Kansas Grain Market Outlook

Stafford County Extension Marketing Group

St. John, Kansas - November 19, 2016

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Topics to be discussed.....

1) **Overall Grain Market Situation** – World & U.S.

2) **Currency Exchange Rate** impacts on the World grain trade & World grain prices

3) **Market Outlook** for Corn & Soybeans

- **"Revenue Insurance Planning & Harvest Price Perspective for Corn & Soybeans"**

Current Grain Market Situation

for U.S. & Kansas Farmers & Agribusinesses

1) **Large grain supplies are limiting grain prices**

2) **Wheat prices in Kansas are below the Marketing Loan Rate**

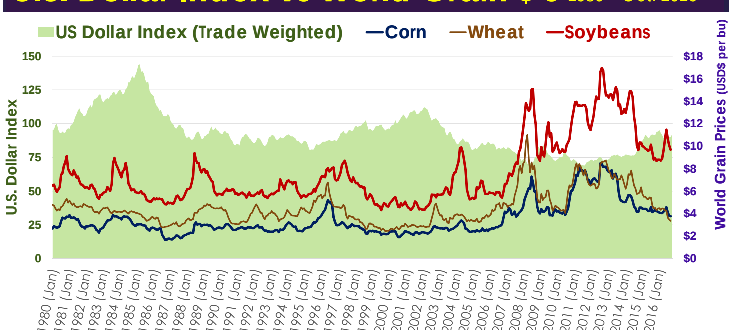
3) **Grain farmers are now focusing on marketing 2016 Crops**

4) **U.S. & World Crop production plans for 2017??**

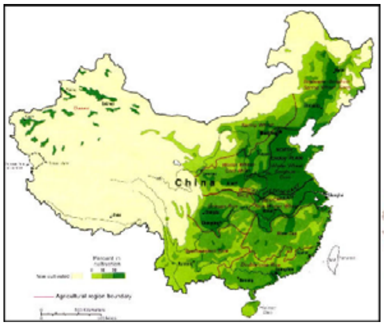
- ***More soybeans*** *are likely in 2017 in South America & U.S.*
- ***Lower U.S. & World wheat acres*** *with some World crop risk emerging*
- ***2017 U.S. Corn acres to be same or higher*** *– lower in Brazil & Argentina*

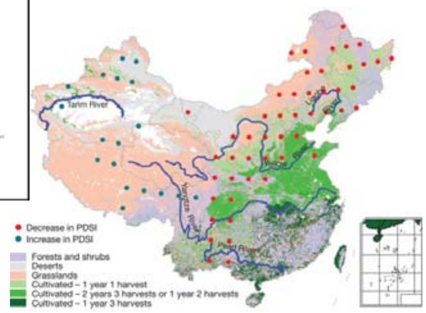
U.S. Dollar Index (Trade Weighted) 1973 – October 2016

U.S. Dollar Index vs World Grain $'s 1980 – Oct. 2016



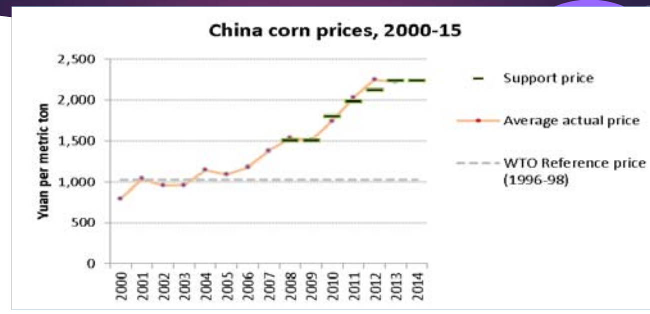
China Exchange Rates - Monthly

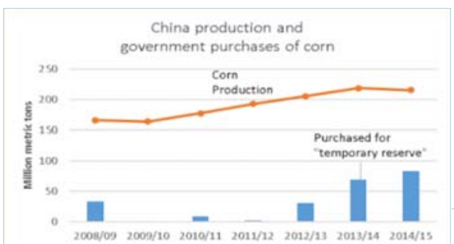




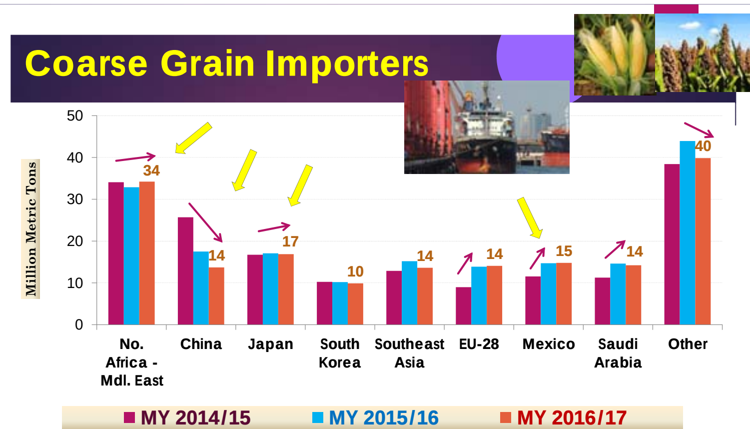
China Corn Temporary Reserve Price

Source: www.dimsums.blogspot.com

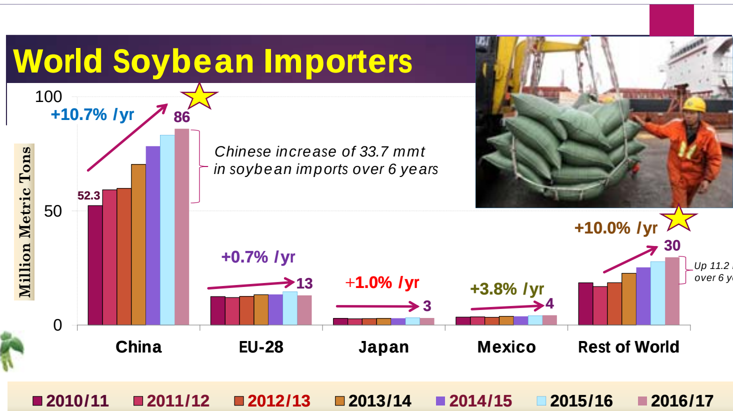




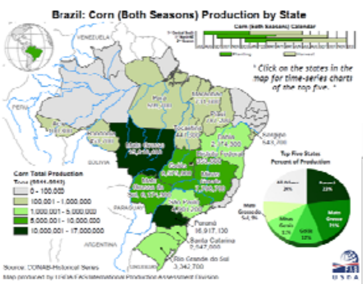
Coarse Grain Importers

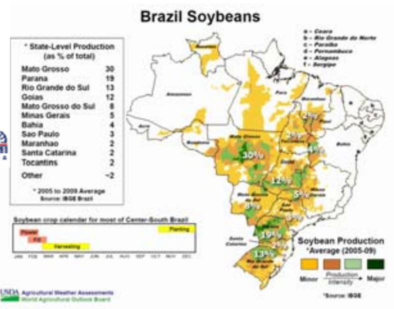


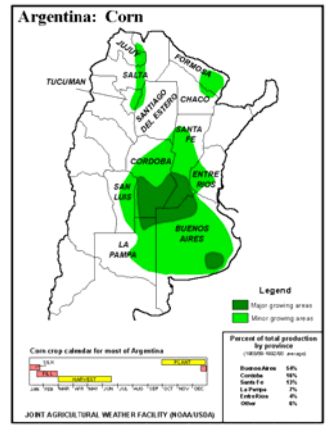
World Soybean Importers

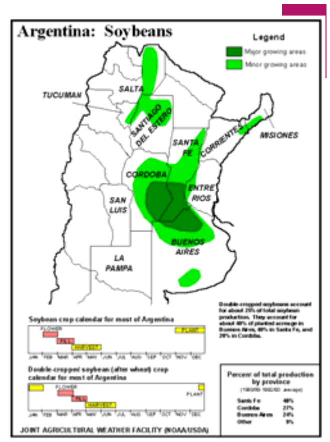


Brazil & Argentina Exchange Rates - Monthly

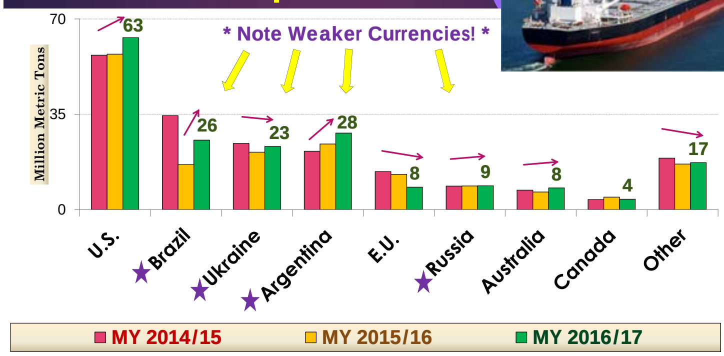




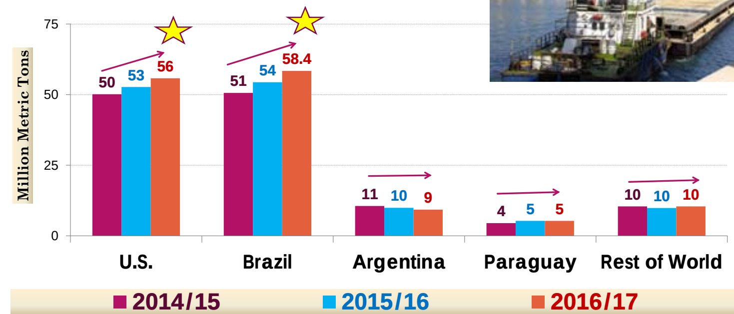




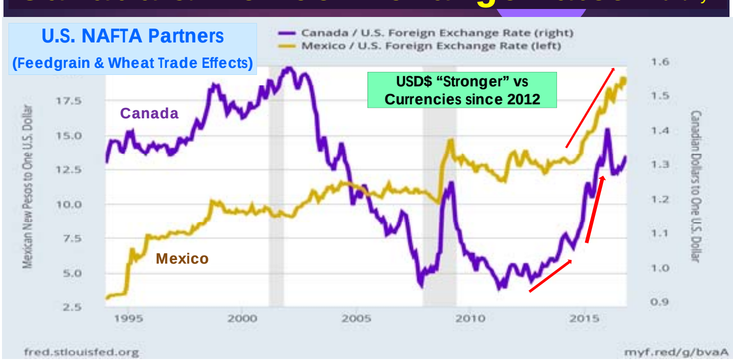
Coarse Grain Exporters

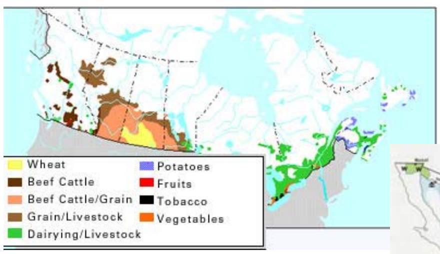


World Soybean Exporters

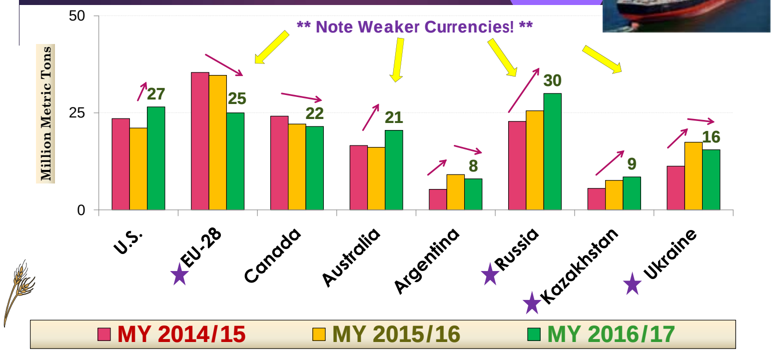


Canada & Mexico Exchange Rates - Monthly

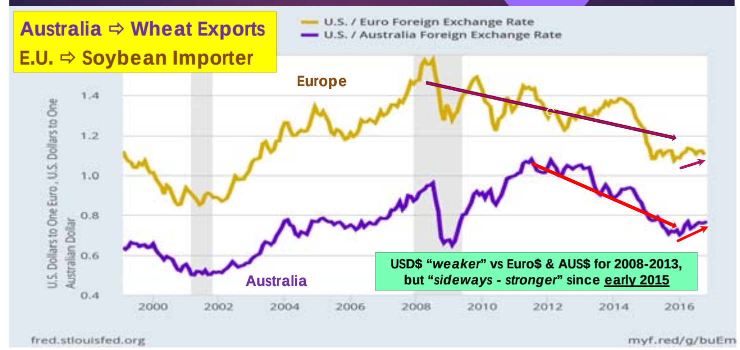


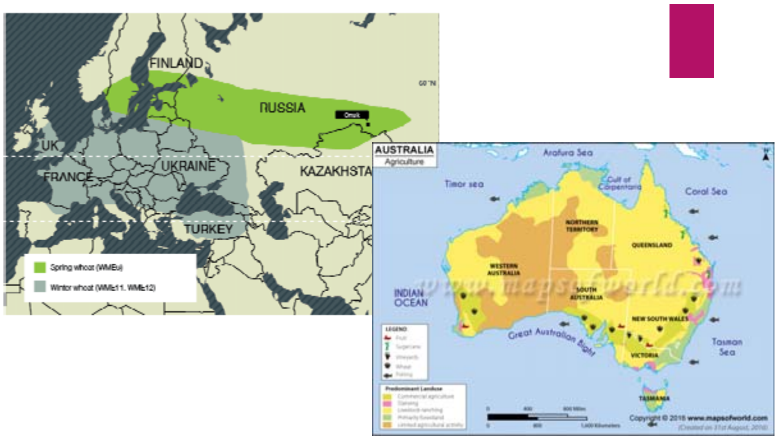


World Wheat Exporters



Euro & Australia Currency per U.S. Dollar





Corn & Sorghum Markets

Kansas State University | Department of Agricultural Economics

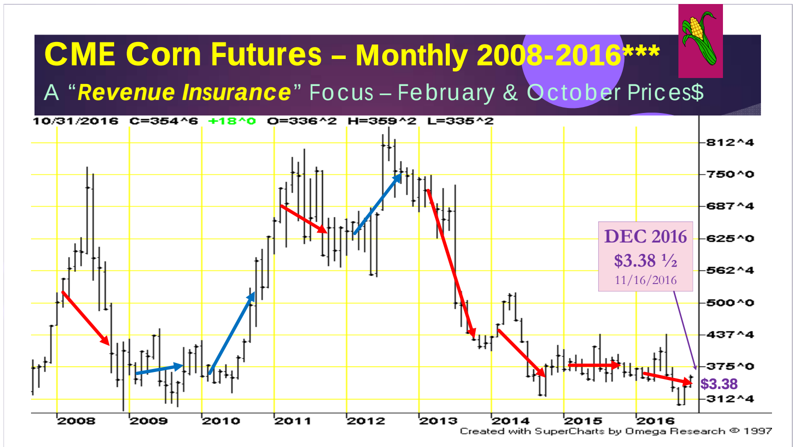
U.S. Feedgrain Market Prospects:

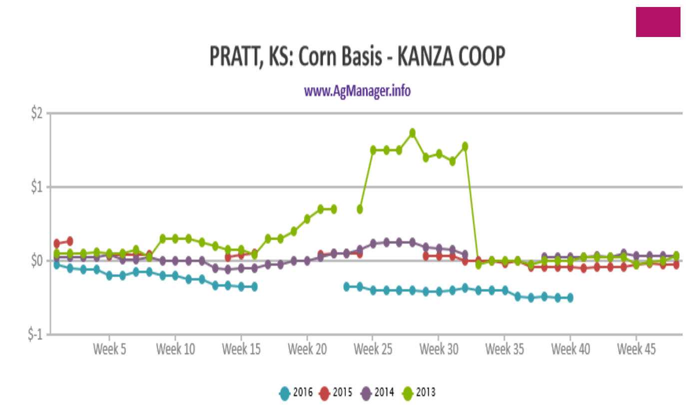
Low Prices "*helping*" Use, but Large Supplies are "*limiting prices*"

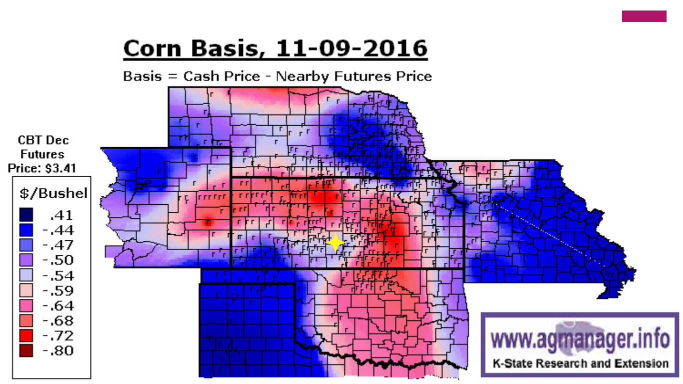
- **Record large World & U.S. feedgrain supplies**
- **Low Corn $'s have supported U.S. domestic use**
  - **Livestock Feed** 2016/17 = 5.650 bln bu *(9 year high – vs 5.858 bb in 2007/08)*
  - **Corn Ethanol** 2016/17 = 5.300 bln bu *(record high – vs 5.200 bb last 2 yrs)*
  - **Other FSI** 2016/17 = 1.435 bln bu *(4 year high – vs 1.424 bb in 2011/12)*
  - **Exports** 2016/17 = 2.225 bln bu *(9 year high – vs 2.437 bb in 2007/08)*
- **Sorghum exports declining from China "run" last 2-3 yrs**

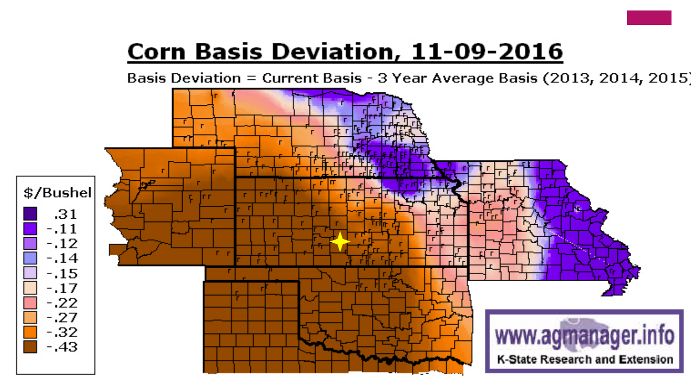
CME Corn Futures

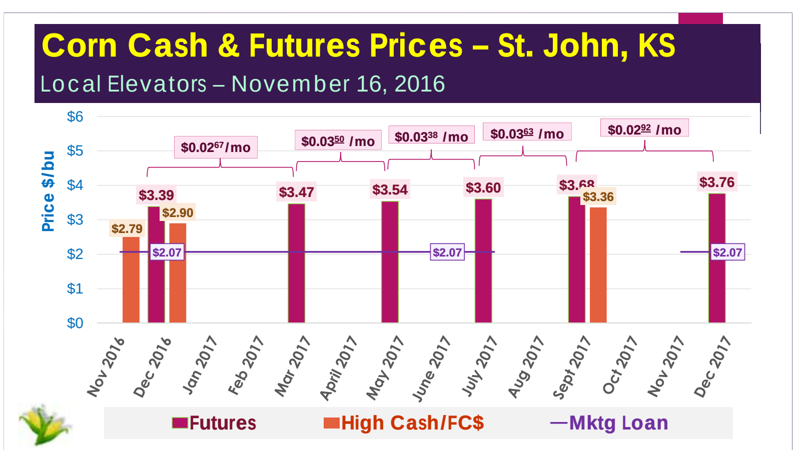
Monthly Chart: Sept. 2007 – October 2016 + 11/16/2016 close

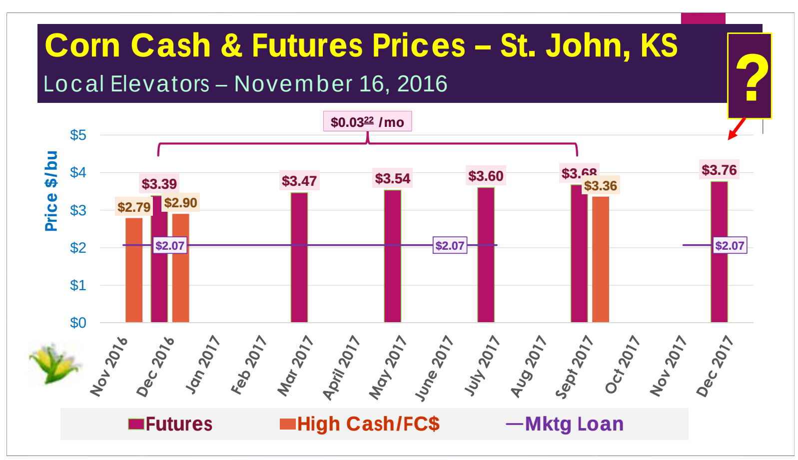

CME Corn Futures – Monthly 2008-2016***
A "Revenue Insurance" Focus – February & October Prices$
10/31/2016 C=354^6 +18^0 O=336^2 H=359^2 L=335^2
DEC 2016
$3.38 ½
11/16/2016
$3.38
812^4
750^0
687^4
625^0
562^4
500^0
437^4
375^0
312^4
2008
2009
2010
2011
2012
2013
2014
2015
2016
Created with SuperCharts by Omega Research © 1997


PRATT, KS: Corn Basis - KANZA COOP
www.AgManager.info
$2
$1
$0
$-1
Week 5
Week 10
Week 15
Week 20
Week 25
Week 30
Week 35
Week 40
Week 45
2016
2015
2014
2013


Corn Basis, 11-09-2016
Basis = Cash Price - Nearby Futures Price
CBT Dec
Futures
Price: $3.41
$/Bushel
.41
-.44
-.47
-.50
-.54
-.59
-.64
-.68
-.72
-.80
www.agmanager.info
K-State Research and Extension


Corn Basis Deviation, 11-09-2016
Basis Deviation = Current Basis - 3 Year Average Basis (2013, 2014, 2015)
$/Bushel
.31
-.11
-.12
-.14
-.15
-.17
-.22
-.27
-.32
-.43
www.agmanager.info
K-State Research and Extension


Corn Cash & Futures Prices – St. John, KS
Local Elevators – November 16, 2016
$0.02⁶⁷/mo
$0.03⁵⁰ /mo
$0.03³⁸ /mo
$0.03⁶³ /mo
$0.02⁹² /mo
Price $/bu
$6
$5
$4
$3
$2
$1
$0
$2.79
$3.39
$2.90
$3.47
$3.54
$3.60
$3.68
$3.36
$3.76
$2.07
$2.07
$2.07
Nov 2016
Dec 2016
Jan 2017
Feb 2017
Mar 2017
April 2017
May 2017
June 2017
July 2017
Aug 2017
Sept 2017
Oct 2017
Nov 2017
Dec 2017
Futures
High Cash/FC$
Mktg Loan


Corn Cash & Futures Prices – St. John, KS
Local Elevators – November 16, 2016
?
$0.03²² /mo
Price $/bu
$5
$4
$3
$2
$1
$0
$2.79
$3.39
$2.90
$3.47
$3.54
$3.60
$3.68
$3.36
$3.76
$2.07
$2.07
$2.07
Nov 2016
Dec 2016
Jan 2017
Feb 2017
Mar 2017
April 2017
May 2017
June 2017
July 2017
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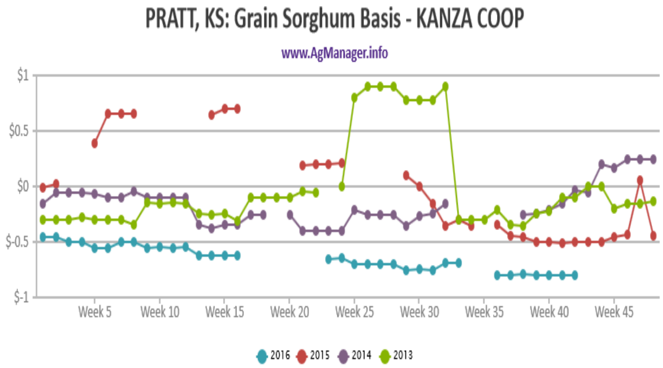
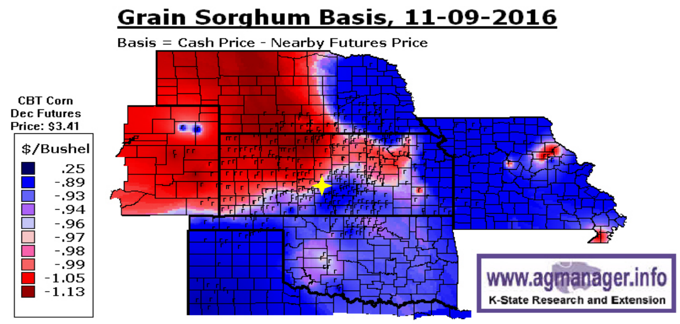
High Cash/FC$
Mktg Loan


PRATT, KS: Grain Sorghum Basis - KANZA COOP
www.AgManager.info
$1
$0.5
$0
$-0.5
$-1
Week 5
Week 10
Week 15
Week 20
Week 25
Week 30
Week 35
Week 40
Week 45
2016
2015
2014
2013


Grain Sorghum Basis, 11-09-2016
Basis = Cash Price - Nearby Futures Price
CBT Corn
Dec Futures
Price: $3.41
$/Bushel
.25
-.89
-.93
-.94
-.96
-.97
-.98
-.99
-1.05
-1.13
www.agmanager.info
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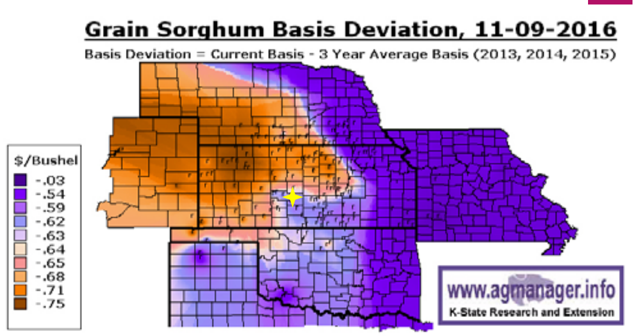
Grain Sorghum Basis Deviation, 11-09-2016
Basis Deviation = Current Basis - 3 Year Average Basis (2013, 2014, 2015)
$/Bushel
-.03
-.54
-.59
-.62
-.63
-.64
-.65
-.68
-.71
-.75
www.agmanager.info
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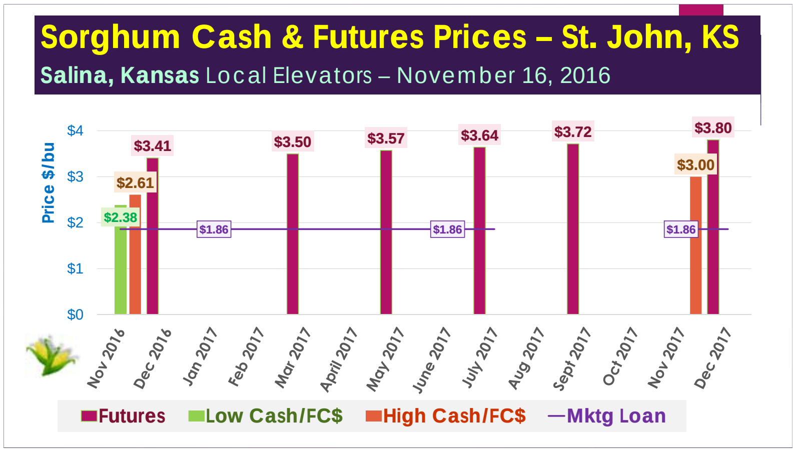
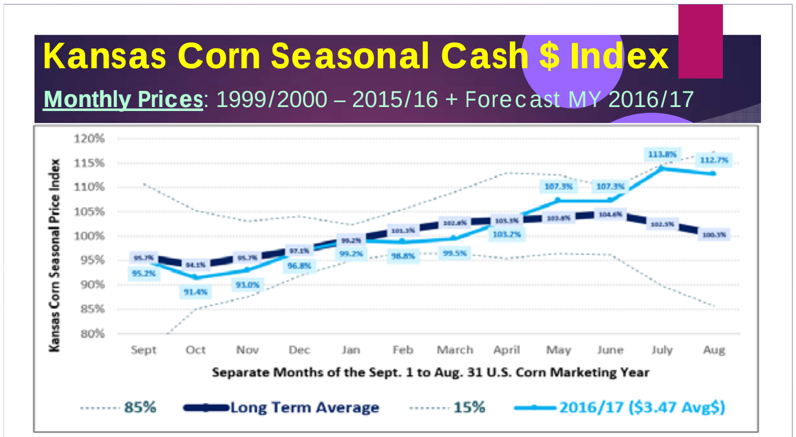
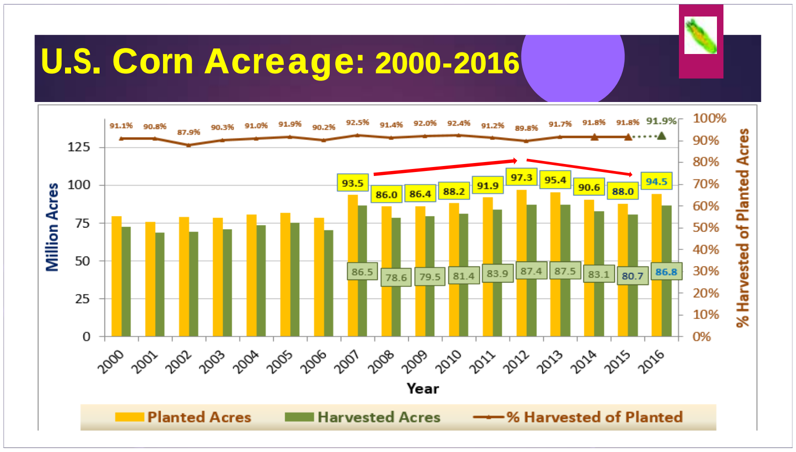
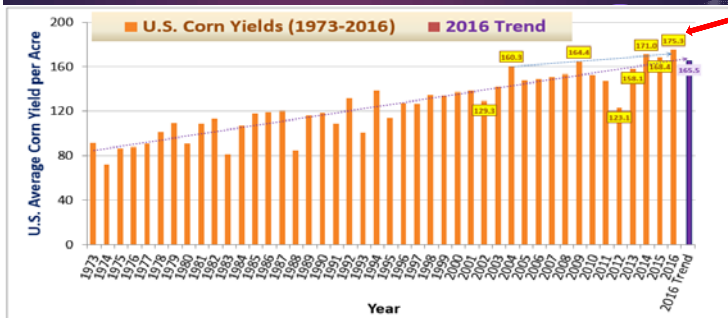

Sorghum Cash & Futures Prices – St. John, KS
Salina, Kansas Local Elevators – November 16, 2016
Price $/bu
$4
$3
$2
$1
$0
$3.41
$3.50
$3.57
$3.64
$3.72
$3.80
$3.00
$2.61
$2.38
$1.86
$1.86
$1.86
Nov 2016
Dec 2016
Jan 2017
Feb 2017
Mar 2017
April 2017
May 2017
June 2017
July 2017
Aug 2017
Sept 2017
Oct 2017
Nov 2017
Dec 2017
Futures
Low Cash/FC$
High Cash/FC$
Mktg Loan


Kansas Corn Seasonal Cash $ Index
Monthly Prices: 1999/2000 – 2015/16 + Forecast MY 2016/17
Kansas Corn Seasonal Price Index
120%
115%
110%
105%
100%
95%
90%
85%
80%
Sept
Oct
Nov
Dec
Jan
Feb
March
April
May
June
July
Aug
Separate Months of the Sept. 1 to Aug. 31 U.S. Corn Marketing Year
85%
Long Term Average
15%
2016/17 ($3.47 Avg$)


U.S. Corn Acreage: 2000-2016
Million Acres
% Harvested of Planted Acres
125
100
75
50
25
0
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
93.5
86.0
86.4
88.2
91.9
97.3
95.4
90.6
88.0
94.5
86.5
78.6
79.5
81.4
83.9
87.4
87.5
83.1
80.7
86.8
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Year
Planted Acres
Harvested Acres
% Harvested of Planted

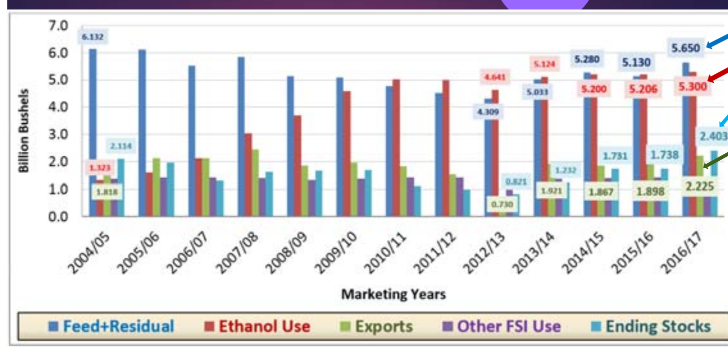
U.S. Corn Yields: 1973-2016

USDA 2016 USDA Forecast = 175.3 bu/acre

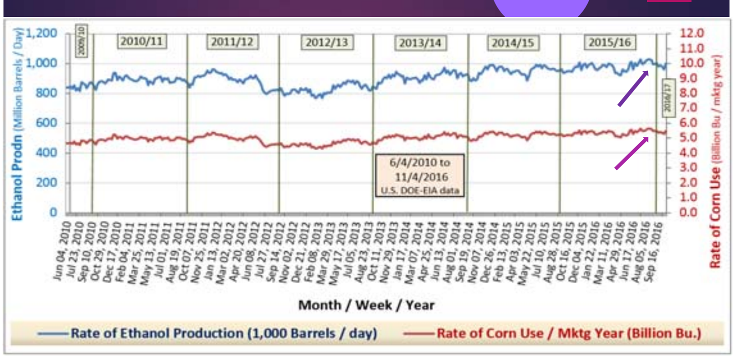


U.S. Corn Production & Supplies

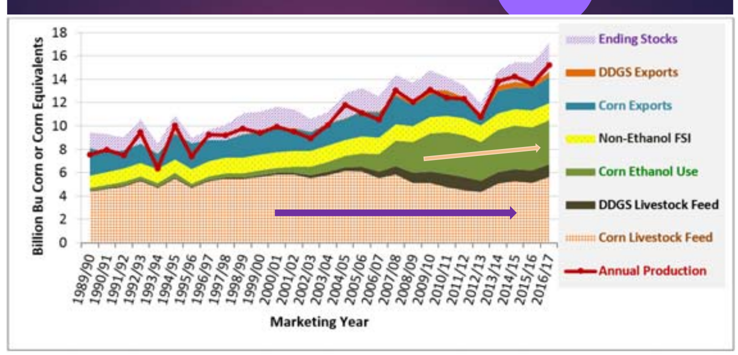
U.S. Corn Use – By Category



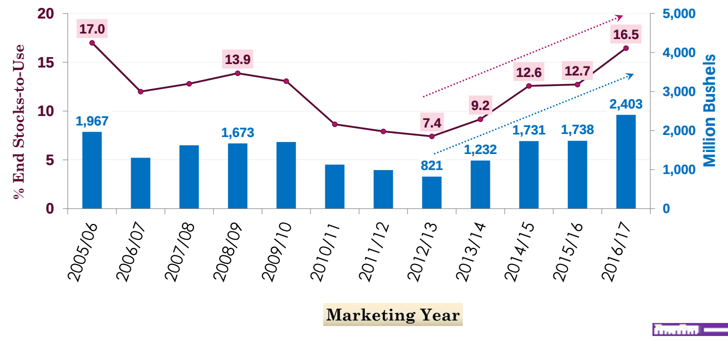
U.S. Ethanol Production & Corn Use



U.S. Corn Use - With DDGS #s (since 1989/90)



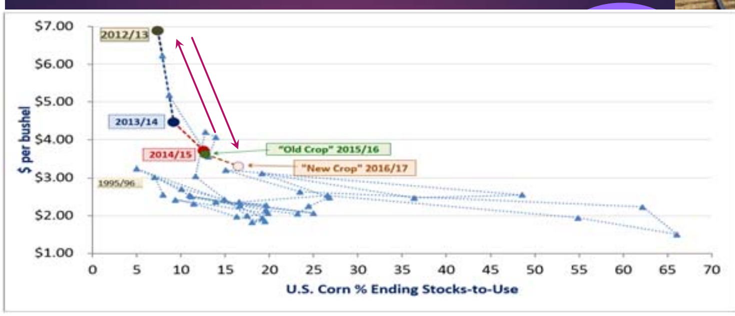
U.S. Corn Ending Stocks & % Stocks/Use



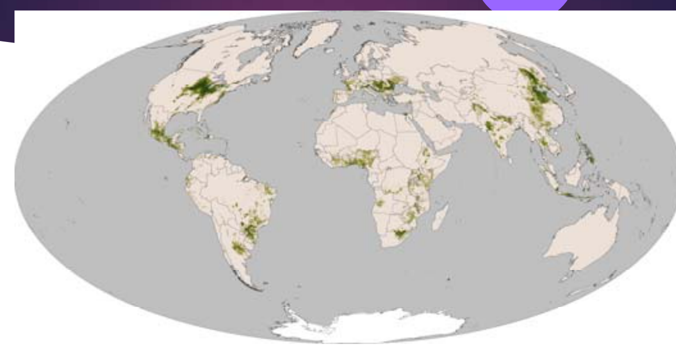
U.S. Corn % Stocks/Use vs Price$

U.S. Corn Price$ vs U.S. % Stocks-to-Use

MY 1973/74 through "New Crop" MY 2016/17



World Corn (Maize) Production Regions



Monthly Crop Calendar for Corn — 9/12/2016

Plant / Silk / Harvest

	USDA Prod Est. 16/17	Change	Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul		Aug	
EU	61.15	(0.95)	H	H	H	H	H	H									P	P	P	P					H	H
US	383.38	(1.54)		H	H	H	H											P	P	P			S	S	S	
Mexico *Summer*	24.50	0.00			H	H	H	H	H	H	H	H	H	H	H			P	P	P	P	P	P	P	P	P
Ukraine	26.00	0.00		H	H	H	H											P	P	P			S	S		
Russia	14.00	0.00			H	H	H	H											P	P			S	S	S	
China	216.00	(2.00)	H	H	H	H													P	P	P	P				
Indonesia *Dry Region*	9.60	0.00	H	H	H	H													P	P	P	P	P	P	H	H
Philippines *Main*	8.00	0.00	H	H					P	P	P	P	P	P	H	H	H	H	P	P	P	P	P	P	H	H
Canada	12.35	0.35		H	H	H	H	H											P	P	P	P	S	S	S	S
India	24.50	0.00	P	P	H	H	H	H	H	H	H	H									P	P	P	P	P	P
Brazil *1st crop*	82.50	2.50	P	P	P	P	P	P	P	P	H	H	H	H	H	H	H	H	H	H						P
Argentina	36.50	0.00	P	P	P	P	P	P		S	S	S			H	H	H	H	H	H						
Philippines *2nd Crop*			P	P	P	P	P	P	H	H	H	H	H	H												
South Africa	13.00	0.00			P	P	P	P	P	P	P	S	S					H	H	H	H	H	H	H		
Mexico *Winter*											P	P	P	P	P	P		H	H	H	H	H	H	H		
Brazil *2nd crop*												P	P	P	P				H	H	H	H	H	H	H	H
Indonesia *Rainy Region*					H	H	H	H	H	H			P	P	P	P	P	P								
Nigeria	7.20	0.00	H	H											P	P	P	P	P	P	P	P	H	H	H	H

Sources: USDA, AMIS, and CHS, Inc. locations

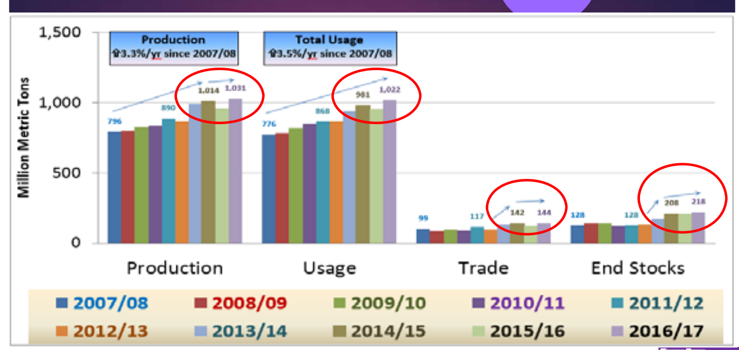
*Production estimates are in million metric tons and come from the FAS/USDA's most recent monthly World Agricultural Production report.

**Production estimates are for ALL CORN. Numbers will be listed next to the variety that comes first in the chart.

CHS Hedging Jenna Roe

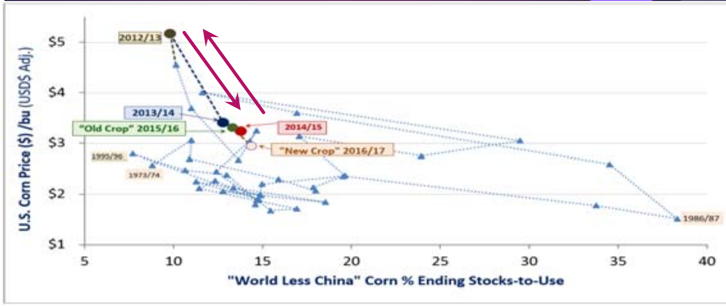
CHS Hedging

World Corn Supply, Use & Stocks

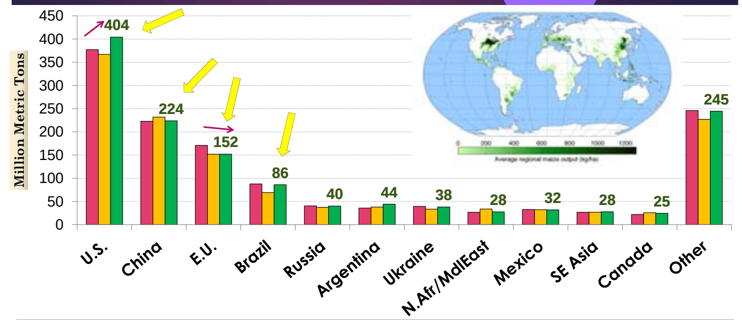


U.S. Corn $^{USD\ adj}$ vs World$^{Less\ China}$ % S/U

MY 1973/74 through "New Crop" MY 2016/17



World Coarse Grain Producers



Wheat Markets

Kansas State University — Department of Agricultural Economics

World Wheat Market Prospects:

Large Supplies ⇨ A "*Buyer's* Market" (w. Quality concerns)

- **Record World Supplies & Usage Forecast in 2016/17**
  - 4th consecutive record high World wheat crop
- **Varying 2016/17 Crop Prospects by Country/Region**
  - ⇧ U.S., Australia, Russia, Kazakhstan, Arg., India, Canada, Mdl. East
  - ⇩ Europe, N. Africa, China (little change in Ukraine, Pakistan)
- **World wheat exports to remain a "buyer's market" *unless* or *until* World supplies & stocks decline**
  - "All World" vs "World Less China" perspective???

U.S. Wheat Market Prospects:

Moderate U.S. Exports Quality Issues, Large Stocks, & Low Prices

- **U.S. wheat exports are finding support from a lack of milling quality wheat available in the World market**
- **U.S. HRW Wheat 2016** ⇨ **11.2% protein**, 60.7 lb test, 1.2% defects
  Vs 12.3% protein, 59.3 lb test wt, 1.7% defects in 2015
- **U.S. Spring Wheat 2016** ⇨ **14.2% protein,** 61.2 lb test, 0.9% defects
  Vs 14.2% protein, 61.4 lb test wt, 1.0% defects in 2015
- **U.S. SRW Wheat 2016** ⇨ **9.4% protein** & 58.6 lb test, 1.4% defects
  Vs 10.0% protein, 56.9 lb test wt, 4.3% defects in 2015

CME Kansas Hard Red Winter Wheat

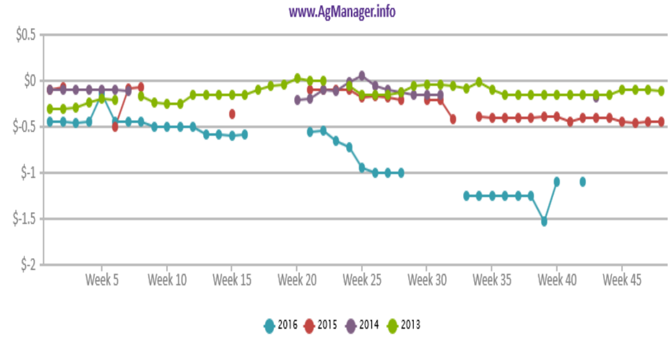
Monthly Chart: Sept. 2007 – October 2016 + 11/19/2016 close

CME HRW Wheat Futures – 2007-2016***

A "***Revenue Insurance***" Focus – Aug-Sept & June Prices$

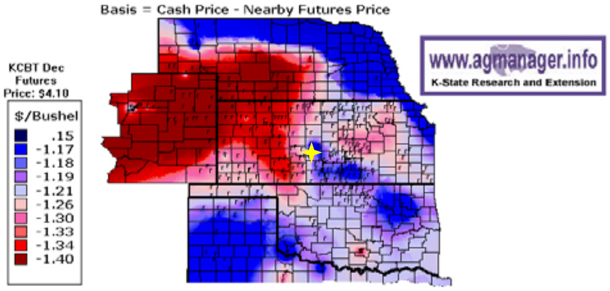
PRATT, KS: Hard Red Winter Wheat Basis - KANZA COOP

www.AgManager.info



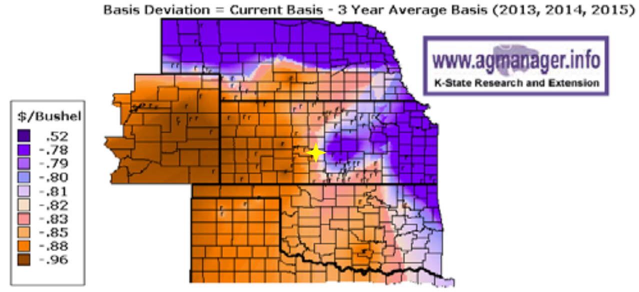
Wheat Basis, 11-09-2016

Basis = Cash Price - Nearby Futures Price



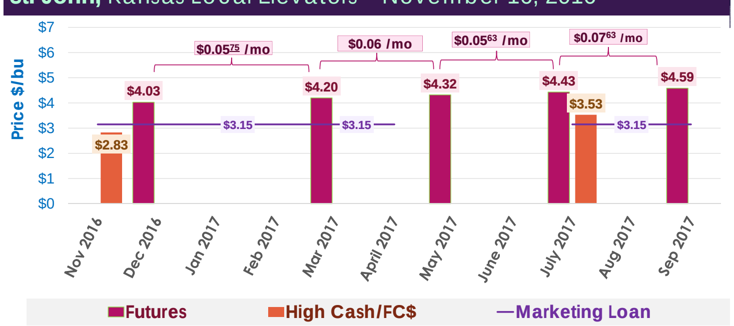
Wheat Basis Deviation, 11-09-2016

Basis Deviation = Current Basis - 3 Year Average Basis (2013, 2014, 2015)



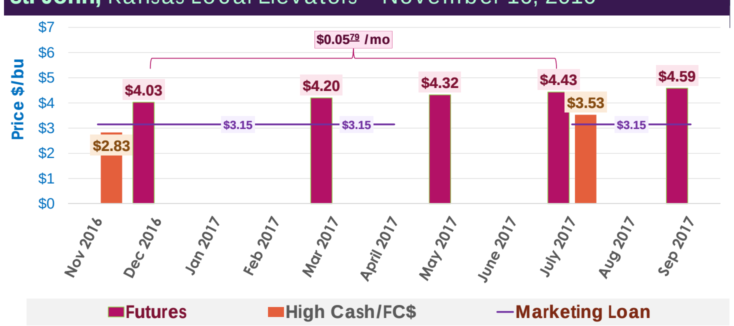
Wheat Cash & HRW Wheat Futures

St. John, Kansas Local Elevators - November 16, 2016



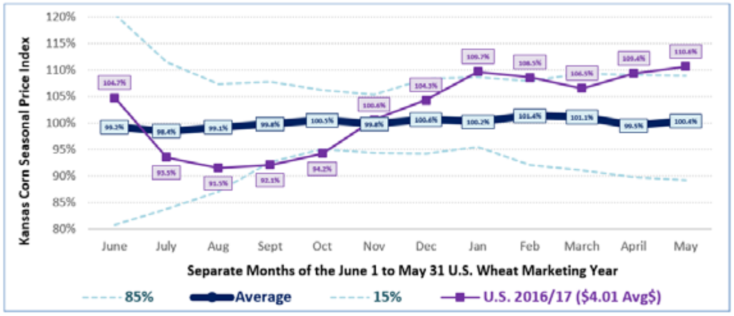
Wheat Cash & HRW Wheat Futures

St. John, Kansas Local Elevators - November 16, 2016

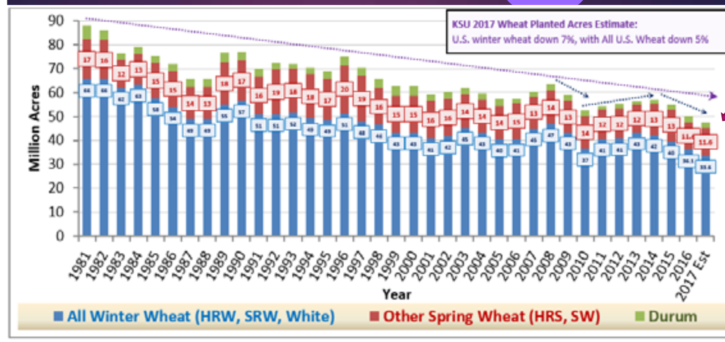


Kansas Wheat Seasonal Cash $ Index

Monthly Prices: 1999/00 – 2015/16 + "Current" MY 2016/17

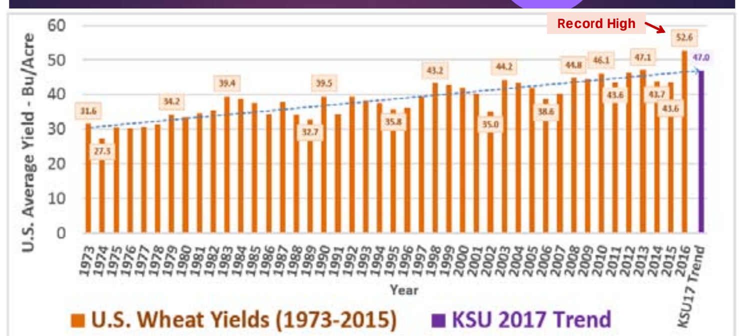


U.S. Wheat Seeded Acreage



U.S. Wheat Acreage: 2000-2017est

U.S. Wheat Yields: 1973-2017est



U.S. Wheat Production & Supplies

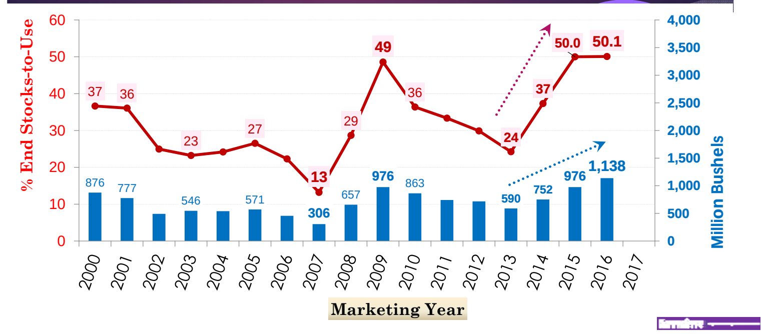
MY 2004/05 – "Current Crop" MY 2016/17

U.S. Wheat Use by Category & Stocks

MY 2004/05 – "Current Crop" MY 2016/17

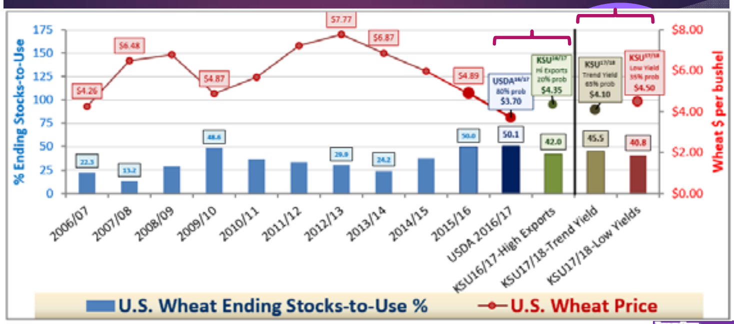
U.S. Wheat Ending Stocks & % Stocks/Use

MY 2000/01 – "Current Crop" MY 2016/17



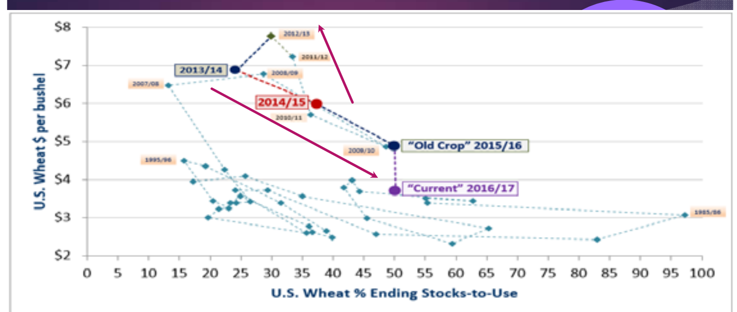
U.S. Wheat Ending Stocks & Prices

MY 2006/07 – Forecast "Next Crop" MY 2017/18[KSU]

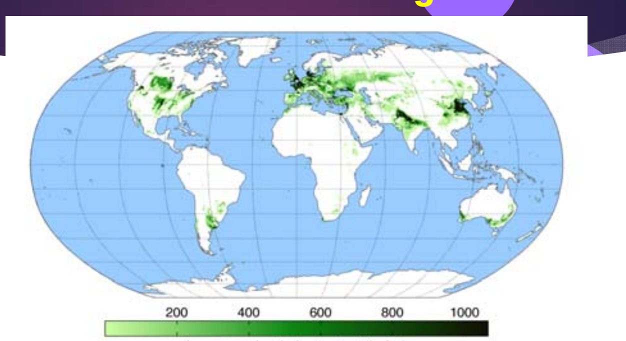


U.S. Wheat Price vs U.S. % Stocks-to-Use

MY 1973/74 – "Current Crop" MY 2016/17



World Wheat Production Regions



Monthly Crop Calendar for Wheat — 9/12/2016

Plant — Headed — Harvest

	USDA Prod Est. 16/17	Change	Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul		Aug	
Brazil	6.00	0.70	H	H	H	H	H	H	H	H							P	P	P	P	P	P		HE	HE	HE
Canada Spring	30.50	0.50	H	H	H													P	P	P	P	HE	HE	HE		H
US Spring	63.16	0.00	H															P	P	P		HE	HE	HE	H	H
Australia	27.50	1.00					H	H	H	H								P	P	P	P	P				
Russia Spring	72.00	0.00	H	H															P	P	P	HE	HE	HE	H	H
Kazakhstan	16.50	1.50	H	H															P	P					H	H
China Spring	128.00	(2.00)	H	H															P	P	P	P			H	H
Ukraine Spring	27.00	0.00	H	H															P	P	P	HE	HE	HE		H
Argentina	14.40	0.00	HE	HE	HE	HE	H	H	H	H	H	H							P	P	P	P	P	P		
Russia Winter			P	P	P															HE	HE	HE	H	H	H	P
Ukraine Winter			P	P																HE	HE			H	H	P
EU Winter	145.27	(2.23)	P	P	P	P	P	P															H	H	H	H
Turkey	17.50	0.00	P	P	P	P	P	P													H	H	H	H	H	H
Egypt	8.10	0.00	P	P	P	P											H	H	H	H	H	H				
US Winter				P	P	P												HE	HE	HE	HE	H	H	H	H	
India	90.00	2.00			P	P	P	P	P	P							H	H	H	H						
China Winter					P	P	P	P											H	H	H	H				

CHS Hedging
Jenna Roe

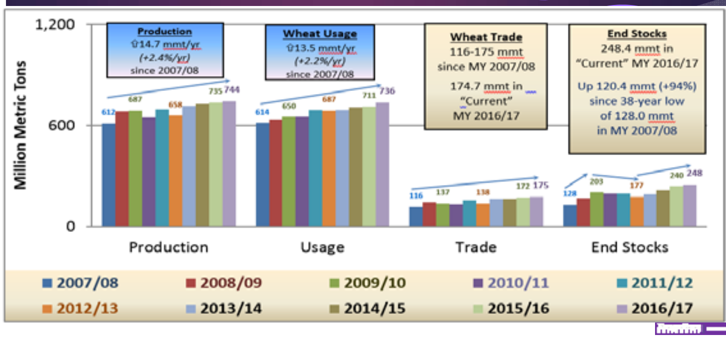
Sources: USDA and AMIS

*Production estimates are in million metric tons and come from the FAS/USDA's most recent monthly World Agricultural Production report.

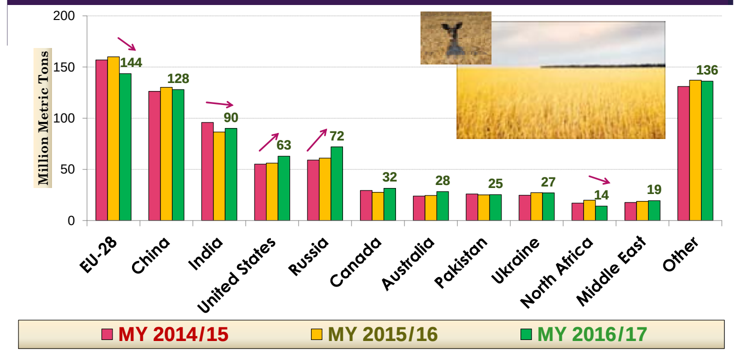
**Production estimates are for ALL WHEAT. Numbers will be listed next to the variety that comes first in the chart.

CHS Hedging

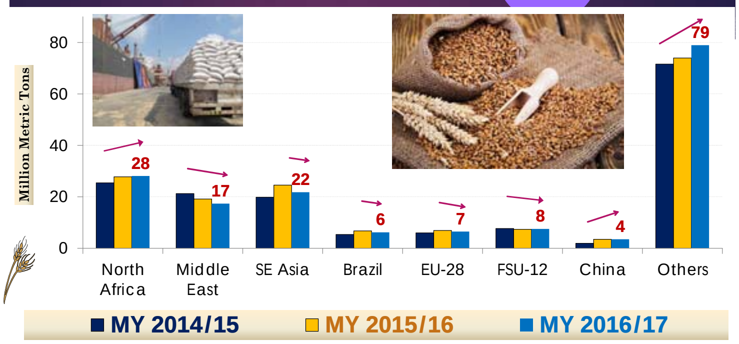
World Wheat Supply, Use & End Stocks
MY 2007/08 – MY 2016/17



World Wheat Producers: MY 2014/15 – 2016/17

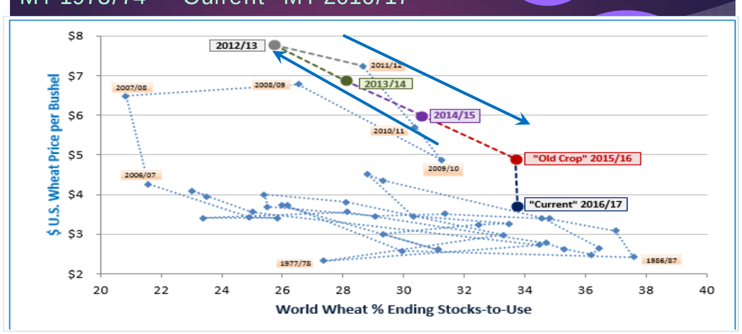


World Wheat Importers: MY 2014/15 – MY 2016/17

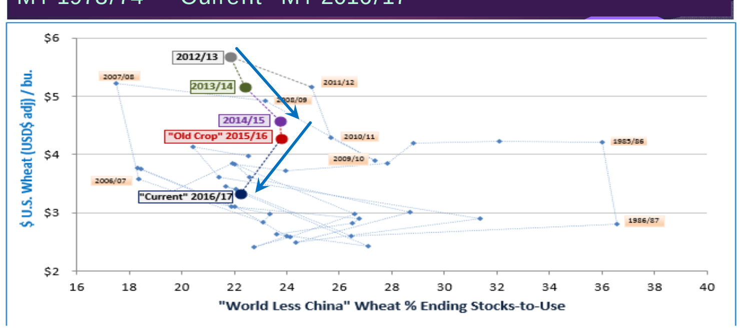


World Wheat Ending Stocks & % Stx/Use

U.S. Wheat Price ($) vs World %Stx/Use
MY 1973/74 – "Current" MY 2016/17



U.S. Wheat Price^USD$ adj vs World ^Less China %Stx/Use
MY 1973/74 – "Current" MY 2016/17



Soybean Markets

U.S. Soybean Market Prospects:

"Strong" Use & Exports – but with *Large* Stocks & *Weak* Prices

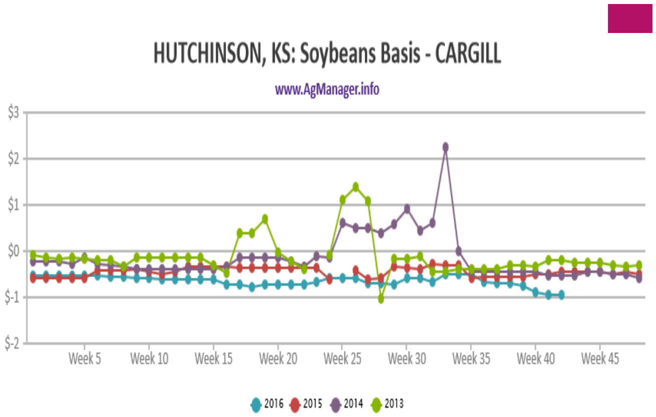
- **U.S. soybean exports in 2016/17 to remain historically large in spite of higher U.S. Dollar exchange rate**
  - Depends on China imports & 2017 South American crops
- **Low Prices have supported record high U.S. Soybean Use**
  - **Crush**[2016/17] = 1.930 bln bu *(record > 1.886 bb in MY 2015/16)*
  - **Exports**[2016/17] = 2.050 bln bu *(record > 1.936 bb vs MY 2015/16)*
- ***"Uncertainty"* re: 2017 South American soybean crop size**

CME Soybean Futures

Monthly Chart: Sept. 2007 – October 2016 + 11/16/2016 close

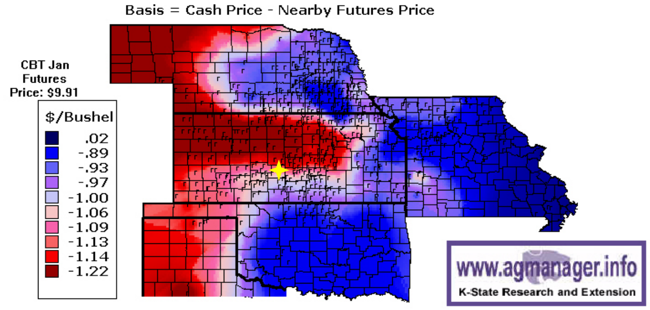
CME Soybean Futures

A *"Revenue Insurance"* Focus – February & October Prices$



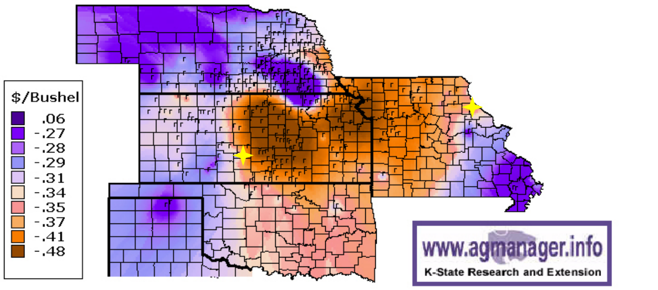
Soybean Basis, 11-09-2016

Basis = Cash Price - Nearby Futures Price



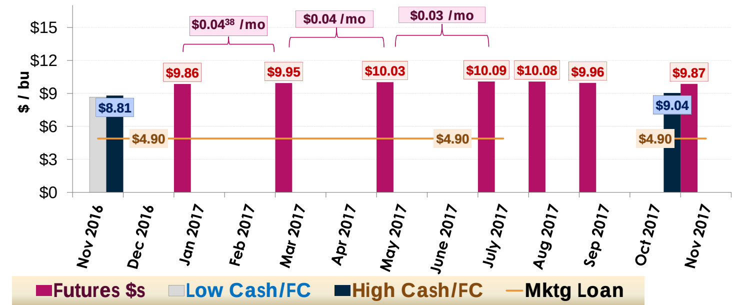
Soybean Basis Deviation, 11-09-2016

Basis Deviation = Current Basis - 3 Year Average Basis (2013, 2014, 2015)



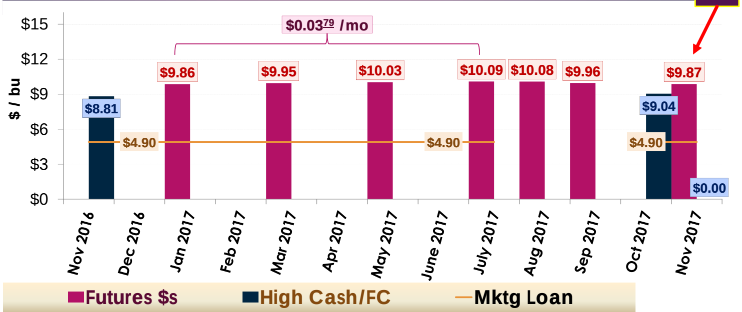
Soybean Cash, Futures – St. Johns, KS

Local Elevators – November 16, 2016



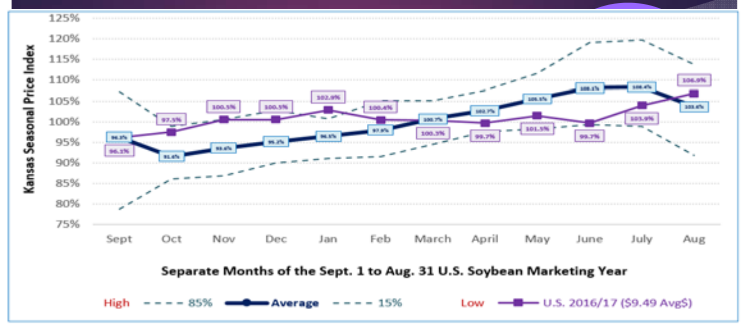
Soybean Cash, Futures – St. Johns, KS

Local Elevators – November 16, 2016



Kansas Soybean Seasonal Cash $ Index

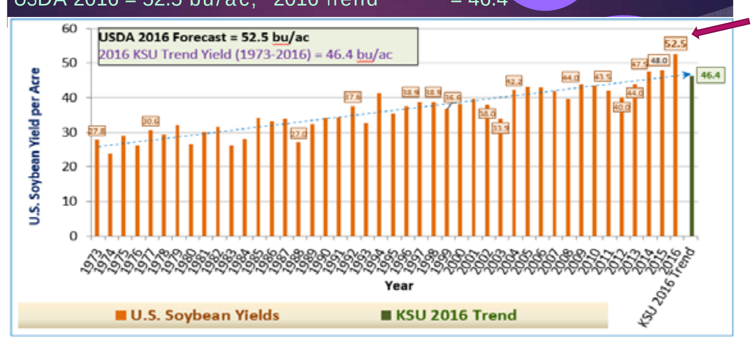
Monthly Prices: 1999/00 – 2015/16 + "New Crop" MY 2016/27

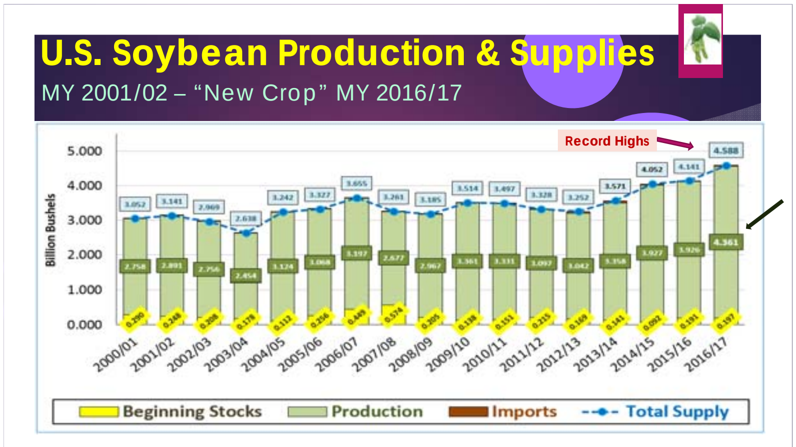


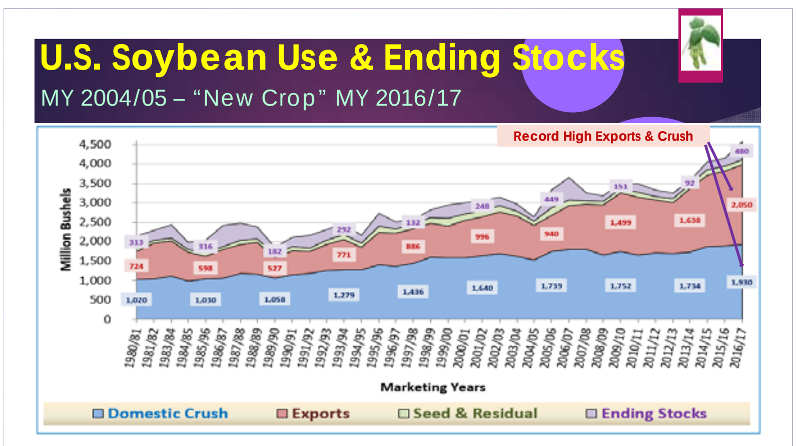
U.S. Soybean Acreage: 2004-2016

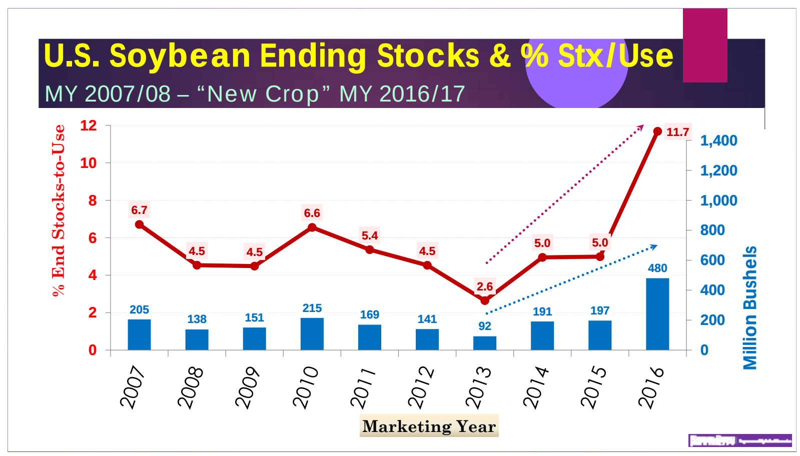
U.S. Soybean Yields: 1990-2016

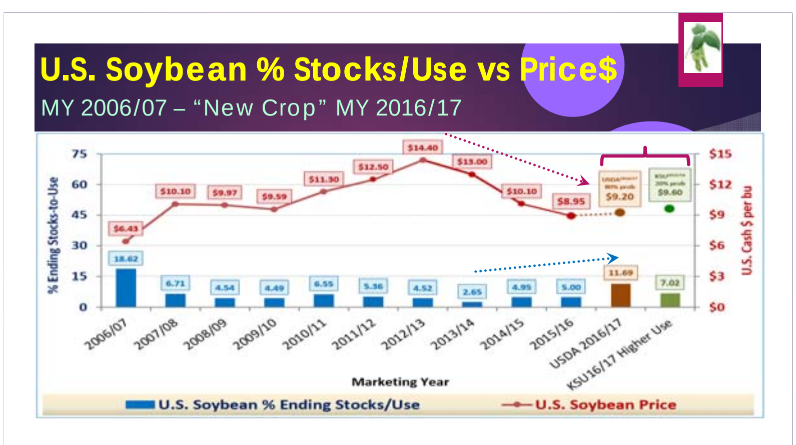
USDA 2016 = 52.5 bu/ac; 2016 Trend[1973-2015] = 46.4

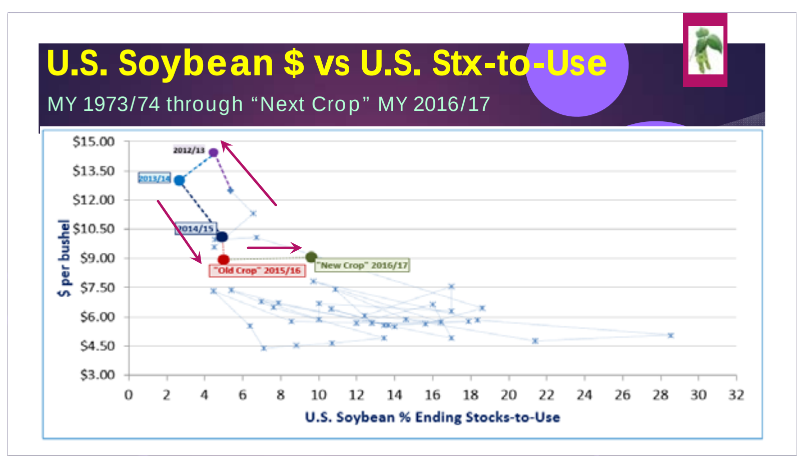



U.S. Soybean Production & Supplies
MY 2001/02 – "New Crop" MY 2016/17
Record Highs
Billion Bushels
Beginning Stocks
Production
Imports
Total Supply


U.S. Soybean Use & Ending Stocks
MY 2004/05 – "New Crop" MY 2016/17
Record High Exports & Crush
Million Bushels
Marketing Years
Domestic Crush
Exports
Seed & Residual
Ending Stocks

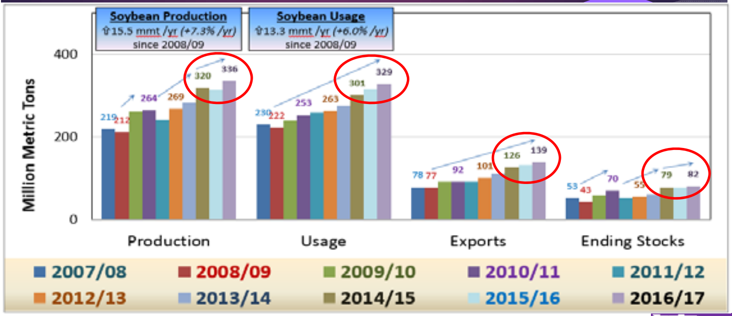

U.S. Soybean Ending Stocks & % Stx/Use
MY 2007/08 – "New Crop" MY 2016/17
% End Stocks-to-Use
Million Bushels
Marketing Year


U.S. Soybean % Stocks/Use vs Price$
MY 2006/07 – "New Crop" MY 2016/17
% Ending Stocks-to-Use
U.S. Cash $ per bu
Marketing Year
U.S. Soybean % Ending Stocks/Use
U.S. Soybean Price


U.S. Soybean $ vs U.S. Stx-to-Use
MY 1973/74 through "Next Crop" MY 2016/17
$ per bushel
"Old Crop" 2015/16
"New Crop" 2016/17
U.S. Soybean % Ending Stocks-to-Use

World Soybean Supply, Use & Stocks

MY 2007/08 – MY 2016/17



Monthly Crop Calendar for Soybeans

9/12/2016

USDA Prod Est. — Plant — Bloom — Harvest

	16/17	Change	Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul		Aug	
Ukraine	4.00	0.00	H	H													P	P	P	P					H	H
EU	2.44	0.00	H	H	H	H											P	P	P	P						
Russia	2.90	0.00	H	H	H	H	H	H									P	P	P	P						
US	114.33	3.83		H	H	H	H												P	P	P		B	B	B	
China	12.50	0.30	H	H	H	H													P	P	P	P				
Canada	5.83	(0.42)		H	H	H	H												P	P	P	P	B	B	B	B
Indonesia	0.60	0.00	H	H	H	H													P	P	P	P	P	P	H	H
Mexico	0.37	0.00	P	P	H	H	H	H	H	H	H	H	H	H					P	P	P	P	P	P	P	P
India	9.70	(1.70)					H	H	H	H											P	P	P	P	P	P
Paraguay	9.17	0.00			P	P	P	P	P	P	H	H	H	H	H	H	H	H	H	H	H	H				
Brazil	101.00	(2.00)				P	P	P	P	P	H	H	H	H	H	H	H	H	H	H						
Argentina	57.00	0.00					P	P	P	P	P		B	B			H	H	H	H	H	H				
South Africa	1.12	0.00						P	P	P			H	H	H	H										

Sources: USDA, AMIS, and CHS, Inc. locations

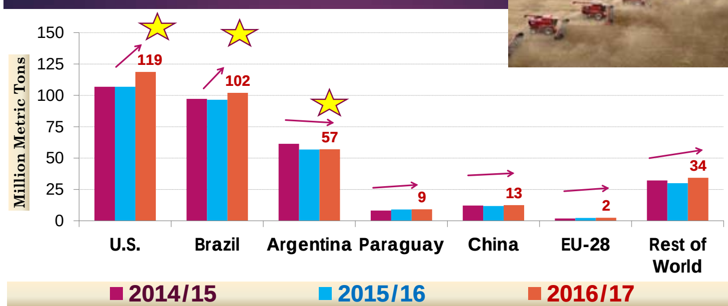
*Production estimates are in million metric tons and come from the FAS/USDA's most recent monthly World Agricultural Production report.

CHS Hedging Jenna Roe

CHS Hedging

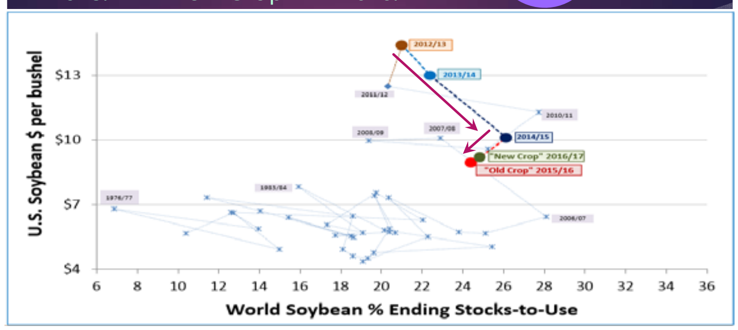
World Soybean Producers

MY 2014/15 – MY 2016/17



U.S. Soybean$ vs World % Stocks/Use

MY 1973/74 - "New Crop" MY 2016/17



Questions?

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www.AgManager.info

Kansas State University Department of Agricultural Economics