

# STRATEGIES WHEN THE MARKET PRICE IS BELOW THE COST OF PRODUCTION

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# Main Points

- Market prices in 2014 and now into 2015 were/are below break-even prices to meet the cost of production
- Expected market prices for 2016 are also below break-even prices
- Long-term projected market prices over the next several years are below current break even prices
- This is not sustainable, something has to give
  - Costs for corn and soybean production will decrease
- Present ideas on what farmers can do

# Cost Trends

- ISU Extension has used a consistent methodology over the years, so great for comparisons over time
  - Google “Iowa Crop Budgets”
- Major Cost Categories as % of total cost in 2016

Category	Corn	Soybean
Land (Rent)	37%	50%
Machinery	18%	14%
Seed	15%	10%
Nutrients	15%	10%
Herbicide	5%	6%

# Iowa Break Even Prices

Year	Corn	Soybean	Silage	Alfalfa
<b>2016</b>	<b>3.99</b>	<b>10.67</b>	<b>37.11</b>	<b>100.78</b>
2015	4.23	10.96	39.28	105.24
2014	4.29	11.13	39.63	106.37
2013	4.31	10.95	40.05	109.34
2012	4.23	10.92	39.87	111.22
2011	3.87	9.45	35.68	99.67
2010	3.40	8.67	31.45	83.86
2009	4.32	9.81	52.16	105.38
2008	3.48	7.79	37.46	75.42
2007	2.96	6.73	32.15	64.97

- **Corn -5.7%, Soy -2.6%, Silage -5.5%, Alfalfa -4.2%**

# Long-Term Price Expectations

	CME Harvest Futures 1/13/2016		USDA Long-Term Projections	
Year	Corn	Soybean	Corn	Soybean
2015			3.40	8.50
2016	3.83	8.89	3.50	8.55
2017	3.97	8.96	3.50	8.80
2018	4.09	8.95	3.50	9.10
2019	4.11	9.00	3.55	9.20
2020			3.55	9.30
2021	<b>ISU Extension 2016 Break Even Prices \$3.99 and \$10.67</b>		3.60	9.35
2022			3.65	9.40
2023			3.70	9.45
2024			3.75	9.55

USDA Long-Term Projections, **February 2015** (p. 64, 69), online:

[http://www.usda.gov/oce/commodity/projections/USDA\\_Agricultural\\_Projections\\_to\\_2024.pdf](http://www.usda.gov/oce/commodity/projections/USDA_Agricultural_Projections_to_2024.pdf)



# Dow-DuPont Merger: Better Living Through Layoffs

## THE WALL STREET JOURNAL.

Monsanto layoffs hit St. Louis offices

ST. LOUIS  
BUSINESS JOURNAL

Nov 20, 2015, 3:52pm CST

Caterpillar slashes revenue forecast, cutting up to 10,000 jobs

 REUTERS

John Deere layoffs unlikely to be the last.

The Des Moines Register

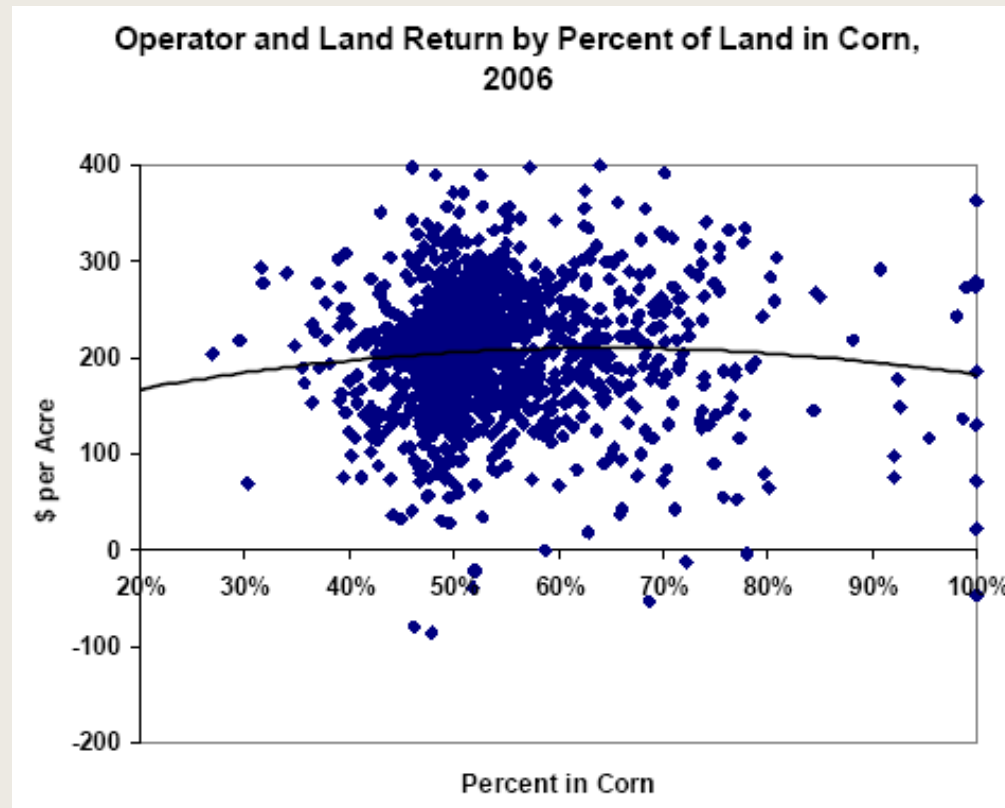
**CF Industries Said Near OCI Deal to Create Yara Fertilizer Rival**

BloombergBusiness

2015 Global chemical industry mergers and acquisitions outlook  
**Deloitte.** The momentum continues

# What's a Farmer to Do?

- First thing is to estimate your own cost of production!
- These numbers I give are estimates of the average
- Tremendous variation in costs exists among farmers



# Estimating Your Cost of Production

- Variable inputs like rent, fertilizer, seed, chemicals, insurance, interest etc. are fairly easy to figure out
  - Spreadsheet tools exist
    - Google “**UW Crop Budget Analyzer 2015**” Ken Williams UWEX Waushara County
    - Google “**UW FARM Team Budgets**” Ken Barnett UWEX
    - Google “**UW Extension Paul Mitchell**”
  - Make your own spreadsheet or paper version
- **Machinery Costs are the hard part, can only estimate**



# Estimating Farm Machinery Costs

Estimate for your specific age and size of machinery

- Google “**Estimating Farm Machinery Costs**” ISU Extension (2015)

Adjust Custom Rates for your size of your farm

- Google “**Custom Rates Cost Farm Machinery Kansas**” from KSU Extension
  - Full title: *Custom Rates and the Total Cost to Own and Operate Farm Machinery In Kansas*
- Google “**Simple Method Machinery Cost Wisconsin**”
  - Full title: *A Fast and Simple Method to Estimate Typical Machinery Costs*

# Machinery Costs: Adjust Custom Rates

- Custom Rates usually lower than farm costs
- They spread fixed costs over more acres, charge lower price for poor timing, under charge friends and relatives,

Crop Acres	% Higher	Crop Acres	% Higher
200	41%	1000	27.4%
400	32%	1250	26.7%
600	30%	1500	26.3%
800	28%	2000	25.8%

- <http://www.aae.wisc.edu/pdmitchell/Budget%20Template.xls>
- Google “**Wisconsin Custom Rate Guide**” 2013
- Google “**Iowa Custom Rate Guide**” 2015

# Farmer Tactics to Reduce Cost for 2016

- **Accept below normal returns** to survive for future profits
  - May take you a few years to reduce costs
  - Cut overhead costs: pickup truck, shop, electricity, ...
- **Negotiate lower land rents**
  - If too late this year, next year as this is a long term issue
  - Share risk with owner: Google “**Flexible Farm Lease**”
- Better marketing: 1 cent/bu x 200 bu/ac x 500 ac = \$1,000
  - **Hire a marketing company**
    - Do not have to use them for your whole crop, give them some as a test to see if they help you

# Farmer Tactics to Reduce Cost for 2016

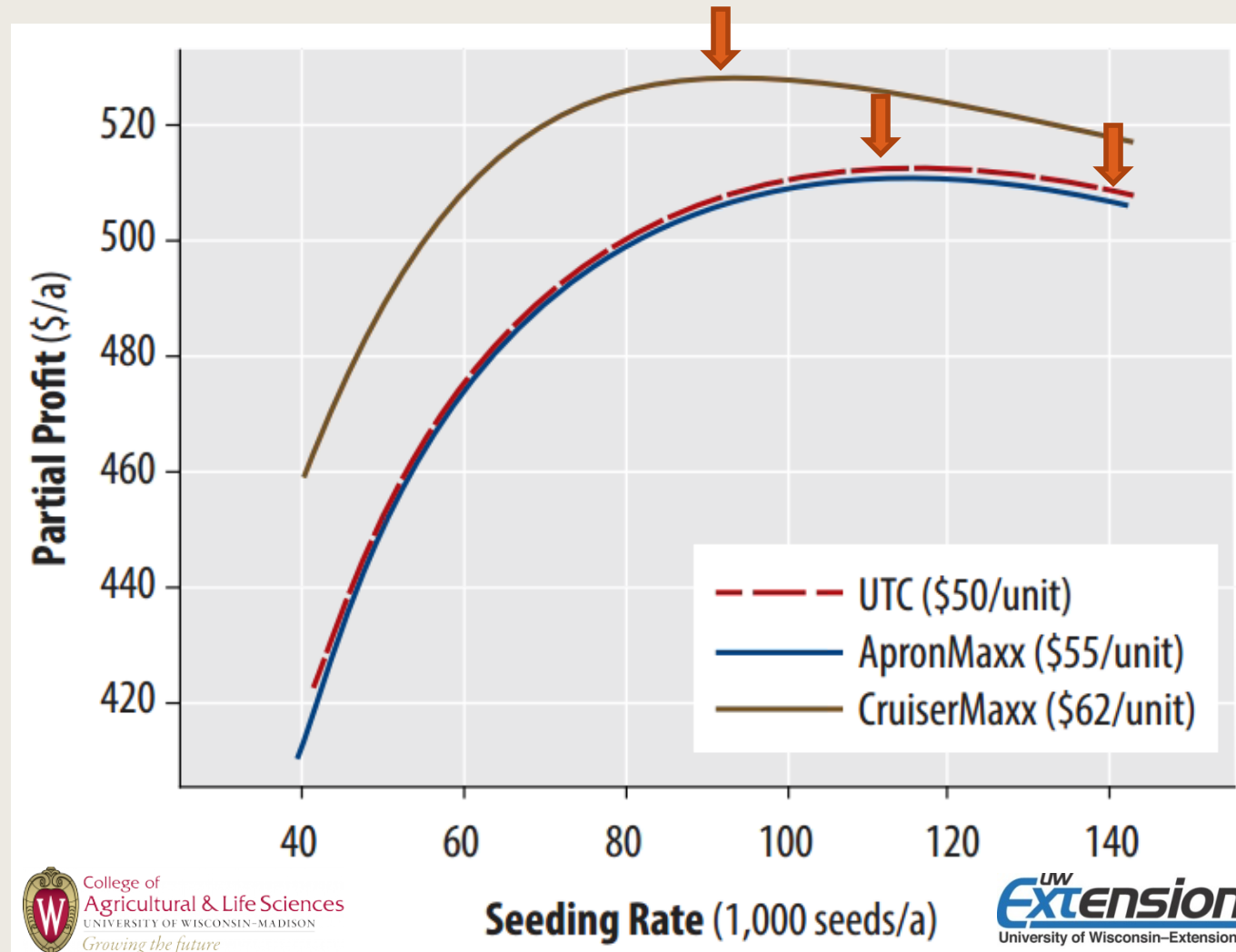
- **Be cautious with inputs**
- Wide ranges of “optimal” inputs, so use the lower end of the recommended ranges
  - Use on-farm trials/experiments, not whole farm at once
- Use the decision aids to guide
  - Seeding density
  - Nitrogen: use soil tests, N credits for rotation & manure
  - Mine your P and K, but you will have to pay for it later

# Farmer Tactics to Reduce Cost for 2016

- **Reduce seeding costs** by adjusting seeding rates
  - Common recommendation for soybean seeding rate is 140,000 seeds/A
  - Shawn Conley UWEX Agronomy
    - Google “**Wisconsin Soybean Profit and Risk**”
  - Use insecticide seed treatment and reduce seeding rate
  - With \$9/bu soybeans, optimal seeding rate
    - 111,500 seeds/A if untreated seed
    - 94,000 seeds/A if insecticide seed treatment
  - If using 140,000, reduces seed cost by 33% or 20%

# Returns/A versus Soybean Seeding Rate

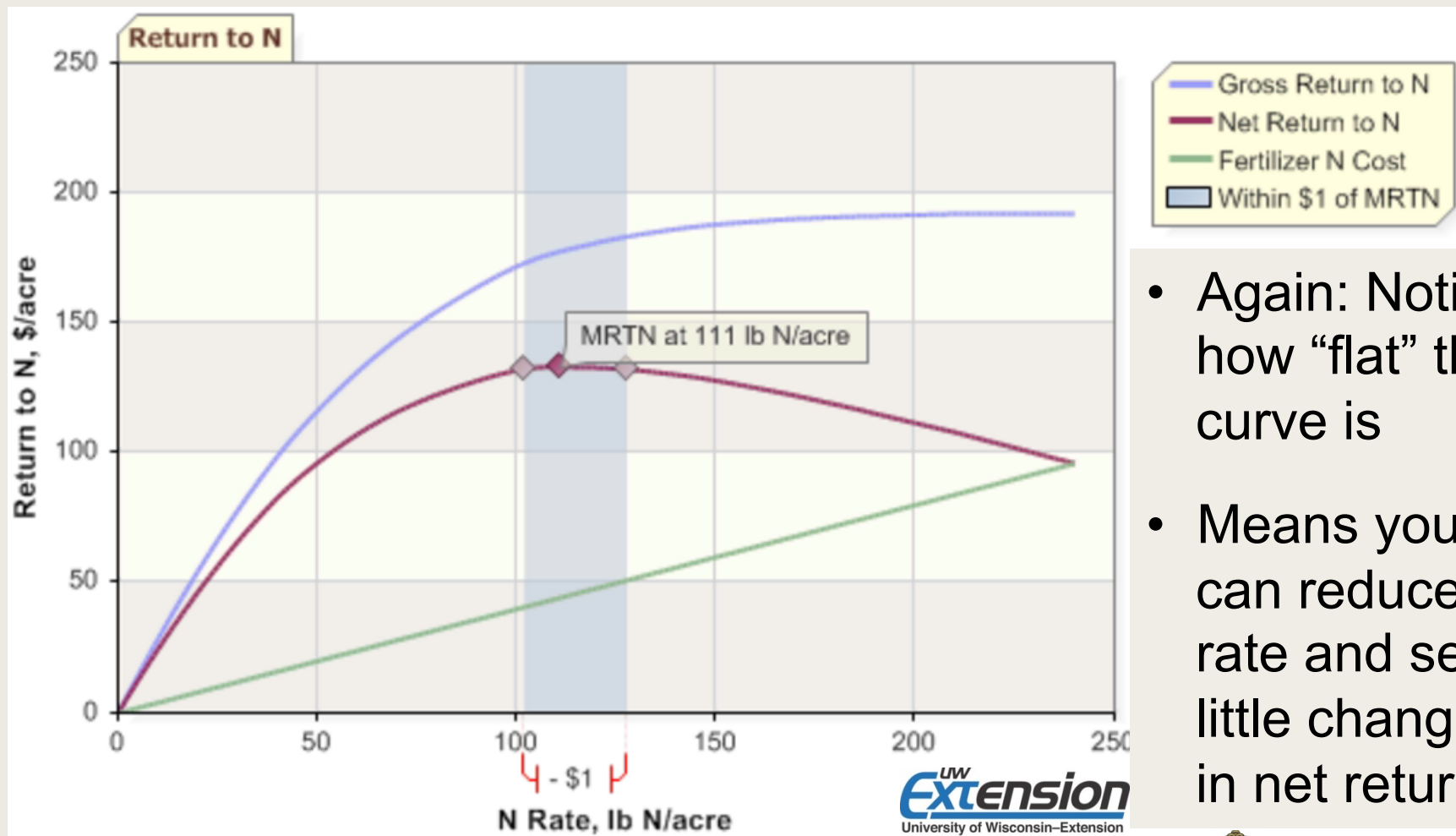
- Notice how “flat” the curves are
- Means you can reduce seeding rate and see little reduction in net returns
- Note the seed treatment effect



# Corn Seeding Rates

- Joe Lauer, UW Extension Corn Agronomy
- Optimal seeding rates have been increasing
- Curves for corn are also “flat”, so you can use lower end of recommended ranges to save some cost with little to no effect on net returns
- **Precision Equipment**
- Precision planting: don't over seed/double seed end rows
- Precision sprayers: don't overspray end rows

# MRTN (Maximum Return to N): \$0.40/lb N & \$3.50/bu corn, WI High Yield Potential Soil: 102-127 lbs/A



- Again: Notice how “flat” the curve is
- Means you can reduce N rate and see little change in net returns

Source: <http://extension.agron.iastate.edu/soilfertility/nrate.aspx>



# Machinery Costs

- Keep older machinery: less depreciation
- Share machinery with neighbors/relatives to spread fixed costs over more acres
- Sell machinery and use custom hire
- Keep machinery and do custom work to spread fixed costs over more acres
- **Use yield monitors to find unprofitable parts of fields**
- Stop farming these areas
  - Know your cost of production, choose a price and use yield history to see if you will harvest **break even yield**
  - Waterways, low/wet spots, rocky spots, shady spots or near walnut trees, etc.

# Summary

- Cost of Production for Corn and Soybeans is above the expected market prices for 2016
  - Farmers have to cut costs
  - Long-term trend, not a short-term issue
- You are not alone, all the ag sector is cutting costs
- Presented several ideas for ways to cut costs, but I'm sure some do not apply to you and you have better ideas
- Don't be afraid to ask for help, to rely on your family and neighbors: Not all wealth is measured in money

## Paul D. Mitchell

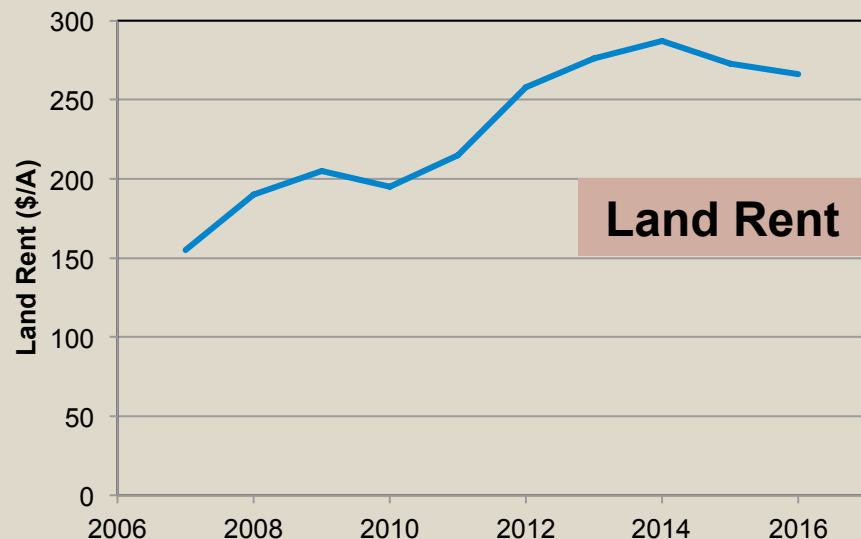
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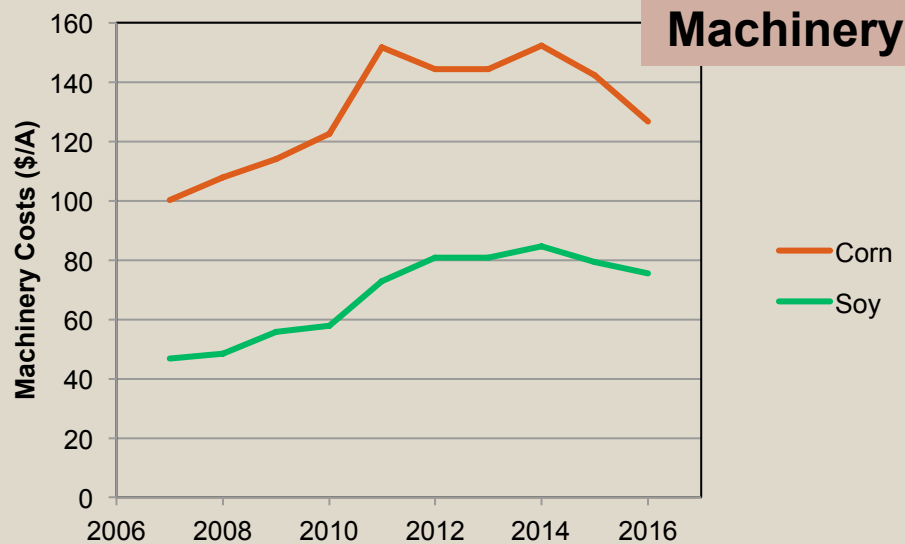


# Land Rent and Machinery Costs

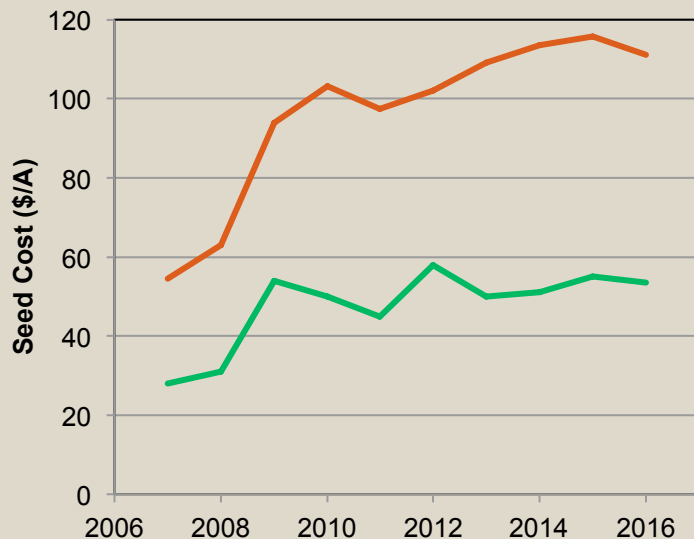


- Peaked in 2014
- Rent has dropped 7.3% since 2014

- Also peaked in 2014
- Corn machinery costs dropped 17% since 2014
- Soy machinery costs dropped 11% since 2014



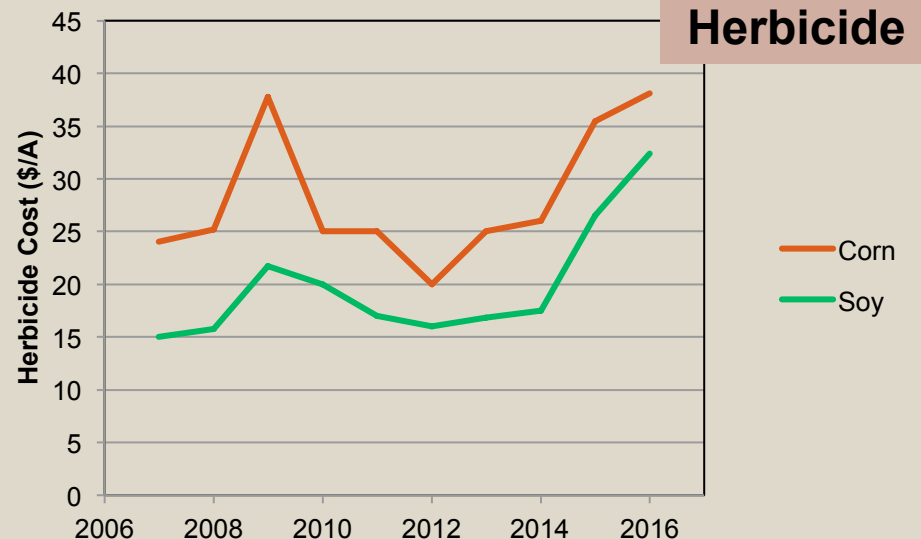
# Seed and Herbicide Costs



## Seed

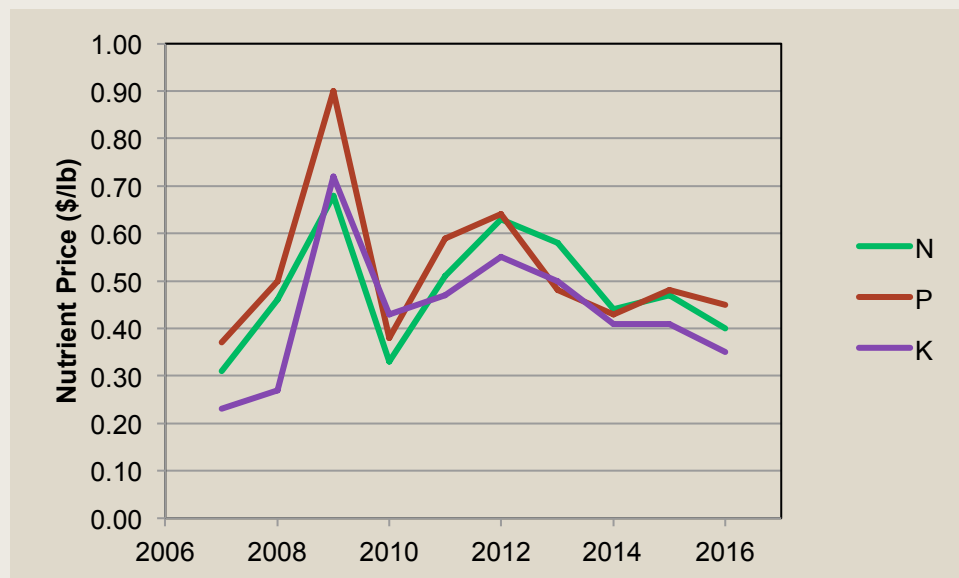
- Over the last 10 years, Corn seed costs rose 104%, Soy by 91%
- Both dropped this year, the first time in a while

- Since 2012, herbicide costs have been rising
- Corn up 91%, Soy 103%
- Prices increased < 10% since 2012; is it herbicide resistant weeds?



## Herbicide

# Fertilizer Prices (\$/lb)



- Fertilizer prices have been declining since 2012
- 30%-37% decrease since 2012
- 41%-51% decrease since 2009

- Downward pressure on input prices beginning to happen
- Farmers have been cutting back on input expenses
- More cost reductions will have to happen