



Welcome Nebraska LEAD Group

Managing Risk In Volatile Times

January 17, 2015

Trivia

- “All roads lead to” _____
- What is the color of the caution flag in racing _____
- In the 12 days of Christmas what is # 7 _____
- The most movies have been made depicting Baseball, Boxing or Football? _____

Trivia

- In 1632 an English Bible as published had one word omitted in the Ten Commandments, what was it? _____
- A person leaves home, makes three left turns and meets two masked men, what are their names? _____
- Who was the lowest paid actor in The Wizard of Oz? _____

Which of the following models had the most tractors built?

- Farmall H
- Ford 8N
- Farmall M
- John Deere B
- JD 4020
- John Deere A
- AC WD 45

Have a Plan

- **Determine the gross dollars per acre you need for:**
 - **Term Debt payments**
 - **Operating Expenses**
 - **Living**
 - **Depreciation**
 - **Profit**



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The Future of Agriculture!

- It will be a wild and exhilarating “Ride”



with huge rewards for those who:

1. Choose to think out side the box
2. Ask questions
3. Collaborate
4. Take a *few well thought out risks*

Competition versus Colaberation

A Point to Consider in Any Decision

“Competition has been shown to be useful up to a certain point, not further. Cooperation, which is the thing we must strive for today, begins where competition leaves off.”

---Franklin D. Roosevelt

Platitude for the Future

“Every morning in Africa, a gazelle wakes up. It knows it must run faster than the fastest lion or it will be killed. Every morning a lion wakes up. It must outrun the slowest gazelle or it will starve to death. It doesn’t matter whether you are a lion or a gazelle...

when the sun comes up, you better be running”.

What does the future hold

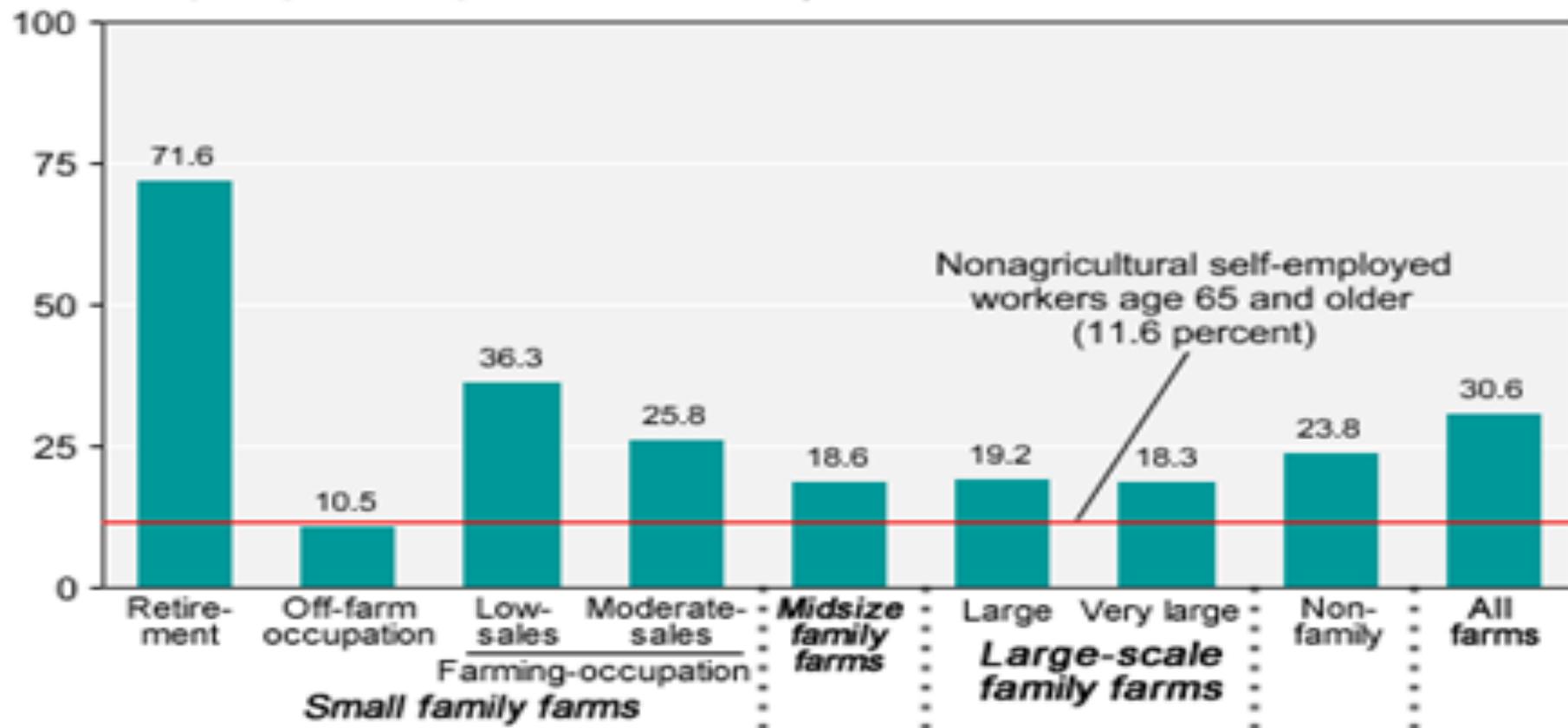
- **China will add 300 million people in their middle class in the next 8 years.**
- **The wealthiest 10% of the China's population represents more people than the total population of Japan**
- **Farmers will need to produce more food in the next 50 years than has been produced over the last 7,000 years.**

What does the future hold

- **“The future has a way of arriving unannounced”**
- **Drivers of Change**
 - **Resources**
 - **Technology**
 - **Demographics**
 - **Public Policy**

Older principal farm operators, by farm typology, 2012

Percent of principal farm operators at least 65 years old



Note: Small family farms have gross cash farm income (GCFI) < \$350,000. Midsize family farms have GCFI of \$350,000-\$999,999. Large-scale family farms have GCFI of \$1,000,000 or more.
 Source: USDA, Economic Research Service and National Agricultural Statistics Service, 2012 Agricultural Resource Management Survey.

Tremendous Opportunities

- **Farmers transitioning out**
- **Not fun any more**
- **Cheaper used equipment prices**
- **Livestock potential and profitability**
- **Slower growth in global crop acres**
- **Technology**

Positive changes

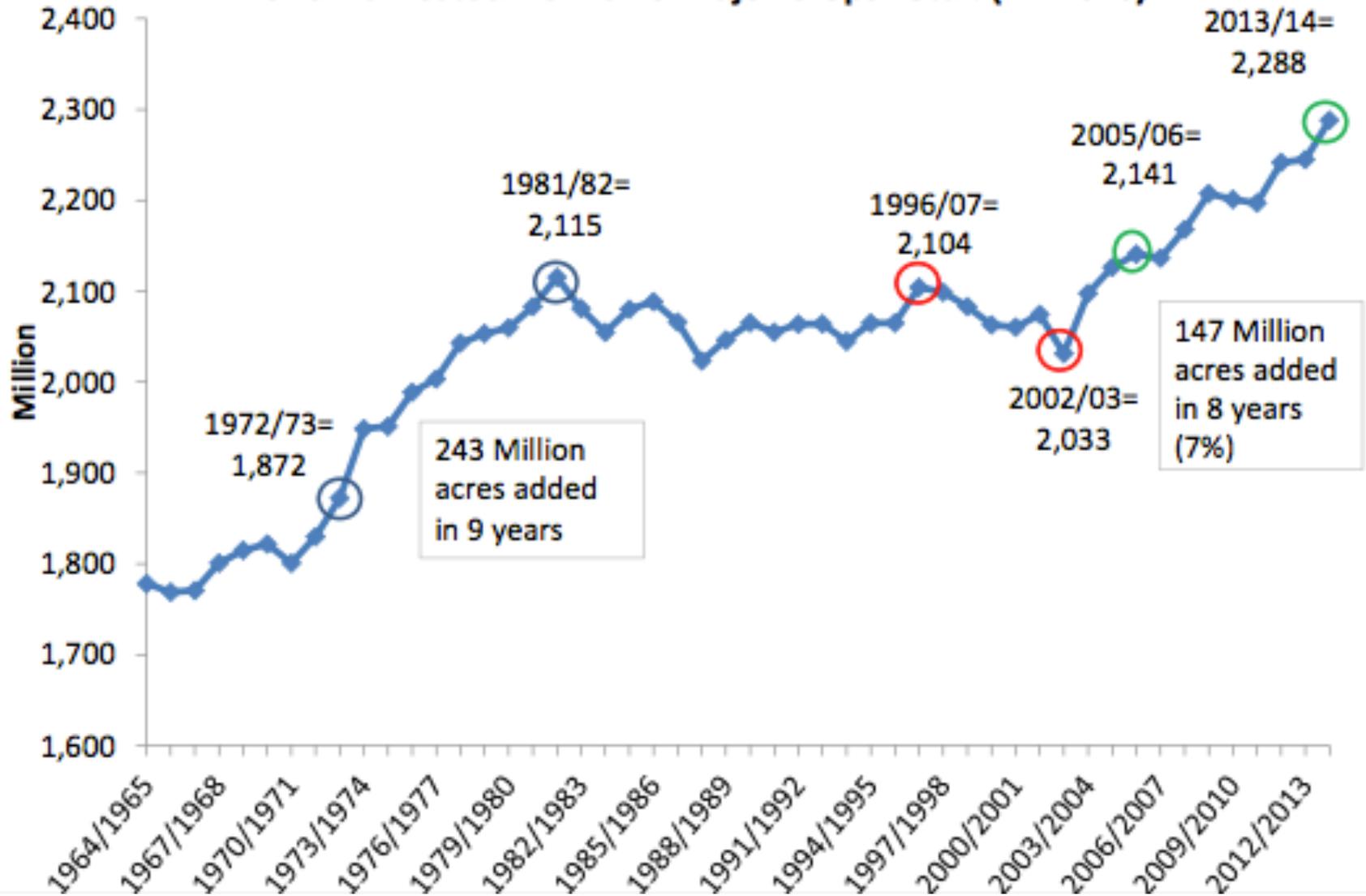
- **Lower Fertilizer prices**
- **Lower fuel prices**
- **Increased Exports**
- **Increased Ethanol**
- **Increased Feed**

“Democracy of Food”

Paul McGarvey

- **Changing PR environment**
- **Activists**
- **Look for opportunities to develop win/win strategies**
 - **Animal comfort**
 - **Water**
 - **Nitrogen**
 - **Soil Quality**

World Harvested ACRES 13 Major Crops Total: (Millions)



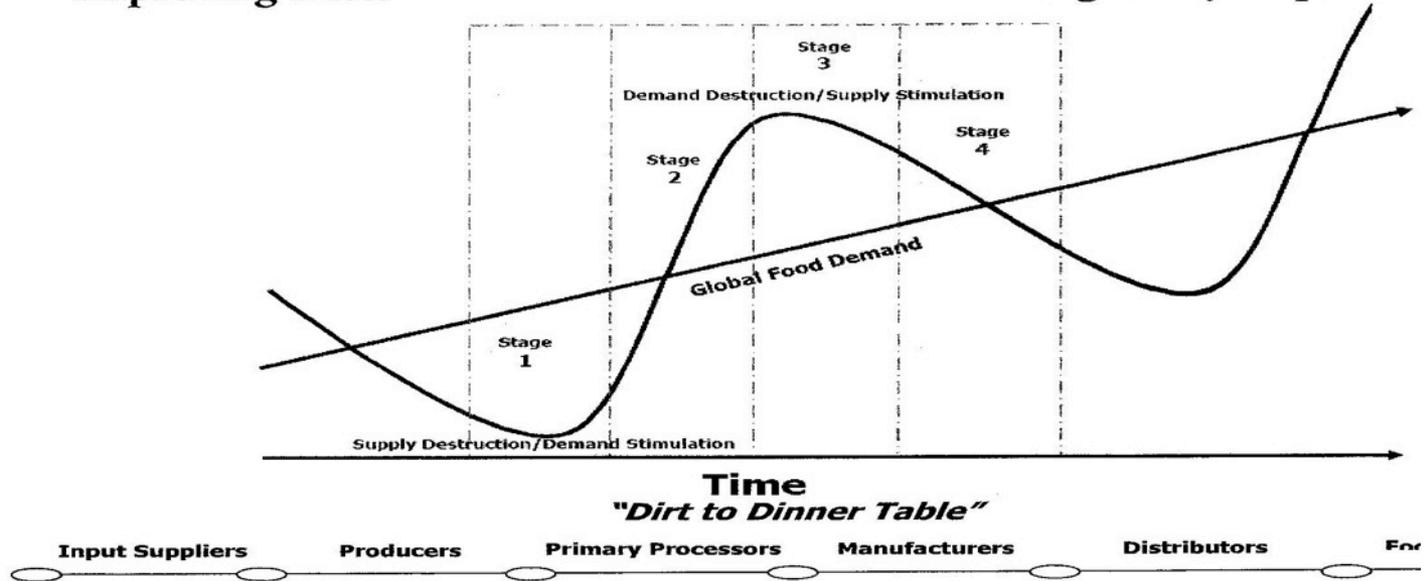
Inflection Points

Secular Trends

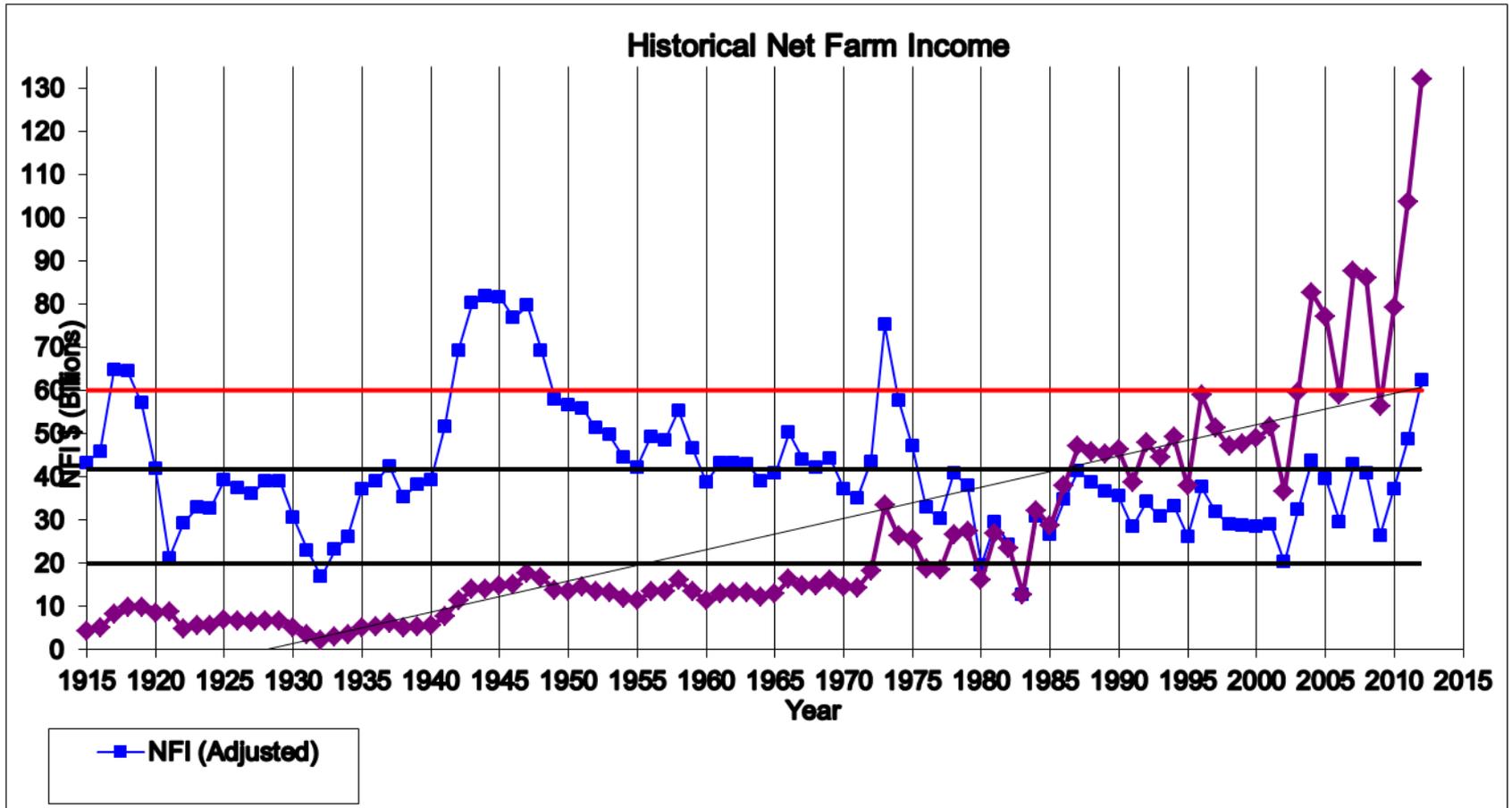
Population Growth
Per Capita GDP Growth
Improving Diets

Cyclical Influencers

Supply / Demand S
Weather Impacts
Ag Policy Impacts



A look at history



Still great opportunities

- Your entrepreneurial Skills
- The Empires of the Future are the Empires of the Mind
- More money to be made farming than any other industry
- Understand Cycles and Profit from them

Those who have strong balance sheets and strong working capital will have opportunities abound.



Cycles in Production Agriculture

- **Have been cycles for the last 400 years.**
- **Will continue to be due to greed and fear.**
- **Strategy is to bulletproof your balance sheet during good times.**
- **So you can catapult ahead of your competition in bad times.**
- **If you get greedy during good times you will likely be on your knees in bad times fighting for survival.**

Cycles in Production Agriculture

- 1998
- Nebraska Client
- \$700 M
- -\$350M Working Capital
- Now \$7.688 MM
- Bullet Proofed BS
- Three Farms bought two

Cycles In Other Businesses

- **Matthias Grundler**
- **Head of Procurement Trucks and Buses- Daimler, Stuttgart, Germany**
- **MOC**
- **Management of Cycles**
- **Cycles will be more frequent and higher impact**

Cycles In Any Business

- Caterpillar
- 1970's in South America sold 1200 machines a year.
- 1981,82,83- sold three
- That experience was the best thing that has ever happened to Caterpillar in a long time.
- Through the boom years Cat was planning carefully for a bust- much more carefully than in previous cycles.
- Forced managers of each business unit to model the worst trough in their history.
- Intensive disaster planning when times were good.

Commodity Business

- **The price of agricultural commodities, over the long run, will level out at the cost of production for the highest cost producers.**
- **How do you survive**
 - Better marketing
 - Lower cost
 - Better production
- **Biggest Rabbits to Chase**
 - Marketing
 - Maximize Machinery use
 - Labor Costs
 - Agronomic Management

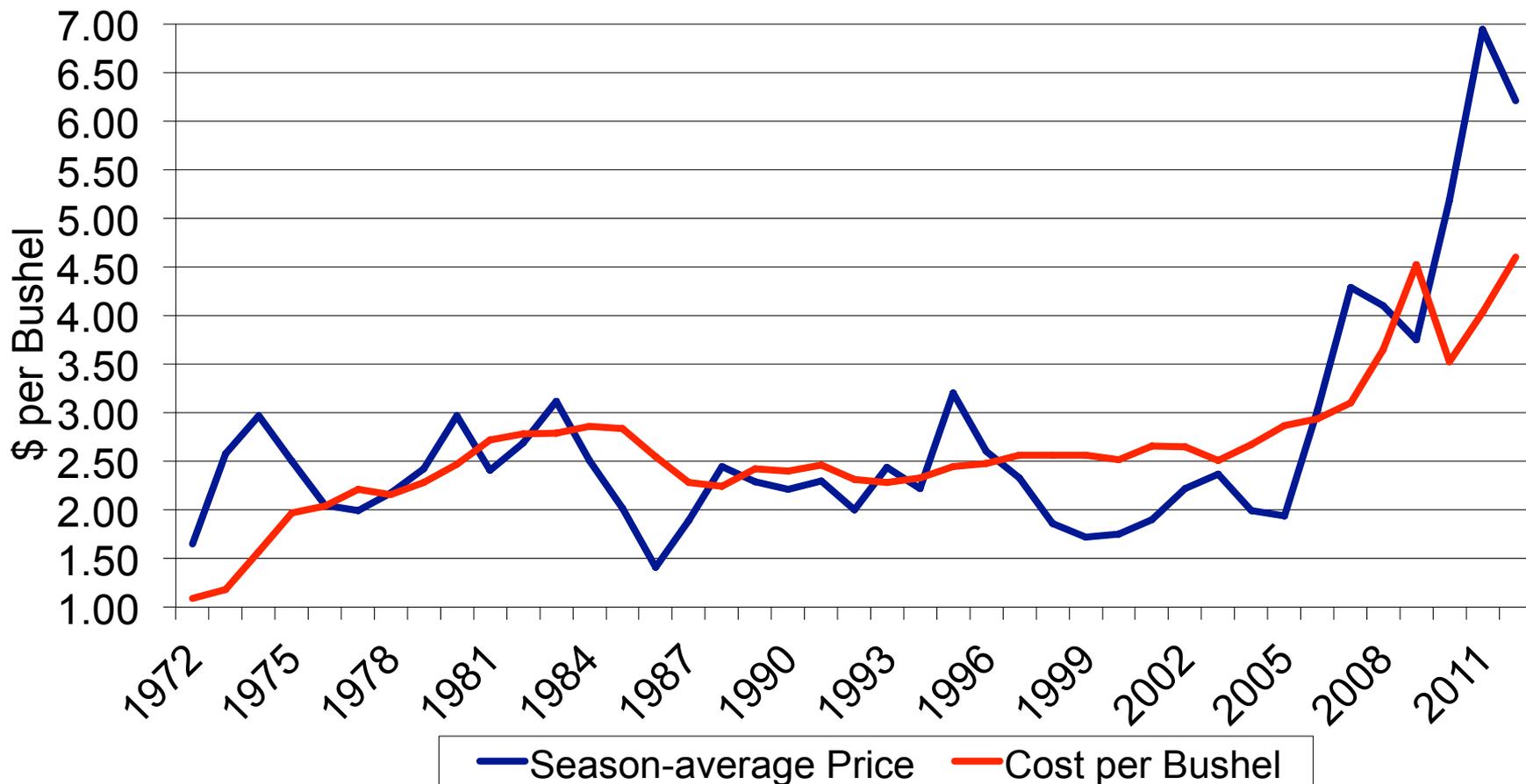
Production Ag Econ 101

“The function of a competitive market is to drive the economic return to the average producer to breakeven through supply and demand in both input and output markets. *In equilibrium, the top end are profitable and growing, the average are hanging in there, and the bottom end are losing money and exiting the industry.* Business success and survival depend on continuous improvement at a pace necessary to stay in the front half of the pack.”

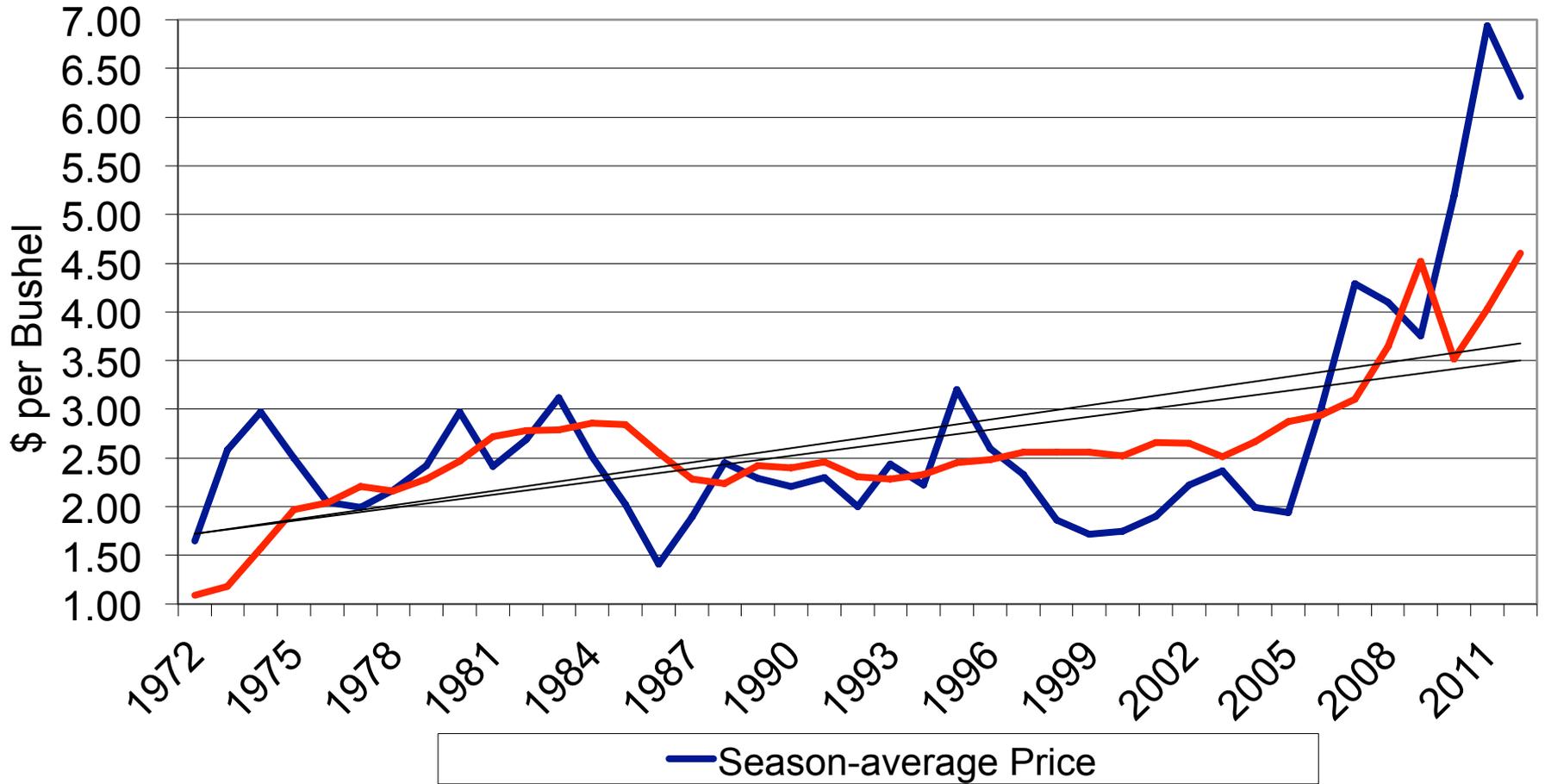
Professor Danny Klinefelter

Texas A & M University

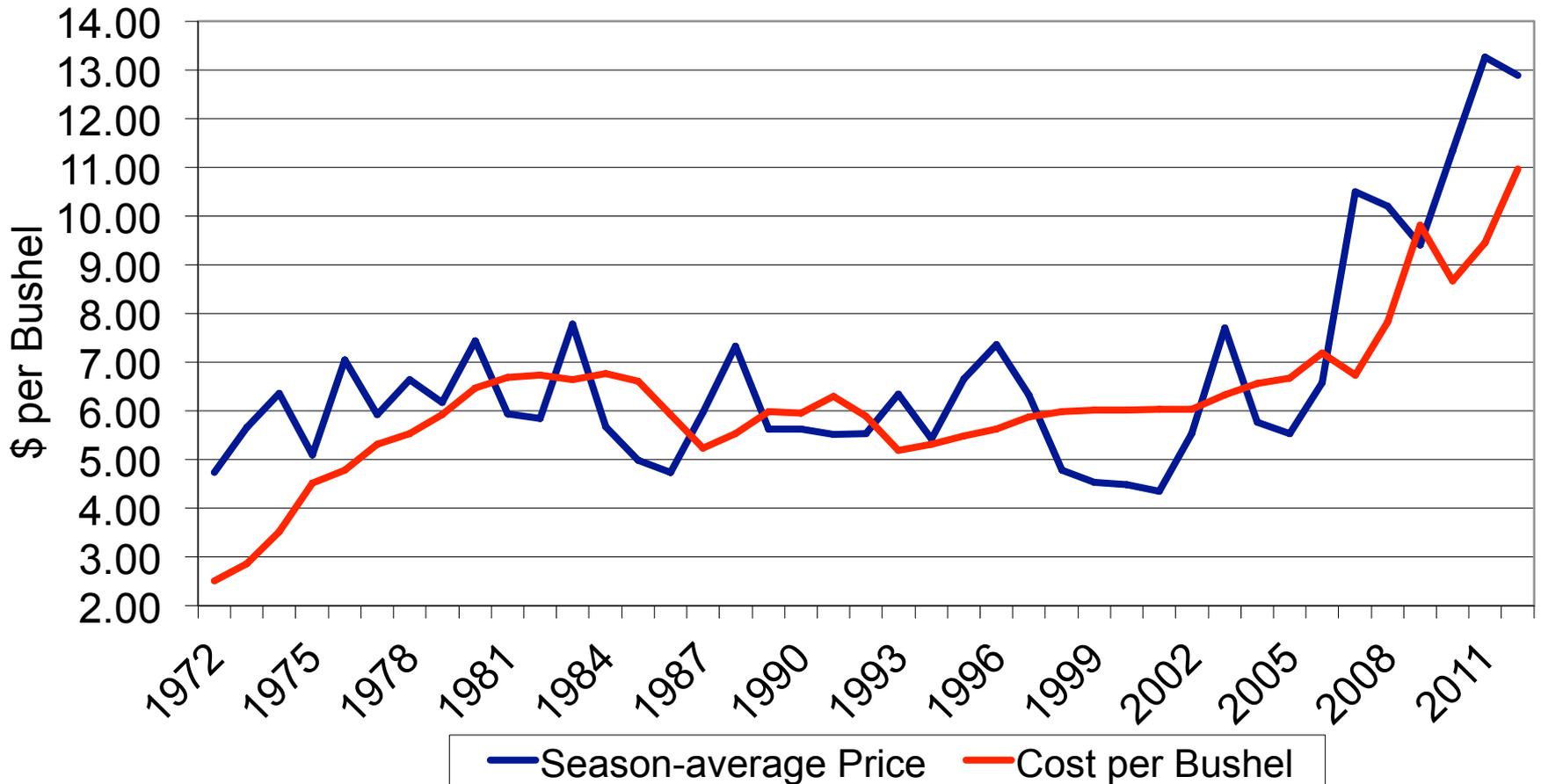
Iowa Corn Price vs Cost



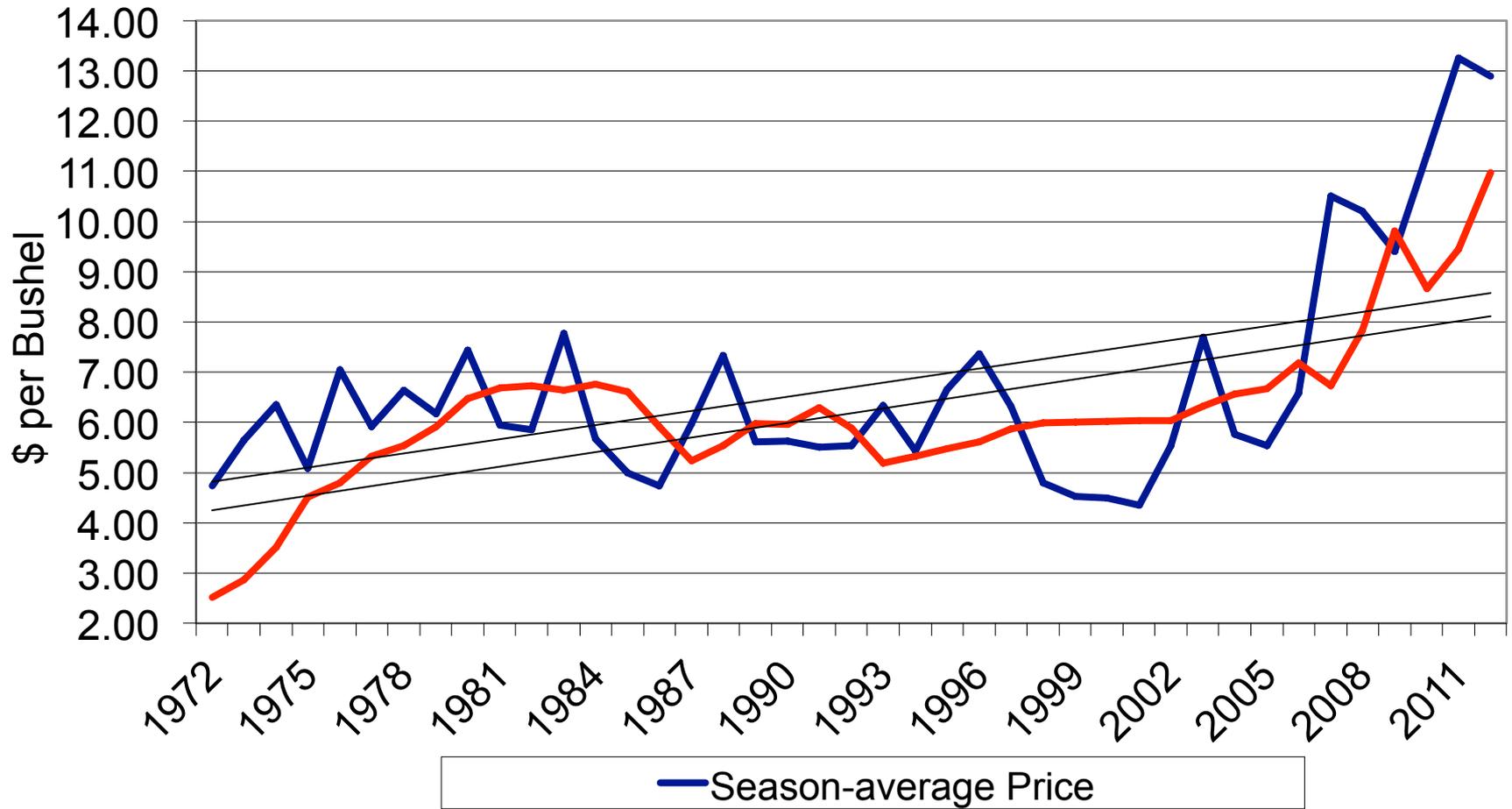
Iowa Corn Price vs Cost- 40 year



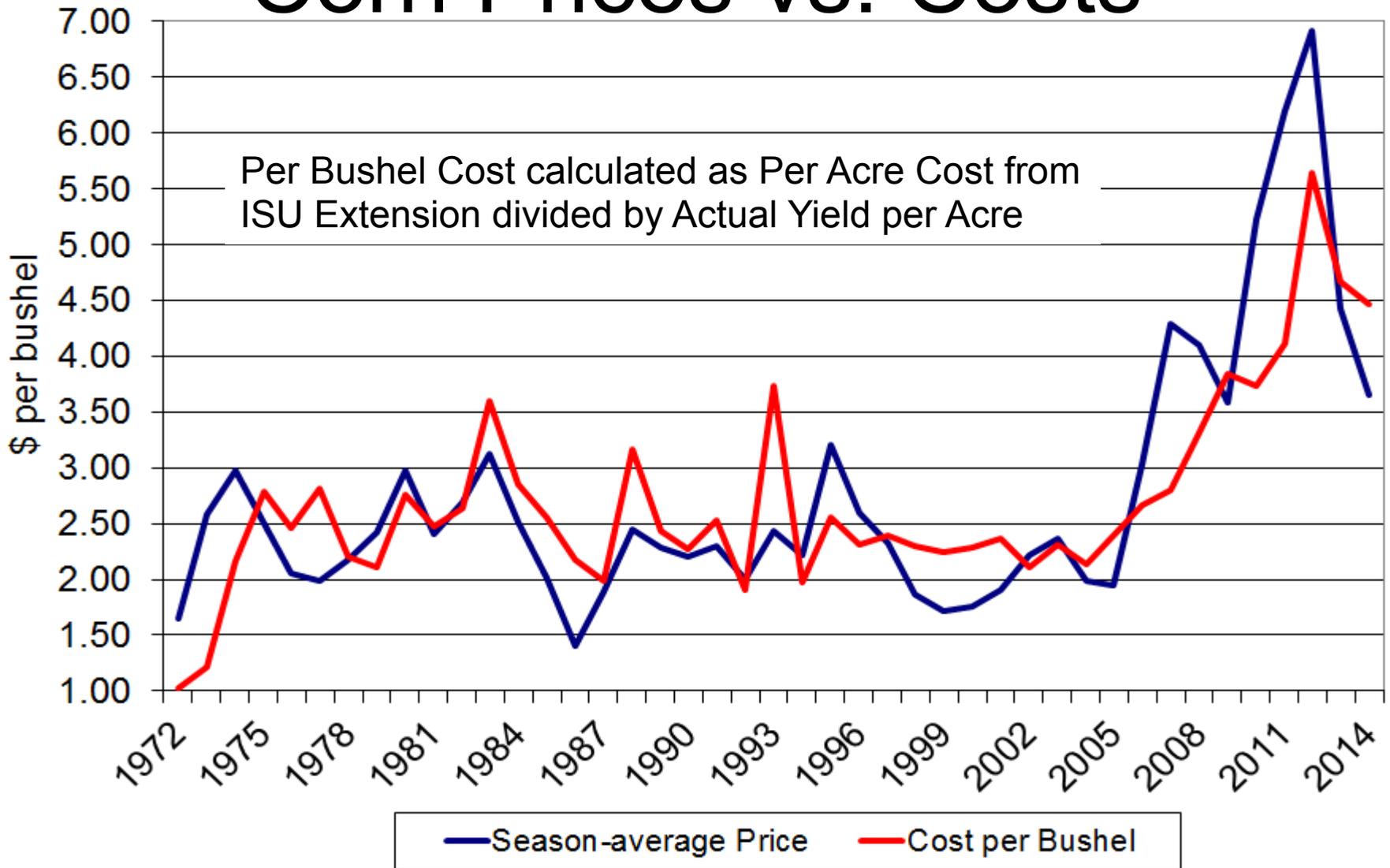
Iowa Soybean Prices vs Cost



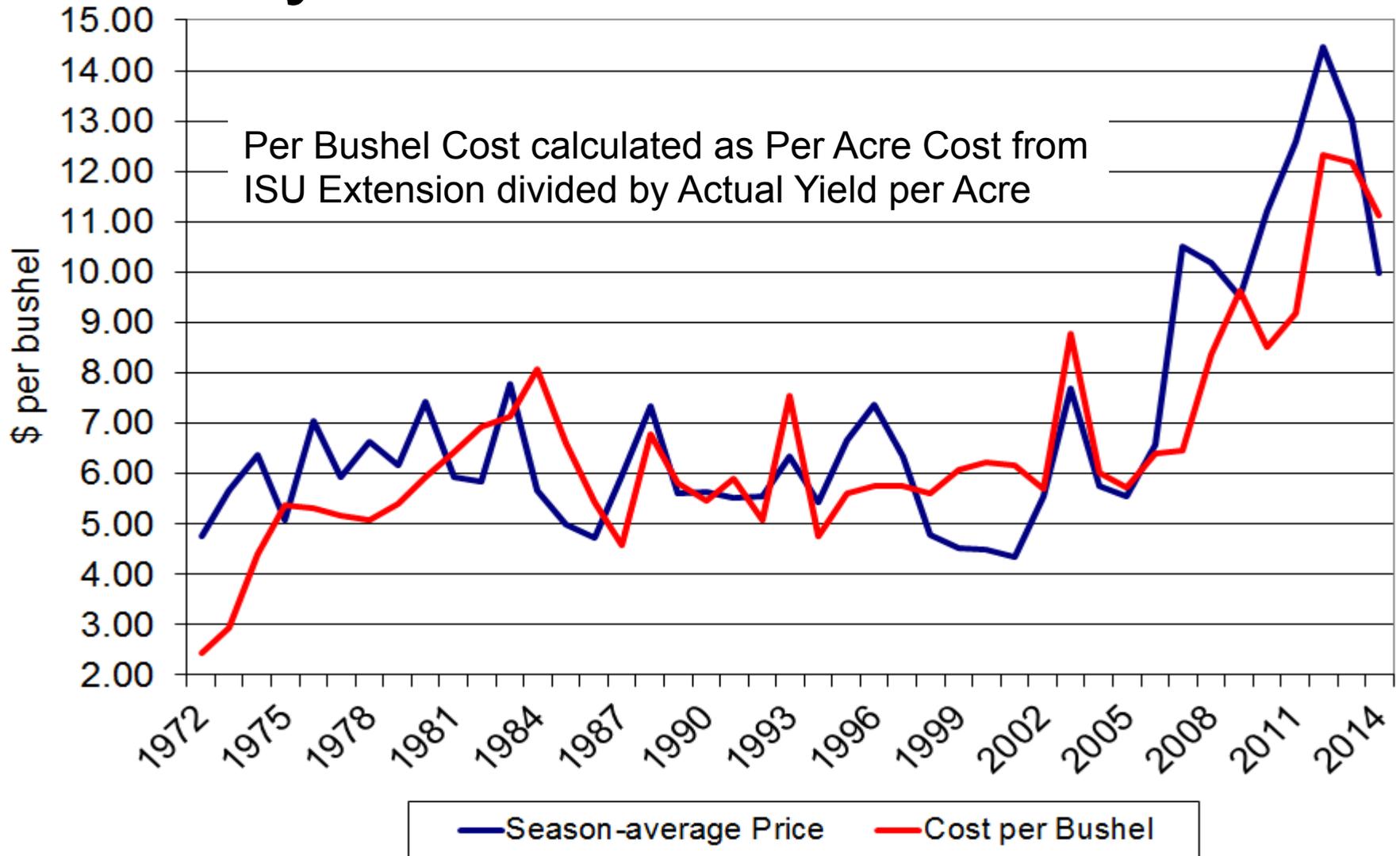
Iowa Soybean Price vs Cost-40 year



Corn Prices vs. Costs



Soybean Prices vs. Costs



Cycles will always occur

•	Year	Season average price	Cost of production	Price/cost %
•	2010	\$5.19	\$3.52	147%
•	2011	\$6.94	\$4.03	172%
•				
•	1973	\$2.58	\$1.18	219%
•	1974	\$2.97	\$1.57	189%
•				
•	1976	\$2.05	\$2.04	100%
•	1977	\$1.99	\$2.21	90%
•				
•	1985	\$2.02	\$2.84	71%
•				
•	The lesson? Cycles occur.			
•				

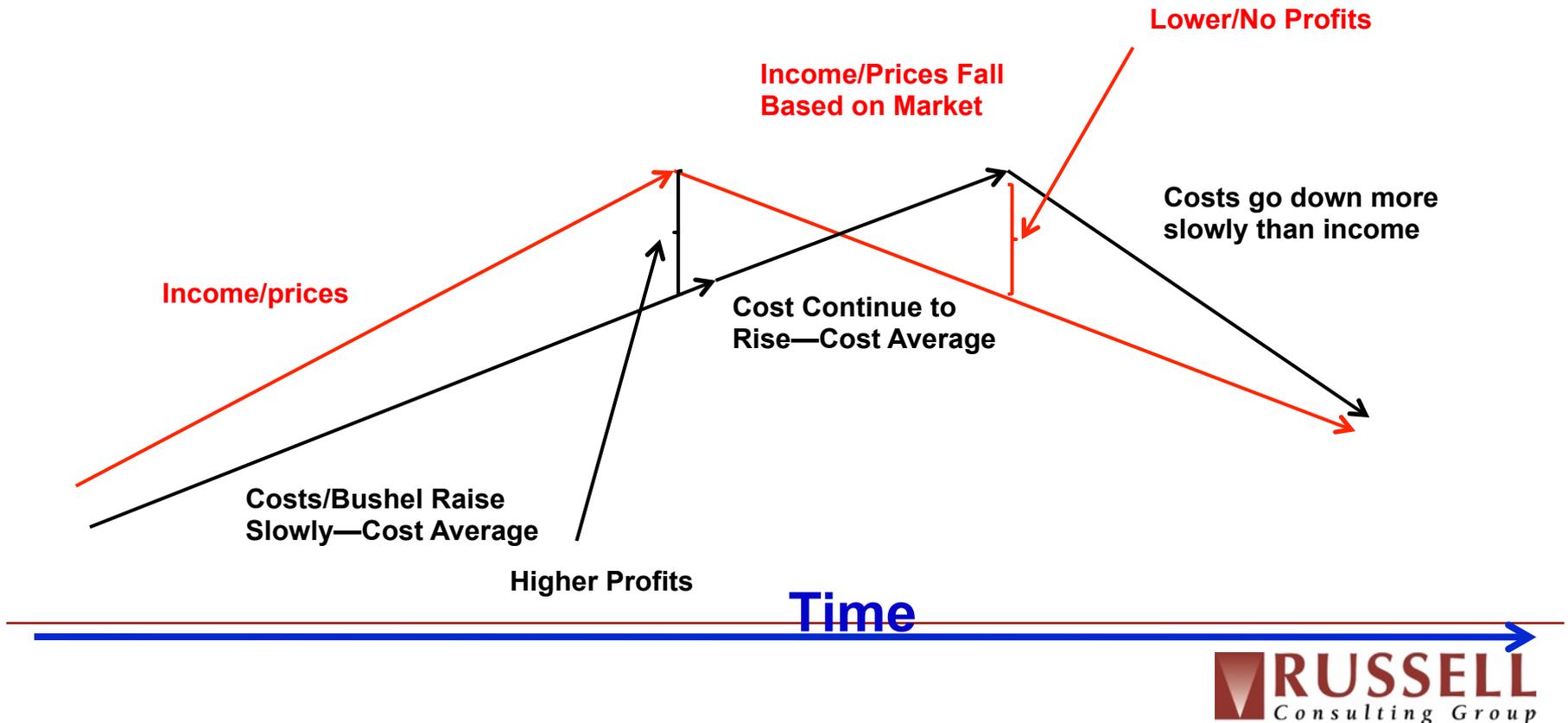
Trends

- **Most major business mistakes over the last 800 years have been caused by misplaced optimism**
- **Wishful thinking is the scourge of critical thinking**
 - “Unintended Consequences” by Edward Conard

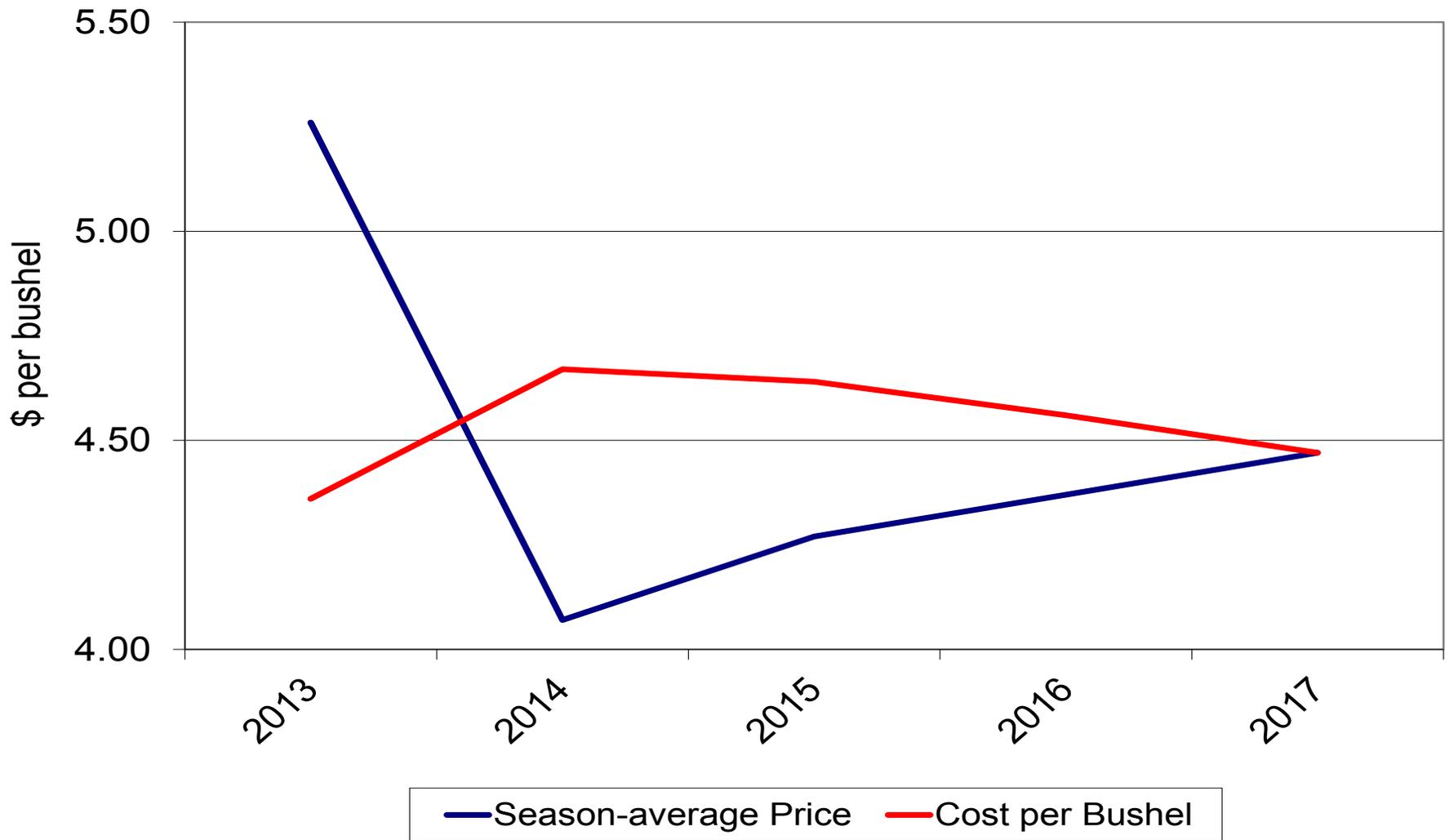
Times have changed in crop profitability

Good Times Teach only Bad Lessons!
Bad Times provide learning opportunities!

Beware of the Expense Tail



Projected Corn Price vs Cost



Best Practices

	Planning								
	Do you...								
6)	have a strategic plan?								
	have a Will, succession plan or exit strategy?								
7)									
8)	have a written marketing plan?								

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Best Practices

Asset Protection				
Do you...				
9)	have an agronomic plan? (including VRT N and seed)			
10)	have an inventory control system?			
11)	use a variety of marketing tools?			
12)	Are your assets protected?			
	A) Insurance products: Federal Crop, blanket farm, Liability, Health, life and disability, identity protection.			
13)	Are you doing all you can to mitigate third party risk?			
				0 0
	Risk Score	Yes to 10-13	Green	Low Risk
		Yes 6-9	Yellow	Moderate Risk
		Yes 5 or Less	Red	High Risk

Key Financial Markers

- Working Capital
- Equity
- Return on Assets
- Return on Equity
- Exp/Rev Ratio
- Debt Coverage Ratio
- Withdrawals/Gross Rev
- >50% annual expense
- > 60%
- > 6%
- >10%
- < 65%
- >1.5 to 1
- < 10%

Bulletproof Your Balance Sheet

- **Current Assets**
 - Cash
 - Accounts Receivable
 - Grain in Inventory
 - Prepaid Expenses
 - Livestock to be sold within next twelve months

Bulletproof Your Balance Sheet

- **Minus Current Liabilities**
 - **Accounts Payable**
 - **Operating loan due within one year**
 - **Current portion of term debt due in 12 months**

Bulletproof Your Balance Sheet

- **Working Capital**
- **50% of annual expenses**
- **If > 5,000 acres should be 75%**
- **If > 10,000 acres should be 100%**
- **Overall equity > 60%**
- **Take a profit when it presents itself and meets your goals**

Bulletproof Your Balance Sheet

- **Refinance Real Estate or Machinery to free up cash**
- **Take advantage of 50 year lows in interest rates**
- **Do it now**
- **Biggest challenge will be access to capital**

Profitability Not a Function of Size, Type of Operation, or Location

Operation	ROA	ROE
860 acres & custom feeds 4,412 head pig space, 14 yr aver	10%	16.0%
1690 acres 400 head cattle fed 13 year earned NW increase	12.0%	16.5%
12,000 acres corn and soybeans 35 year average	15%	23%
550 acres 200 Dairy cows 12 year average	12%	18%
900 acres & 5,400 pigs spaces 9 year average	16%	23%
ROA (Return on Assets) ROE (Return on equity)		

The profitability gap is getting wider

- 300 growers from dozen states
- 2008-2011 four years
- Bottom 10% profit **lost \$157/ac**
- Top 10% **earned \$407** net income per acre
 - AgriSolutions, Birghton, IL

Equipment Utilization & Efficiency

- 6635 acres, 62 fields
- 10 days planting
- 24 hr planting 80%
- 1,000 ac/day
- Up from 40% last year
- Technology Investment
- RTK, hardware, software
- \$26/acre
- Pit Stops

Gaining an Edge- Technology

- Precision Farming
- 7-12 bushels per acre
- \$28-\$48 per acre revenue @ \$4 per bushel

Investment in technology, variable costs about even

Varies by location and topography.

Gaining an Edge

- **When we invest in new technology, we expect some of that to fail. If you expect things to always succeed, you're probably not far enough out on the learning edge.**

Kim Jordan, Co Founder and CEO, New Belgium Brewery

Gaining an Edge

- First you need to know where you are at
- **TruHarvest** Yield Benchmarking
- Russell Brothers, LLC 2013 yield was 217 bu/ac
- 12 years manure, pattern tilled.
- Compares your yield with similar soil, topography, rainfall. GDDS
- 229 @ 95%

Marich Farms, Inc.

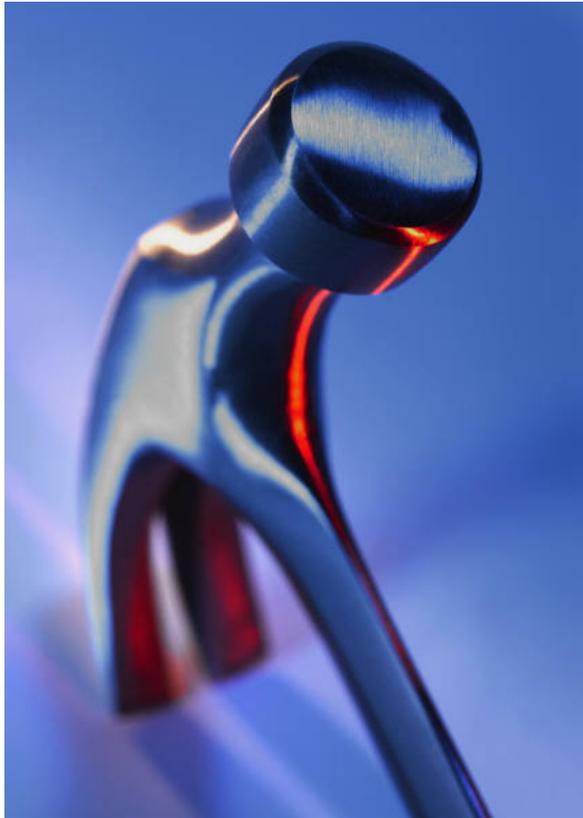
- 160 acres our yield 218 -95% benchmark 243
- 120 acres our yield 228 -95% benchmark 248

We are learning a lot.....you need a benchmark.

FarmLink.com

TruHarvest

What Should Top Producers Focus On?



What are the most important leverage points to reaching income targets?

Leverage Points for high Profit Farms

- Marketing- \$.50/bushel on 200 bushel corn **\$100**
- Machinery Cost /acre RCG average is \$126 (top10%\$67)difference is **\$59**
- Labor Cost / acre RCG average is \$51 (top10% is \$24) difference is **\$27**
- Agronomic Management, precision ag produces on average 7-12 bu **\$38**

Where is the money ? Total potential= \$224

RCG Client Base

	2009	2010	2011	2012	2013
	Avg.	Avg.	Avg.	Avg.	Avg.
• Machinery cost/acre	\$79.36	\$89.46	\$98.99	\$112.42	\$126.09
• Labor cost per acre	\$37.71	\$45.48	\$44.32	\$50.69	\$51.11
• Combined Machinery & Labor	\$117.07	\$134.94	\$143.31	\$163.32	\$177.20
• Return on Assets (ROA)	9.1%	12.2%	12.5%	12.4%	4.6%
• Return on Equity (ROE)	14.8%	20.2%	21.5%	17.9%	5.5%
• Working Capital/Annual Expense	41.26%	41.42%	47.44%	58.26%	46.4%
• Working Capital/Acre				\$480.84	\$334.51

– Fortune 500 2013 Median ROE 13.7%

Growth in Net Worth

- \$500,000 NW
- Grow 9.67% for 10 years
- \$1,258,000
- \$500,000
- Grow at 17.77% for 10 years
- \$2,566,000

Having a Plan

- Makes farming easier and more fun
- Reduces stress
- Worry less about competition
 - John Wooden- won 10 NCAA championships
 - Never had opposing team scouted

What does the future hold

- “The future has a way of arriving unannounced”
- Drivers of Change
 - Resources
 - Technology
 - Demographics
 - Public Policy

Resources

- **Natural Gas(Marcella, Bakken, Eagle Ford (south Texas) Brown Dense (Ark & LA) Tuscaloosa Marine (LA & MS) Cline, Texas)**
- **Methane Hydrate**
 - Fire Ice
 - 3% would provide US natural gas for 400 years

America's Huge Cost Advantage in Natural Gas

- The United States has a huge cost advantage in natural gas. The cost of natural gas at Cove Point in southern Maryland this summer was **\$3.26** per million BTU. In Brazil it is **\$14.56**, in China **\$15.25**, Japan, **\$15.65**; the UK, **\$11.66**, India **\$13.75** and Argentina, **\$15.65**. We have a competitive advantage unlike no one else in the world.

Natural Gas Cost Comparison

- 18 wheeler
- Trip cost \$184

Natural Gas Powered
Trip cost \$34

Cheaper Ammonia

- It takes 34,000 Cu Ft of Natural Gas to Produce a ton of Ammonia.
- 1 Cu Ft of NG = 1082 BTU.
- $34,000 \times 1082 = 36,788,000$ Btu
- \$2.93 MBTU
- $\$2.93 \times 36.788 = \108
- $\$108 / .80 = \134 per ton

Oil- can now export it

- Rail carloads 2009
 - 11,000 shipped
 - Rail carloads 2013
 - 400,000 shipped
- Source: Surface Transportation Board

Energy Self Sufficiency

- **8 years ago we were importing 10 times as much petroleum as exports, 2.6 today**
- **By the end of 2016 net energy exports are projected to exceed energy imports**
- **Could occur sooner if Keystone pipeline is approved or refinery problems are corrected.**

Technology

- **About every 30 years there is a major technological change that changes the world.**
- **Last one was the microprocessor**
- **Current one is Fracking**
- **Methane Hydrate extraction is now where Fracking was 10 years ago.**

Trivia

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- Who was the lowest paid actor in The Wizard of Oz? __Dorothy

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- **Ford 8N 524,000**
- Farmall M 270,140
- John Deere B 357,456
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- John Deere A 300,000
- AC WD 45 90,382

Thank You

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