

# Using Data to Think Honestly, Creatively and Strategically About Farm Management

Resources and Tools for Successful Farm Management



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## Management and Your Thinking

- How we think influences our words and actions
- How we think has a substantial impact on business management and relationships
- Successful managers *Make* time to think and plan
- *Think honestly* – base your thinking on what is true for your circumstances and resources
- *Think creatively* – don't be “stuck”; consider options carefully
- *Think strategically* – have a planned and proactive approach rather than a reactive approach to management



# Tools to Honestly Evaluate Your Farm Financial Situation

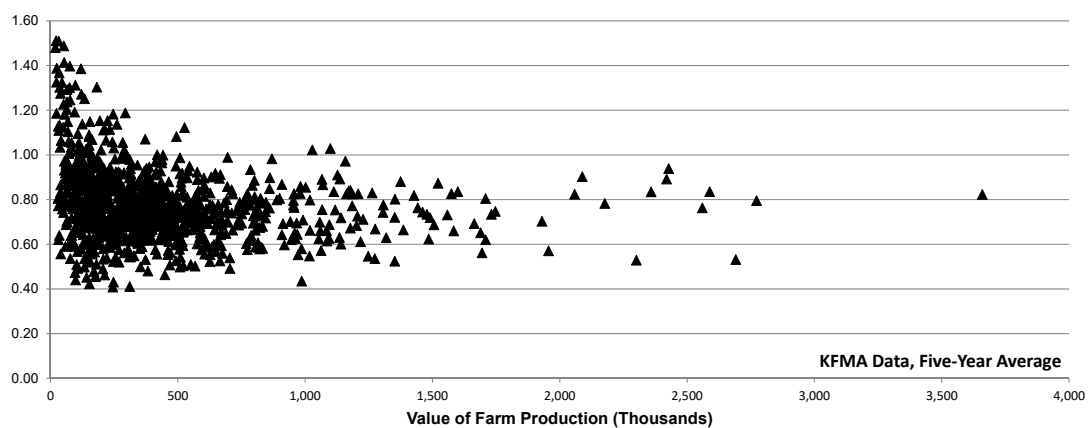
To meet your goals and objectives for the future  
You must...

**KNOW YOUR NUMBERS** *and*  
**USE YOUR NUMBERS**

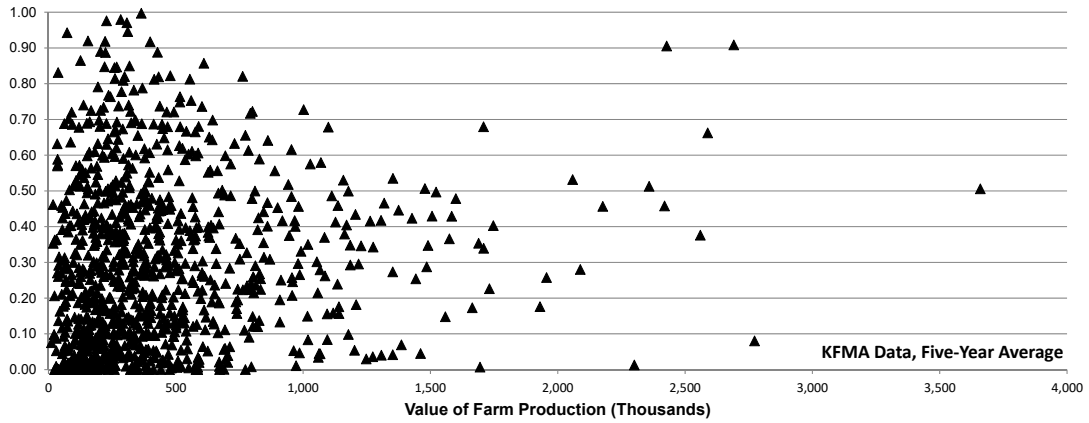
Keeping good records and using those records in  
decision making is important for the sustainability  
and productivity of your farm and family



## Operating Expense Ratio

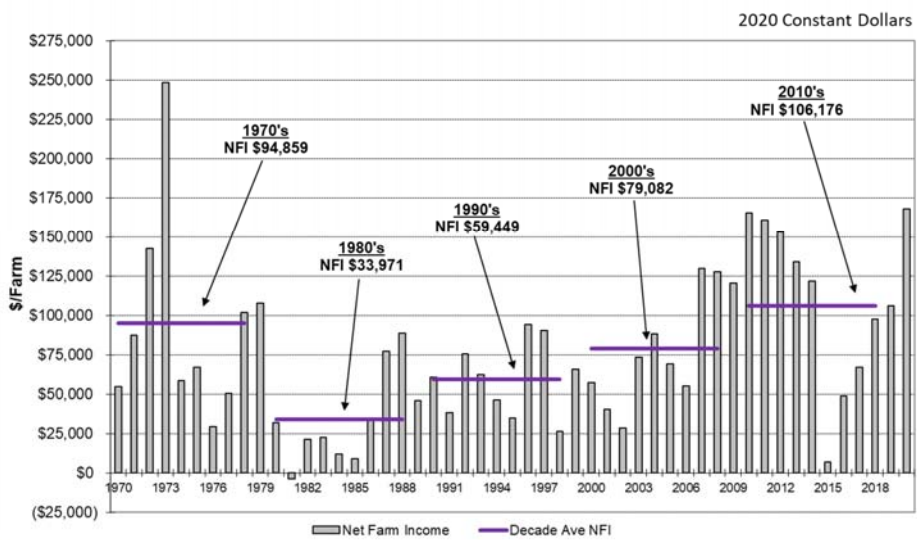


# Debt to Asset Ratio



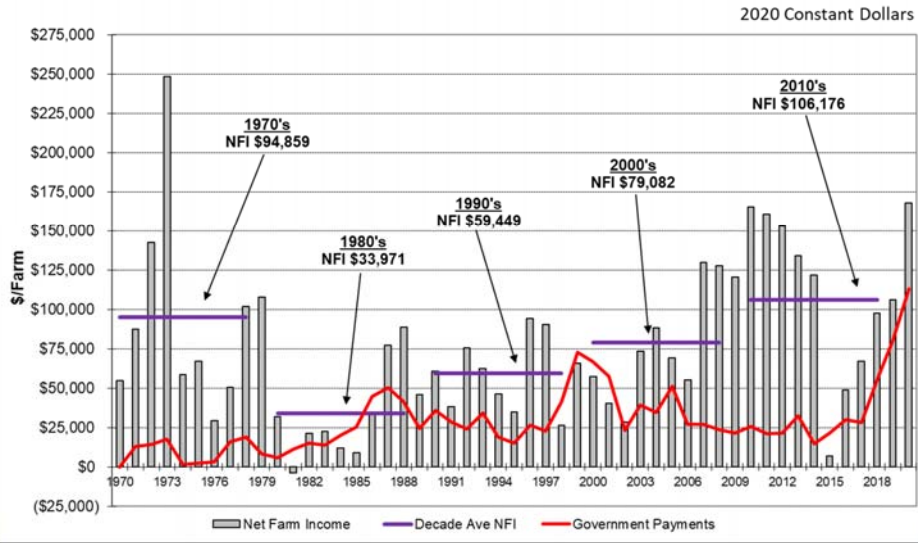
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## Kansas Farm Management Association Inflation Adjusted Net Farm Income, 1970-2020

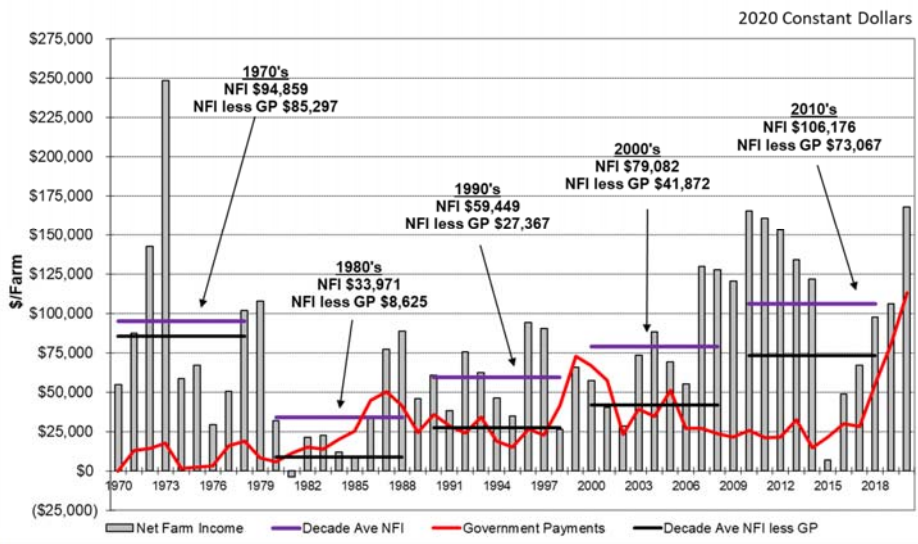


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### Kansas Farm Management Association Inflation Adjusted Net Farm Income, 1970-2020



### Kansas Farm Management Association Inflation Adjusted Net Farm Income, 1970-2020



## Record keeping is the first step and most important tool for good management

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- Know where you're at – financial picture
- Evaluate performance and track progress
- Identify strengths and weaknesses
- Understand cost structure for creating marketing plans
- Plan for your farm and family future

While these uses for farm records may not be new to you ... are you making use of them in the management of your farm?



## How should records be used?

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- **Balance sheet**
  - Financial position at a point in time
  - Change in net worth (equity)
- **Income Statement**
  - Accrual accounting for accurate picture (NOT just Schedule F)
- **Statement of cash flows** (actual and projected)
- **Trend analysis**
- **Comparative analysis**



## Benchmarking

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- **Trend analysis** – yourself over time
  - Be consistent – time of year, methods used
  - Key performance indicators for your decision making
- **Comparative analysis with standards**
  - Industry standards – farm analysis program data, university faculty, lenders, consultants, others
  - Farm Financial Standards Council – <https://ffsc.org/>
- **Comparative analysis with peers** – other operations of similar size, type, age of operator, location...



## How should records be used?

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Measures of:

- **Solvency** – debt/asset ratio
  - How strong/weak is my financial position
  - Measure long-run ability to meet obligations
- **Liquidity** – current ratio, working capital
  - Short run ability to meet obligations
  - Life blood of your operation – allows you to be in greater control



# Solvency – Debt to Asset Ratio

$D:A = \text{Total Farm Liabilities} / \text{Total Farm Assets}$

## Interpretation

- Smaller number = better (usually)
- Measures the portion of assets owned by lender(s)
- Indicates ability to repay debt if business is liquidated, risk exposure
- Farm type and entity structure dependent

## Desirable range

- Benchmark
- 2020 KFMA

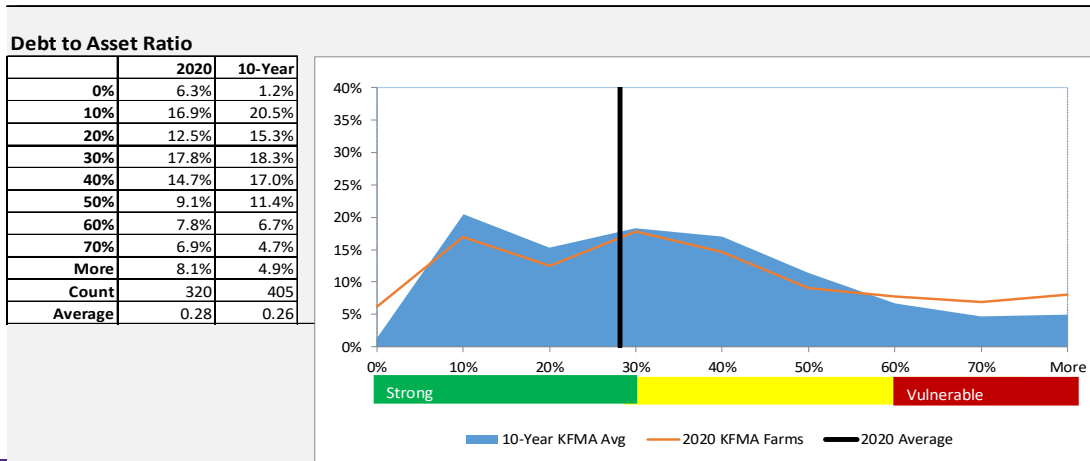
Average	0.2196
Top ¼ NFI	0.2128
Bottom ¼ NFI	0.2800



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## Financial Benchmarking Tool

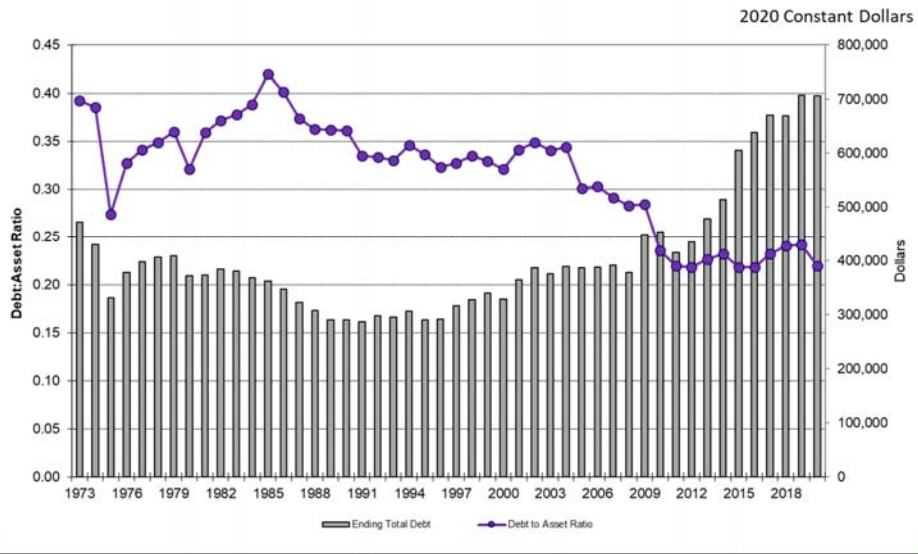
<http://www.agmanager.info/decision-tools>  
Policy & Risk Management Section



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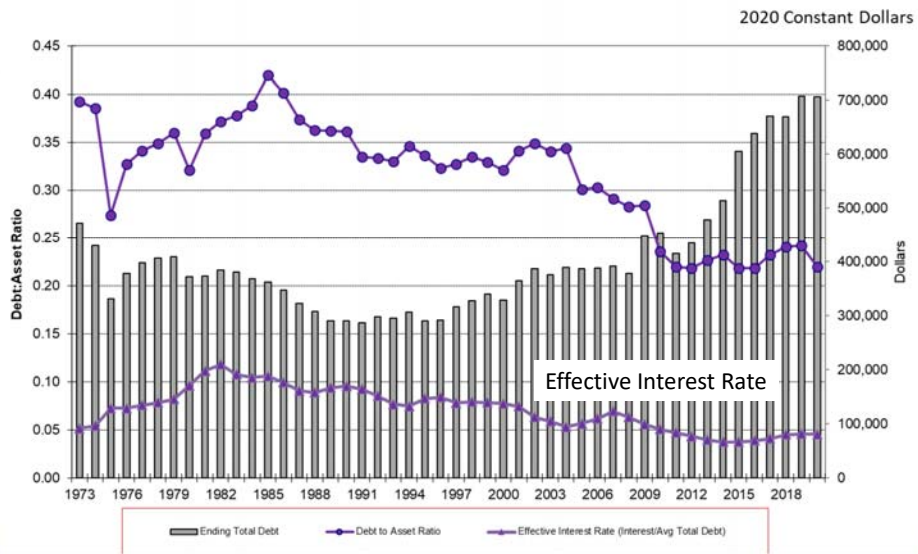


### Kansas Farm Management Association Inflation Adjusted Solvency Trends, 1973-2020



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### Kansas Farm Management Association Inflation Adjusted Solvency Trends, 1973-2020



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# Liquidity – Current Ratio

Current Ratio = Current Farm Assets/Current Farm Liabilities

## Interpretation

- Larger number = better
- Measures how much of the current liabilities could be paid if current assets were liquidated
- Profitability leads to liquidity, but doesn't insure liquidity
- In years of high profitability – Do you: build a cushion? Or avoid tax?

## Desirable range

- Benchmark  >2.0 <1.25
- 2020 KFMA (beg & end)
 

Average	2.19	2.65	Bottom ¼ NFI	1.52	1.47
Top ¼ NFI	2.40	3.09	Crop-Cowherd	2.31	2.39
Crop (dryland)	2.54	3.28			



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# Liquidity – Working Cap/(Oper Exp + Interest)

WC Ratio = (Current Assets – Current Liab)/(Operating Expense + Interest Expense)

## Interpretation

- Larger number = better
- The portion of annual operating expenses that can be covered by working capital
- Hints at short-term farm business borrowing needs

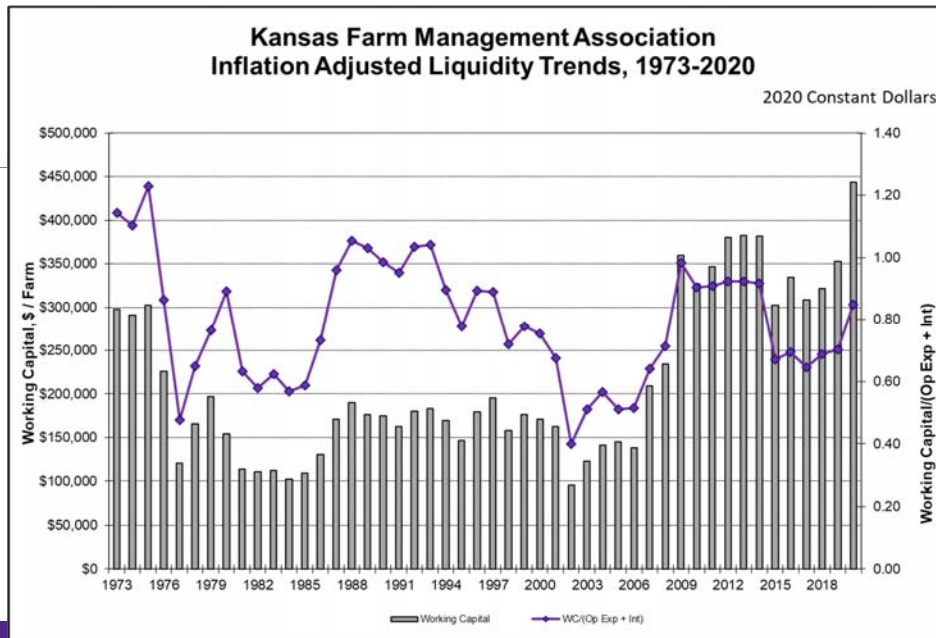
## Desirable range

- Benchmark  >50% <20%
- 2020 KFMA
 

Average	84.91%
Top ¼ NFI	102.35%
Bottom ¼ NFI	27.74%



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## Debt Management

- Utilize debt carefully ... more debt = more risk
- Seek to manage debt, not be controlled by debt
- Keep in mind, once you begin a reliance on debt, it is easy to continue a reliance on debt
- Use debt as a management tool when it makes financial sense to do so
- Focused and planned approach to purchases (machinery & equipment, inputs, buildings, land) that are moving toward **Your** goals



## Debt Management

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- How much debt?
- Are your borrowed dollars earning dollars?
- Rate of return on assets (ROA) – net farm income plus interest expense less value of operator labor then divided by average total assets
- ROA should be greater than the interest rate paid for borrowed funds
  - If so, borrowed \$'s are earning \$'s
  - If not, other assets are paying to own assets with borrowed \$'s



## How should records be used?

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Measures of:

- **Profitability**
  - Does it make money?
  - What is the rate of return?
- **Efficiency**
  - Are time and money being used well?
  - Are you competitive?
  - Are you meeting your goals? (discuss efficient vs effective)



# Profitability – Return on Assets

$$\text{ROA} = (\text{NFI} + \text{Interest} - \text{Unpaid Operator Labor}) / \text{Average Total Assets}$$

## Interpretation

- Return to investment of both the operator and lender
- Larger number = better
- Profit generated per dollar of asset
- Owned land tends to reduce ROA

## Desirable range

- Benchmark
- 2020 KFMA



Average	3.38%	Bottom ¼ NFI	0.30%
Top ¼ NFI	6.64%	55-64 years	3.09%
25-34 years	6.40%		



# Efficiency – Depreciation Expense Ratio

$$\text{Ratio} = \text{Economic Depreciation Expense} / \text{Gross Income (or Value of Farm Production)}$$

## Interpretation

- Use economic depreciation (estimate of reduction in value of machinery and equipment) not tax depreciation
- Can be too high or too low
- For every dollar brought in, how much was spent on depreciation

## Desirable range

- Benchmark
- 2020 KFMA



Average	0.0890	(\$67,475 depreciation)
Top ¼ NFI	0.0898	
Bottom ¼ NFI	0.1053	
2015 KFMA Average =	0.1242	(\$63,610 depreciation)



# Efficiency – Operating Expense Ratio

Ratio = Operating Expense/Gross Income (or Value of Farm Production)

## Interpretation

- Smaller number = better
- For every dollar brought in, how much was spent on operating expenses (expenses excluding depreciation and interest)

## Desirable range

- Benchmark
- 2020 KFMA

Average	0.6463
Top ¼ NFI	0.5901
Bottom ¼ NFI	0.8858



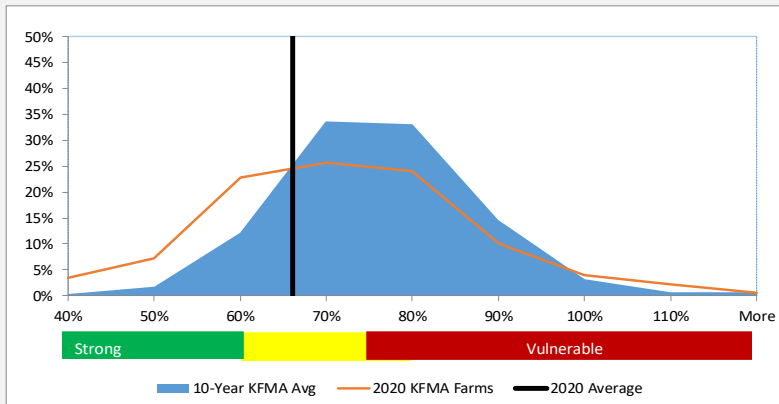
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# Financial Benchmarking Tool

<http://www.agmanager.info/decision-tools>  
Policy & Risk Management Section

## Operating Expense Ratio

	2020	10-Year
40%	3.4%	0.2%
50%	7.2%	1.7%
60%	22.8%	12.1%
70%	25.6%	33.6%
80%	24.1%	33.1%
90%	10.0%	14.6%
100%	4.1%	3.2%
110%	2.2%	0.7%
More	0.6%	0.7%
<b>Count</b>	320	405
<b>Average</b>	0.66	0.72



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## What is most important?

(responses of young producers meeting with Dr David Kohl, Spg '21)

- Upgrade/improve record keeping system
- Cash flow projection – use for planning, decision making, assessment
- Family living budget
- Transition planning and management
- Know your cost of production

Lenders (at the same meeting) had at the top of the list:

- Marketing and risk management plan
- Written list of goals



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## What is most important? (My list for you)

- Know why you do what you do – this is very important
- Know your financial position – trend analysis, benchmark
- Maintain sufficient working capital – proper debt structure
- Manage cash flow – plan/project, use for guide, evaluate
- Know your costs of production and use in your management decisions



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## What is most important? (My list for you)

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- Seek to know and understand the resources you have and carefully assess those you “need”
  - Manage your resources not those of others
  - Planned approach to machinery, land, related purchases
  - Consider steps to get rid of assets or enterprises you don’t “need”?
- Accept and make use of input from advisors
- Take steps forward from where *you* are today



## What is most important?

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- *Think honestly* – base your thinking on what is true for your circumstances and resources
  - Factual information from your records
    - Know your financial position; know your costs
  - Understand your available resources
    - Financial – your funds, other’s funds
    - Physical – machinery, equipment, land
    - Skills and management ability
    - People





## What is most important?

- *Think creatively* – don't be “stuck”; consider options carefully
  - Opportunity vs preparedness
  - Seek new opportunities when able
  - Research new direction by gathering good and reliable information – check the facts



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## What is most important?

- *Think strategically* – have a planned and proactive approach rather than a reactive approach to management



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# Kansas Farm Management Association



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