

# 2017 Corn School

## Corn Marketing and Price Update

### Olathe, Kansas

January 13, 2017

Rich Llewelyn

[rwl@ksu.edu](mailto:rwl@ksu.edu)

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## Current Situation

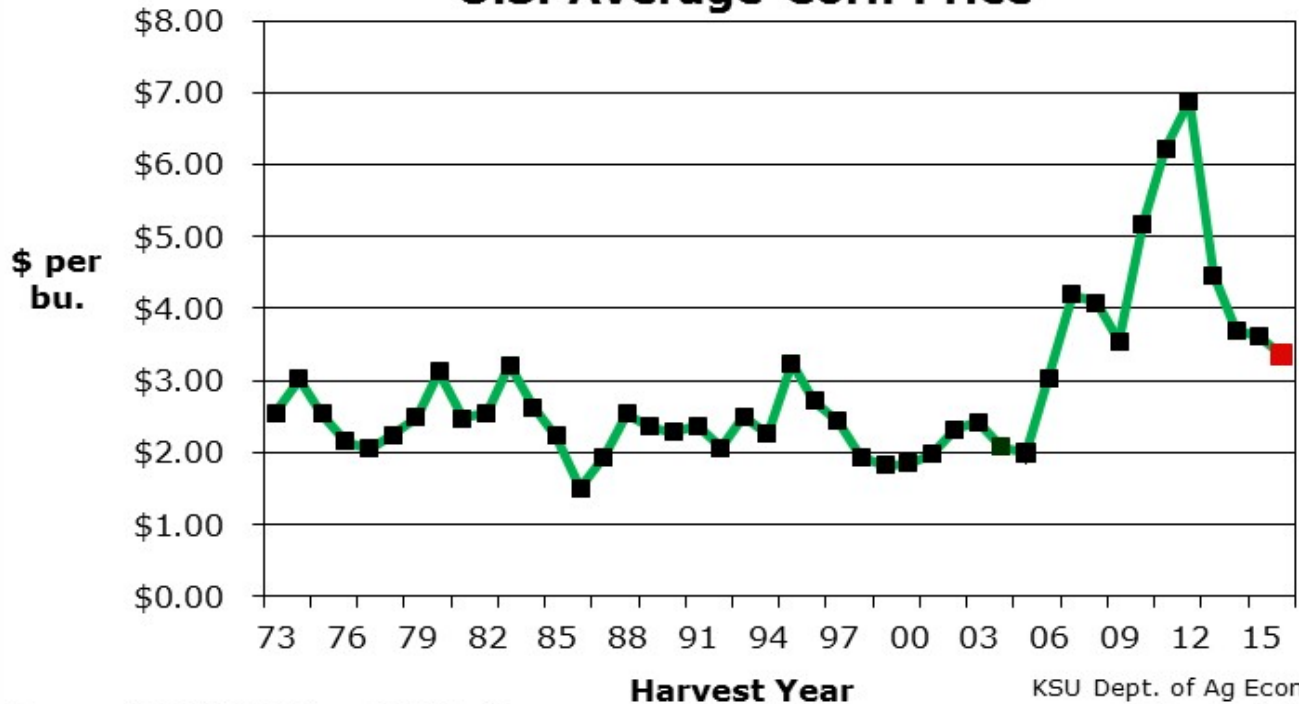
- Low grain prices, due primarily to huge grain supplies in the U.S. and world.
- Strong dollar and rising interest rates, limiting exports and increasing costs.
- Political and economic uncertainty, in the U.S., Europe (Brexit), and other parts of the world (India, Brazil, China).
- Limited expansion in corn used for ethanol.
- Lower Chinese feedgrain imports.
- Lower cattle prices in the U.S. since early 2016, slowing herd expansion.

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## Lower prices...

### U.S. Average Corn Price



Source: USDA WASDE Report 12.09.16

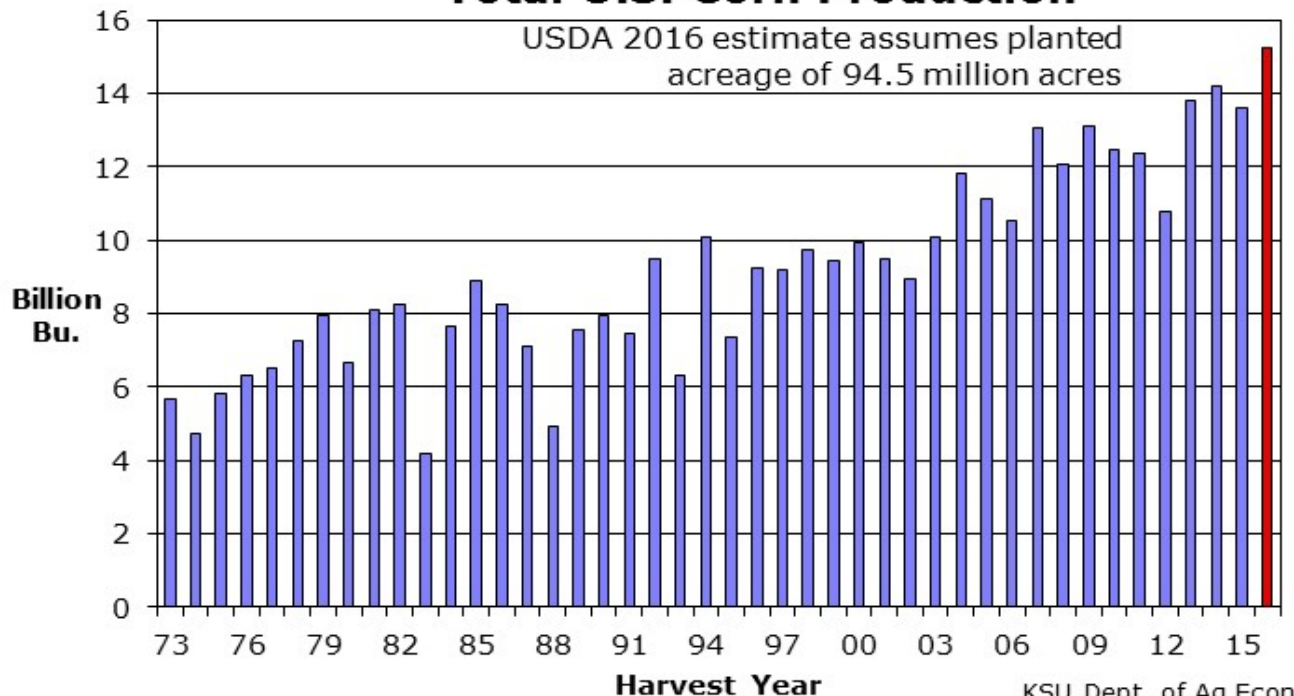
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www.AgManager.info

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## ...due to higher production...

### Total U.S. Corn Production



Source: USDA WASDE Report 12.09.16

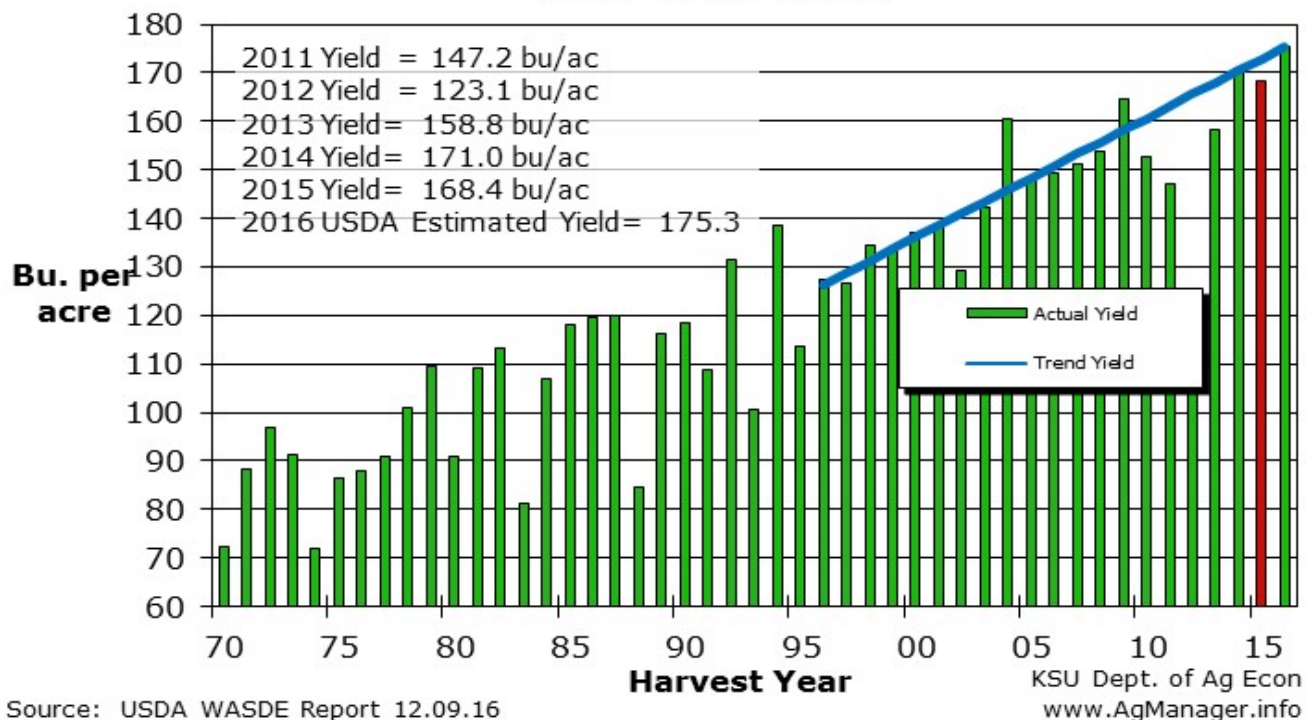
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...because of higher yields...

## U.S. Corn Yield

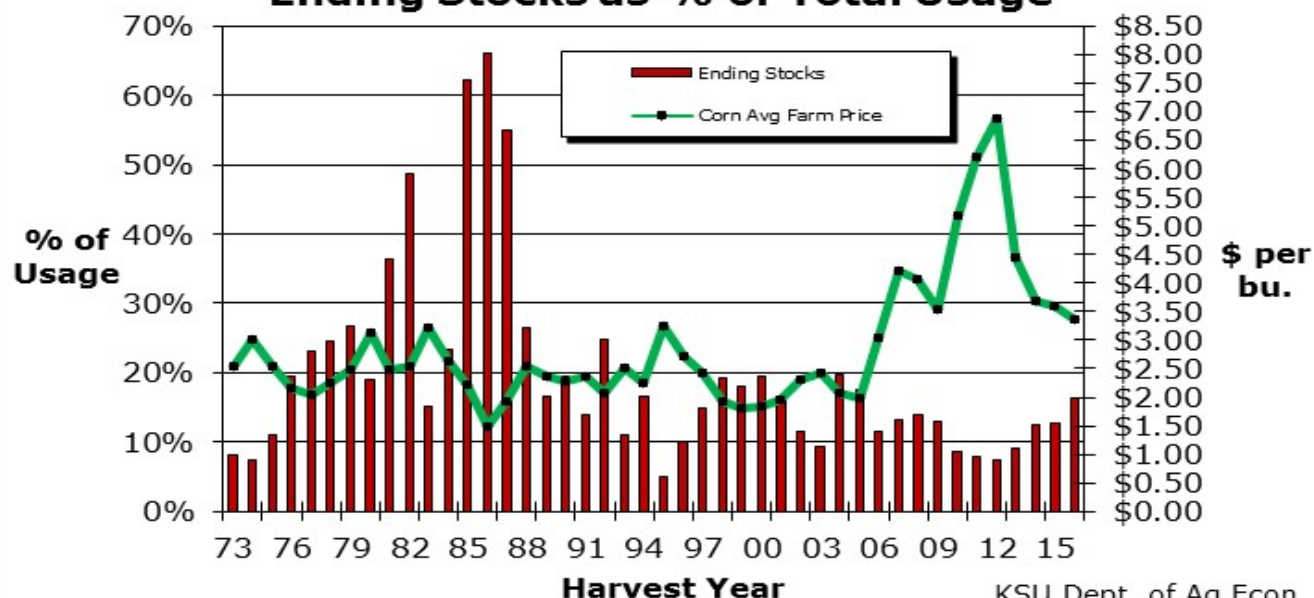


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...creating larger stocks which cause the lower prices.

## Corn Price vs. Ending Stocks Ending Stocks as % of Total Usage

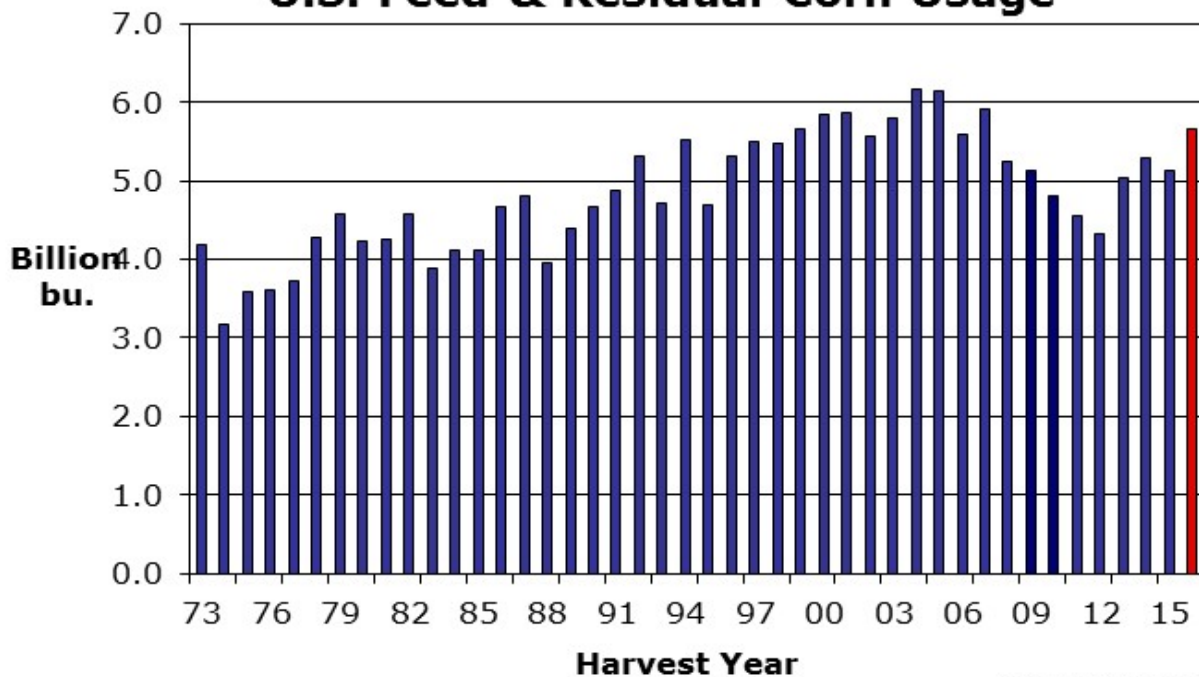


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## Meanwhile...feed usage...

### U.S. Feed & Residual Corn Usage



Source: USDA WASDE Report 12.09.16

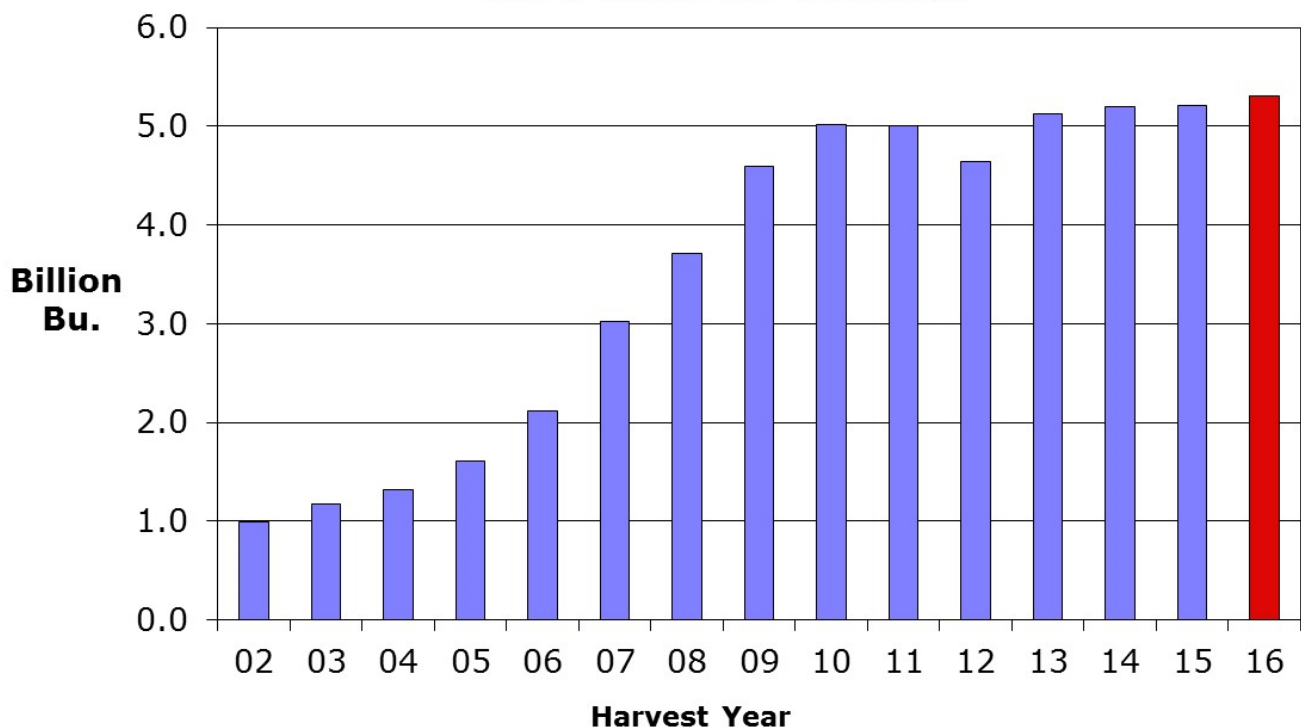
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## ...and corn used for ethanol...

### Corn Used for Ethanol



Source: USDA WASDE Report

KSU Dept. of Ag Econ www.AgManager.info

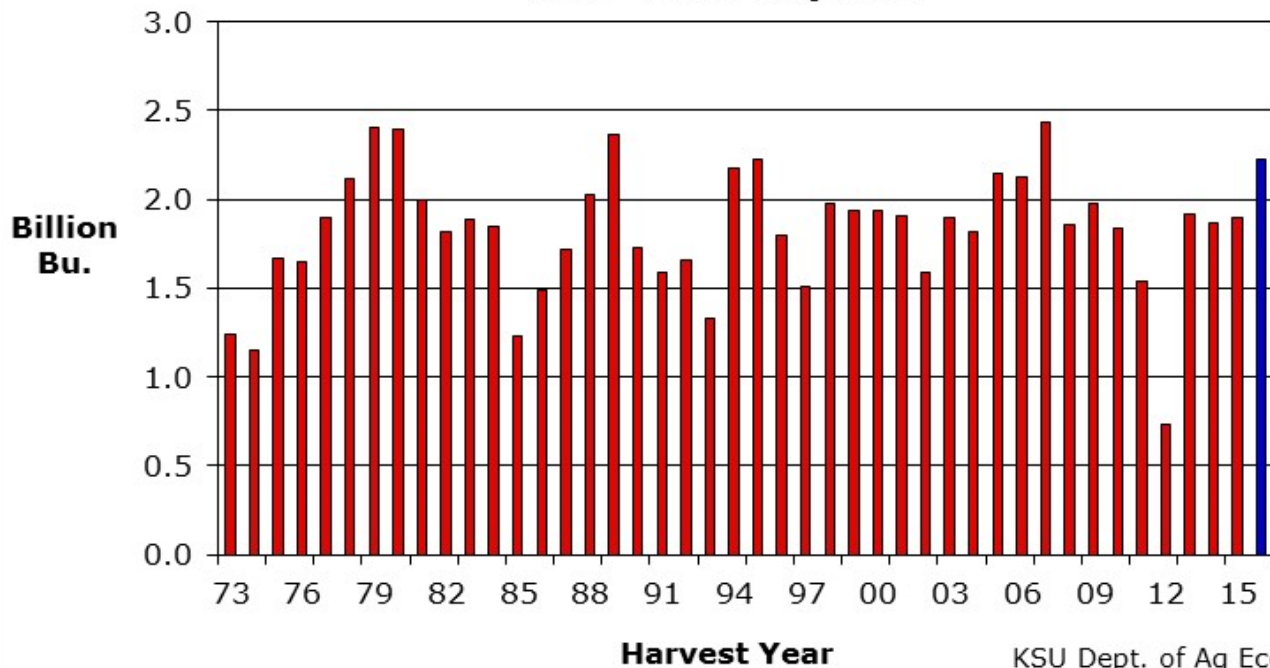
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## ...and exports...

### U.S. Corn Exports



Source: USDA WASDE Report 12.09.16

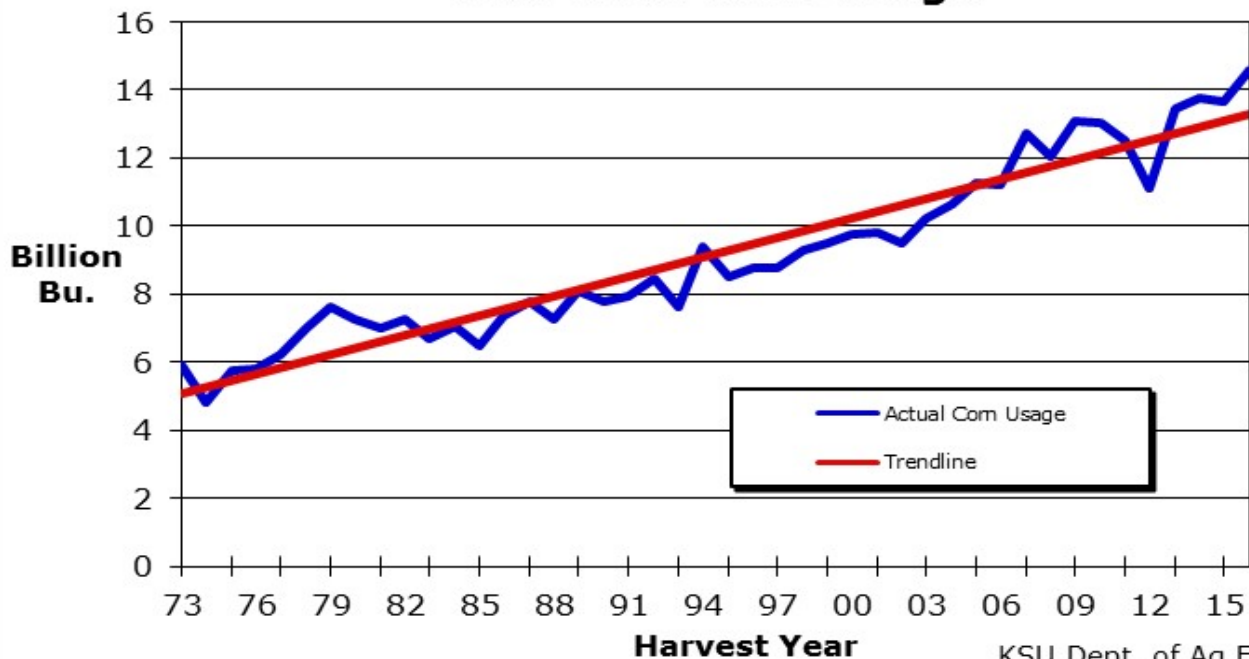
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[www.AgManager.info](http://www.AgManager.info)

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## ...aren't keeping up with production

### U.S. Total Corn Usage



Source: USDA WASDE Report 12.09.16

KSU Dept. of Ag Econ  
[www.AgManager.info](http://www.AgManager.info)

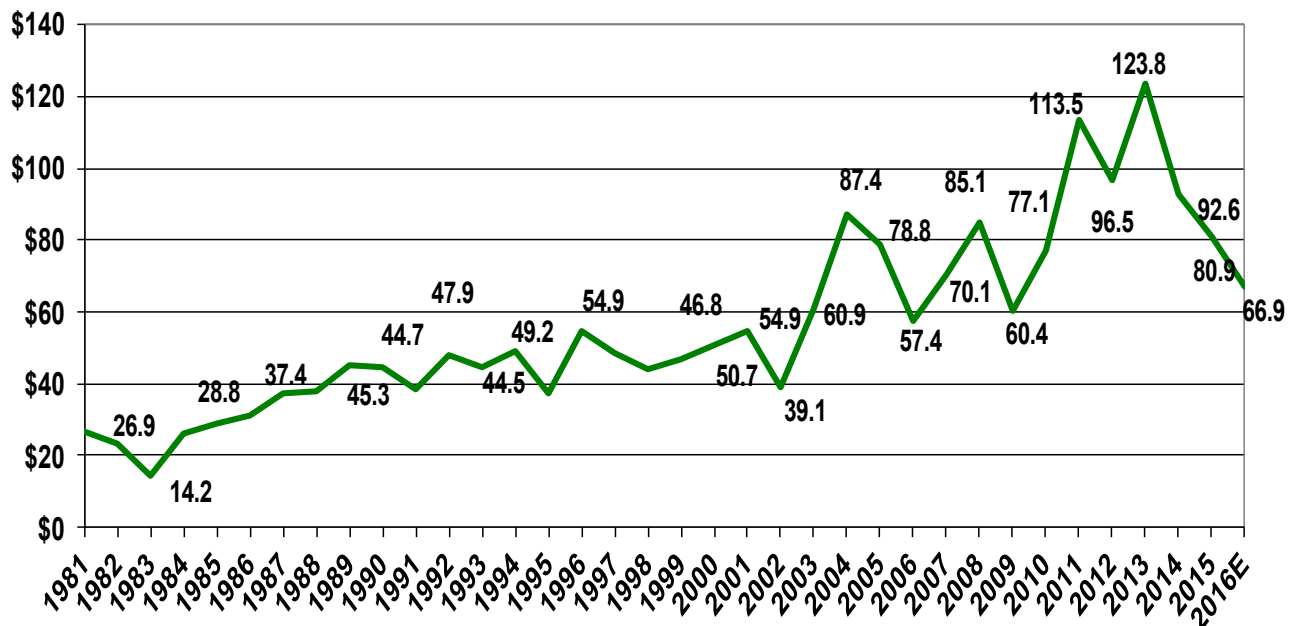
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## Costs of Production and Profitability

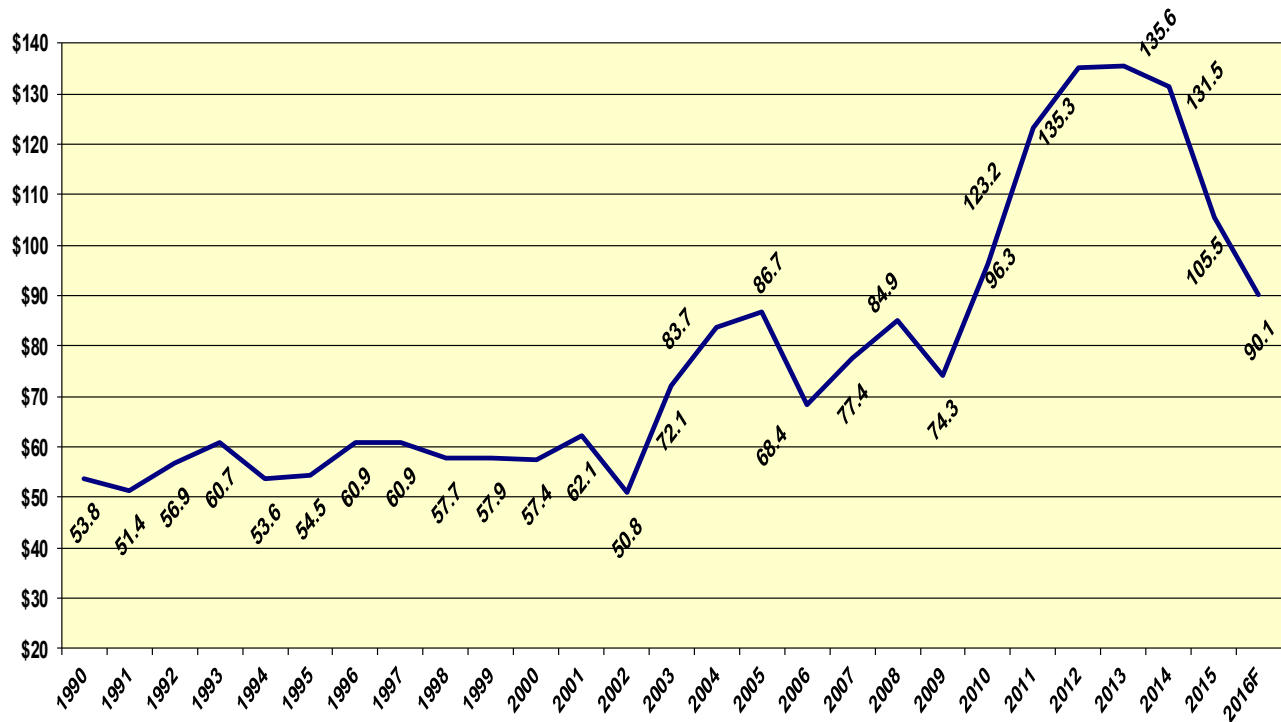
- Average costs of production for corn have increased a lot since the last period of low corn prices: seed, fertilizer, machinery costs, rental rates.
- Most of these costs have not declined as quickly as commodity prices, adding to the squeeze now.
- Large decline in profitability.

## U.S. Net Farm Income



# U.S. Net Cash Farm Income

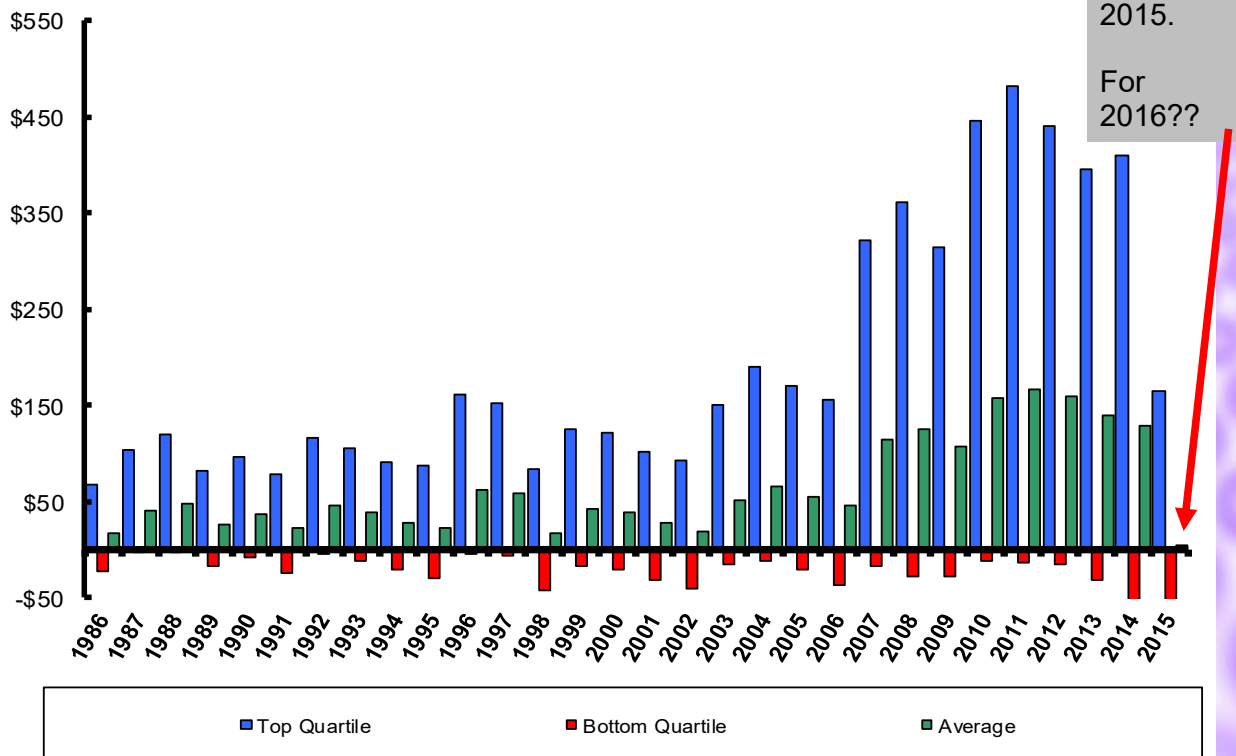
(Note the sharper decline in cash NFI)



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## Net Farm Income of Members of the Kansas Farm Management Association



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# Managing Costs and Profitability

	High 1/3	Mid 1/3	Low 1/3
Corn - 2015	\$/acre	\$/acre	\$/acre
<b>Returns</b>			
Yield	124.70	109.00	117.00
Price	3.49	3.46	3.40
Total Returns	<b>435.20</b>	<b>377.14</b>	<b>397.33</b>
<b>VARIABLE COSTS</b>			
Fertilizer/Lime	64.26	79.38	103.22
Seed	59.72	60.03	72.85
Chemicals	38.84	43.50	61.63
Machinery - hired	5.95	7.65	18.25
Other variable costs	87.32	113.72	119.86
Total variable costs	256.09	304.28	375.81
<b>FIXED COSTS</b>			
Depreciation	36.67	38.74	47.07
Unpaid Operator Labor	35.95	31.97	48.51
Land Charge	18.99	26.95	32.57
Other fixed costs	26.21	26.08	38.88
Total Fixed Costs	117.82	123.74	167.03
Total Costs	<b>373.91</b>	<b>428.02</b>	<b>542.84</b>
Returns over TC	<b>61.293</b>	<b>-50.88</b>	<b>-145.508</b>

## Managing Costs and Profitability

- Reducing variable inputs (fertilizer, chemicals, seed) generally reduces production. Do you really want to do that?
- Possible ways to reduce variable costs:
  - Efficient fertility usage:
    - Apply fertilizers at a rate determined by soil tests. Soil sampling needed to optimize input use without affecting yields. Don't ignore pH (lime).
  - Input pricing: early buying, generics, bulk
    - Ask for bids from multiple dealers for seed (negotiate). Buy from same dealer (bulk discount).
    - Offer full cash up front to avoid finance charges
    - Buy before cut-off date in the fall (early buy discount)
  - Field management – scouting for most effecting use, timing of application.
    - What keeps you from getting out in the field when you need to?
    - Custom hire operations may be less efficient if they are not timely (need to wait for them apply it, especially during wet weather times).



# Managing Costs and Profitability

- What about reducing fixed costs?
  - Machinery: Lengthen repayment periods? Liquidate assets (without changing operation)?
  - Land payments, cash rents: can these be reduced? Lengthen payment periods? Re-negotiate leases?
  - **Family living withdrawals**: not as visible but very important.
- Other possibilities:
  - Defer capital purchases (repair instead of replace)?
  - Off-farm income?
  - Trade equipment/labor?
  - Change enterprise mix?
- A few other notes:
  - Communicate with landlords/tenants.
  - Need good data/records for making these decisions: costs, yields, soil fertility, etc.
  - Keep a **monthly** accrual balance sheet: track monthly changes in inventory, assets, liabilities and net worth.

## Resources for Managing Costs and Profitability

- KSU Farm Management Guides
  - <http://www.agmanager.info/farm-management-guides-0>
- KSU Financial Benchmarking Tool
  - Robin Reid: [robinreid@ksu.edu](mailto:robinreid@ksu.edu) or 785.532.0964
  - <http://www.agmanager.info/finpack/financial-benchmarking-tool>
- Kansas Ag Mediation Service (KAMS)
  - <http://www.ksre.k-state.edu/kams> or 800.321.3276
- USDA FSA: Guaranteed loans

# Farm Management Guides

## 2017 Corn Cost-Return Budget in Northeast Kansas

-----Average Yield

Gregg Ibendahl, Dan O'Brien, and Stewart Duncan

Summary page

Budget date: Oct-01-2016

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Corn - Northeast KS	bu	\$3.60	137.0000	\$492.75	\$492.75	
--TOTAL INCOME--					\$492.75	
<b>EXPENSES</b>						
Fertilizers						
Lime	lb	\$0.01	500.0000	\$5.00		
Nitrogen	lb	\$0.26	138.0020	\$37.11		
Phosphorus	lb	\$0.33	47.9780	\$15.77		
Potassium	lb	\$0.25	34.0200	\$8.52	\$66.41	
Herbicides						
Burndown				\$11.03		
Post-emergence				\$3.74		
Pre-emergence				\$19.38	\$34.15	
Seeds					\$82.89	
Crop insurance					\$17.77	
Miscellaneous					\$8.50	
Labor (beyond custom field operations)					\$30.00	
Custom Field Operations						
Fertilizer application				\$21.20		
Harvesting				\$38.75		
Hauling				\$23.19		
Planting				\$22.17		
Spraying				\$20.28	\$125.60	
Interest on operating capital	6% on direct expenses			\$10.96	\$10.96	
Cash rent					\$101.00	
--TOTAL SPECIFIED EXPENSES--					\$477.27	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$15.48	

## Financial Benchmarking Tool

<http://www.agmanager.info/finpack/financial-benchmarking-tool>

Microsoft Word ribbon: FILE, HOME, INSERT, PAGE LAYOUT, FORMULAS, DATA, REVIEW, VIEW, DEVELOPER. Ribbon tabs: Clipboard, Font, Alignment, Number, Styles, Cells, Editing.

Worksheet: KSU FARM FINANCIAL BENCHMARKING TOOL-State of Kansas

Benchmarked by: Dairy

Current Ratio

	2015	10-Year
0	0.0%	0.0%
0.5	0.0%	0.0%
1	0.0%	5.0%
1.5	34.5%	20.0%
2	3.4%	17.5%
2.5	6.9%	7.5%
3	3.4%	0.0%
3.5	6.9%	10.0%
4	3.4%	5.0%
More	41.4%	85.0%
Count	29	40
Average	3.1	3.5

Working Capital Ratio

	2015	10-Year
-50.0%	0.0%	0.0%
-25.0%	0.0%	0.0%
0.0%	0.0%	5.0%
25.0%	58.6%	67.5%
50.0%	20.7%	15.0%
75.0%	3.4%	2.5%
100.0%	3.4%	7.5%
125.0%	0.0%	0.0%
150.0%	6.9%	2.5%
More	6.9%	0.0%
Count	29	40
Average	40.5%	31.3%

YOUR FARM VALUES\*

Current Ratio:	3.13
Working Capital Ratio:	40.5%
Debt to Asset Ratio:	0.19
Operating Profit Margin:	0.01
Rate of Return on Farm Assets:	0.3%
Rate of Return on Farm Equity:	-0.4%
Asset Turnover Rate:	21.9%
Operating Expense Ratio:	0.82
Depreciation Expense Ratio:	0.07
Interest Expense Ratio:	0.02
Net Farm Income Ratio:	0.09

\*Defaults to Averages for 2015 if not entered

Buttons: Start Over, Print Summary, Enter Your Farm Values, Return to 2015 Averages, See Ratio Calculations

Navigation: Introduction, State, NorthWest, NorthCentral, NorthEast, SouthEast, SouthCentral, SouthWest, Ratio Calculations

## Grain Basis Issues

- Historically weak basis for grains – due to large production and supplies.
- Non-convergence of cash and futures prices, particularly in the wheat market, makes hedging less useful.
- Inability to deliver on futures contracts is often not understood. Farmers generally CANNOT deliver on a futures contract due to difficulty in obtaining a warehouse receipt.
- On-farm storage may be one strategy to gain a better price. But is a longer-term solution.

## Corn Basis: Edgerton

### Interactive Crop Basis Tool

Add to Favorites



View

Edit

Manage display

Revisions

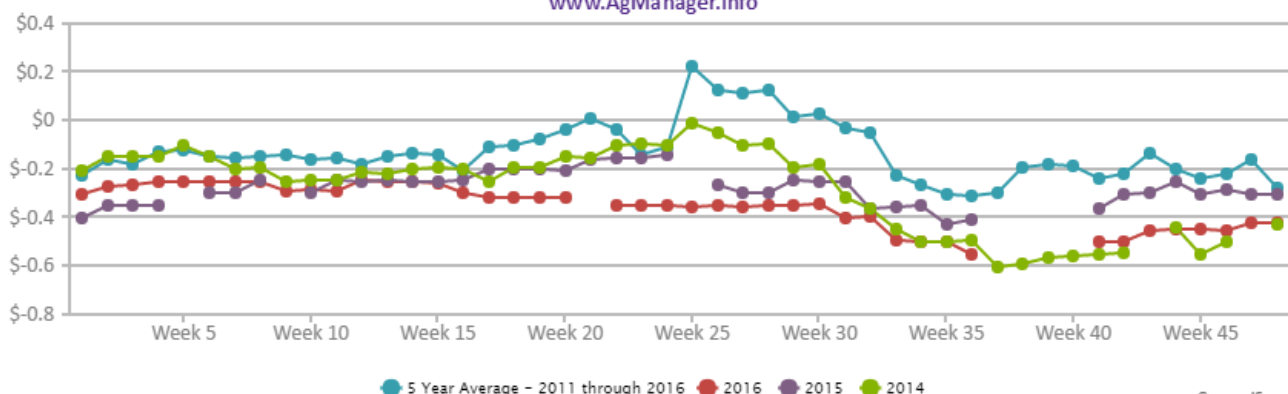
Devel

Start over

Options

#### EDGERTON, KS: Corn Basis - OTTAWA COOP

www.AgManager.info



CanvasJS.com



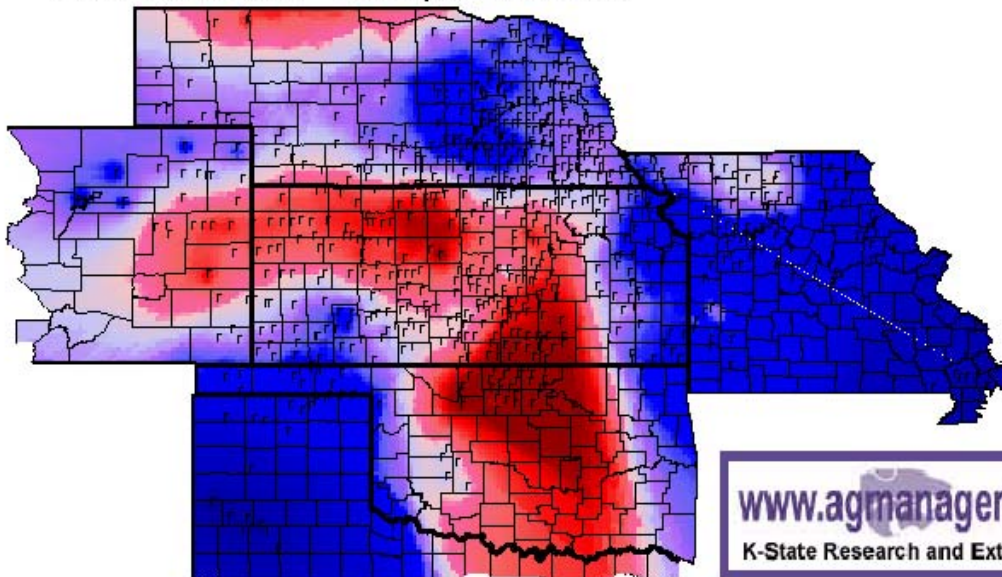
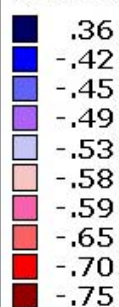
# Basis Maps on AgManager.info

## Corn Basis, 01-04-2017

Basis = Cash Price - Nearby Futures Price

CBT Mar  
Futures  
Price: \$3.60

\$/Bushel



[www.agmanager.info](http://www.agmanager.info)  
K-State Research and Extension

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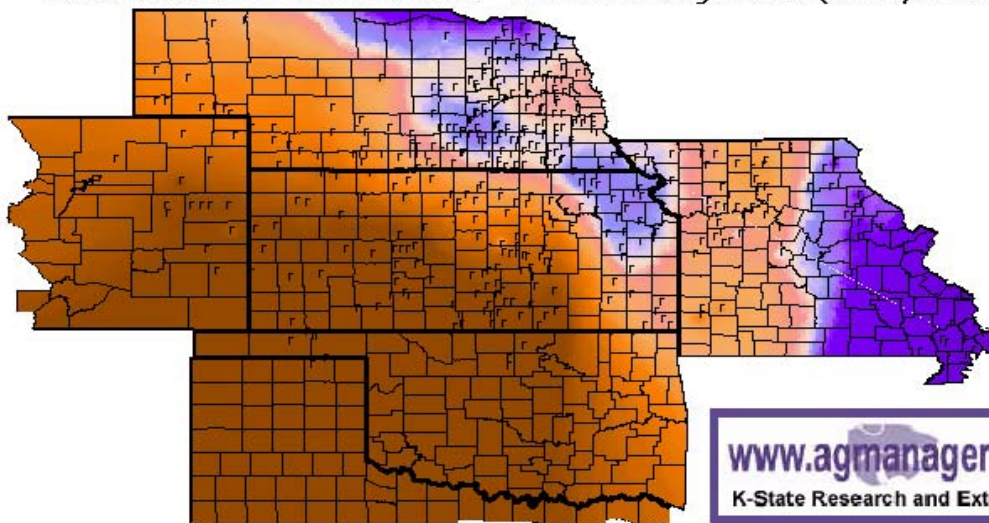
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## Basis Deviation Maps: AgManager.info

### Corn Basis Deviation, 01-04-2017

Basis Deviation = Current Basis - 3 Year Average Basis (2014, 2015, 2016)

\$/Bushel



[www.agmanager.info](http://www.agmanager.info)  
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## USDA Reports

- USDA Outlook Forum: Feb. 23-24, 2017
- USDA provides a variety of reports on agricultural commodities at daily, weekly, monthly, quarterly, and annual intervals.
  - Crop reports, including supply-demand info, planting intentions, stocks and inventory, and crop condition reports, among others.
  - Livestock reports, including animal inventories, slaughter, cold storage, on-feed, among others.
- January is the biggest report period of the year for crops.
  - Crop Production Annual Summary
  - Quarterly Grain Stocks
    - First quarter estimated usage is documented in the stocks report.
  - Winter Wheat Seedings
  - January WASDE reports.
    - First “final” yield for the corn and soybeans

## USDA Reports

- Other “Big” Reporting Times
  - End of March: Planting Intentions report and Quarterly Stocks reports.
  - End of June: acreage report (reporting actual plantings, based on early June survey)
  - Mid-August: first expected yield report for summer crops, based on field surveys.
  - End of September: small grains summaries (including wheat) and quarterly stocks report, with ending MY inventories for summer crops.

## Useful Sites for Crop Reports

- **WASDE (World Ag Supply and Demand Estimates)**
  - [www.usda.gov/oce/commodity/wasde](http://www.usda.gov/oce/commodity/wasde)
- **Crop Progress and Conditions**
  - [http://www.nass.usda.gov/Publications/State\\_Crop\\_Progress\\_and\\_Condition/](http://www.nass.usda.gov/Publications/State_Crop_Progress_and_Condition/)
- **Prospective Plantings:**
  - <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1136>
- **Winter Wheat Seedings:**
  - <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1188>
- **Small Grain Summaries:**
  - <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1268>
- **Quarterly Grain Stocks Reports:**
  - <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1079>
- **June Acreage Report:**
  - <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1000>

## USDA WASDE Report

- **WASDE (World Agricultural Supply and Demand Estimate)**
  - Released between 9<sup>th</sup> and 12<sup>th</sup> of each month at noon ET (11 am CT).
  - <http://www.usda.gov/oce/commodity/wasde/>
- **A Balance-Sheet Approach**
  - **Supply:** Beginning stocks, Production & Imports
  - **Use:** Food, seed and industrial use, Exports, Feed+Residual
  - **Ending Stocks** or carryout stocks
  - **Prices:** U.S. average cash price projections (by marketing year)

# A Quick Look at January 12 WASDE Report

- **Corn:** (neutral: prices up about \$0.01 on report day)
  - 2016 crop: 15.1 bbu, down 78 mb from December estimate due to slightly lower average yield (174.6, down from 175.3). Still the largest crop on record.
  - Quarterly stocks: 12.38 bbu, also a record.
- **Soybeans:** (bullish effect: prices up about \$0.28 on report day on nearby contracts; up \$0.18 on harvest contract)
  - 2016 crop: 4.307 bbu, 1.2% lower than December estimate.
  - Quarterly stocks: 2.895 bbu. Ending stocks projected at 420 mbu, down 60 mbu from last month.
- **Wheat:** (bullish effect: prices up about \$0.14 on report day)
  - 2016 crop: 2.31 bbu.
  - Lower planted acreage for 2017 crop: 32.4 million acres (down from 36.1 million acres the previous year, the lowest since 1909).
  - Dec. 1 stocks: 2.073 bbu. Ending stocks projected at 1.194 bbu, keeping stocks:use at about 50%.

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## The Macroeconomy: Strong Dollar

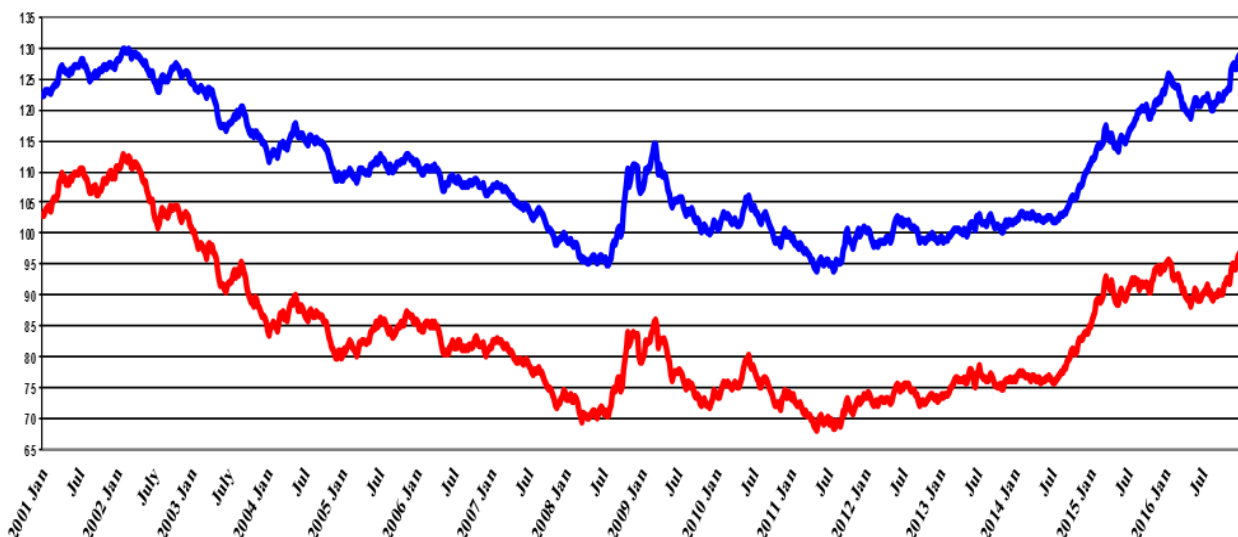
### 2016 Major

Dec 7	94.31
Dec 14	94.50
Dec 21	96.30
Dec 28	96.61

*Dollar's Trade-Weighted Exchange Index*  
*Weekly Values*

### 2016 Broad

Dec 7	126.95
Dec 14	126.76
Dec 21	128.41
Dec 28	128.79

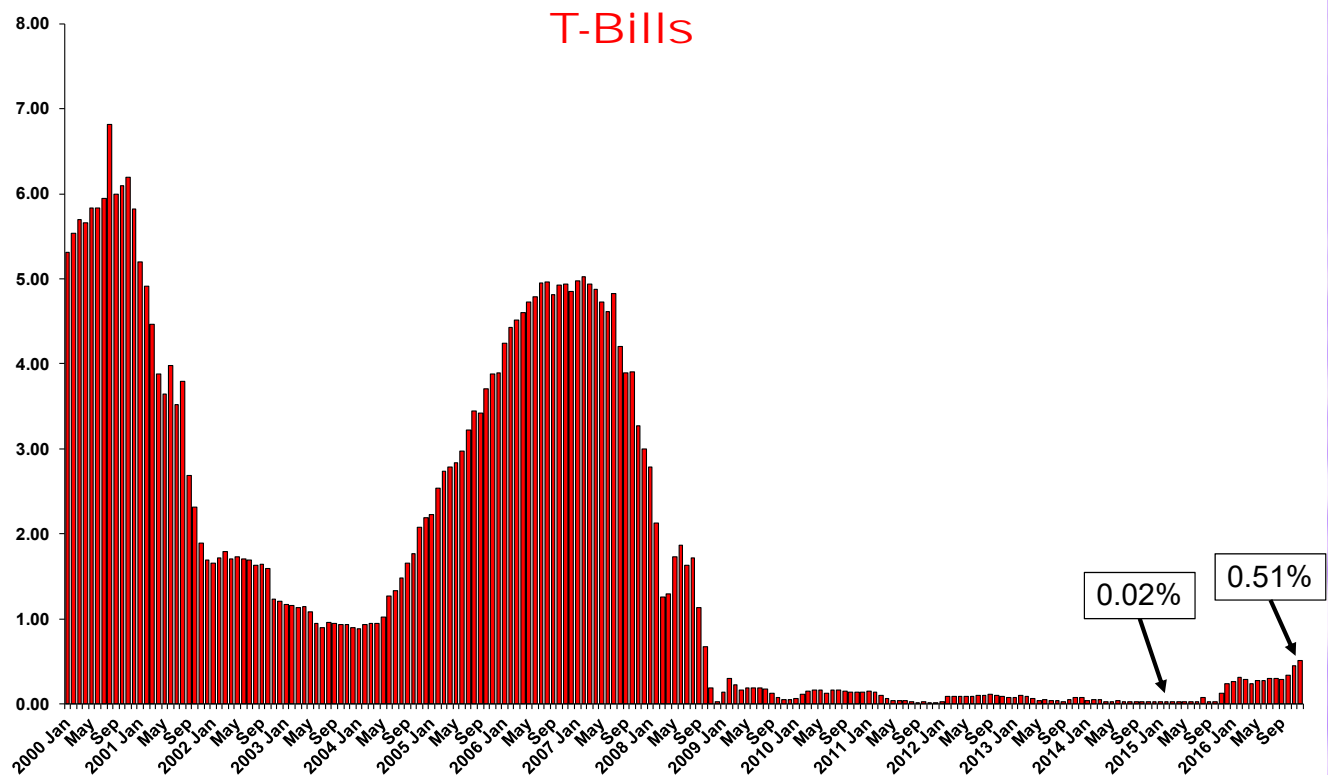


The major currency index is comprised of 7 currencies. The broad index is comprised of the major currency index plus 19 additional currencies.

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# The Macroeconomy: Rising Interest rates



## Planting Prospects for 2017

- U.S. corn acres likely about the same. Corn acres in Brazil and Argentina may be lower.
- More soybeans likely for U.S. and South America.
- Soybean: Corn price ratio for 2017 futures harvest contracts = 2.55 (greater than 2.50, suggesting more soybeans in the US, relatively).
  - But down from 2.68 in November, 2016. What will it be at planting time?
  - Keep in mind the basis issues. What will cash prices be at harvest?



## Farm Bill and Policy Issues

- Changes to crop insurance?
  - EWG and Heritage opposition to revenue insurance
  - Means testing/payment limits?
  - Removal of Harvest Price Option?
  - Reduction in subsidies for crop insurance?
- Conservation tied to crop insurance?
- Changes to ARC/PLC? Elimination and replacement with disaster programs? Unlikely, but could happen.
- WOTUS (Waters Of The US):. Could have large effect on agriculture if implemented, but could be killed by new administration.
- Separation of nutrition and farm programs?
- GMO labeling?

## Policy Possibilities in the Next Administration

- Immigration - ???
- Death of TPP and possible changes to NAFTA
- RFS: continue?
- Capital gains taxes: 20% maximum.
- Income taxes: limit deductions for higher brackets; charitable and mortgage interest deductions continue. Rates=10, 20, 25 percent?
- Business taxes on international profits
  - 35% reduced to 14%? Amnesty?
- Continued increasing interest rates?
- ???

## Summary and What to Do?

- Commodity prices will likely not recover much in the next year or two unless there is a large crop failure somewhere (hopefully not here).
- Manage costs, particularly fixed costs and living expenses.
  - Be careful of cutting variable costs. Production is still important!
- Manage basis: On-farm storage? Weak basis means short hedge or forward contract might not work as well as before. Inability to deliver means short position lacks leverage.
- Keep track of grain stocks and usage: WASDE.
- Watch movement of the dollar – strong dollar hurts exports.
- Keep an eye on the policy debates in Washington.

## Thank you!

## Questions?

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