

Grain Market Outlook for 2017

2016 KSU Ag Lender's Conferences

Garden City & Manhattan, Kansas

October 4 – 5, 2016

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EXTENSION AGRICULTURAL ECONOMIST



Department of Agricultural Economics



Key Grain Market Decisions & Issues

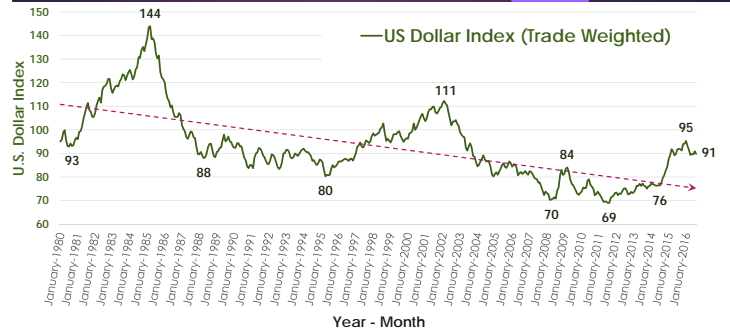
for Kansas Farmers & Agribusinesses

- 1) Marketing remaining 2016 Wheat & Other Crops
- 2) Marketing 2016 Fall Crops: Harvest vs Post-harvest sales
- 3) Storing & Handling of 2016 Crops into 2017
- 4) Crop production plans for 2017 – Prices & profitability?
Planted Acres? Crop inputs? Storage availability in 2017-18?

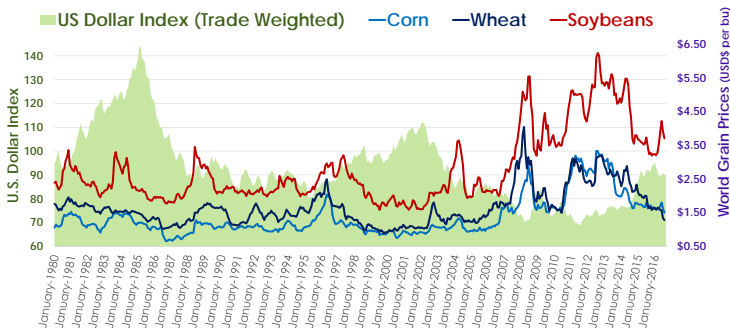
Topics to be discussed.....

- 1) Overall Grain Market Situation – in Kansas, U.S., & World
- 2) Currency Exchange Rate impacts on U.S. grain exports & World grain prices
- 3) Market Outlook for Corn, Sorghum, Wheat & Soybeans
- 4) "Market Risks & Opportunities" – What is expected to happen in 2016-2017 & what could change (& when)

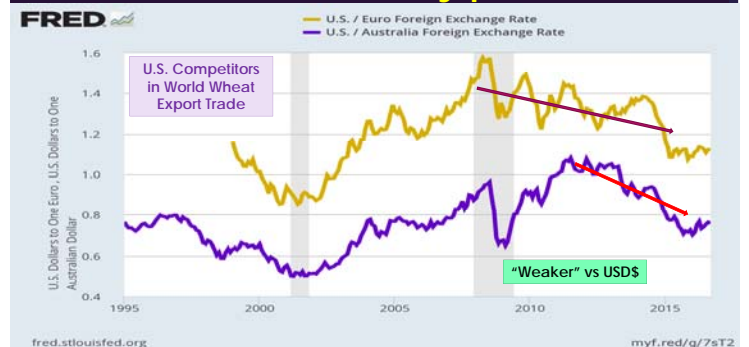
U.S. Dollar Index (Trade Weighted) 1980 – Sept. 2016



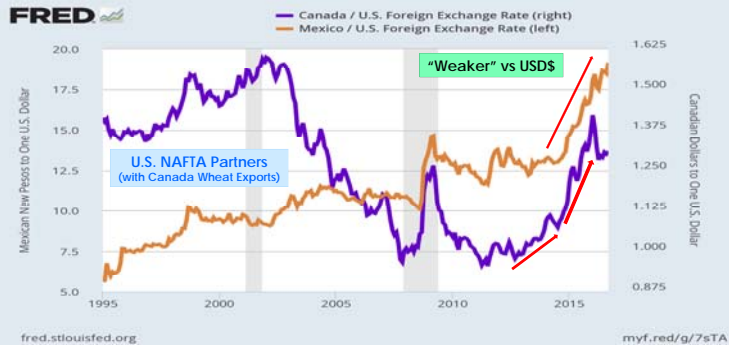
U.S. Dollar Index vs World Grain \$'s 1980 – Sept. 2016



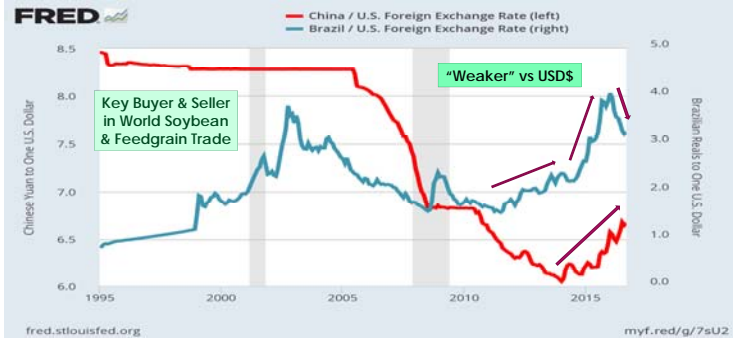
Euro & Australia Currency per U.S. Dollar



Canada & Mexico Exchange Rates - Monthly



China & Brazil Exchange Rates - Monthly



Corn & Sorghum Markets



CME Corn Futures

Weekly Chart: August 2014 – Sept. 30, 2016 + 10/4/2016 close



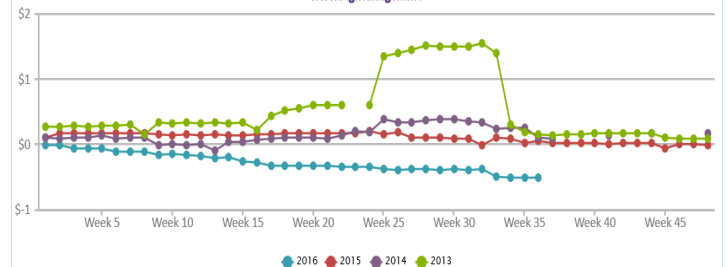
CME Corn Futures

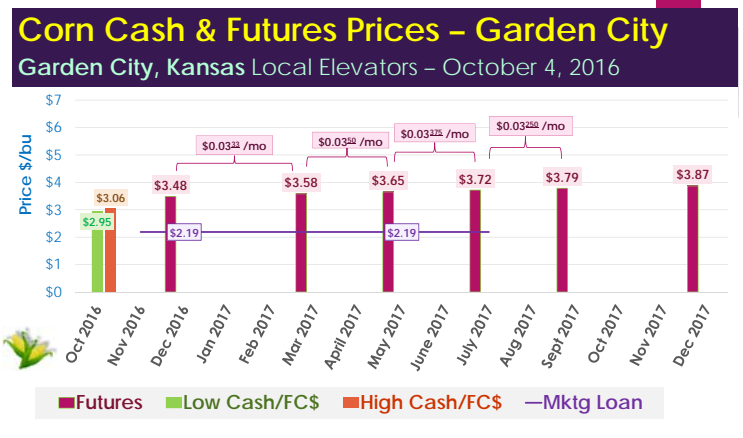
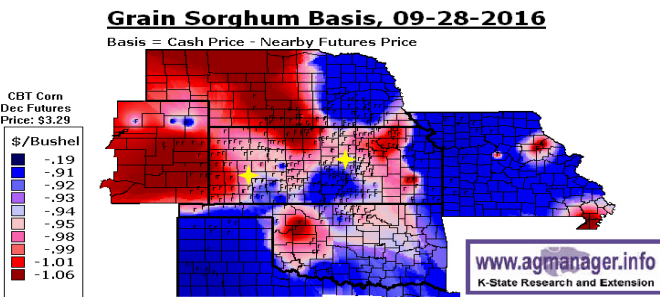
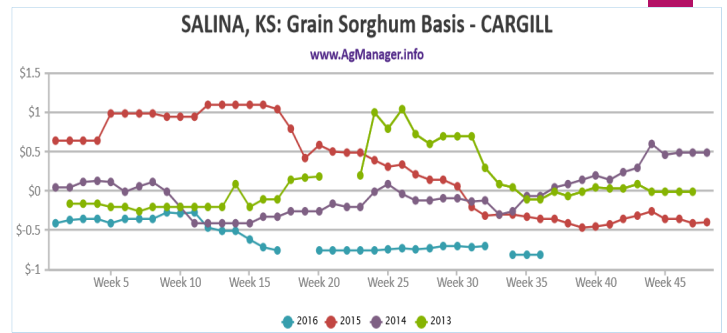
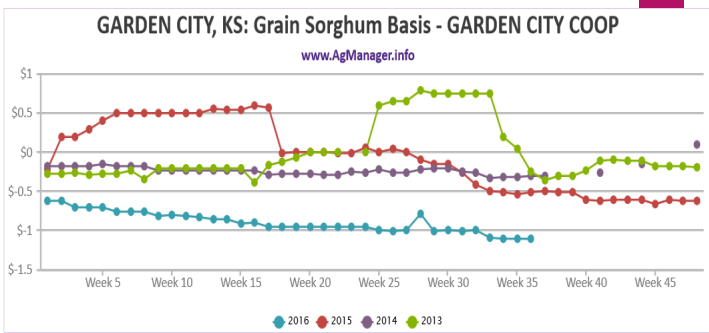
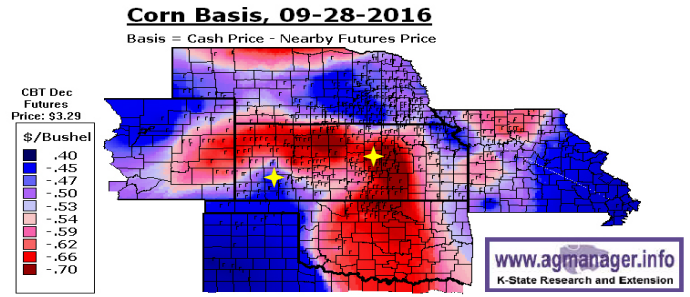
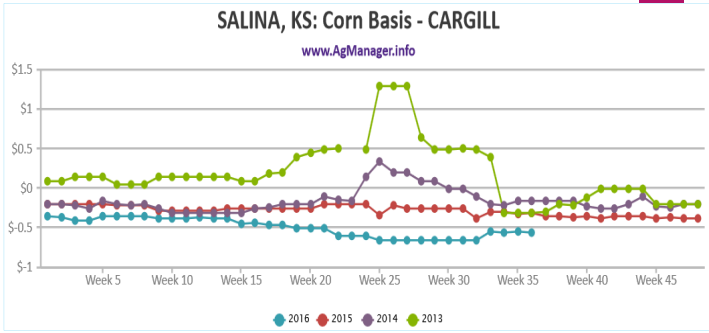
Monthly Chart: August 2007 – Sept. 2016 + 10/4/2016 close



GARDEN CITY, KS: Corn Basis - GARDEN CITY COOP

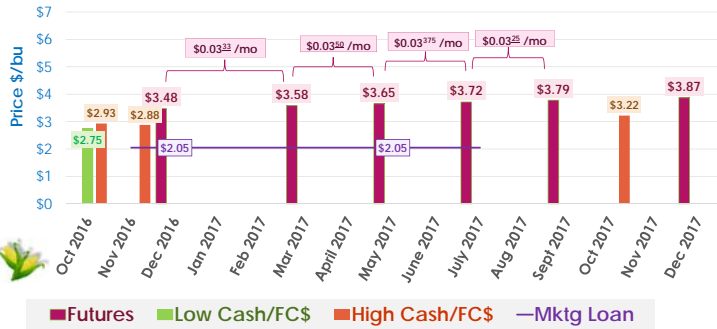
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Corn Cash & Futures Prices – Salina

Salina, Kansas Local Elevators – October 4, 2016



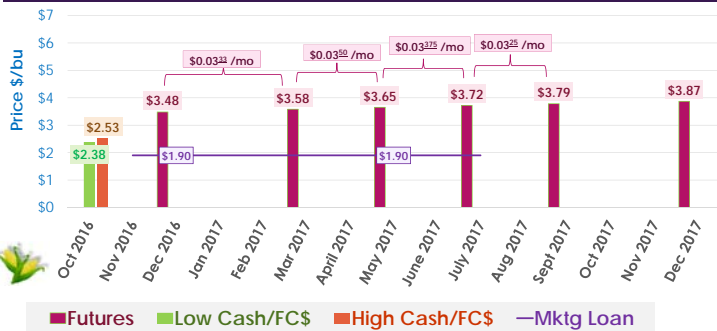
Kansas Corn Seasonal Cash \$ Index

Monthly Prices: 1999/2000 – 2014/15 + Forecast MY 2016/17



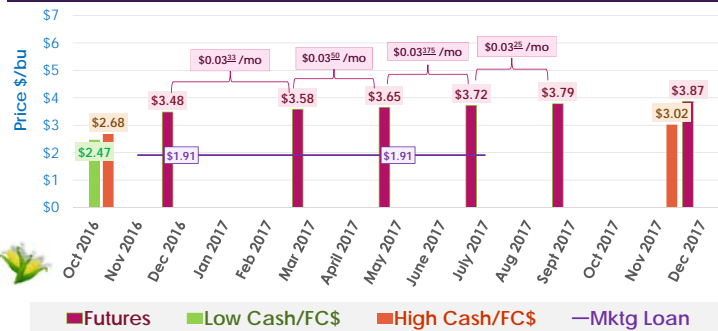
Sorghum Cash & Futures Prices – Garden City

Garden City, Kansas Local Elevators – October 4, 2016

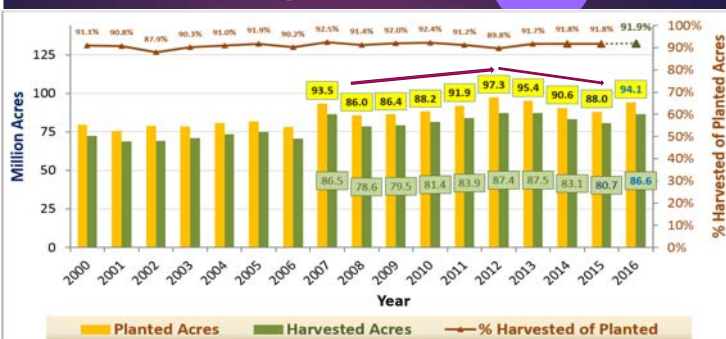


Sorghum Cash & Futures Prices – Salina

Salina, Kansas Local Elevators – October 4, 2016

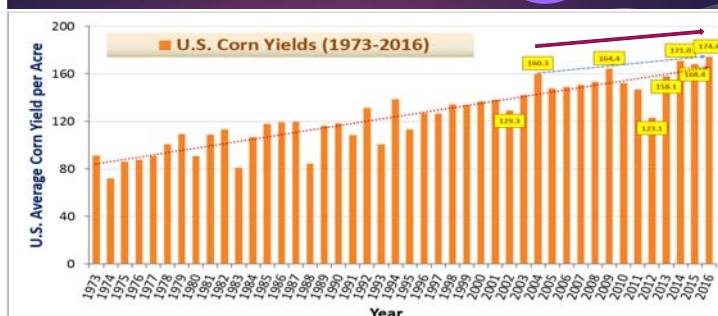


U.S. Corn Acreage: 2000-2016

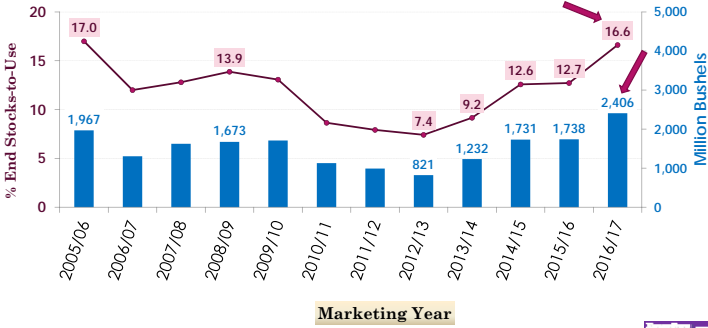


U.S. Corn Yields: 1973-2016

USDA 2016 USDA Forecast = 174.4



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

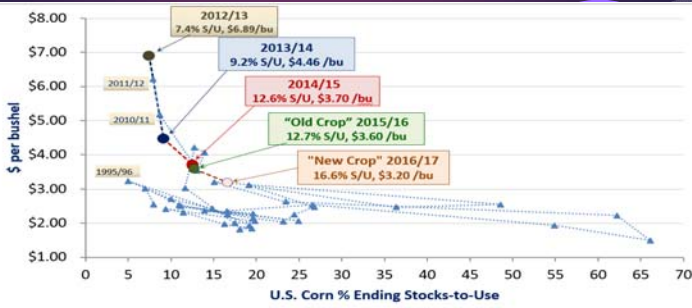


U.S. Corn % Stocks/Use vs Price\$

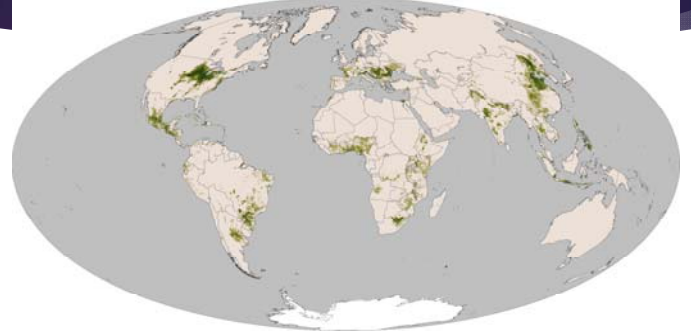


U.S. Corn Price\$ vs U.S. % Stocks-to-Use

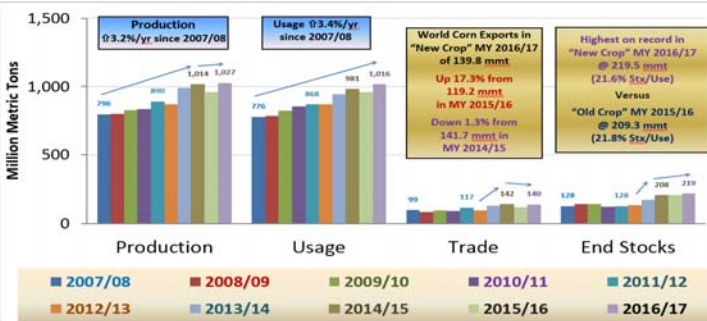
MY 1973/74 through "New Crop" MY 2016/17



World Corn (Maize) Production Regions



World Corn Supply, Use & Stocks

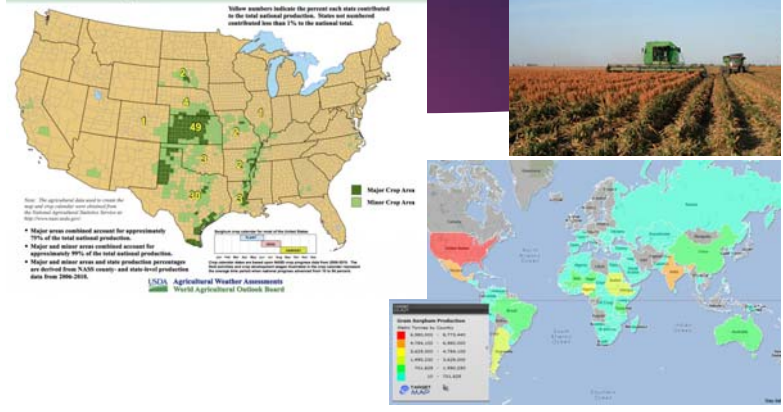


U.S. Corn \$USD adj vs World Less China % S/U

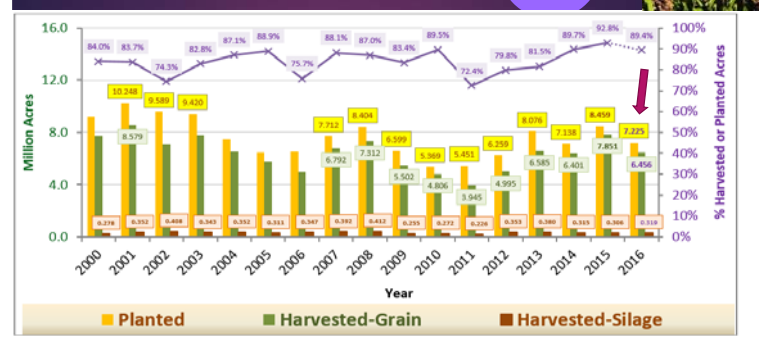
MY 1973/74 through "New Crop" MY 2016/17



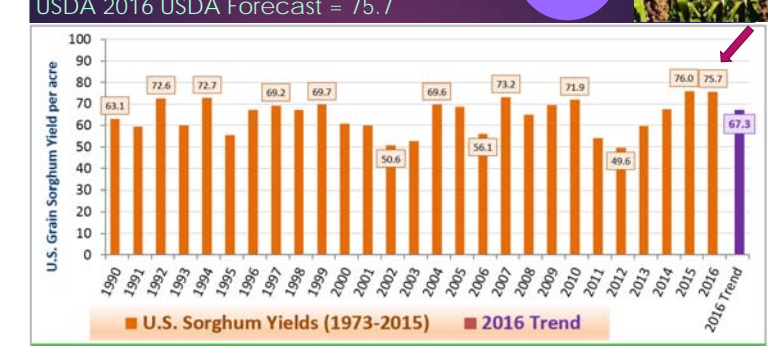
United States: Sorghum



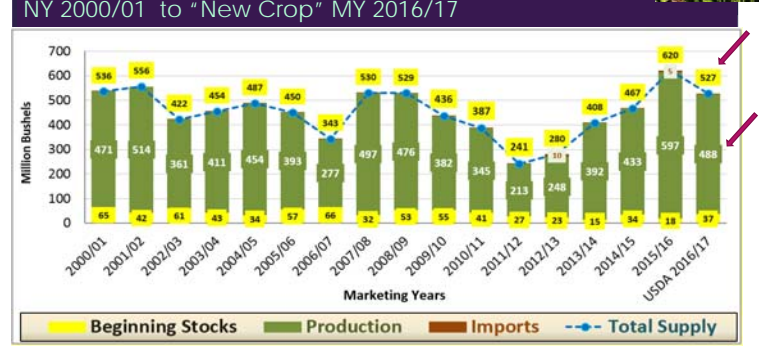
U.S. Sorghum Acreage: 2000-2016



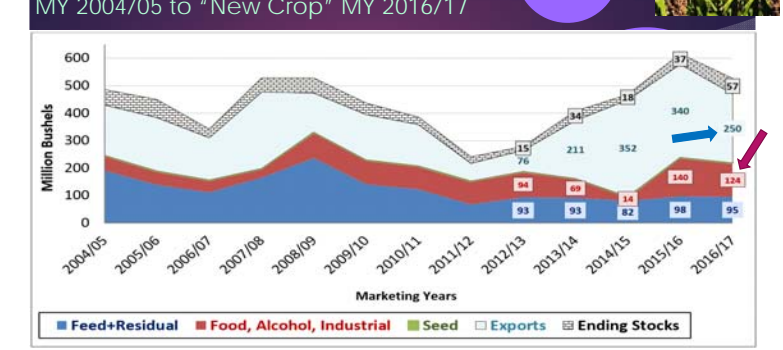
U.S. Sorghum Yields: 1990-2016



U.S. Sorghum Production & Supplies



U.S. Sorghum Use & Ending Stocks



U.S. Sorghum & Corn % Stks/Use vs Sorghum \$



U.S. Feedgrain Market Prospects:

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

- 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} = 5.275 bln bu (record high - vs 5.200 bb last 2 yrs)
 - Other FSI^{2016/17} = 1.370 bln bu (4 year high - vs 1.424 bb in 2011/12)
 - Exports^{2016/17} = 2.175 bln bu (9 year high - vs 2.437 bb in 2007/08)
- Sorghum exports declining from China "run"



Monthly Crop Calendar for Corn

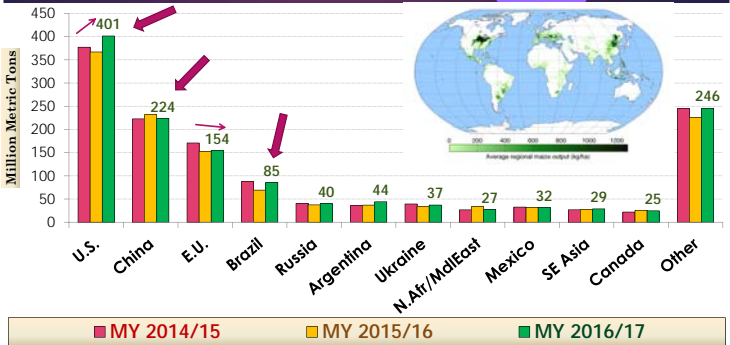
Country	USDA Prod Est	16/17 Change	Plant	Silk	Harvest	Mar	Apr	May	Jun	Jul	Aug
			Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
EU	61.15	(0.99)	H	H	H	H	H	H	H	H	H
US	383.38	(1.54)	H	H	H	H	H	H	H	H	H
Mexico Summer	24.50	0.00	H	H	H	H	H	H	H	H	H
Ukraine	26.00	0.00	H	H	H	H	H	H	H	H	H
Russia	14.00	0.00	H	H	H	H	H	H	H	H	H
China	216.00	(2.00)	H	H	H	H	H	H	H	H	H
Indonesia Dry Region	9.60	0.00	H	H	H	H	H	H	H	H	H
Philippines Main	8.00	0.00	H	H	H	H	H	H	H	H	H
Canada	12.35	0.35	H	H	H	H	H	H	H	H	H
India	24.50	0.00	P	P	P	P	P	P	P	P	P
Brazil 1st crop	82.50	2.50	P	P	P	P	P	P	P	P	P
Argentina	36.50	0.00	P	P	P	P	P	P	P	P	P
Philippines 2nd Crop			P	P	P	P	P	P	P	P	P
South Africa	13.00	0.00	P	P	P	P	P	P	P	P	P
Mexico Winter			P	P	P	P	P	P	P	P	P
Brazil 2nd crop			P	P	P	P	P	P	P	P	P
Indonesia Rainy Region			P	P	P	P	P	P	P	P	P
Nigeria	7.20	0.00	P	P	P	P	P	P	P	P	P

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.

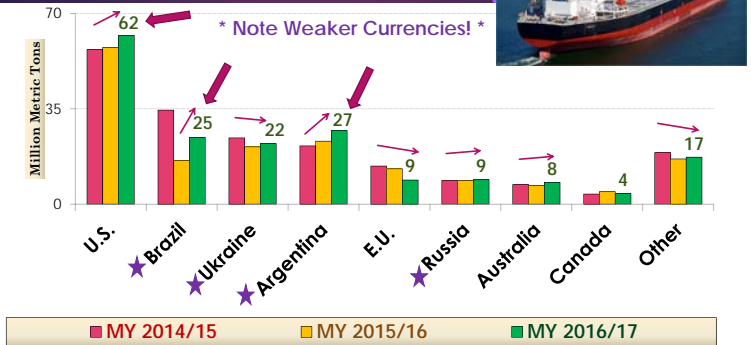
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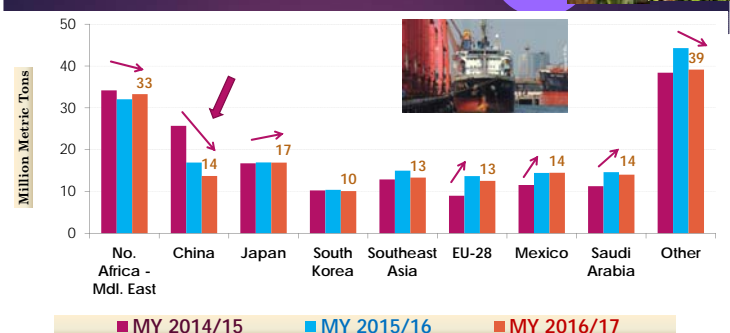
World Coarse Grain Producers



Coarse Grain Exporters



Coarse Grain Importers

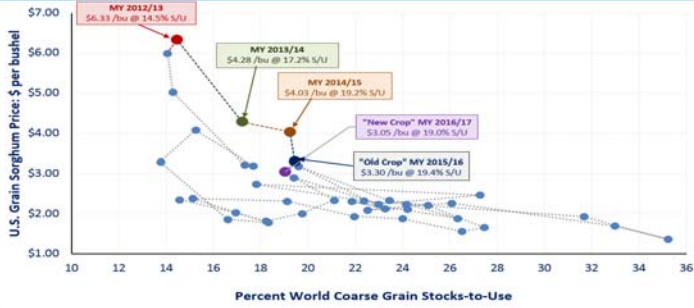


World Coarse Grain Supply, Use & Stocks



U.S. Sorghum Price\$ vs World Coarse Grain % S/U

MY 1975/76 through "New Crop" MY 2016/17



Wheat Markets



KANSAS STATE UNIVERSITY Department of Agricultural Economics

CME Kansas Hard Red Winter Wheat

Weekly Chart: August 2014 – September 30, 2016 + 10/4/2016 close



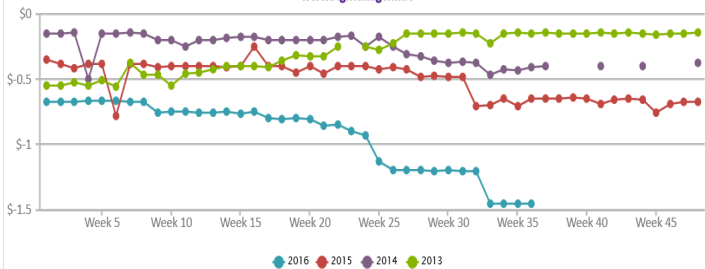
CME Kansas Hard Red Winter Wheat

Monthly Chart: August 2007 – Sept. 2016 + 10/4/2016 close



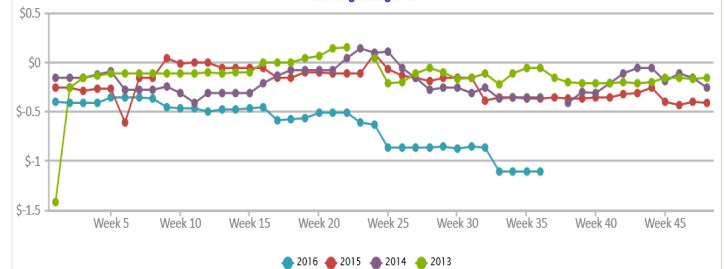
GARDEN CITY, KS: Hard Red Winter Wheat Basis - GARDEN CITY COOP

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SALINA, KS: Hard Red Winter Wheat Basis - CARGILL

www.AgManager.info



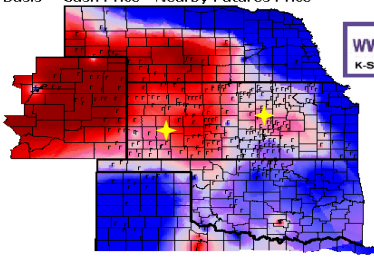
Wheat Basis, 09-28-2016

Basis = Cash Price - Nearby Futures Price

KCBT Dec
Futures
Price: \$4.21

\$/Bushel

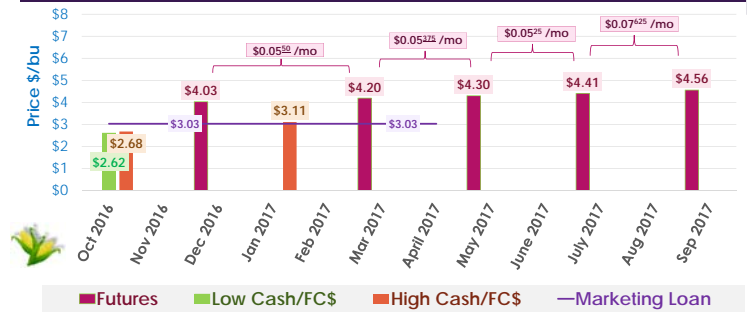
- 1.10
- 1.24
- 1.27
- 1.29
- 1.30
- 1.34
- 1.37
- 1.39
- 1.43
- 1.48



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K-State Research and Extension

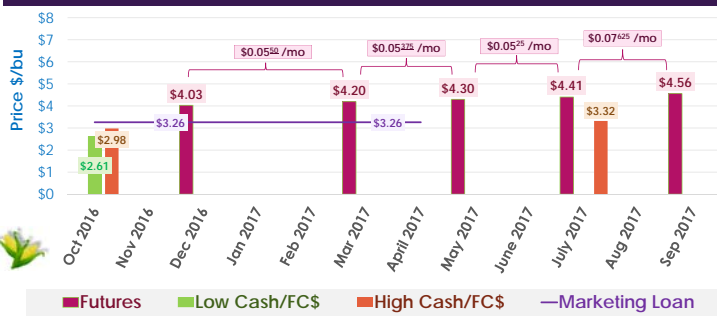
Wheat Cash & HRW Wheat Futures

Garden City, Kansas Local Elevators - October 4, 2016



Wheat Cash & HRW Wheat Futures

Salina, Kansas Local Elevators - October 4, 2016

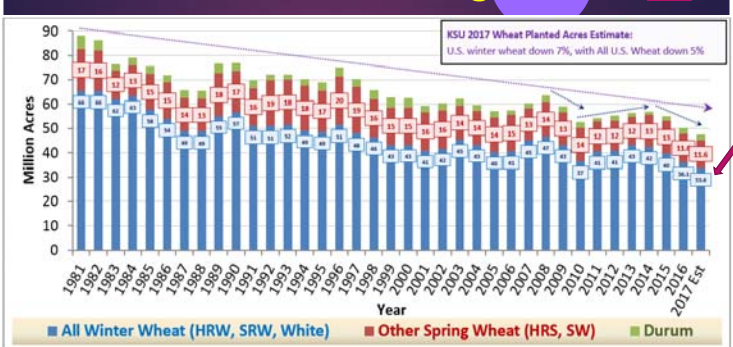


Kansas Wheat Seasonal Cash \$ Index

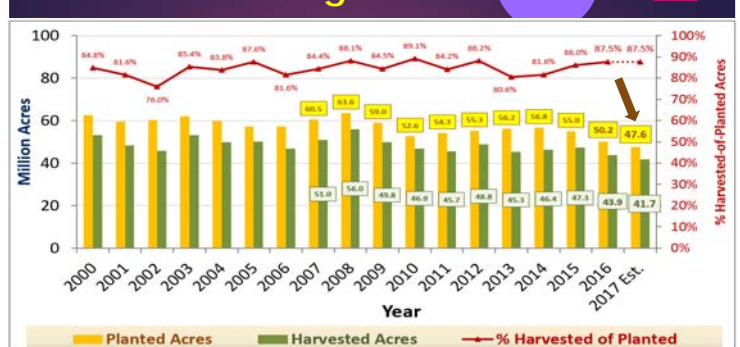
Monthly Prices: 1999/00 - 2014/15 + "Current" MY 2016/17



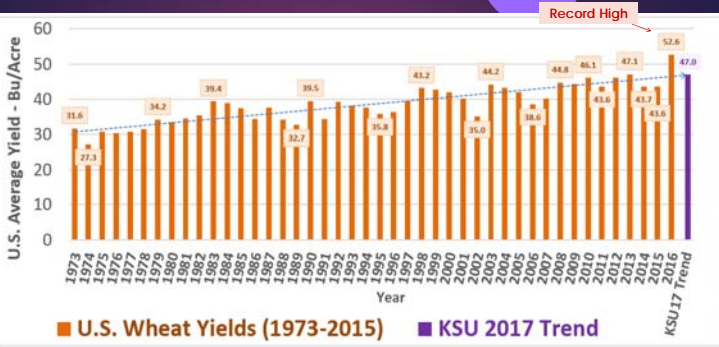
U.S. Wheat Seeded Acreage



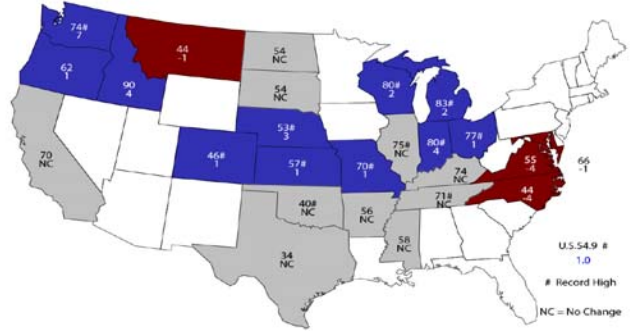
U.S. Wheat Acreage: 2000-2017est



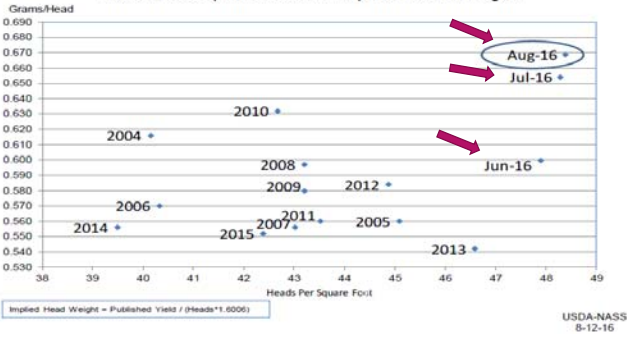
U.S. Wheat Yields: 1973-2017^{est}



August 1, 2016 Winter Wheat Yield Bushels and Change From Previous Month

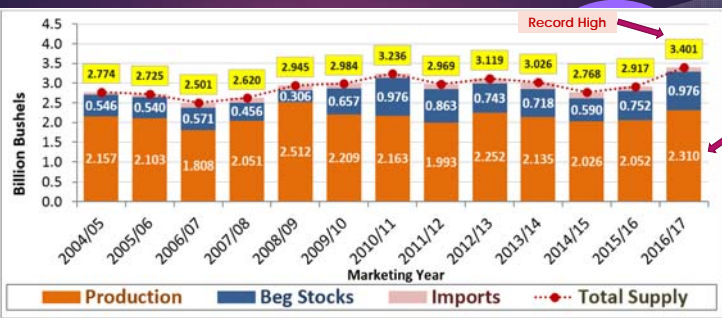


Wheat Objective Yield Region Heads Per Square Foot vs. Implied Head Weight



U.S. Wheat Production & Supplies

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



U.S. Wheat Use by Category

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



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

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



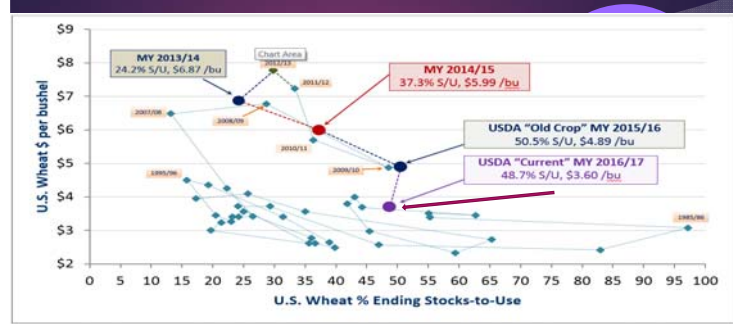
U.S. Wheat Ending Stocks & Prices

MY 2006/07 – Forecast “Next Crop” MY 2017/18^{KSU}

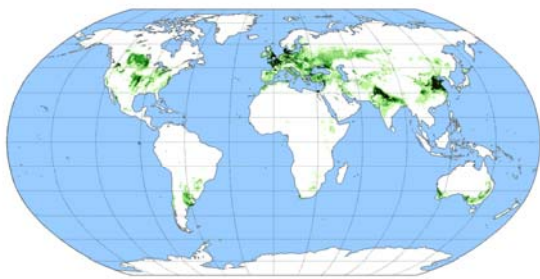


U.S. Wheat Price vs U.S. % Stocks-to-Use

MY 1973/74 – “Current Crop” MY 2016/17



World Wheat Production Regions

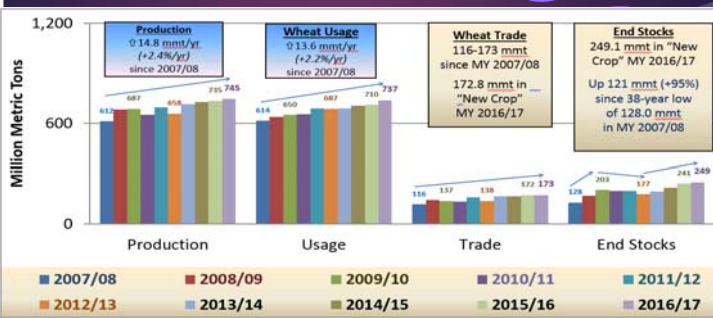


Monthly Crop Calendar for Wheat

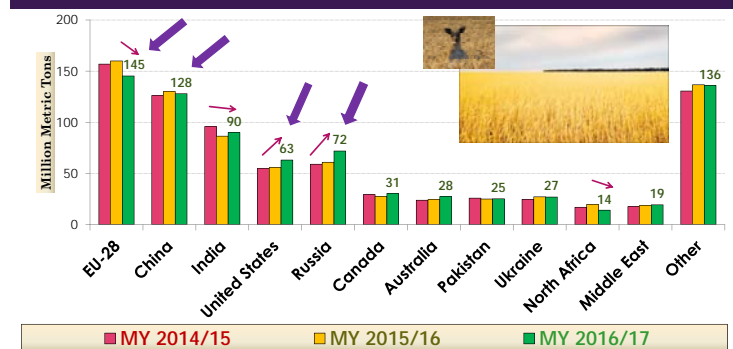
Country/Region	USDA Prod Est. 16/17 Change	Crop Calendar (9/12/2016)											
		Plant	Headed	Harvest	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
Brazil	6.00 0.70	H	H	H	H								
Canada Spring	30.50 0.50	H	H	H									
US Spring	63.16 0.00				H	H	H						
Australia	27.50 1.00				H	H	H						
Russia Spring	72.00 0.00	H	H										
Kazakhstan	16.50 1.50	H	H										
China Spring	128.00 (2.00)	H	H										
Ukraine Spring	27.00 0.00	H	H										
Argentina	14.40 0.00	HE	HE	HE	H	H	H	H					
Russia Winter		P	P	P									
Ukraine Winter		P	P	P									
EU Winter	145.27 (2.23)	P	P	P	P								
Turkey	17.50 0.00	P	P	P	P								
Egypt	8.10 0.00	P	P	P	P								
US Winter		P	P	P									
India	90.00 2.00	P	P	P	P								
China Winter		P	P	P	P								

World Wheat Supply, Use & End Stocks

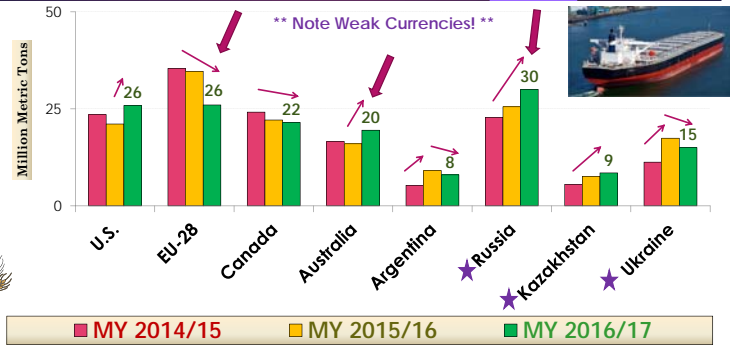
MY 2007/08 – MY 2016/17



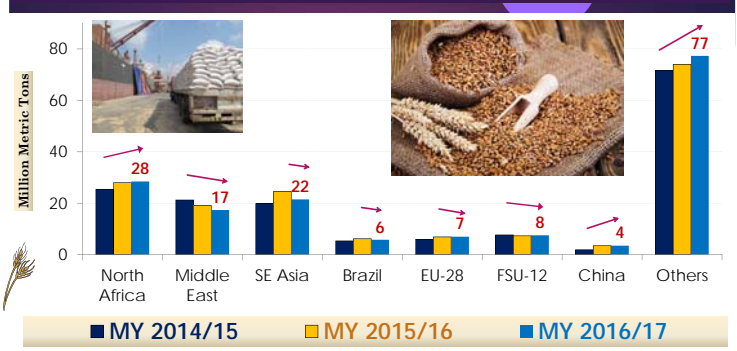
World Wheat Producers: MY 2014/15 – 2016/17



World Wheat Exporters



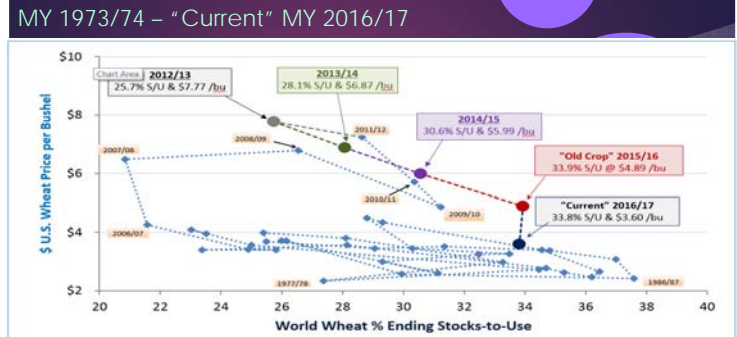
World Wheat Importers: MY 2014/15 – MY 2016/17



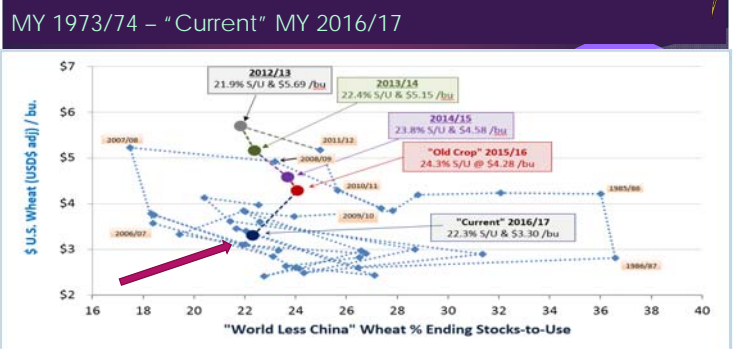
World Wheat Ending Stocks & % Stx/Use



U.S. Wheat Price (\$) vs World %Stx/Use



U.S. Wheat Price USD\$ adj vs World Less China %Stx/Use



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

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
 - ↑ U.S., Australia*, Russia, Kazakhstan, Arg., Canada*, Pakistan, India
 - ↓ E.U., N. Africa (with little change in Ukraine & China)
- World wheat exports to remain a "buyer's market" unless or until World supplies & stocks decline
 - "All World" vs "World Less China" perspective???

KANSAS STATE UNIVERSITY

Soybean Markets



KANSAS STATE UNIVERSITY Department of Agricultural Economics

CME Soybean Futures

Weekly Chart: August 2014 - September 30, 2016 + 10/4/2016



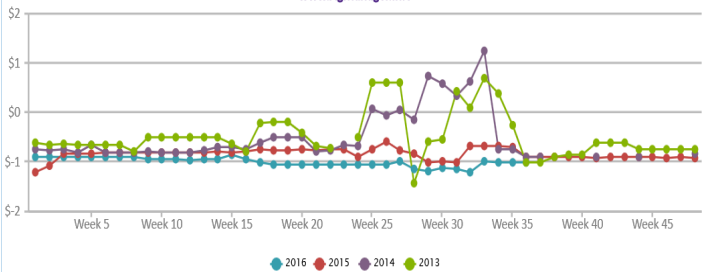
CME Soybean Futures

Monthly Chart: August 2007 thru September 2016 + 10/4/2016



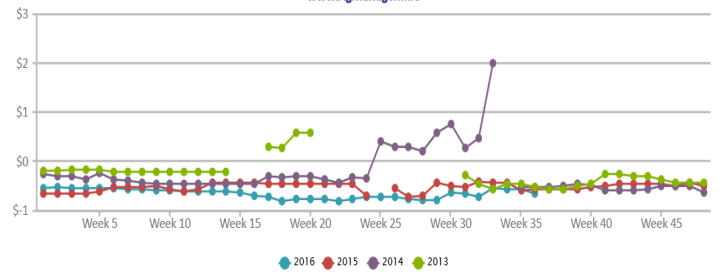
GARDEN CITY, KS: Soybeans Basis - GARDEN CITY COOP

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SALINA, KS: Soybeans Basis - CARGILL

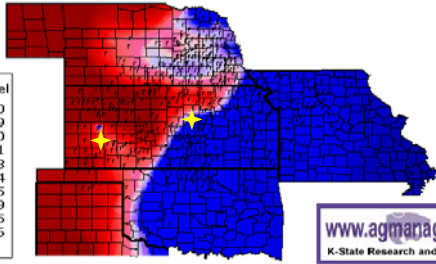
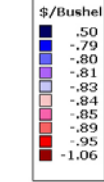
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Soybean Basis, 09-28-2016

Basis = Cash Price - Nearby Futures Price

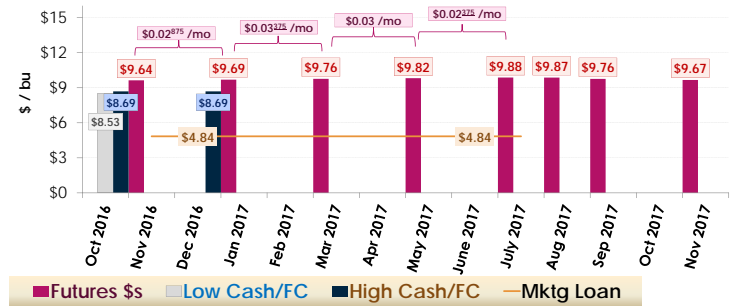
CBT Nov
Futures
Price: \$9.46



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K-State Research and Extension

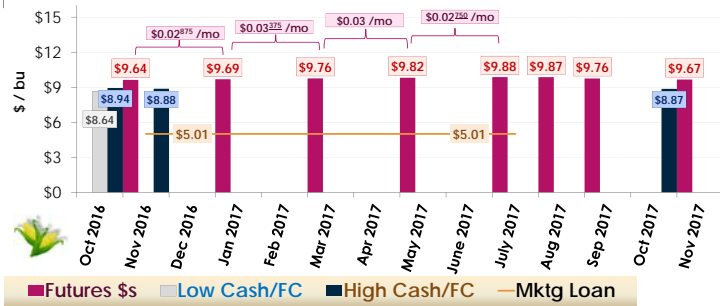
Soybean Cash & Futures Prices

Garden City, Kansas Local Elevators – October 4, 2016



Soybean Cash & Futures Prices

Salina, Kansas Local Elevators – October 4, 2016



Kansas Soybean Seasonal Cash \$ Index

Monthly Prices: 1999/00 – 2014/15 + "New Crop" MY 2016/27

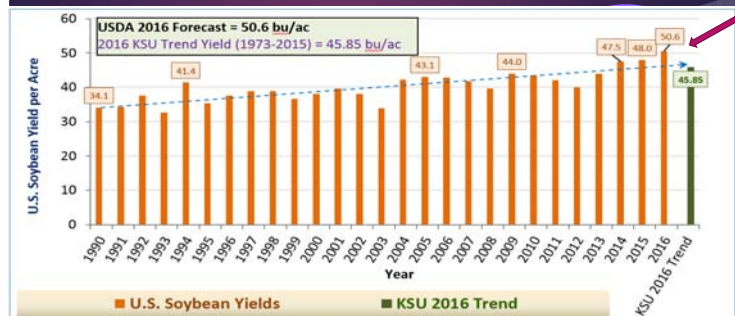


U.S. Soybean Acreage: 2004-2016



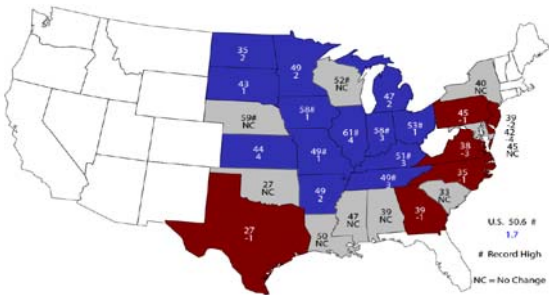
U.S. Soybean Yields: 1990-2016

USDA 2016 = 48.9 bu/ac; 2016 Trend¹⁹⁷³⁻²⁰¹⁵ = 45.8





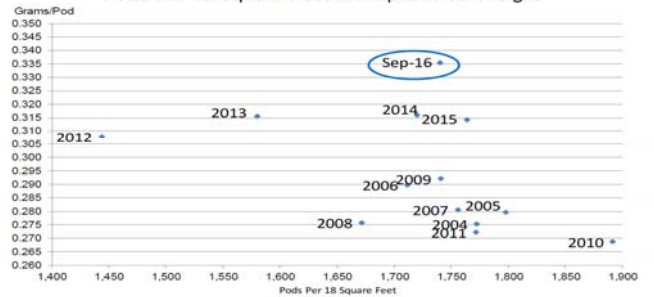
September 1, 2016 Soybean Yield Bushels and Change From Previous Month



USDA-NASS
9-12-16



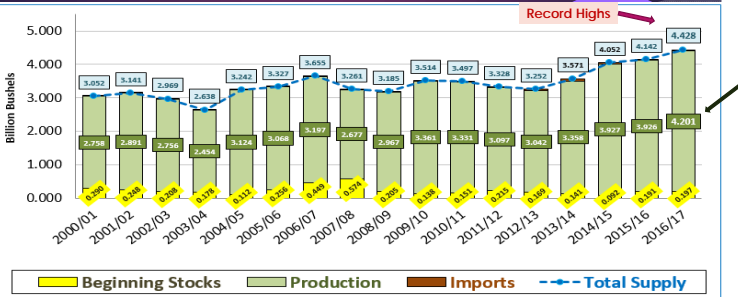
Soybean Objective Yield Region Pods Per 18 Square Feet vs. Implied Pod Weight



USDA-NASS
9-12-16

U.S. Soybean Production & Supplies

MY 2001/02 – “New Crop” MY 2016/17



U.S. Soybean Use & Ending Stocks

MY 2004/05 – “New Crop” MY 2016/17



U.S. Soybean Ending Stocks & % Stx/Use

MY 2007/08 – “New Crop” MY 2016/17



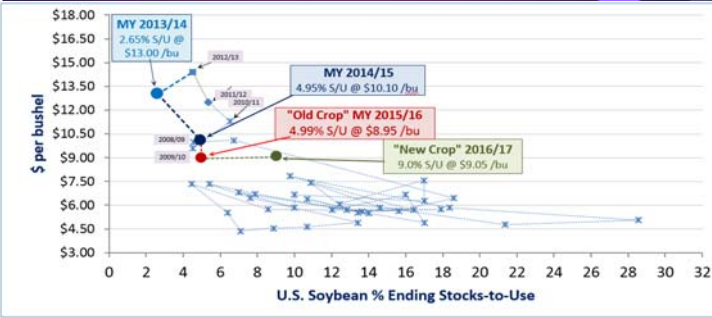
U.S. Soybean % Stocks/Use vs Price\$

MY 2006/07 – “New Crop” MY 2016/17



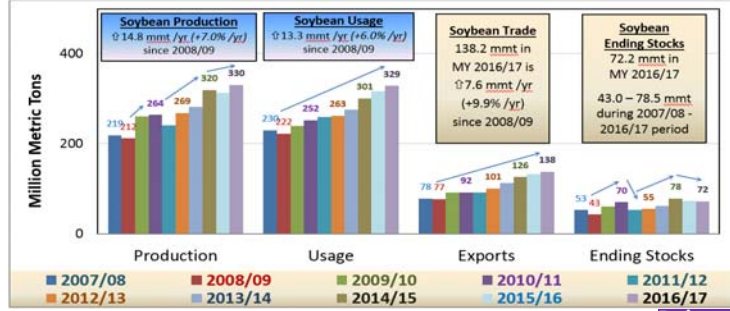
U.S. Soybean \$ vs U.S. Stx-to-Use

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



World Soybean Supply, Use & Stocks

MY 2007/08 – MY 2016/17



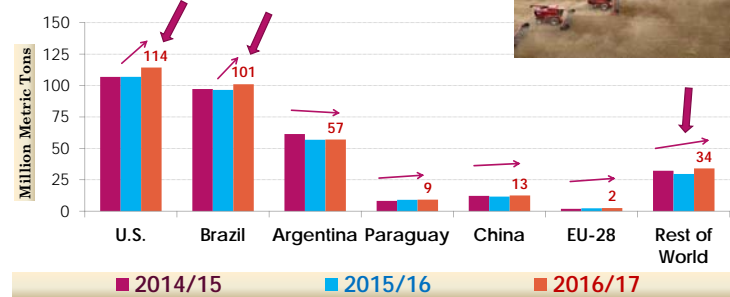
Monthly Crop Calendar for Soybeans

Country	USDA Prod Est. 16/17 Change	9/12/2016											
		Plant	Bloom	Harvest									
Ukraine	4.00 (0.00)	H	H										
EU	2.44 (0.01)	H	H	H	H								H
Russia	2.90 (0.00)	H	H	H	H								
US	114.33 (3.83)	H	H	H	H								
China	12.50 (0.30)	H	H	H	H								
Canada	5.83 (0.42)	H	H	H	H								
Indonesia	0.60 (0.00)	H	H	H	H								
Mexico	0.37 (0.00)	P	P	H	H	H	H	H	H	H	H		
India	9.70 (1.70)			H	H	H	H	H	H	H	H		
Paraguay	9.17 (0.00)			P	P	P	P	P	P	P	P		
Brazil	101.00 (2.00)			P	P	P	P	P	P	P	P		
Argentina	57.00 (0.00)			P	P	P	P	P	P	P	P		
South Africa	1.12 (0.00)			P	P	P	P	P	P	P	P		

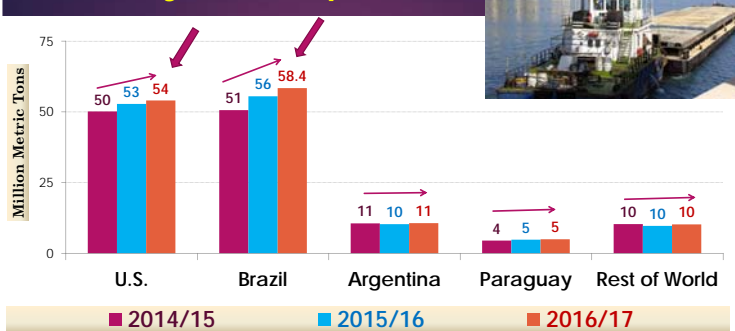
Source: USDA, AMIS, and CHS, Inc. locations
*Production estimates are in million metric tons and come from the FAS/USDA's most recent monthly World Agricultural Production report.

World Soybean Producers

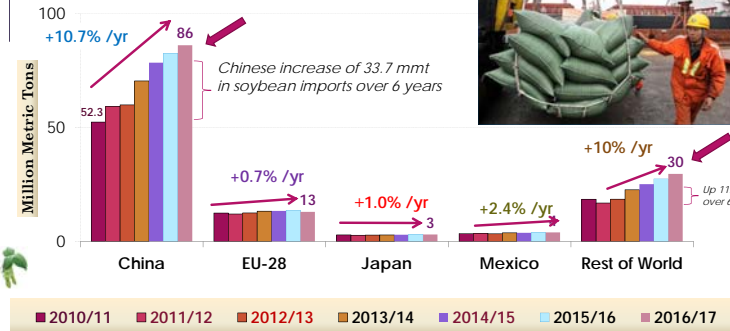
MY 2014/15 – MY 2016/17



World Soybean Exporters

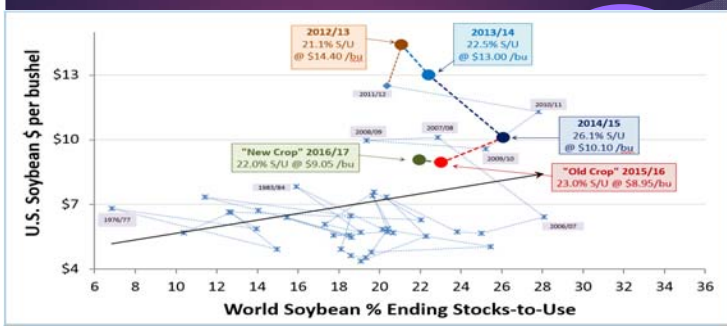


World Soybean Importers



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

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



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} = 1.950 bln bu (*record > 1.900 bb in MY 2015/16*)
 - **Exports**^{2016/17} = 1.985 bln bu (*record > 1.940 bb vs MY 2015/16*)
- Uncertainty re: 2017 South American soybean crop size

Questions?

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