



Farm Financial Assessment Guide



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Financial Assessment Benchmarks

Having a good understanding of financials is an important part of a whole-farm analysis. Below are five key ratios used to determine the financial health of any farm business. Benchmarks are color-coded as:

Red – needs improvement

Yellow – caution

Green – strong

Equity

Your equity position depicts the relationship between your assets and your financial obligations. The basic ratio to determine percent equity is:

$$\% \text{ Equity} = \text{Total Farm Equity} / \text{Total Farm Assets}$$

< 35%	35% – 60%	> 60%
Red	Yellow	Green

Liquidity

Liquidity is defined as the availability of cash or near-cash assets to cover short-term obligations without disrupting normal business operations. A good ratio to calculate to reflect liquidity is working capital as a percentage of annual expenses.

$$\text{Working Capital as a Percentage of Annual Expenses} = (\text{Current Assets} - \text{Current Liabilities}) / \text{Farm Expenses}$$

< 20%	20% – 50%	> 50%
Red	Yellow	Green

Profitability

The Return on Assets (ROA) shows the percentage of how profitable a farm's assets are in generating revenue. The ratio to determine ROA is:

$$\text{ROA} = (\text{Net Income} + \text{Interest}) / \text{Total Farm Assets}$$

< 3%	3% – 6%	> 6%
Red	Yellow	Green

Efficiency

To measure efficiency, the Operating Expense Ratio (OER) can be used that shows the relationship between operating expenses and gross revenue. The formula is:

$$\text{OER} = \text{Farm Expenses} / \text{Farm Receipts}$$

> 80%	65 – 80%	< 65%
Red	Yellow	Green

Repayment Capacity

A common ratio used by lenders to measure a farm's ability to service its current debts by comparing its net operating income with its total debt service obligations is the Total Debt and Lease Coverage Ratio. The formula for the Total Debt and Lease Coverage Ratio is:

$$\text{Total Debt and Lease Coverage Ratio} = (\text{Net Income} + \text{Depreciation} + \text{Interest Cost} + \text{Capital Leases}) / (\text{Scheduled Annual Principal and Interest Payments on All Debt} + \text{Capital Lease Payments})$$

< 110%	110% - 150%	> 150%
Red	Yellow	Green

Case Study Example

Try your hand at calculating these five financial ratios for the dairy farm case study example included below. Then, calculate the ratios using financial information for your farm.

Balance Sheet

Assets		Liabilities	
Current Assets: (Cash; Accounts Receivable; Feed, Seed & Supplies; Crops for Resale; Prepaid Expenses & Investment in Growing Crops; Market Livestock; Other Liquid Assets)	\$340,000	Current Liabilities: (Accounts Payable; Accrued Expenses; Operating Loans; Loans with Term less than 1 year; Current portion of Term Liability Principal due within next 12 months)	\$122,500
Fixed Assets: (Equipment; Vehicles; Breeding Livestock; Cooperative Investments; Retirement; Real Estate; Other Term Assets)	\$2,200,000	Term Liabilities: (Loans with Term greater than 1 year ; Capital Leases; Balances should be less the Principal due in the next 12 months that will be shown as a Current Liability)	\$476,200
Total Assets: (Current Assets plus Fixed Assets)	\$2,540,000	Total Liabilities: (Current Liabilities plus Term Liabilities)	\$598,700
		Owner's Equity or Net Worth: (Total Assets less Total Liabilities)	\$1,941,300
		Total Liabilities and Owner Equity: (Must equal Total Assets)	\$2,540,000
		Additional Information needed: Scheduled Principal payments due next 12 months	\$75,000

Income Statement

Farm Receipts: (Milk; Crops; Cattle Sales; Government Payments; Cooperative Patronage/Dividends; Other Farm Income)	\$942,700
Note: 1. These income figures should be accrual adjusted for changes in accounts receivables, inventory levels and internal breeding livestock growth	
Farm Expenses: (Labor, Fertilizer, Chemicals, Seeds, Fuel, Custom Hire, Marketing, Supplies, Vet, Breeding, Livestock Replacements; Feed, Miscellaneous, etc.)	\$780,900
Note: 1. These expense figures should be accrual adjusted for changes in accounts payable and accrued expenses 2. Interest expense and depreciation expense are not included here	
Earnings Before Interest, Taxes, Depreciation and Amortization – EBITDA (Farm Receipts less Farm Expenses)	\$161,800
Less Interest Cost (Includes interest paid on all loans)	\$21,700
Plus Net Non-Farm Earnings (This is non-farm income less non-farm expenses; other business income or jobs/W-2 wages)	\$17,000
Less Depreciation	\$72,300
Less Family Living and Income Taxes (Owner Draws; Living Expenses; Income Taxes)	\$52,300
Net Earnings or Net Income (EBITDA less interest cost plus net non-farm income less depreciation less family living)	\$32,500

Your Farm Assessment

Financial Ratio	Case Study Farm	Your Farm
<p>% Equity</p> <p>Total Farm Equity / Total Farm Assets</p>	<p>76%</p> <p>1,941,300 / 2,540,000</p> <p><input type="checkbox"/> Red <input type="checkbox"/> Yellow <input checked="" type="checkbox"/> Green</p>	<p><input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Green</p>
<p>Working Capital as a % of Expenses</p> <p>(Current Assets – Current Liabilities) / Farm Expenses</p>	<p>28%</p> <p>(340,000 – 122,500) / 780,900</p> <p><input type="checkbox"/> Red <input checked="" type="checkbox"/> Yellow <input type="checkbox"/> Green</p>	<p><input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Green</p>
<p>Return On Assets</p> <p>(Net Income + Interest) / Total Farm Assets</p>	<p>2.1%</p> <p>(32,500 + 21,700) / 2,540,000</p> <p><input checked="" type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Green</p>	<p><input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Green</p>
<p>Operating Expense Ratio</p> <p>Farm Expenses / Farm Receipts</p>	<p>83%</p> <p>780,900 / 942,700</p> <p><input checked="" type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Green</p>	<p><input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Green</p>
<p>Total Debt and Lease Coverage Ratio</p> <p>(Net Income + Depreciation + Interest Cost + Capital Leases) / (Scheduled Annual Principal and Interest Payment on All Debt + Capital Lease Payments)</p>	<p>131%</p> <p>(32,500 + 72,300 + 21,700 + 0) / (75,000 + 21,700 + 0)</p> <p><input type="checkbox"/> Red <input checked="" type="checkbox"/> Yellow <input type="checkbox"/> Green</p>	<p><input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Green</p>



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