FINANCIAL METRICS FOR YOUR FARM BUSINESS

USING COMMON FINANCIAL METRICS HELPS YOU AND YOUR LENDER EVALUATE THE OVERALL FINANCIAL CONDITION OF YOUR FARMING OPERATION, AND PINPOINT ANY TRENDS THROUGHOUT YOUR BUSINESS CYCLES.

THE FOLLOWING DESCRIBES SOME KEY METRICS AND THEIR CALCULATIONS ALONG WITH TARGETS THAT WHEN PROPERLY EVALUATED GIVES A CLEARER PICTURE OF YOUR FARM'S OVERALL FINANCIAL PERFORMANCE.

SOLVENCY METRICS

Solvency metrics are captured at a set point in time and measure the amount of debt used by your farm relative to the amount of your equity invested in the business. Debt capital is interest bearing and/or has a date by which it must be paid. Solvency metrics provide an indication of your farm's ability to repay all financial obligations if all assets were sold (for the prices indicated), and is an indication of your farm's ability to continue operations as a viable business after a financial adversity (such as an adverse weather or price event), which typically results in increased debt or reduced equity.

› Net Worth

Net Worth indicates the financial soundness, or solvency, of your business. Net worth is expressed in dollars and is calculated by adding the value of everything you own (your assets) and subtracting all debts that you owe (your liabilities).

Net Worth = Total Assets – Total Liabilities

TIP: Using key metrics gives a clearer picture of your farm's overall financial performance.

› Owner's Equity Ratio

The Owner's Equity Ratio shows net worth as a percentage of total assets measuring your ability to withstand periods of financial stress. The higher the ratio, the greater the solvency and the more total capital supplied by the owner(s) and less by the creditors.

Owner's Equity Ratio = Net Worth ÷ Total Assets

Target: 50–65% or higher

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LIQUIDITY METRICS

Liquidity measures your farm's ability to meet financial obligations as they come due in the ordinary course of business, without disrupting normal business operations. Higher working capital and liquidity provides you greater flexibility in marketing, acquiring capital assets and operating loans and a greater ability to withstand short-term adversity.

› Working Capital

Working Capital is a point in time measurement of your ability to pay your debts due in the following twelve months (current liabilities) based on the amount of assets you own that will be liquidated in the following twelve months (current assets). This is expressed in dollars and is calculated by subtracting your current liabilities from your current assets.

Working Capital = Current Assets – Current Liabilities

› Current Ratio

Current Ratio shows the value of assets to be liquidated in the following 12 months (current assets) in relation to liabilities due in the following 12 months (current liabilities). The Current Ratio indicates your ability to pay current liabilities from the normal liquidation of current assets without liquidating long-term assets or incurring more long-term debt. The higher the ratio, the greater the liquidity. For example, a Current Ratio of 2 indicates there are $2 of cash or assets that will be converted to cash in the following 12 months available for every $1 of liabilities due in the following 12 months.

Current Ratio = Current Assets ÷ Current Liabilities

Target: 1.25–1.75 or higher

› Working Capital Ratio

Working Capital Ratio shows the amount of your working capital as a percentage of annual gross revenues. This ratio indicates the amount of working capital you have relative to the size of your business. The higher the ratio, the greater the liquidity.

Working Capital Ratio =
Working Capital ÷ Annual Gross Revenues

Target: 15–25% or higher

CASH FLOW METRICS

Cash Flow is a measure of the changes in your working capital as a result of revenues, expenses, unfinanced capital spending and changes in non-current liabilities during a defined period of time. A positive Cash Flow will increase the working capital of your business, while conversely, a negative cash flow will decrease your working capital.

Definitions *(All calculated for a defined period of time)*

Annual Gross Revenues: All income and sales, except for sales of capital assets.

Operating Expenses: All expenses and costs of the business except for Depreciation Expense, Interest Expense, Debt Payments, Income Tax Expense and Owner Withdrawals for Non-Expensed Labor and Management that generally pay for home, insurance, tax and other personal and family living expenses.

Adjusted Net Income: Annual Gross Revenues less Operating Expenses, Depreciation Expense, Interest Expense, Income Tax Expense and Owner Withdrawals for Non-Expensed Labor and Management.

Example:

Annual Gross Revenues	$2,250,000
Operating Expenses	(1,710,000)
Depreciation Expenses	(300,000)
Interest Expenses	(170,000)
Income Tax Expense	(21,000)
Owner Withdrawals for Non-Expensed Labor and Management	(22,500)
Adjusted Net Income	**$26,500**

Debt Payments: Principal, interest and lease payments.

Example:

Interest Expense	$170,000
Principal Payments on Non-Current Liabilities due in the next 12 months	200,000
Debt Payments	**$370,000**

Unfinanced Capital Spending: The amount of assets (except Current Assets) that are purchased minus the amount of non-current debts incurred or other non-current assets sold to finance the purchased assets.

Example:

Capital Spending	$300,000
New Loans to Finance Capital Spending	(300,000)
New Principal Payments due in 12 months	30,000
Unfinanced Capital Spending	**$30,000**

Cash Flow: Adjusted Net Income plus Depreciation Expense less Principal Payments on Non-Current Liabilities less Unfinanced Capital Spending.

Example:

Adjusted Net Income	$26,500
Depreciation Expense	300,000
Principal Payments on Non-Current Liabilities	(200,000)
Unfinanced Capital Spending	(30,000)
Cash Flow	**$96,500**

› Debt Coverage Ratio

Debt Coverage Ratio determines your debt repayment capacity. It is generally calculated on an annual basis comparing adjusted net income before depreciation and interest expense to debt payments. The greater your earnings are to cover debt payments, the easier you can handle planned and unplanned capital spending as well as changes in revenues and expenses, lowering your risk. A debt coverage ratio less than 1.00 means there were insufficient earnings to repay all debt payments and working capital was used to make the payments.

Debt Coverage Ratio = Adjusted Net Income before Interest and Depreciation Expenses ÷ Debt Payments

Target: 1.15–1.50 or higher

› Principal Payments Ratio

Principal Payments Ratio measures the percentage of your annual gross revenues spent on principal payments for non-current liabilities. It is expressed as a percentage and calculated by dividing principal payments on non-current liabilities by annual gross revenues. A higher ratio indicates a higher debt burden, reduced operational flexibility and increased risk.

Principal Payments Ratio = Principal Payments on Non-Current Liabilities ÷ Annual Gross Revenues

Target: 10–15% or lower

TIP: Are you needing help calculating your financial metrics? Check with your local GreenStone branch to learn how our staff can support your farm business.

PROFITABILITY METRICS

Profitability Metrics measure your ability to generate a profit from the use of land, labor, management and capital. As profits rise, repayment capacity, liquidity and solvency should also improve. The measurements are calculated during a defined period of time.

› Operating Profit Margin Ratio

Operating Profit Margin Ratio measures adjusted net income before interest and income tax expenses as a percentage of your annual gross revenues. This ratio measures profitability in terms of return per dollar of annual gross revenue.

Operating Profit Margin Ratio = Adjusted Net Income before Interest and Income Tax Expense ÷ Annual Gross Revenues

Target: 10–20% or higher

› Return On Assets

Return on Assets (ROA) measures adjusted net income before interest and income tax expenses as a percentage of average total assets and is often used as an overall index of profitability. Average total assets are calculated as an average of the assets at the beginning and the end of the defined period of time. This ratio measures your profitability in terms of return per dollar of total average assets. The higher your ROA, the more profitable your operation.

A relationship exists between your return on assets, the asset turnover ratio, and the operating profit margin ratio. Multiplying your asset turnover ratio by your operating profit margin ratio, results in your rate of return on assets.

Return on Assets = Adjusted Net Income before Interest and Income Tax Expenses ÷ Average Total Assets

Target: 3–6% or higher

› Return On Equity

Return on Equity (ROE) measures adjusted net income before Income Tax Expenses as a percentage of average net worth and is often used to measure how well your investment in the business is generating net income. Average net worth is calculated as an average of the net worth at the beginning and the end of the defined period of time. This ratio measures profitability in terms of return per dollar of investment. The higher your ROE, the more profitable your investment. ROE should be compared to returns on investments of similar risk to determine how returns compare to the general market.

Return on Equity = Adjusted Net Income before Income Tax Expenses ÷ Average Net Worth

Target: 1–7% or higher

FINANCIAL EFFICIENCY METRICS

Financial Efficiency Metrics measure the intensity with which your farm uses its assets to generate gross revenues, and the effectiveness of production, purchasing, pricing, financing and marketing decisions.

› Operating Expense Ratio

Operating Expense Ratio measures operating expenses as a percentage of annual gross revenues. The lower your operating expense ratio, the higher the financial efficiency, margins and profitability of your operation.

Some lenders will deduct purchases for resale from operating expenses to calculate their operating expense ratio. Such purchases for resale can include feeder livestock and purchased (as opposed to grown) feed used in livestock operations.

Operating Expense Ratio = Operating Expenses ÷ Annual Gross Revenues

Target: 65–80% or lower

› Asset Turnover Ratio

Asset Turnover Ratio measures annual gross revenues as a percentage of average total assets. Average total assets are calculated as an average of the assets at the beginning and the end of the defined period of time. The higher your Asset Turnover Ratio, the more efficient your assets are being used to generate revenue.

Asset Turnover Ratio = Annual Gross Revenues ÷ Average Total Assets

Target: 20–40% or higher

› Interest Expense Ratio

Interest Expense Ratio measures interest expense as a percentage of annual gross revenues. The lower your Interest Expense Ratio, the less revenues spent on interest payments usually due to lower risk and lower debt levels.

Interest Expense Ratio = Interest Expense ÷ Annual Gross Revenues

Target: 5–10% or lower

› Depreciation Expense Ratio

Depreciation Expense Ratio measures depreciation expense as a percentage of annual gross revenues. The lower your depreciation expense ratio, the less revenues spent on depreciation of capital assets such as buildings, improvements, machinery and equipment usually due to lower capital spending in relation to revenues that are generated with the use of the capital assets.

Depreciation Expense Ratio = Depreciation Expense ÷ Annual Gross Revenues

Target: 10–15% or lower

TIP: Ratios help owners set goals, make decisions and analyze trends year after year.

GreenStone Farm Credit Services is one of America's largest rural lenders. Headquartered in East Lansing, Michigan, GreenStone owns and manages more than $8.5 billion in loans to farms, rural residents and agribusinesses and serves over 24,000 members with 36 branches throughout Michigan and northeast Wisconsin. GreenStone provides short, intermediate and long-term loans with patronage dividends, equipment and building leases, life insurance, crop and livestock insurance, and accounting and tax services to help you meet your goals.

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