

## Farm finance scorecard

Year 19\_\_

### Liquidity

Vulnerable

Strong

1. Current ratio



2. Working capital

\$ \_\_\_

### Solvency (market)

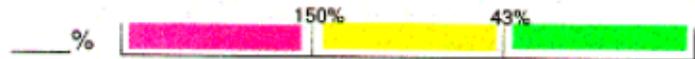
3. Farm debt-to-asset ratio



4. Farm equity-to-asset ratio



5. Farm debt-to-equity ratio



### Profitability

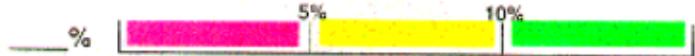
6. Net farm income

\$ \_\_\_

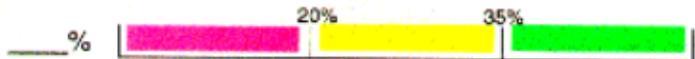
7. Rate of return on farm assets



8. Rate of return on farm equity

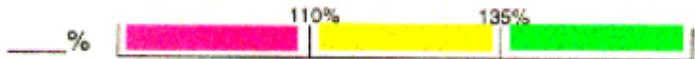


9. Operating profit margin



### Repayment capacity

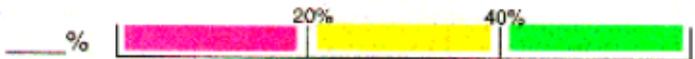
10. Term-debt coverage ratio



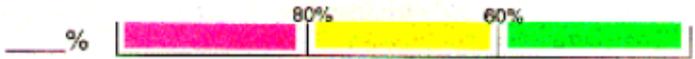
11. Capital-replacement margin \$ \_\_\_

### Financial efficiency

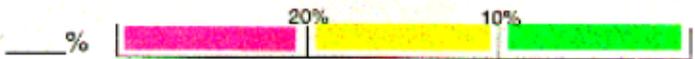
12. Asset-turnover rate (market)



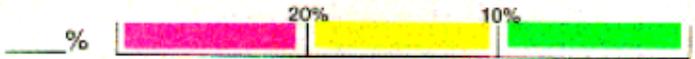
13. Operating-expense ratio



14. Depreciation-expense ratio



15. Interest-expense ratio



16. Net farm income ratio



# Farm financial ratios and guidelines

From the balance sheet

## Liquidity

- is the ability of your farm business to meet financial obligations as they come due - to generate enough cash to pay your family living expenses and taxes, and make debt payments on time.

### 1. Current ratio

- measures the extent to which current farm assets, if sold tomorrow, would pay off current farm liabilities.

### 2. Working capital

- tells us the operating capital available in the short term from within the business.

## Solvency

- is the ability of your business to pay all its debts if it were sold tomorrow. Solvency is important in evaluating the financial risk and borrowing capacity of the business.

### 3. Farm debt-to-asset ratio

- is the bank's share of the business. It compares total farm debt to total farm assets. A higher ratio is an indicator of greater financial risk and lower borrowing capacity.

### 4. Farm equity-to-asset ratio

- is your share of the business. It compares farm equity to total farm assets. If you add the debt-to-asset ratio and the equity-to-asset ratio you must get 100%.

### 5. Farm debt-to-equity ratio

- compares the bank's ownership to your ownership. It also indicates how much the owners have leveraged (i.e., multiplied) their equity in the business.

## From the income statement

## Profitability

- is the difference between the value of goods produced and the cost of the resources used in their production.

### 6. Net farm income

- represents return to 3 things,

- Your labor,
- Your management and
- Your equity, that you have invested in the business. It is the reward for investing your unpaid family labor, management and money in the business instead of elsewhere. Anything left in the business, i.e., not taken out for family living and taxes, will increase your farm net worth next year.

### 7. Rate of return on farm assets

- can be thought of as the average interest rate being earned on all (yours and creditors') investments in the farm.

Unpaid labor and management are assigned a return before return on farm assets is calculated.

### 8. Rate of return on farm equity

- represents the interest rate being earned by your investment in the farm. This return can be compared to returns available if your equity were invested somewhere else, such as a certificate of deposit.

### 9. Operating profit margin

- shows the operating efficiency of the business. For instance, if expenses are low relative to the value of farm production, the business will have a healthy operating profit margin. A low profit margin can be caused by low product prices, high operating expenses, or inefficient production.

## From the cash-flow statement

### Repayment capacity

- shows the borrower's (i.e., your) ability to repay term debts (both farm and non-farm) on time. It includes non-farm income and so is not a measure of business performance alone.

#### 10. Term-debt coverage ratio

- tells whether your business produced enough cash to cover all (both farm and non-farm) intermediate and long-term debt payments.

A ratio of less than 100% indicates that a business had to run up open accounts,

borrow money, or sell assets to make scheduled payments to the bank.

#### 11. Capital-replacement margin

- is the amount of money remaining after all operating expenses, taxes, family living costs, and scheduled debt payments have been made. It's really the money left, after paying all bills, that is available for purchasing or financing new machinery, equipment, land or livestock.

## From all the financial statements

### Financial efficiency

- shows how effectively your business uses assets to generate income. Past performance of the business could well indicate potential future accomplishments.

It also answers the questions:

Are you using every available asset to its fullest potential?

What are the effects of production, purchasing, pricing, financing and marketing decisions on gross income?

#### 12. Asset-turnover rate

- measures efficiency in using capital. You could think of it as capital productivity.

Generating a high level of production with a low level of capital investment will give a high asset-turnover rate. If, on the other hand, the turnover is low you will want to explore methods to use the capital invested much more efficiently or sell some low-return investments. (it could mean getting rid of that swamp and ledge on the back 40 and getting something that produces income).

The last four ratios show how Gross Farm Income gets spent. The sum of the four equals 100% (of Gross Farm Income).

#### 13. Operation -expense ratio

- shows the proportion of farm income that is used to pay operating expenses, not including principle or interest.

#### 14. Depreciation-expense ratio

- indicates how fast the business wears out capital. It tells what proportion of farm income is needed to maintain the capital used by the business. It is important to remember that this ratio should be looked at over time. This measure is likely to be misleading during major expansions and contractions, or if you use depreciation on your 1040F to adjust your tax liability.

#### 15. Interest-expense ratio

- shows how much of gross farm income is used to pay for borrowed capital.

#### 16. Net farm income ratio

- compares profit to gross farm income. It shows how much is left after all farm expenses, except for unpaid labor and management, are paid.

## Liquidity

1. Current ratio  
= Total current farm assets  
/ Total current farm liabilities
2. Working capital (end of year)  
= Total current farm assets  
- Total current farm liabilities

## Solvency (market)

3. Farm debt-to-asset ratio  
= Total farm liabilities / Total farm assets
4. Farm equity-to-asset ratio  
Total farm assets - Total farm liabilities  
= Farm net worth  
/ Total farm assets  
= Farm equity-to-asset ratio
5. Farm debt-to-equity ratio  
= Total farm liabilities / Farm net worth

## Profitability

6. Net farm income  
= Gross cash farm income  
- Total cash farm expense  
+ Inventory changes  
+ Depreciation & other capital adjustments
7. Rate of return on farm assets  
Net farm income  
+ Farm interest  
- Value of operator's labor & management  
= Return on farm assets  
/ Average farm assets  
= Rate of return on farm assets
8. Rate of return on farm equity  
Net farm income  
- Value of operator's labor & management  
= Return on farm equity  
/ Average farm net worth  
= Rate of return on farm equity

9. Operating profit margin  
Gross cash farm income  
+ Inventory changes in Crops & feed, Market live-  
stock & Breeding livestock  
+ Change in Receivables & other income items  
= Gross farm income  
  
- Feeder livestock purchased  
- Purchased feed  
= Value of farm production  
  
Return on farm assets / Value of farm production  
= Operating profit margin

## Repayment capacity

10. Term-debt coverage ratio  
= (Net farm operating income  
+ Net non-farm income  
+ Scheduled interest on term debt  
- Family living & taxes paid)  
/ Scheduled principal & interest  
payments on term debt
  11. Capital-replacement margin  
= Net farm operating income  
+ Net non-farm income  
- Family living & taxes paid  
- Scheduled principal payments on term debt
- ## Financial efficiency
12. Asset-turnover ratio  
= Value of farm production / Average farm assets
  13. Operating-expense ratio  
= (Total farm operating expense  
- Farm interest)  
/ Gross farm income
  14. Depreciation-expense ratio  
Depreciation & other capital adjustments  
/ Gross farm income
  15. Interest-expense ratio  
= Farm interest / Gross farm income
  16. Net farm income ratio  
= Net farm income / Gross farm income