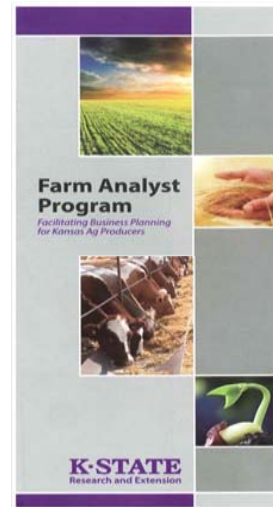


# Financial Benchmarking to Assess a Farm's Financial Position in a Difficult Ag. Economy

Robin Reid  
Extension Associate  
K-State Department of Ag. Economics



- Analysts travel to the producer's home, providing private and confidential business advice
- Uses nationally recognized financial analysis software, FINPACK, to develop a balance sheet, enterprise budgets, and a base long-range business plan.
- Can explore business changes such as alternative enterprises, debt re-structure, farm transitions, etc.
- Develops balance sheets, budgets, base business plan, and even cash flow statements
- Assistance when working with creditors
- Facilitates discussion among family members and sets goals for the farm business
- \$450 base fee

Were 5 Farm Analysts across the state...Now 30!!!

Call 1-800-321-FARM to set up an appointment with a Farm Analyst



# KANSAS AGRICULTURAL MEDIATION SERVICES 1-800-321-FARM

## Connect you to helpful resources

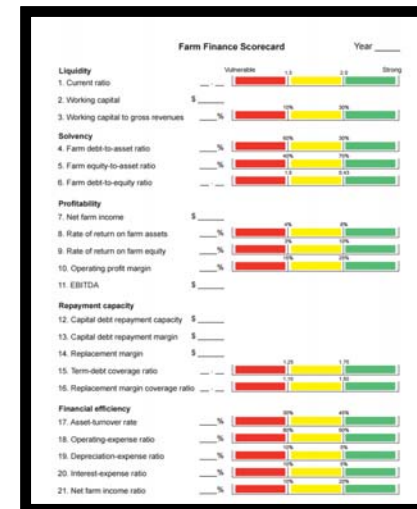
- Farm analysts
- Attorneys
- Mediators
- Referrals

## Discuss appeal options for adverse decisions

- Farm loan delinquency or denial
- USDA Farm Programs

## Provide resources for farm families

- Successions
- Transitions
- Communication
- Disputes



- How well does this represent Kansas Farms?
  - Regions of KS?
- Do these values change by farm type?
- How are farms performing in the current agricultural economy?



Source: Center for Farm Financial Management  
<http://www.cffm.umn.edu/Publications/pubs/FarmMgtTopics/FarmFinanceScorecard.pdf>



# KSU-Farm Financial Benchmarking Tool



- 1,172 KFMA Farms in 2015 benchmark
- 1,289 KFMA Farms in 10-Year benchmark
  - (6 out of 10 years to be included)

- Current Ratio
- Operating Profit Margin
- Asset Turnover Rate
- Interest Expense Ratio
- Working Capital Ratio
- Rate of Return on Farm Assets
- Operating Expense Ratio
- Net Farm Income Ratio
- Debt-to-Asset Ratio
- Rate of Return on Farm Equity
- Depreciation Expense Ratio



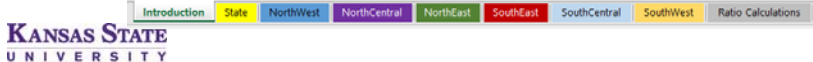
# Categories

- State-level
  - Dairy
  - Operator Age (<40 years, 40-60 years, 60+ years)
  - Acres (<500, 500-1000,1000-2000,2000+), Cattle (None, Feedyard, <100 Cows, >100 Cows)
- Regional Level
  - Acres
  - Cowherd
  - Backgrounding/Feedyard



Find it on our website [www.AgManager.info](http://www.AgManager.info) under "Tools"

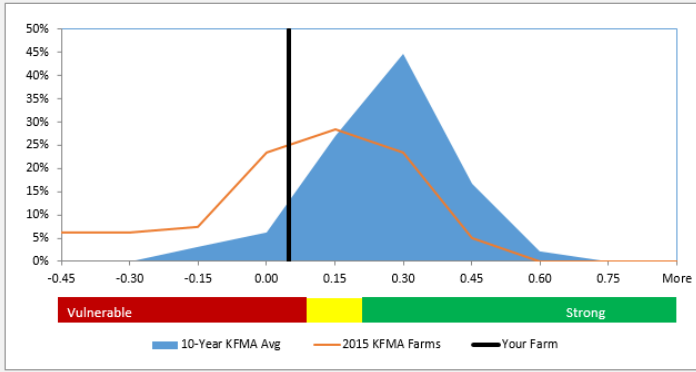
- Need Microsoft Excel
- Enable Macros
- Will be updated each year (May/June?)



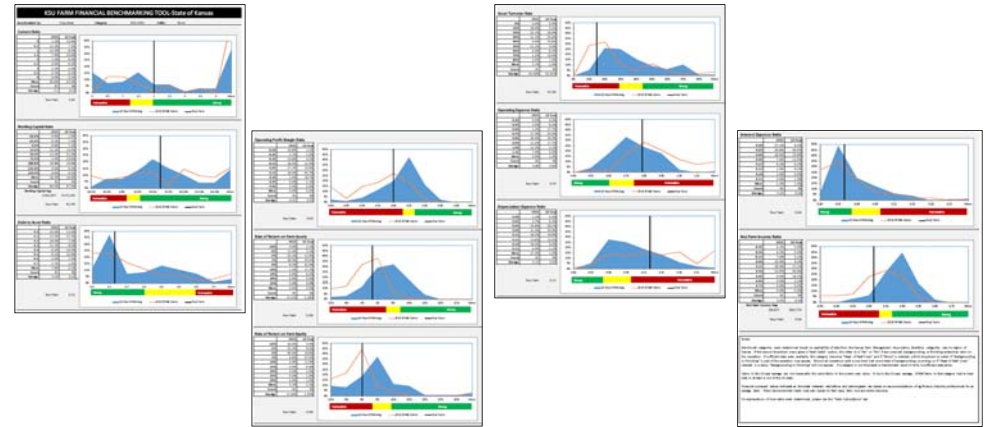


### Net Farm Income Ratio

|         | 2015  | 10-Year |
|---------|-------|---------|
| -0.45   | 6.2%  | 0.0%    |
| -0.30   | 6.2%  | 0.0%    |
| -0.15   | 7.4%  | 3.1%    |
| 0.00    | 23.5% | 6.3%    |
| 0.15    | 28.4% | 27.1%   |
| 0.30    | 23.5% | 44.8%   |
| 0.45    | 4.9%  | 16.7%   |
| 0.60    | 0.0%  | 2.1%    |
| 0.75    | 0.0%  | 0.0%    |
| More    | 0.0%  | 0.0%    |
| Count   | 81    | 96      |
| Average | 0.03  | 0.18    |



| Net Farm Income Avg. |  |          |
|----------------------|--|----------|
| \$8,027              |  | \$60,774 |
| Your Farm            |  | 0.05     |



## Dropdown Categories and "Your Farm" features

Select category here using dropdown lists

| BENCHMARK CATEGORY |                |
|--------------------|----------------|
| Benchmark by:      | Crop Acres     |
| Category:          | 500-1000       |
| Cattle:            | None           |
|                    | No Cow/Feedlot |
|                    | 100 Cows       |
|                    | 100+ Cows      |

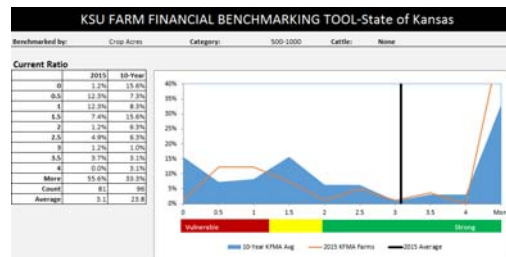
Start Over

Print Summary

Enter Your Farm Values

Return to 2015 Averages

See Ratio Calculations



## Dropdown Categories and "Your Farm" features

Select category here using dropdown lists

| BENCHMARK CATEGORY |          |
|--------------------|----------|
| Benchmark by:      | Dairy    |
| Category:          | 500-1000 |
| Cattle:            | None     |

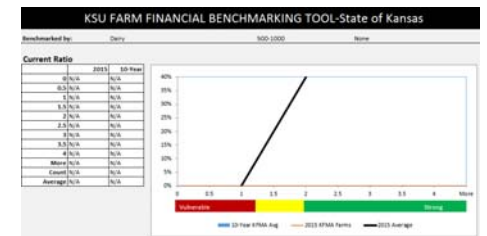
Start Over

Print Summary

Enter Your Farm Values

Return to 2015 Averages

See Ratio Calculations



# Dropdown Categories and “Your Farm” features

| BENCHMARK CATEGORY |            |
|--------------------|------------|
| Benchmark by:      | Crop Acres |
| Category:          | 500-1000   |
| Cattle:            | None       |

Select category here using dropdown lists

Start Over

Print Summary

Enter Your Farm Values

Return to 2015 Averages

See Ratio Calculations

| YOUR FARM VALUES*              |       |
|--------------------------------|-------|
| Current Ratio:                 | 3.08  |
| Working Capital Ratio:         | 64.5% |
| Debt to Asset Ratio:           | -0.15 |
| Operating Profit Margin:       | -0.01 |
| Rate of Return on Farm Assets: | -0.1% |
| Rate of Return on Farm Equity: | -0.2% |
| Asset Turnover Rate:           | 15.4% |
| Operating Expense Ratio:       | 0.80  |
| Depreciation Expense Ratio:    | 0.13  |
| Interest Expense Ratio:        | 0.03  |
| Net Farm Income Ratio:         | 0.03  |

\*Defaults to Averages for 2015 if not entered

# Ratio Calculations

\*Note that Kansas Farm Management Association uses accrual methods for recordkeeping and performance analysis.

Current Ratio = Ending Current Assets/Ending Current Liabilities

Working Capital Ratio = Working Capital/ **Accrual Gross Farm Revenue**

\*where Working Capital = (Ending current assets –Ending current liabilities)

\*where Accrual Gross Farm Revenue= Cash Farm Income from crops and livestock+/- changes in inventories - less purchases of re-sale items

Debt to Asset Ratio = Total Farm Liabilities/ Total Farm Assets

Rate of return on farm assets = (Net Farm Income + Farm Interest Paid – Value of Operators Labor & Management)/Average Total Farm Assets

Rate of Return on farm equity = (Net Farm Income – Value of Operators Labor & Management)/ Average Total Farm Net Worth

# Ratio Calculations

Asset-turnover rate= **Value of Farm Production**/Average total assets

where Value of Farm Production = Accrual Gross Farm Revenue– Purchased Feed

Operating Profit Margin = Return on Farm Assets/**Value of Farm Production**

where Return on Farm Assets= (NFI + Farm Interest – Value of Operator Labor & Management)

where Value of Farm Production = Accrual Gross Farm Revenue– Purchased Feed

Operating Expense Ratio = (Farm Operating Expense)/ **Accrual Gross Farm Revenue**

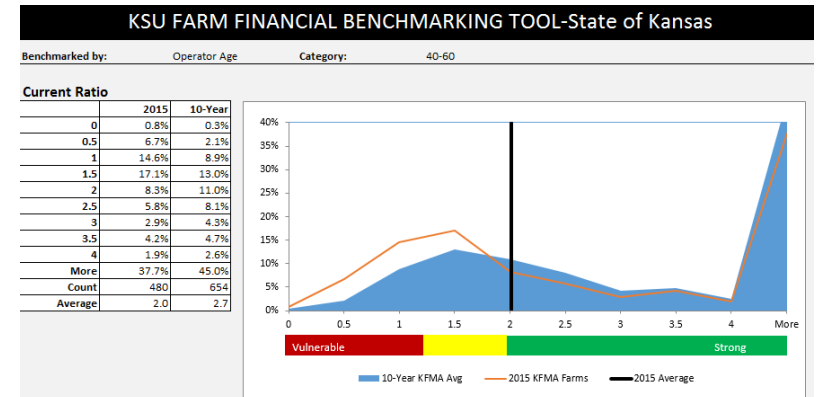
where Farm Operating Expense = Total Farm Expense + Purchased Feed- Farm Interest -Depreciation

Depreciation Expense Ratio = Depreciation/ **Accrual Gross Farm Revenue**

Interest Expense Ratio = Farm Interest/ **Accrual Gross Farm Revenue**

Net Farm Income ratio = Net Farm Income/**Accrual Gross Farm Revenue**

# Where are we at?

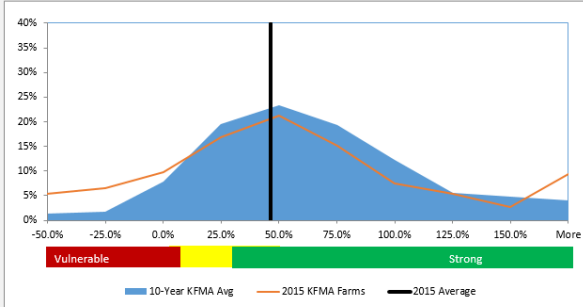


# Where are we at?

## Working Capital Ratio

|         | 2015  | 10-Year |
|---------|-------|---------|
| -50.0%  | 5.4%  | 1.4%    |
| -25.0%  | 6.5%  | 1.8%    |
| 0.0%    | 9.8%  | 7.8%    |
| 25.0%   | 16.9% | 19.6%   |
| 50.0%   | 21.3% | 23.4%   |
| 75.0%   | 15.2% | 19.4%   |
| 100.0%  | 7.5%  | 12.2%   |
| 125.0%  | 5.4%  | 5.7%    |
| 150.0%  | 2.7%  | 4.7%    |
| More    | 9.4%  | 4.0%    |
| Count   | 480   | 654     |
| Average | 46.5% | 51.8%   |

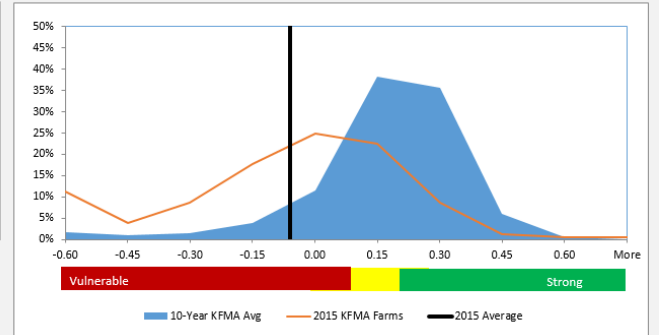
Working Capital Avg.  
\$303,143    \$310,028



# Where are we at?

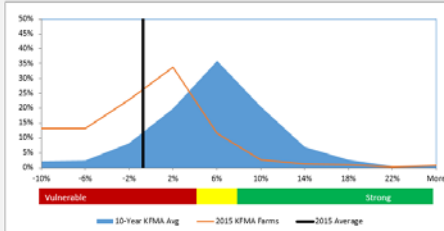
## Operating Profit Margin Ratio

|         | 2015  | 10-Year |
|---------|-------|---------|
| -0.60   | 11.3% | 1.7%    |
| -0.45   | 4.0%  | 0.9%    |
| -0.30   | 8.8%  | 1.5%    |
| -0.15   | 17.7% | 3.8%    |
| 0.00    | 25.0% | 11.6%   |
| 0.15    | 22.5% | 38.2%   |
| 0.30    | 8.5%  | 35.6%   |
| 0.45    | 1.3%  | 6.1%    |
| 0.60    | 0.6%  | 0.5%    |
| More    | 0.4%  | 0.0%    |
| Count   | 480   | 654     |
| Average | -0.06 | 0.17    |



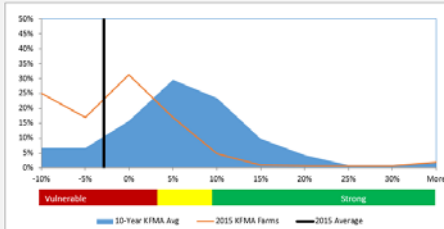
## Rate of Return on Farm Assets

|         | 2015   | 10-Year |
|---------|--------|---------|
| -10%    | 13.1%  | 2.1%    |
| -6%     | 13.1%  | 2.4%    |
| -2%     | 22.7%  | 8.1%    |
| 2%      | 33.8%  | 19.9%   |
| 6%      | 11.5%  | 35.9%   |
| 10%     | 2.7%   | 20.6%   |
| 14%     | 1.3%   | 7.0%    |
| 18%     | 1.0%   | 2.8%    |
| 22%     | 0.2%   | 0.6%    |
| More    | 0.6%   | 0.5%    |
| Count   | 480    | 654     |
| Average | -1.26% | 5.19%   |



## Rate of Return on Farm Equity

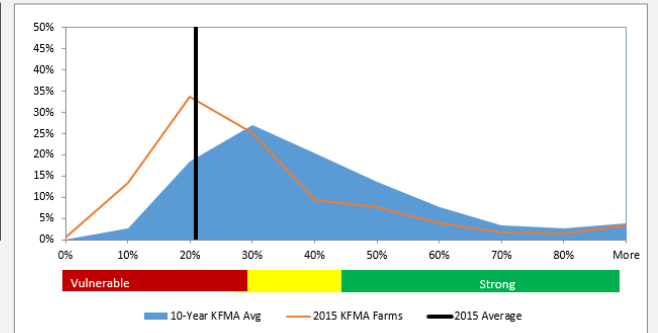
|         | 2015   | 10-Year |
|---------|--------|---------|
| -10%    | 25.2%  | 6.7%    |
| -5%     | 16.9%  | 6.7%    |
| 0%      | 31.3%  | 15.7%   |
| 5%      | 16.9%  | 29.7%   |
| 10%     | 4.8%   | 23.4%   |
| 15%     | 1.0%   | 9.8%    |
| 20%     | 0.8%   | 4.3%    |
| 25%     | 0.6%   | 0.0%    |
| 30%     | 0.6%   | 1.1%    |
| More    | 1.9%   | 1.7%    |
| Count   | 480    | 654     |
| Average | -2.86% | 5.28%   |



# Where are we at?

## Asset Turnover Rate

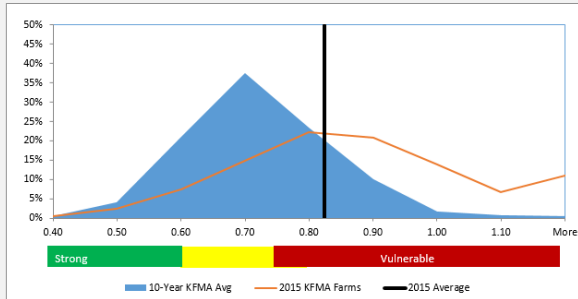
|         | 2015   | 10-Year |
|---------|--------|---------|
| 0%      | 0.4%   | 0.0%    |
| 10%     | 13.3%  | 2.8%    |
| 20%     | 33.8%  | 18.5%   |
| 30%     | 25.2%  | 27.1%   |
| 40%     | 9.4%   | 20.3%   |
| 50%     | 7.7%   | 13.8%   |
| 60%     | 3.8%   | 7.8%    |
| 70%     | 1.7%   | 3.4%    |
| 80%     | 1.5%   | 2.6%    |
| More    | 3.3%   | 3.8%    |
| Count   | 480    | 654     |
| Average | 20.93% | 30.76%  |



## Where are we at?

Operating Expense Ratio

|         | 2015  | 10-Year |
|---------|-------|---------|
| 0.40    | 0.4%  | 0.6%    |
| 0.50    | 2.5%  | 4.1%    |
| 0.60    | 7.5%  | 21.1%   |
| 0.70    | 14.8% | 37.6%   |
| 0.80    | 22.3% | 23.5%   |
| 0.90    | 20.8% | 10.1%   |
| 1.00    | 14.0% | 1.7%    |
| 1.10    | 6.7%  | 0.8%    |
| More    | 11.0% | 0.5%    |
| Count   | 480   | 654     |
| Average | 0.82  | 0.67    |

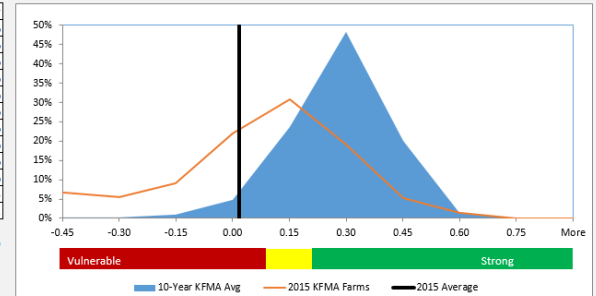


## Where are we at?

Net Farm Income Ratio

|         | 2015  | 10-Year |
|---------|-------|---------|
| -0.45   | 6.7%  | 0.2%    |
| -0.30   | 5.4%  | 0.3%    |
| -0.15   | 9.2%  | 1.1%    |
| 0.00    | 22.1% | 4.9%    |
| 0.15    | 30.8% | 23.7%   |
| 0.30    | 19.2% | 48.3%   |
| 0.45    | 5.2%  | 20.0%   |
| 0.60    | 1.5%  | 1.5%    |
| 0.75    | 0.0%  | 0.0%    |
| More    | 0.0%  | 0.0%    |
| Count   | 480   | 654     |
| Average | 0.02  | 0.21    |

Net Farm Income Avg.  
\$11,967 \$128,519



## Conclusions

- Farmers need support/understanding from their lenders
- Most farmers are in a vulnerable financial position, regardless of how “good” of a farmer they are
- I hope this tool can benefit you, as lenders, to get a snapshot of the financial position of farmers in your area and have benchmark values to compare to for your clients

## Time for Questions



Check out our new website!  
[www.AgManager.info](http://www.AgManager.info)

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