UT Extension

David Bilderback – Extension Area Specialist II – Farm Management

KNOW YOUR COST OF PRODUCTION!

THE UNIVERSITY of TENNESSEE
INSTITUTE of AGRICULTURE

Financial Statements

- Balance Sheet
  - Statement of financial condition at a specific time
- Income Statement
  - Summary of income and expenses that occurred during a specified accounting period (usually calendar year)
- Cash Flow Statement
  - How cash has entered and left during the year

Balance Sheet

Assets – Liabilities = Equity

Liquidity

- Current Ratio
  - Total Current Farm Assets /Total Current Farm Liabilities
  - Measures extent to which current farm assets would pay of current farm liabilities

- Working Capital
  - Total Current Farm Assets - Total Current Farm Liabilities
  - Tells the operating capital available in the short term

Solvency

- Farm Debt-to-Asset Ratio
  - Total Farm Liabilities / Total Farm Assets
  - Compares total farm debt to total farm assets
  - Higher ratio indicates greater financial risk and lower borrowing capacity
  - Less than 40% is a good goal

Less Than 40% of the

Solvency

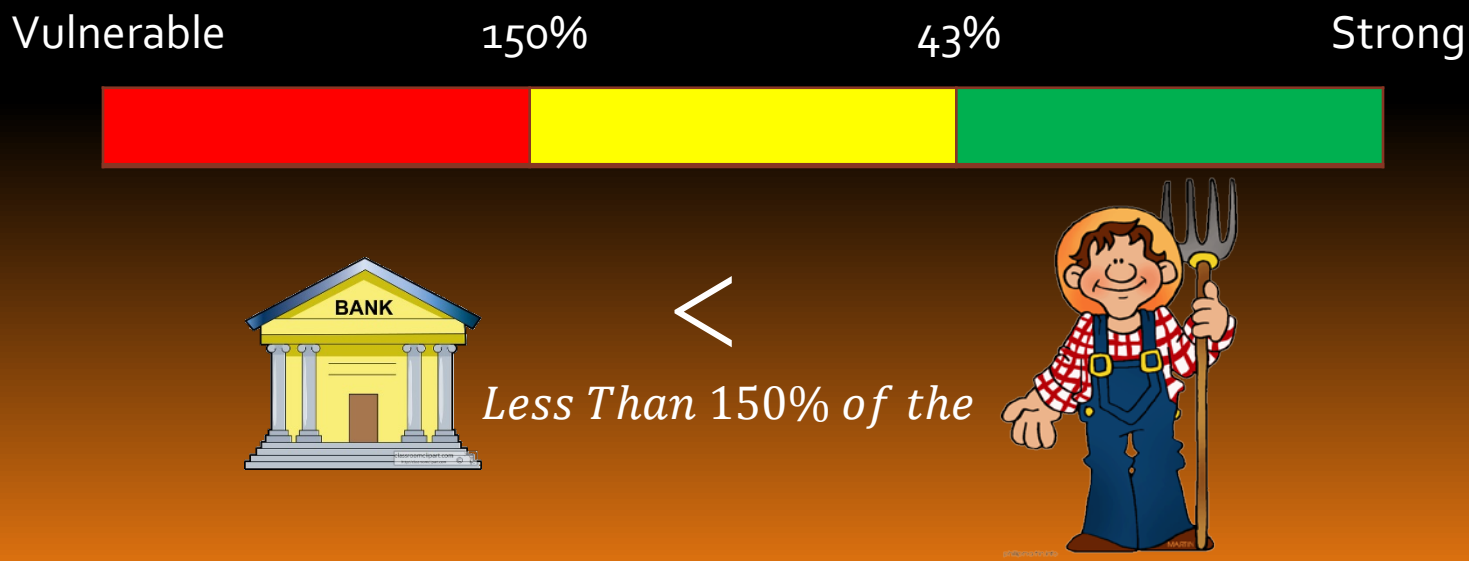
- Farm Equity-to-Asset Ratio
  - Farm Net Worth / Total Farm Assets
  - Owners share of business
  - Equity greater than 60 % of Assets

>

Greater Than 60% of the

Solvency

- Farm Debt-to-Equity Ratio
  - Total Farm Liabilities / Farm Net Worth
  - Compares lender's share to owner's share
  - You do not want debt to be great than 150% of Equity



Key to happiness!

Greater Than 60% of the

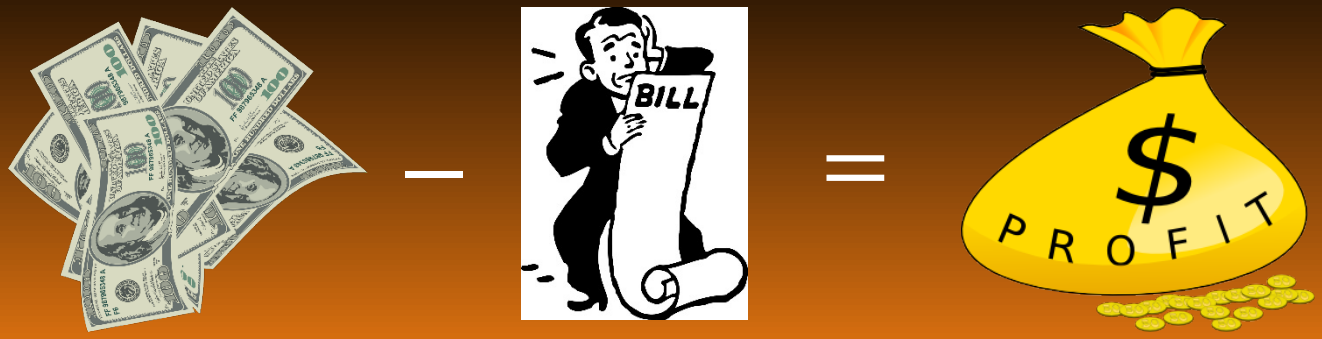
Less Than 40% of the

Debt per Cow

- Varies based size and production
  - Lager dairies with higher production can handle more debt per cow
  - Small dairies
    - $2,500 / cow or less
    - $3,500 / cow if expanding
  - Large dairies with high production
    - Up to $5,000 / cow
  - Never exceed $20 of debt per 100 lbs. of milk produced
  - Loan structure is very import because of cash flow.

Income Statement

- Summary of income and expenses that occurred during a specified accounting period (usually calendar year)
  - Net Farm Income
    - Gross cash farm income – total cash farm expenses + inventory changes - depreciation and other capital adjustments
    - Represents returns to owner's labor, management, and equity



Profitability

- Rate of Return on Farm Assets
  - (Net Farm Income + Farm Interest – Value of operator's labor and management) / Average Farm Assets
  - Average interest rate being earned on all (owner and lender) investments in the farm

Profitability

- Operating Profit Margin
  - Return on Farm Assets / Value of Farm Production
  - Shows operating efficiency of business
    - If expenses are low relative to value of farm production, operating profit margin will be good
    - Low profit margin caused by low product prices, high expenses, or inefficient production

Financial Efficiency

- Asset-turnover Rate
  - Value of farm production / Average farm assets
  - Measures efficiency in using capital
  - High level of production with a low level of capital investment gives high asset-turnover rate
  - Reverse gives low asset-turnover rate

Financial Efficiency

- Operating Expense Ratio
  - (Total farm operating expense – Farm Interest) / Gross Farm Income
  - Proportion of farm income used to pay operating expenses, not including principal and interest

Financial Efficiency

- Interest Expense Ratio
  - Farm interest / Gross farm income
  - Shows how much of gross farm income is used to pay for borrowed capital

Financial Efficiency

- Net Farm Income Ratio
  - Net Farm Income / Gross Farm Income
  - Compares profit to gross farm income
  - Left after all farm expenses, except for unpaid labor and management, are paid

Financial Efficiency

- Total Feed Cost per CWT
  - $\frac{Purchased\ Feed + Market\ value\ of\ feed\ raised + pasture\ expences}{Total\ Milk\ sold}$
- Less than 60 % per CWT of milk sold
  - Would prefer less than 50%
- IF you are looking at gross farm income and not just milk sold, less than 45%

<

Less than 60%

Financial Efficiency

- Total Hired Labor Cost
  - Labor is the 2nd highest cost on dairies
  - Less than 15% of total milk sold
  - This includes Wages, benefits and payroll Taxes

< Less than 15%

Financial Efficiency

- Income Over Feed Cost Per Cwt
  - 40% of the cwt price of milk
- Cost of Producing cwt of Milk
  - $17.50 – Hoards Dairyman

Summary

- Assess current financial condition before investing in a value-added venture
- Look for areas that could improve current situation
  - Increase revenue
  - Reduce expenses
  - Modify debt structure
- Calculate **your** cost of production
- Analyze likely consequences of adding a value-added venture

UT Extension

MANAGE Program

- Review current financial situation
- Capitalize on strengths and reduce weaknesses in the farm business
- Develop individualized farm and financial plans
- Explore alternatives
- Evaluate capital investment opportunities
- Analyze likely consequences of changing the scope of enterprises (including new operations)