock, machinery, land, or farm improvements usually fall into the fixed category.
- A mortgage or contract on real estate is usually a fixed liability, too.
- Show the unpaid balance minus the principal due in the coming year (it has already been shown as a current liability).

Personal liabilities can be shown at the bottom of the liabilities column. These include consumer debts, credit card balances, home mortgages, and bills to pay.

Net Worth

The difference between total farm assets and total farm liabilities is the net worth, or equity, at the time the statement is made. It is the current value of your own investment in the farming operation. Adding net worth to total liabilities (which is the share of assets contributed by creditors) gives you a figure equal to total assets and serves as a check on your arithmetic.

The cost value net worth shows the value of your own investment excluding changes in the market values of machinery or real estate, while market value net worth does include these changes.

Farm and personal net worth can be added together to find the total family net worth.

Analyzing the Statement

Once you have completed your net worth statement, take time to look it over and understand what it can tell you. To begin, look at each major liability listed and see if a corresponding item can be found under the asset side. The corresponding item will usually be listed under the same section (current or fixed). If a corresponding asset cannot be found, you may have forgotten to list something. Or the asset originally acquired with borrowed money may have already been sold or used up before paying the corresponding liability. This is a danger sign. It means that you must generate funds to pay this debt elsewhere in the farm business.

Another danger sign is a liability that appears closer to the top of the statement than its corresponding asset. An example is a machinery item bought on a one-year note. It is usually difficult to pay for an asset over a period of time considerably shorter than its useful life.

Sometimes the value of a particular liability is greater than the value of its corresponding asset. This may mean that the debt is not adequately secured, or it may occur simply because rapid depreciation methods have been used.

Financial Ratios

Several ratios can be computed from the net worth statement and used to help analyze the financial security of your business. More information on these ratios, including benchmark values, can be found in ISU Extension and Outreach publication *FM 1845/AgDM C3-55,* **Financial Performance Measures for Iowa Farms**.

Debt-to-asset ratio (or percent debt) is equal to total liabilities divided by the market value of total assets. It indicates the portion of total capital supplied by creditors. A successful farm business will have a decreasing ratio over time, except in years when major assets such as land are purchased with borrowed capital. A low debt-to-asset ratio usually leads to less year-to-year variability in net farm income.

A **personal** debt-to-asset ratio can also be calculated, using total farm and personal asset and liability values.

A **current ratio** can be calculated by dividing total current assets by total current liabilities. This is a measure of liquidity, or the ability to pay bills and debts as they come due.

A farm business with good overall risk-bearing ability can still have liquidity problems. This may be caused by a low income year resulting in carry-over operating debt, or too rapid investment of cash into intermediate and long-term assets, such as machinery or land.

Many lenders consider a current ratio of 2.0 or greater to show good short-term risk-bearing ability, while a ratio close to 1.0 or lower indicates potential cash flow problems. However, this is affected by the type of farm, volume of production, and financial structure. For example, farms with regular livestock sales, such as dairy, often require lower current ratios than crop farms that have production only late in the year.

Some lenders prefer to look at the difference between current assets and current liabilities rather than their ratio. This difference is called **working capital** and indicates the potential cash available for meeting daily operating costs, consumption expenditures, and other items not listed under current liabilities.

In many cases current liabilities will be paid from income generated from sales of farm products that have not yet been produced and do not appear as current assets. A more accurate analysis of repayment capacity can be made by developing a **cash flow budget**, as explained in ISU Extension and Outreach publication *FM 1792/AgDM C3-15,* **Twelve Steps to Cash Flow Budgeting**.

Year-to-year Comparisons

The financial progress of the farm business can be measured by comparing a current net worth statement with earlier ones.

The **change in cost value net worth** from one year to the next shows the growth (or loss) due to net income earned from the farm business, and consumption. The following formula summarizes the relation among cost value net worth, income, and consumption expenditures:

net farm income (accrual)

+ non-farm income, gifts, or inheritances invested in the farm business

- farm income used for living expenses, income tax payments, and other consumption

= change in cost value farm net worth

The **change in market value net worth** is found by subtracting the market net worth shown on last year's financial statement from that shown on this year's. It measures the change in the market value of your equity share of the farm business. It also depends on net income and consumption, but includes changes in the market value of land or machinery, as well.

A decrease in net worth from one year to the next may result from low net farm income or high consumption expenditures. It may also result from large changes in inventory prices of current and fixed assets. For this reason, it is useful to compare similar items on the balance sheet from one year to the next. Changes in their values may be due to changes in volume, changes in unit prices, or both.

Many different forms and formats exist for developing a net worth statement. However, all of them contain the same basic information. Completing an annual net worth statement is one of the simplest means available for analyzing the risk-bearing ability and financial progress of your farm business.

Example 5. Net Worth Statement Analysis

1. Current ratio
Total current farm assets divided by total current farm liabilities

2. Working capital
Total current farm assets minus total current farm liabilities

3. Debt-to-asset ratio
Total farm liabilities divided by total farm assets (market value)

4. Change in cost value net worth
This year's cost net worth minus last year's cost net worth

5. Change in market value net worth
This year's market net worth minus last year's market net worth

Net Worth Statement Example

Name *Cyclone Farm* Date *January 1*

Farm Assets	Cost Value	Market Value	Farm Liabilities	Market Value
Current Assets			**Current Liabilities**	
Checking and savings accounts	6,146	6,146	Accounts payable	23,523
Crops held for sale/feed	228,166	228,166	Farm taxes due	0
Investment in growing crops	22,923	22,923	Current notes and credit lines	203,200
Commercial feed on hand	31,230	31,230	Accrued interest - short	10,580
Prepaid expenses	31,500	31,500	- fixed	7,140
Market livestock	31,920	31,920		
Supplies on hand	15,548	15,548	Due in 12 months - fixed	15,487
Accounts receivable	7,966	7,966		
Other current assets			Other current liabilities	
a. Total Current Assets	**$ 375,399**	**$ 375,399**	**d. Total Current Liabilities**	**$ 259,930**
Fixed Assets			**Fixed Liabilities**	
Unpaid co-op. distributions			Notes and contracts, remainder	134,726
Breeding livestock	25,250	25,250	- Machinery	
Machinery and equipment	79,916	110,500	- Land	
Buildings/improvements	60,000	100,000	- Other fixed assets	
Farmland	140,000	288,000		
Farm securities, certificates				
Other fixed assets			Other fixed liabilities	
b. Total Fixed Assets	$ 305,166	$ 523,750	**e. Total Fixed Liabilities**	**134,726**
c. Total Farm Assets (a + b)	**$ 680,565**	**$ 899,149**	**f. Total Farm Liabilities (d + e)**	**$394,656**
g. Farm Net Worth (c - f)	**$ 285,909**	**$ 504,493**	Working Capital (a - b)	$115,469
h. Farm Net Worth Last Year	$ 256,820	$ 477,049	Current Asset-to-Debt Ratio (a / b)	1.44
i. Change in Farm Net Worth (g - h)	$ 29,089	$ 27,444	Total Debt-to-Asset Ratio (f / c)	44%

Personal Assets (optional)		Personal Liabilities (optional)	
Bank accounts, cash, savings	$ 965	Credit card, charge accts, other loans	$ 1,568
Automobiles, boats, etc.	14,000	Automobile loans	
Household goods, clothing	10,000	Accounts payable, taxes due	
Stocks, bonds, etc.	37,100	Other loans	
Real estate	75,000	Real estate, other long-term loans	
j. Total Personal Assets	**$ 137,065**	**k. Total Personal Liabilities**	**$ 1,568**
l. Total Personal Net Worth (j - k)	**$ 135,497**		
m. Total Net Worth, Market Value (g + l)	**$ 639,990**	Personal Debt-to-Asset Ratio (k / j)	1%

Net Worth Statement

Name_____Date_____

Farm Assets	Cost Value	Market Value	Farm Liabilities	Market Value
Current Assets			**Current Liabilities**	
Checking and savings accounts			Accounts payable	
Crops held for sale/feed			Farm taxes due	
Investment in growing crops			Current notes and credit lines	
Commercial feed on hand			Accrued interest - short	
Prepaid expenses			- fixed	
Market livestock				
Supplies on hand			Due in 12 months - fixed	
Accounts receivable				
Other current assets			Other current liabilities	
a. Total Current Assets			**d. Total Current Liabilities**	
Fixed Assets			**Fixed Liabilities**	
Unpaid co-op. distributions			Notes and contracts, remainder	
Breeding livestock			- Machinery	
Machinery and equipment			- Land	
Buildings/improvements			- Other fixed assets	
Farmland				
Farm securities, certificates				
Other fixed assets			Other fixed liabilities	
b. Total Fixed Assets			**e. Total Fixed Liabilities**	
c. Total Farm Assets (a + b)			**f. Total Farm Liabilities (d + e)**	
g. Farm Net Worth (c - f)			Working Capital (a - b)	
h. Farm Net Worth Last Year			Current Asset-to-Debt Ratio (a / b)	
i. Change in Farm Net Worth (g - h)			Total Debt-to-Asset Ratio (f / c)	

Personal Assets (optional)		Personal Liabilities (optional)	
Bank accounts, cash, savings		Credit card, charge accts, other loans	
Automobiles, boats, etc.		Automobile loans	
Household goods, clothing		Accounts payable, taxes due	
Stocks, bonds, etc.		Other loans	
Real estate		Real estate, other long-term loans	
j. Total Personal Assets		**k. Total Personal Liabilities**	
l. Total Personal Net Worth (j - k)			
m. Total Net Worth, Market Value (g + l)		Personal Debt-to-Asset Ratio (k / j)	

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