

Farm Business Management Junior

Problem Solving Formulas

Common Ratios and Financial Indicators	Formula
Compound Interest	$A = P(1 + \{r/n\})^{\{nt\}}$ <p style="text-align: center;">A - final amount P - principal balance r - interest rate n - # of times interest applied per time period t - # of time periods elapsed</p>
Simple Interest	$I = Prt$
Current Ratio	Current Assets \div Current Liabilities
Working Capital	Current Assets - Current Liabilities
Debt-to-Equity Ratio	Total Liabilities \div Net Worth
Debt-to-Asset Ratio	Total Liabilities \div Total Assets
Equity-to-Asset Ratio	Equity \div Total Assets
Net worth or Equity	Total Assets - Total Liabilities
Rate of Return on Assets (ROA)	(Net Farm Income + Interest Expense - Unpaid Labor) \div (Average Value of Assets)
Rate of Return on Equity (ROE)	(Net Farm Income - Unpaid Labor) \div (Average Value of Equity)
Asset Turnover Ratio	Total Revenue \div (Average Value of Assets)
Return to Management	Net Farm Income - Unpaid Labor - Opportunity cost of farm equity
Net Farm Income from Operations Ratio	Net Farm Income \div Gross Revenue
Debt Structure Ratio	Current Liabilities \div Total Liabilities
Operating Profit Margin Ratio	(Net Farm Income + Interest - Opportunity Cost of Unpaid Labor - Opportunity Cost of Management) \div Total Revenue
Value of Farm Production	Sum of livestock, crop, and other income computed on an accrual basis minus purchased feed.