

GENERAL SESSION IV
Grain Market Situation and Outlook

Dan O'Brien, Kansas State University

Daniel O'Brien was raised on a grain and livestock farm in south central Nebraska. He received bachelors and masters degrees in Agricultural Economics from the University of Nebraska-Lincoln. After completing his Ph.D. at Iowa State, he worked as the Extension Agricultural Economist at the Northwest Research and Extension Center in Colby and was Northwest Area Extension Administrative Director starting in 2003 before returning to his Extension Agricultural Economist position in January 2007. His ongoing extension and applied research interests and efforts are in the areas of a) grain market supply-demand analysis, bioenergy impacts and risk management strategies, b) grain industry market structure, conduct and performance – focusing on grain handling and transportation issues, and c) economic analysis of irrigated and dryland cropping systems, and associated cropland leasing arrangements.

Abstract/Summary

The focus of this "Grain Market Outlook for 2016-2017" session will be on key supply-demand factors that are driving U.S. and Kansas corn, grain sorghum, wheat, and soybean markets at this current time – and the likelihood of alternative market supply-demand and price outcomes for major 2016 Kansas crops over the next 12-18 months. Key issues addressed will include: a) the time periods and seasonal market factors to be aware of in making grain marketing decisions for "current year" 2016 and "next year's" 2017 crops; b) the magnitude of changes in World wheat, feedgrain, and soybean supply-demand that would have to happen to cause a recovery to occur in the U.S. grain market prices; c) the degree and length of time that large stocks of grains in Kansas elevators are likely to impact Kansas cash grain markets – especially local grain basis levels; and d) the crop revenue outlook for major Kansas crops in the 2016/17 marketing year.

Grain Market Outlook & Strategies for 2016 - 2017

2016 KSU Risk & Profit Conference, Manhattan, Kansas

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EXTENSION AGRICULTURAL ECONOMIST

KANSAS STATE
UNIVERSITY

Department of Agricultural Economics



Key Grain Market Decisions & Issues for Kansas Farmers & Agribusinesses

- 1) Marketing the 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.....

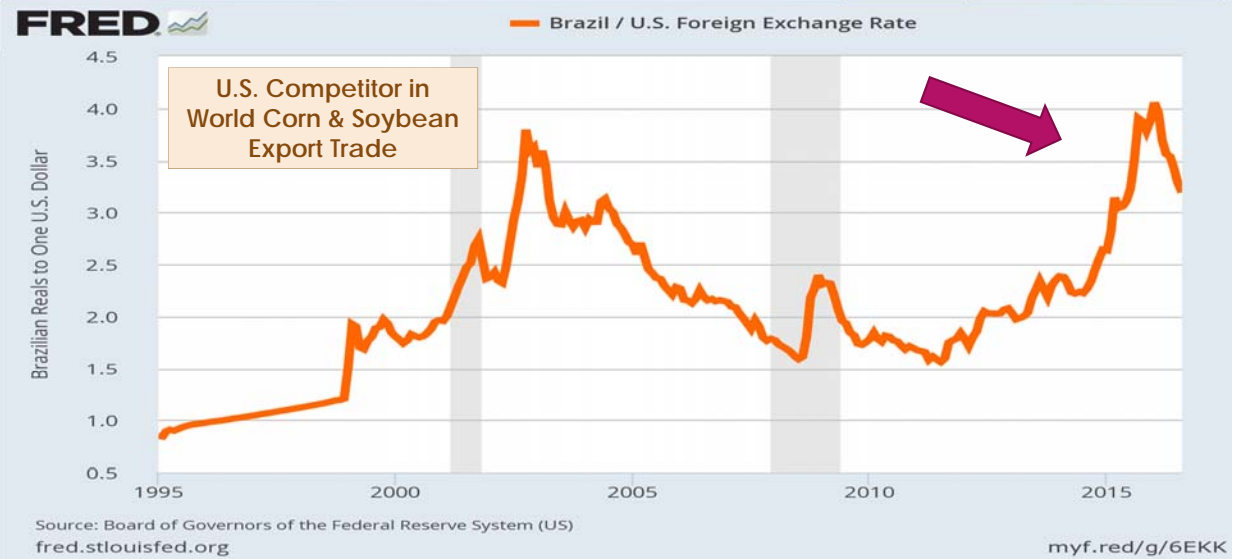
- 1) **The Overall Grain Market Situation** – Kansas, U.S., & World
- 2) **Currency Exchange Rate** impacts on U.S. Grain Exports
- 3) **Market Outlook** for Corn, Sorghum, Wheat & Soybeans
- 4) **“Market Risks & Opportunities”** – *What is expected to happen in 2016-2017 & what could change (& when)*

U.S. Dollar Index (ICE Futures)

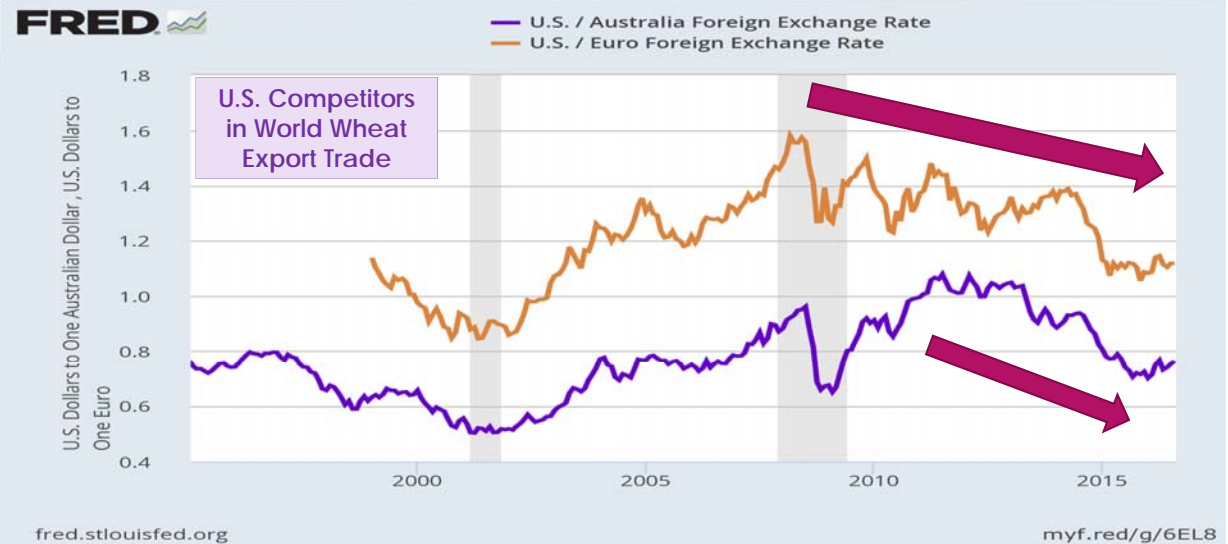
Monthly Chart: June 2007 – July 2016 + 8/18/2016



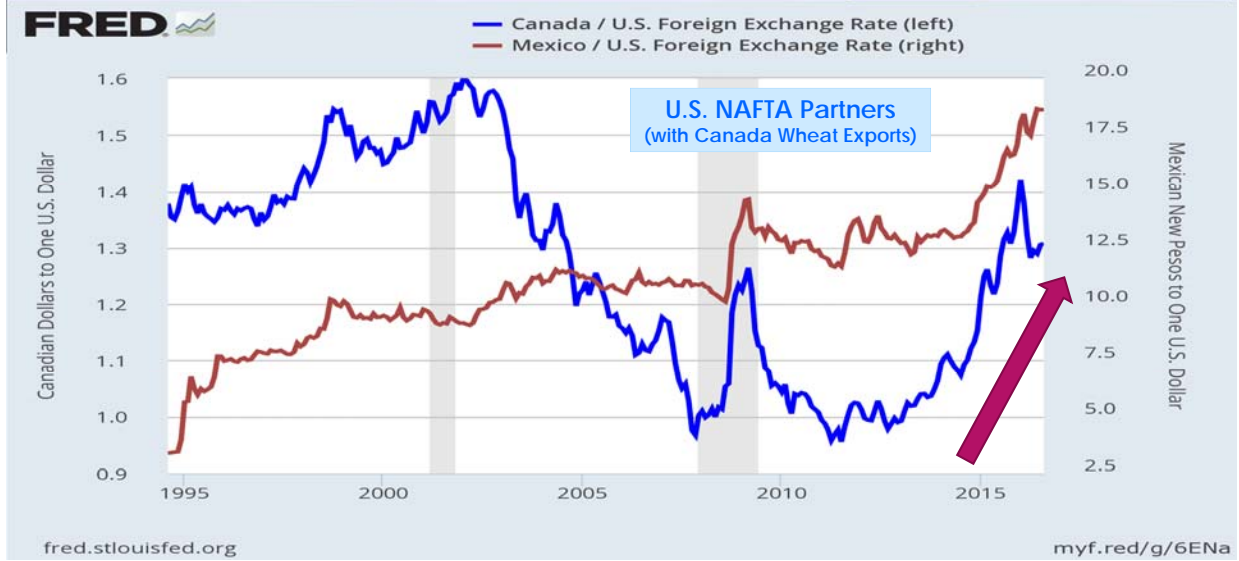
Brazil Reals to One U.S. Dollar - Monthly



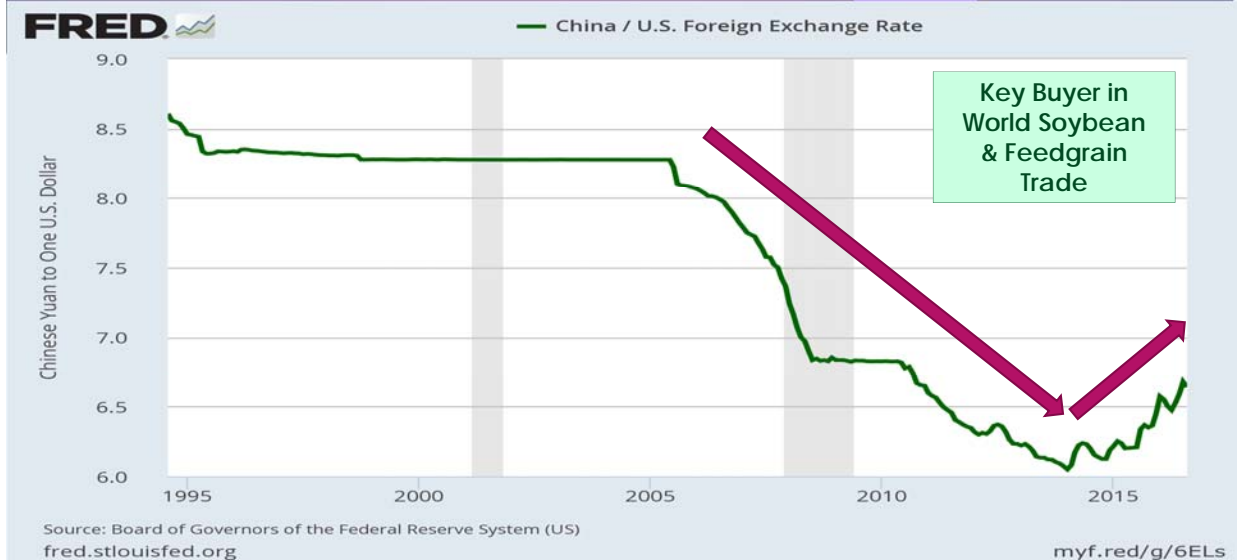
Euro & Australia Currency per U.S. Dollar



Canada & Mexico Exchange Rates - Monthly



China Currency per U.S. Dollar - Monthly



Corn & Sorghum Markets



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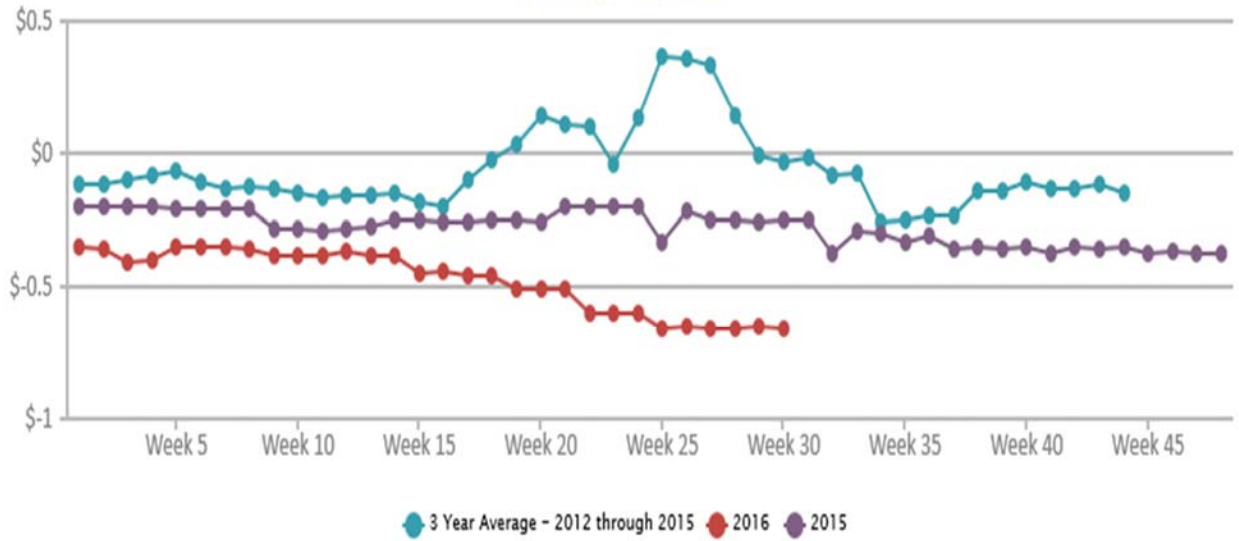
CME Corn Futures

Weekly Chart: June 2007 – July 2016 + 8/18/2016



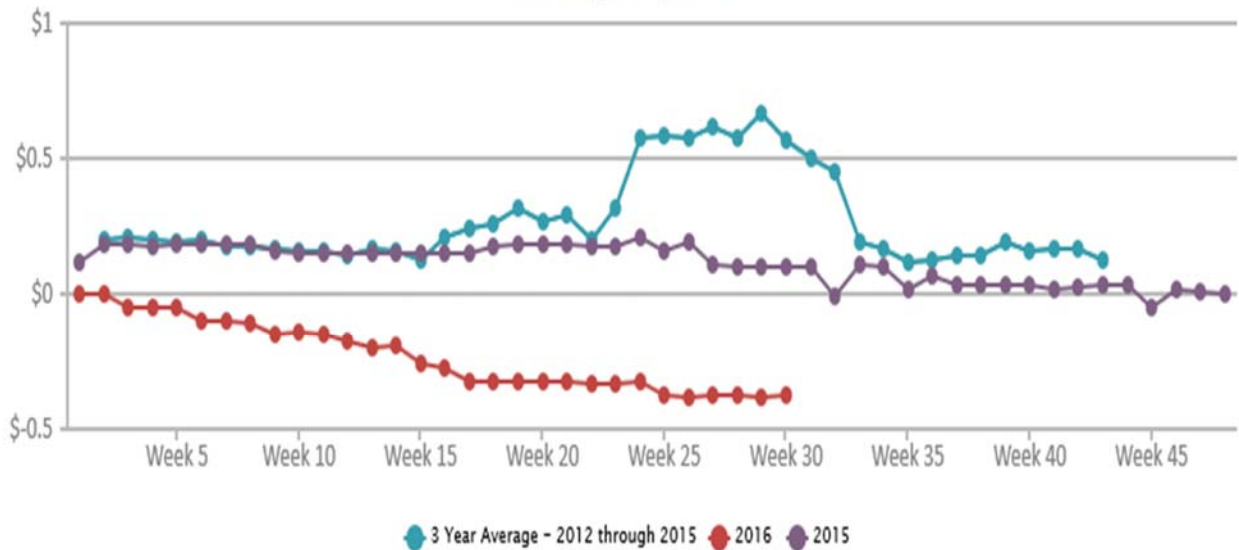
SALINA, KS: Corn Basis - CARGILL

www.AgManager.info



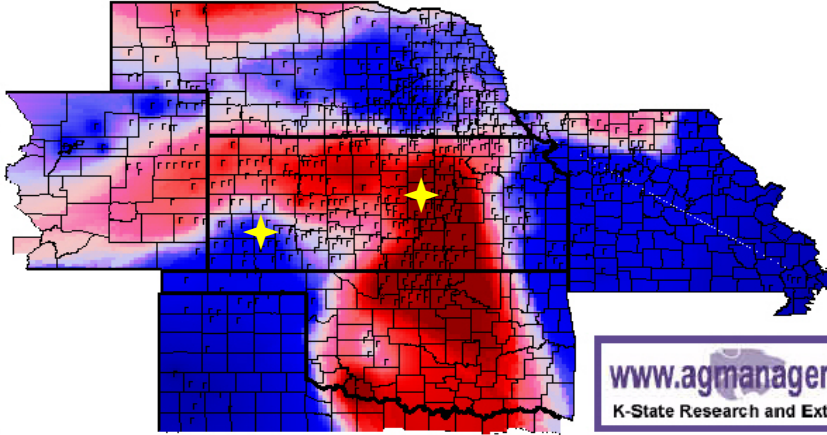
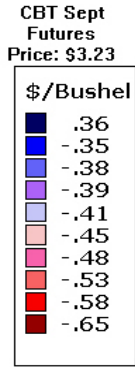
GARDEN CITY, KS: Corn Basis - GARDEN CITY COOP

www.AgManager.info



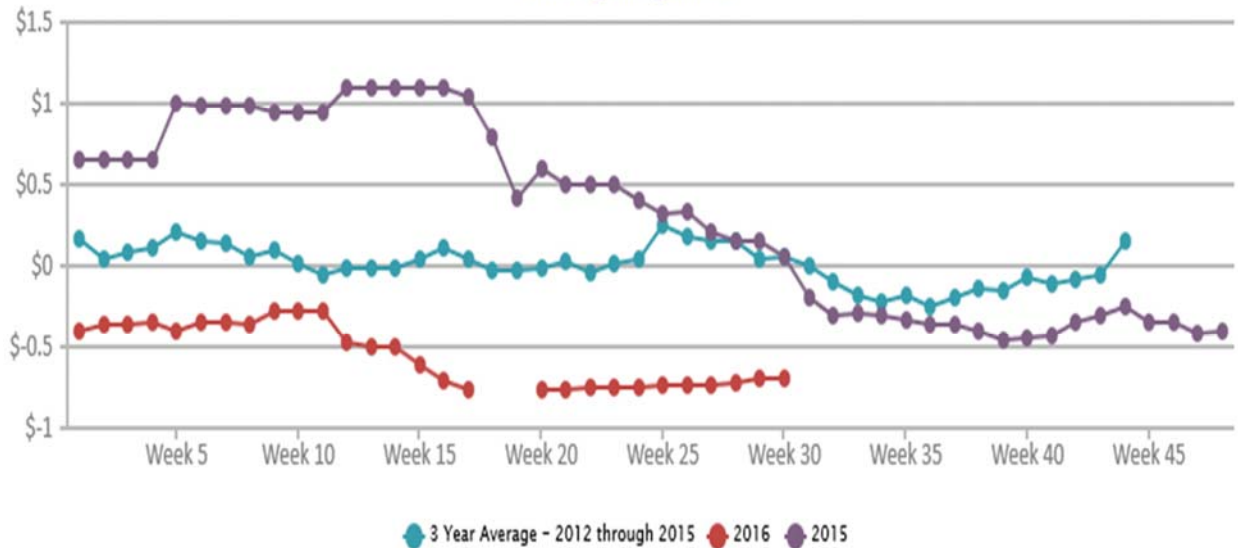
Corn Basis, 08-10-2016

Basis = Cash Price - Nearby Futures Price



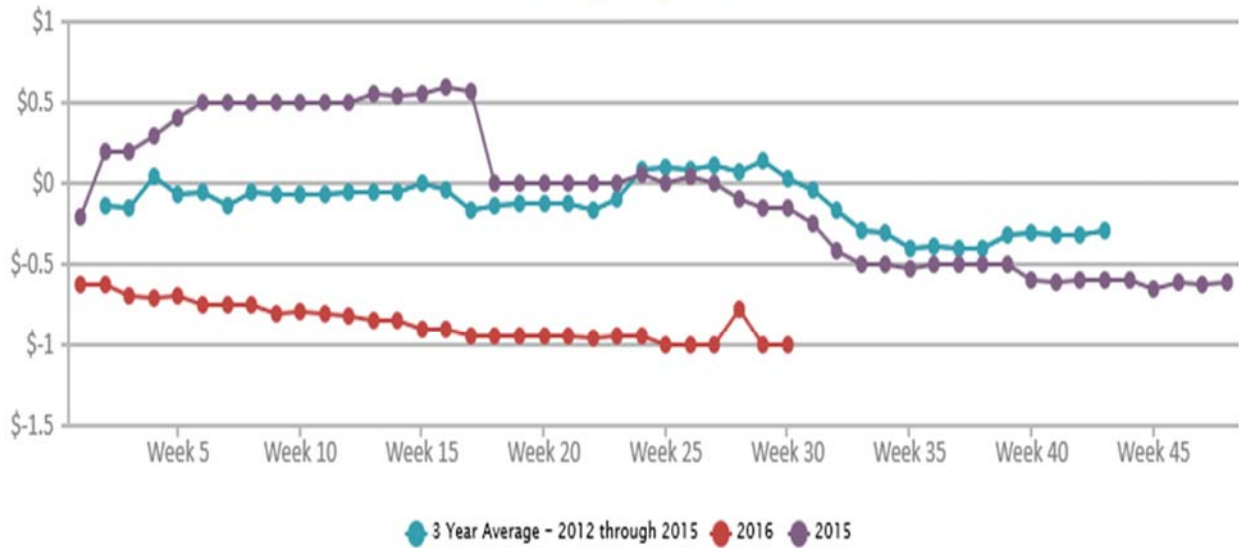
SALINA, KS: Grain Sorghum Basis - CARGILL

www.AgManager.info



GARDEN CITY, KS: Grain Sorghum Basis - GARDEN CITY COOP

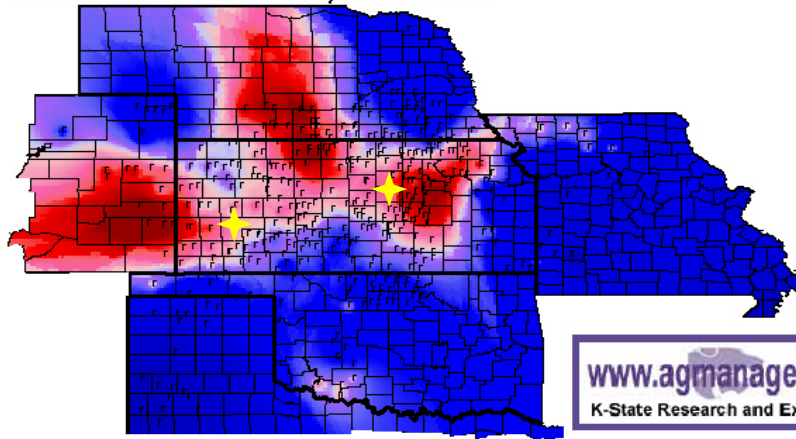
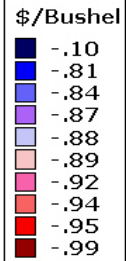
www.AgManager.info



Grain Sorghum Basis, 08-10-2016

Basis = Cash Price - Nearby Futures Price

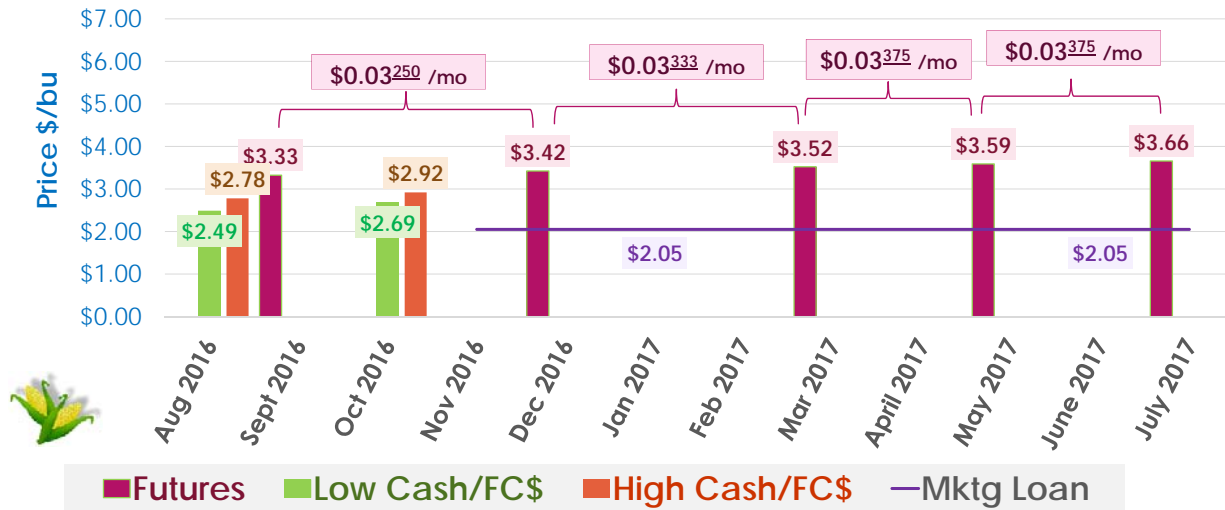
CBT Corn
Sept Futures
Price: \$3.23



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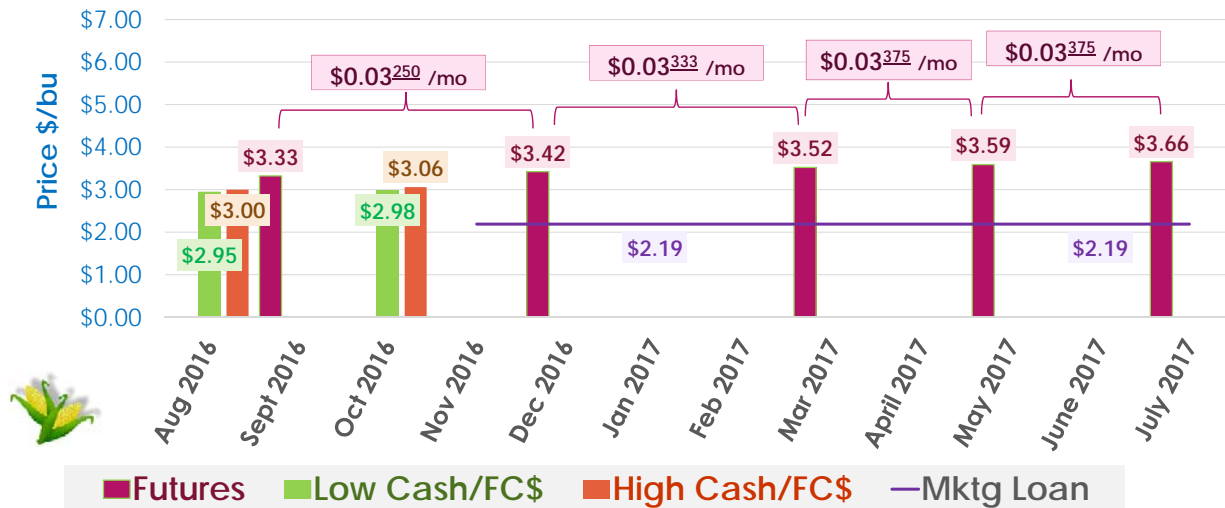
Corn Cash & Futures Prices - Salina

Salina, Kansas Local Elevators - August 18, 2016



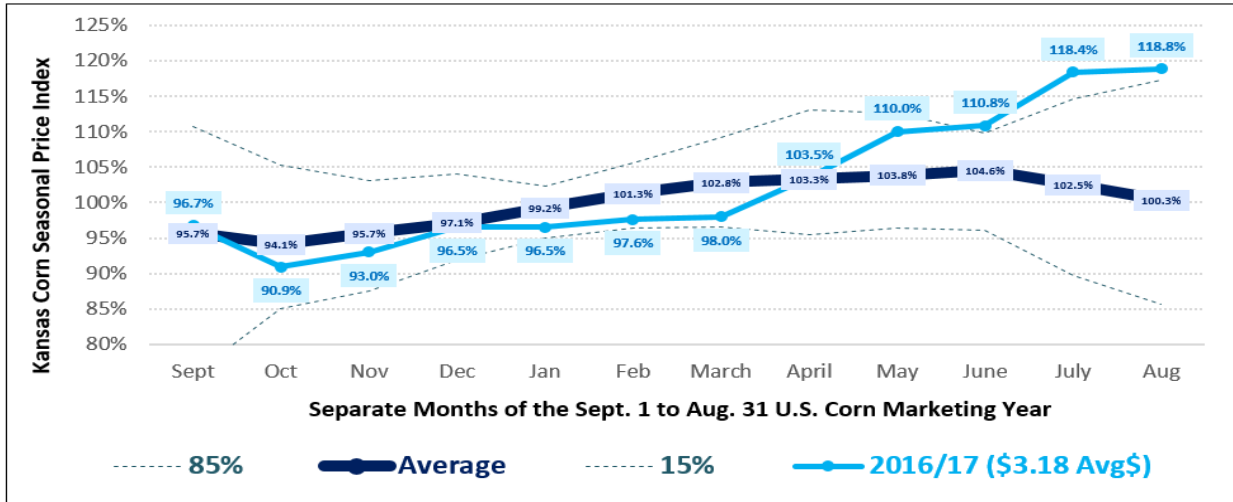
Corn Cash & Futures Prices - Garden City

Garden City, Kansas Local Elevators - August 18, 2016



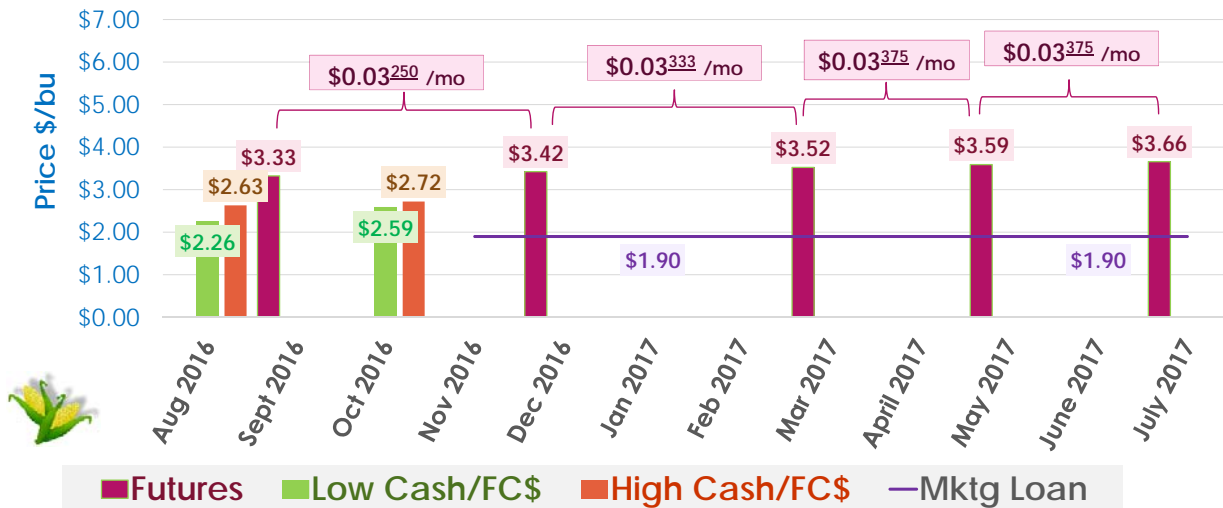
Kansas Corn Seasonal Cash \$ Index

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



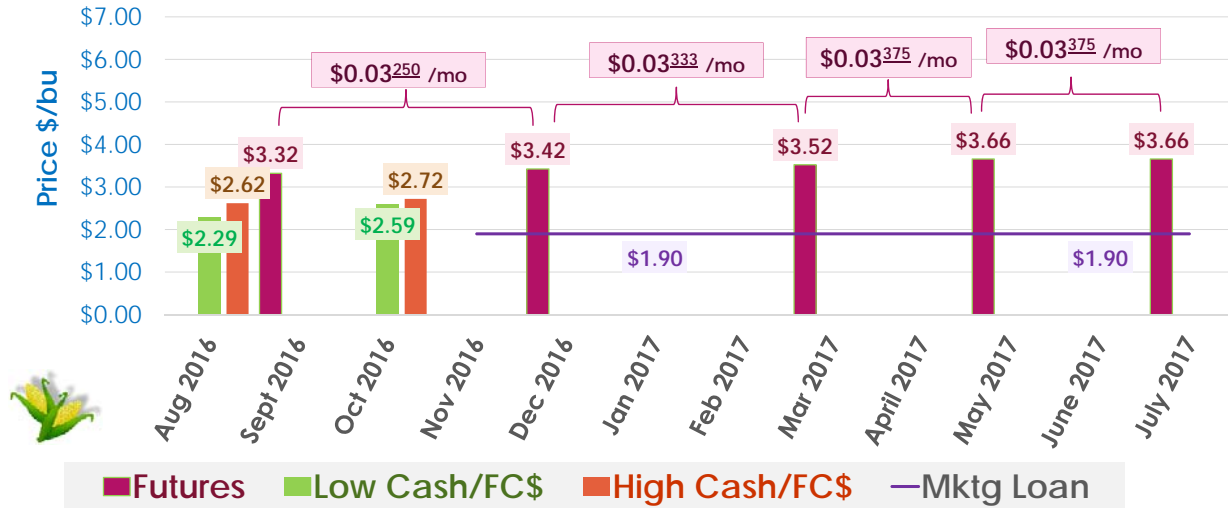
Sorghum Cash & Corn Futures – Salina

Salina, Kansas Local Elevators August 18, 2016

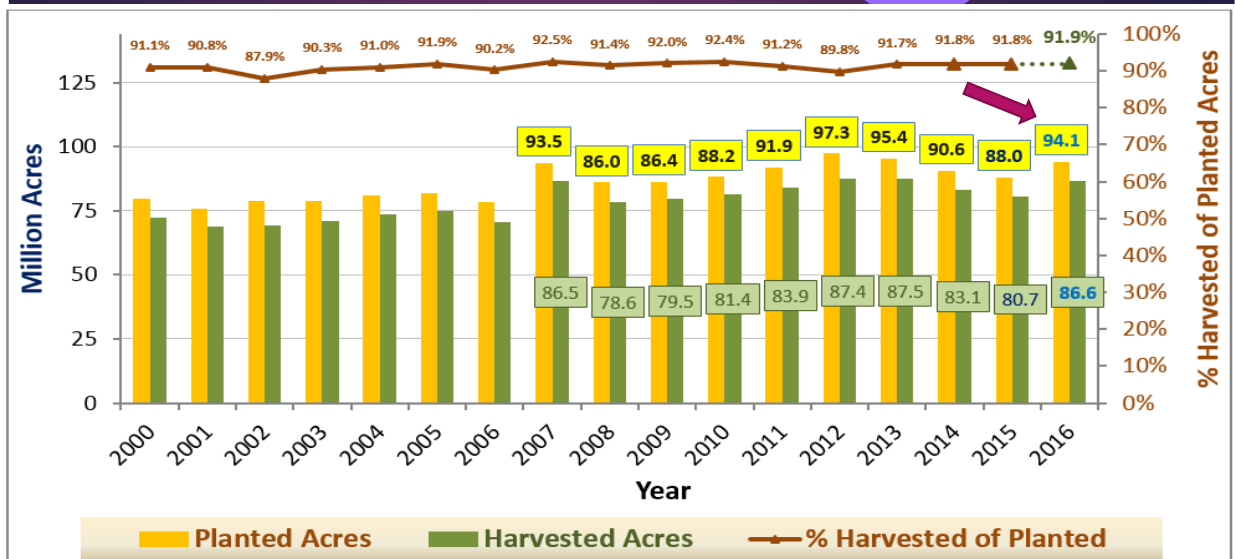


Sorghum Cash & Corn Futures – Garden City

Garden City, Kansas Local Elevators August 18, 2016

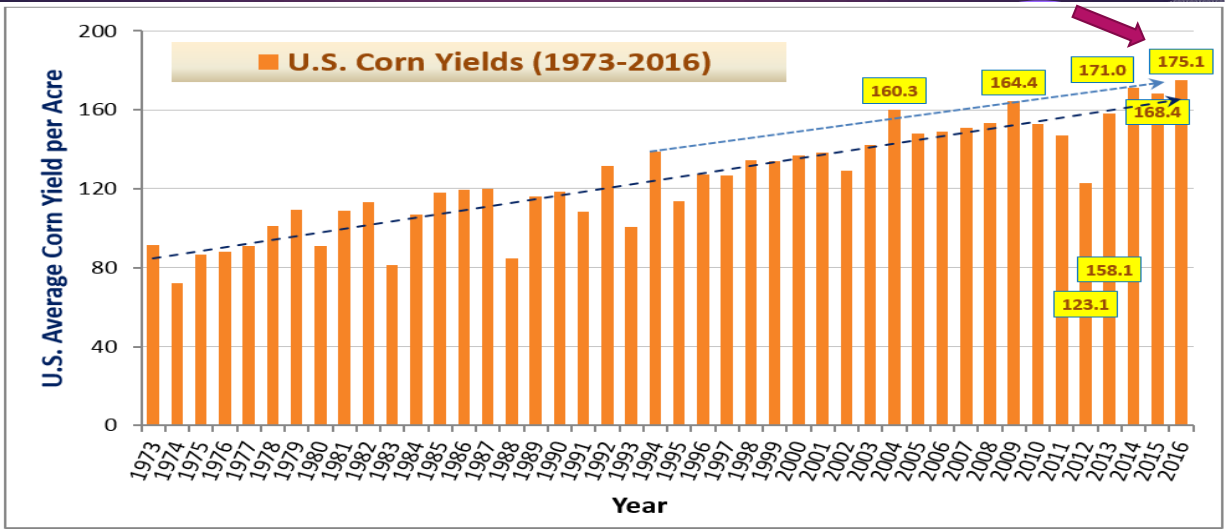


U.S. Corn Acreage

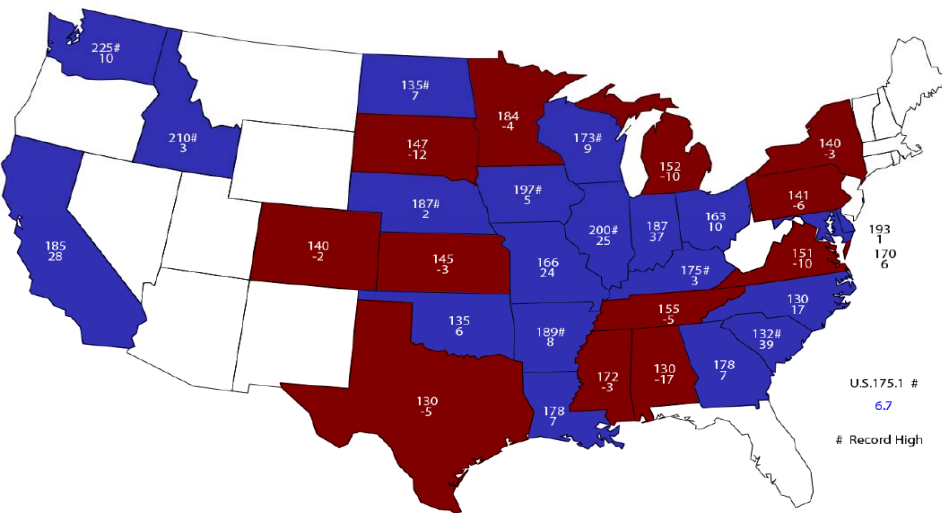


U.S. Corn Yields

USDA 2016 USDA Forecast = 175.1



August 1, 2016 Corn Yield Bushels and Change From Previous Year



U.S. 175.1 #

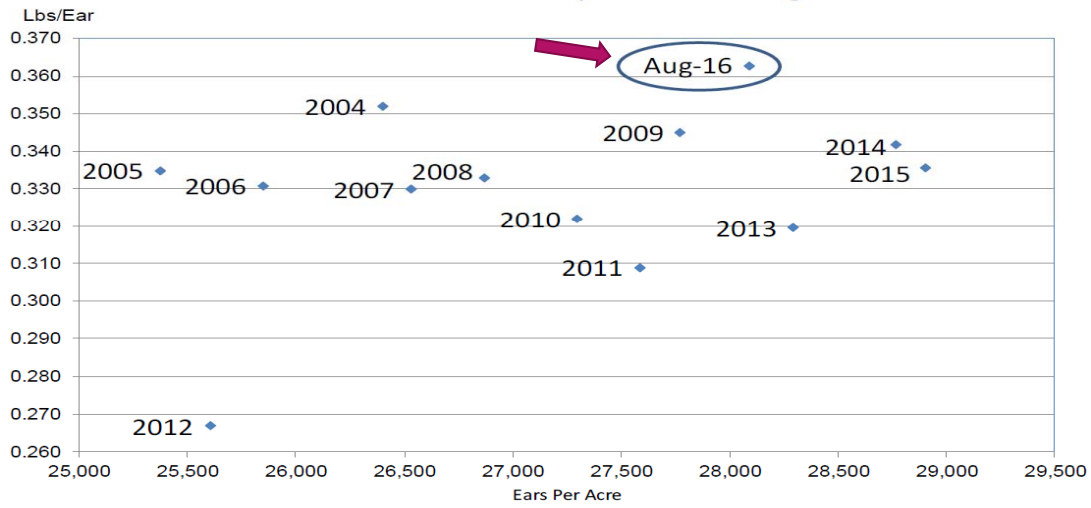
6.7

Record High

USDA-NASS
8-12-16



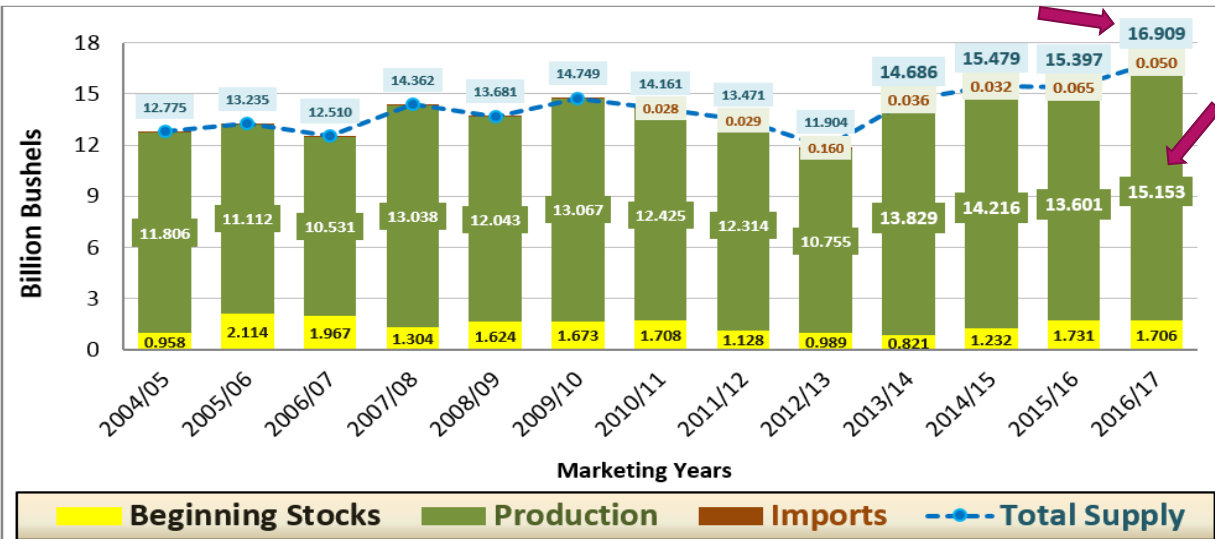
Corn Objective Yield Region Ears Per Acre vs. Implied Ear Weight



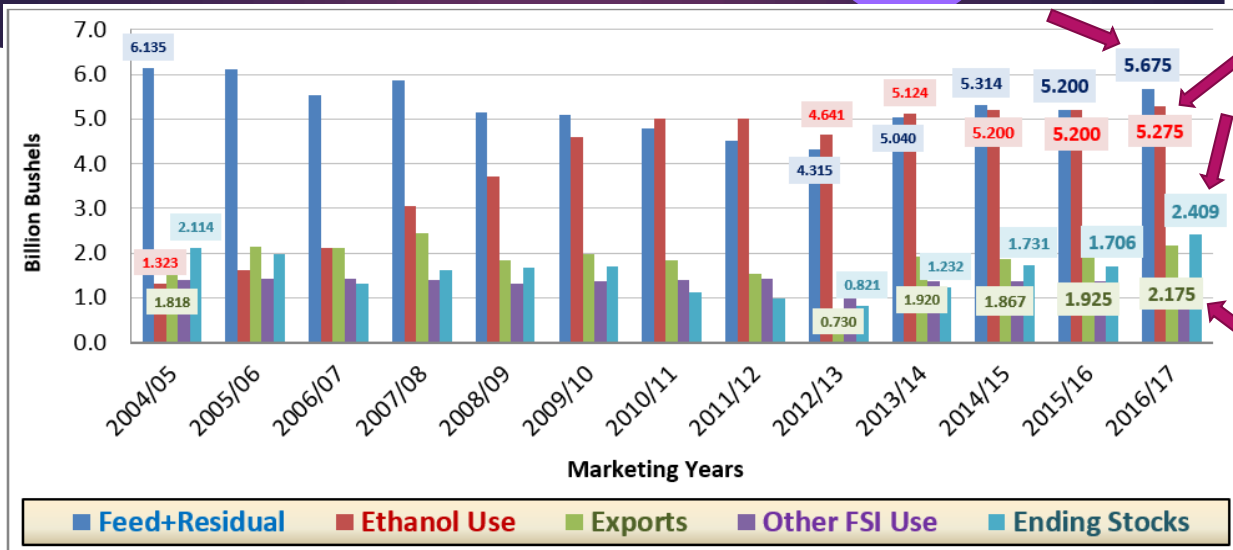
Implied Ear Weight = (Published Yield * 56) / Ears

USDA-NASS
8-12-16

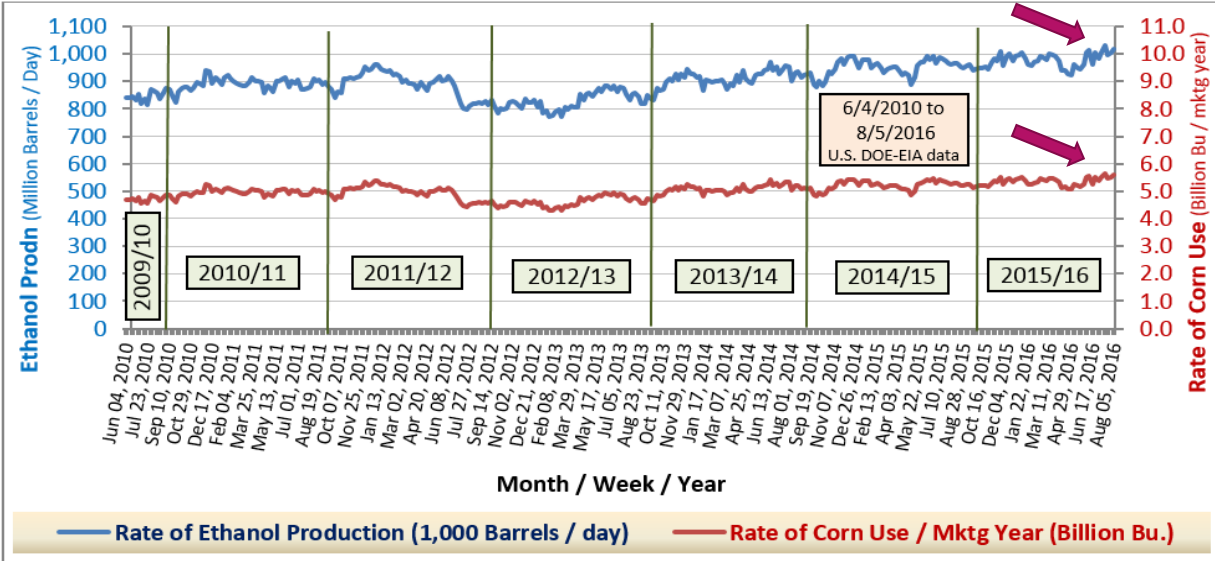
U.S. Corn Production & Supplies



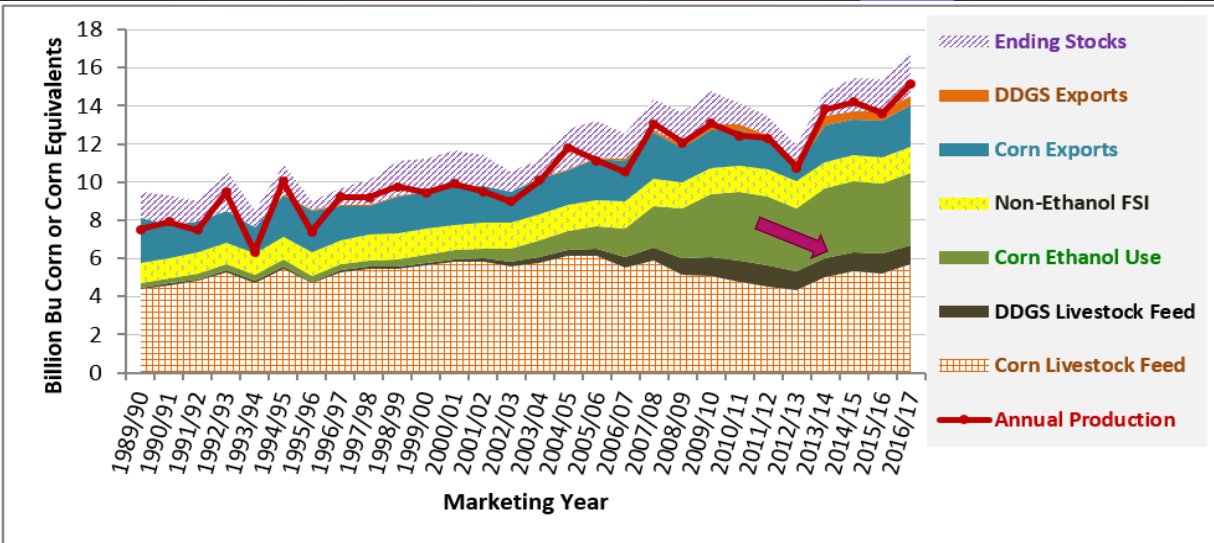
U.S. Corn Use - By Category



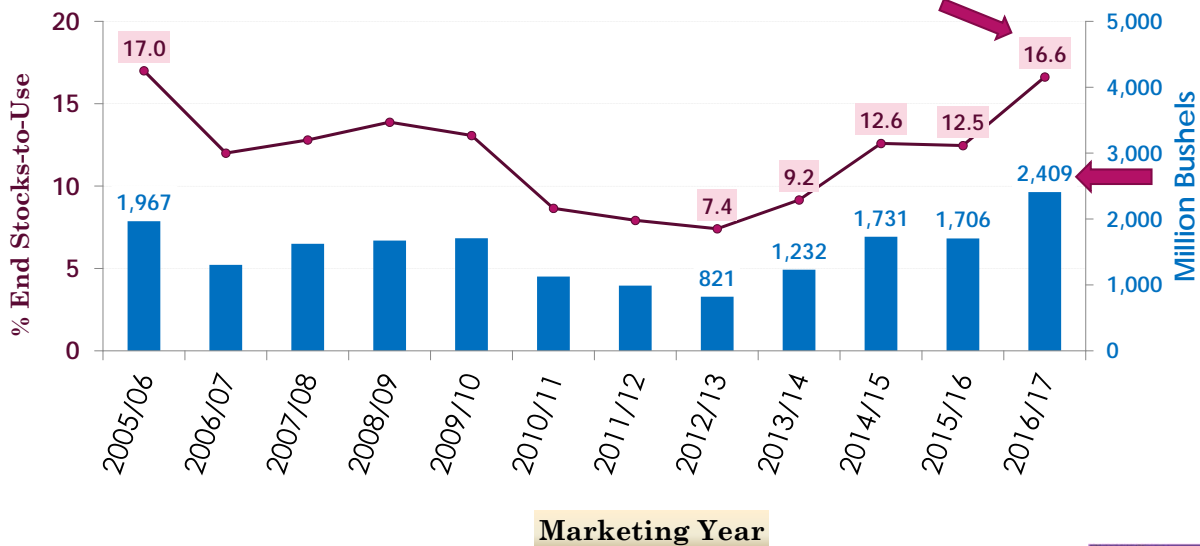
U.S. Ethanol Production & Corn Use



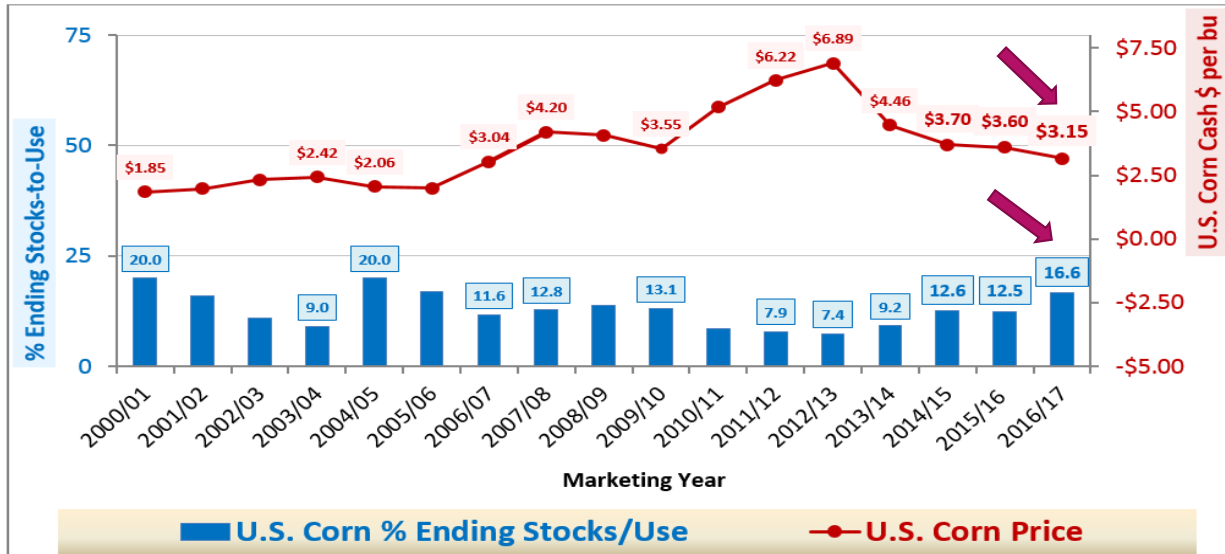
U.S. Corn Use - With DDGS #s



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

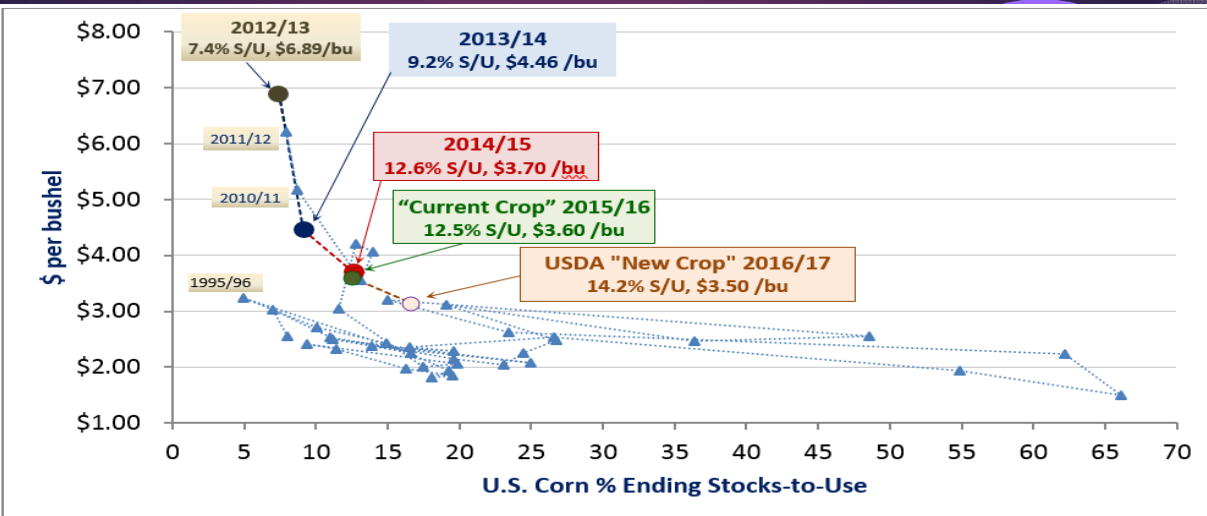


U.S. Corn % Stocks/Use vs Price\$

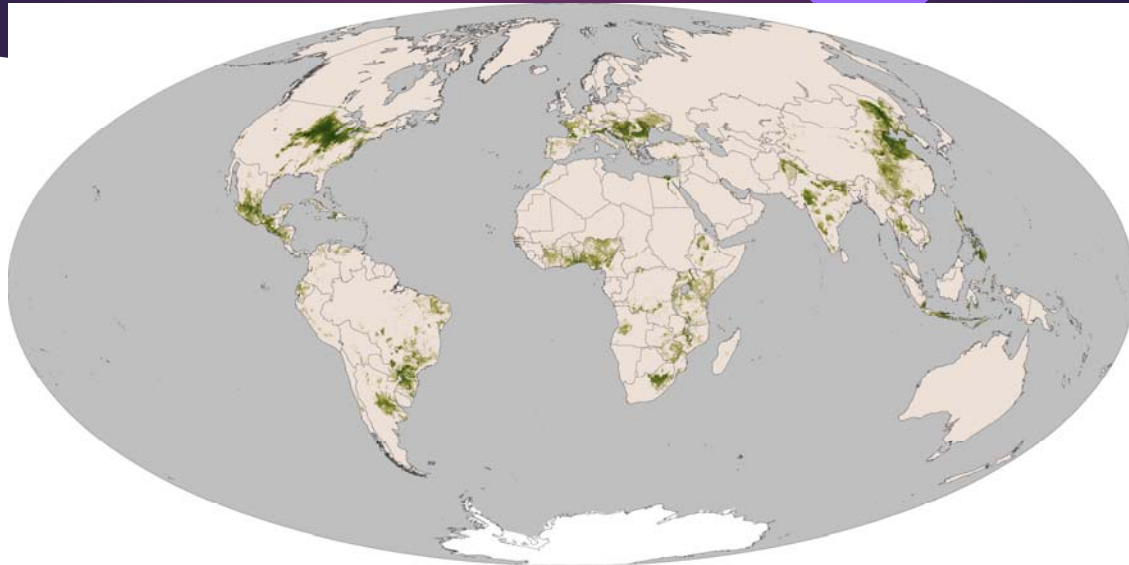


U.S. Corn Price\$ vs U.S. % Stocks-to-Use

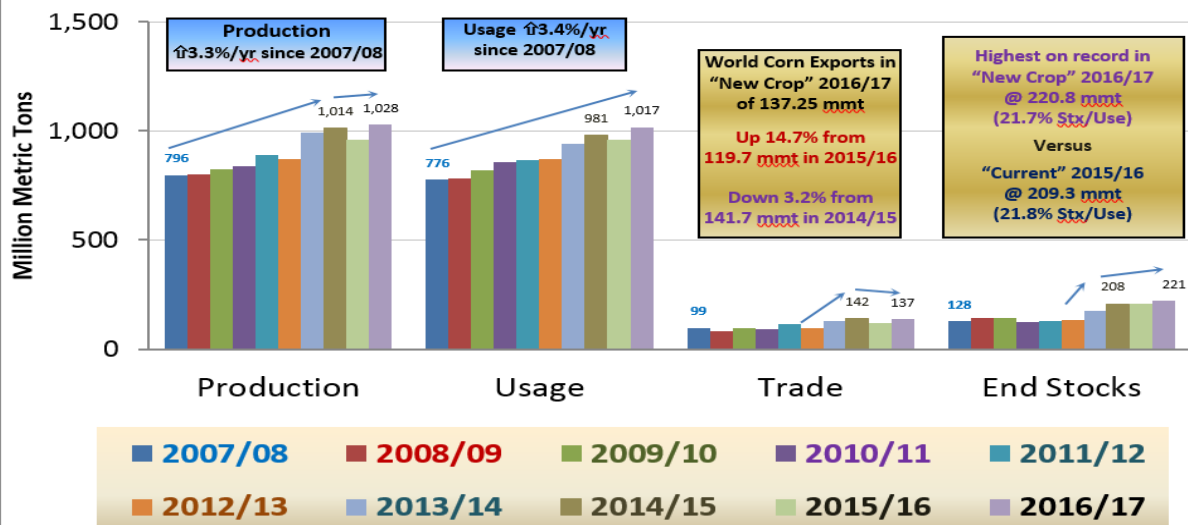
MY 1973/74 through "New Crop" MY 2016/17



World Corn (Maize) Production Regions

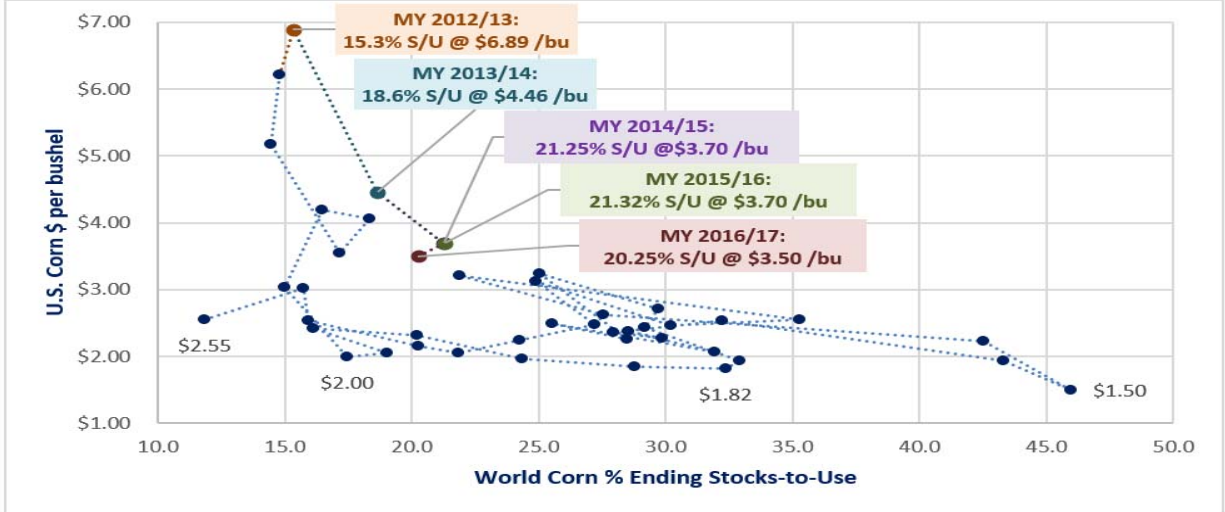


World Corn Supply, Use & Stocks

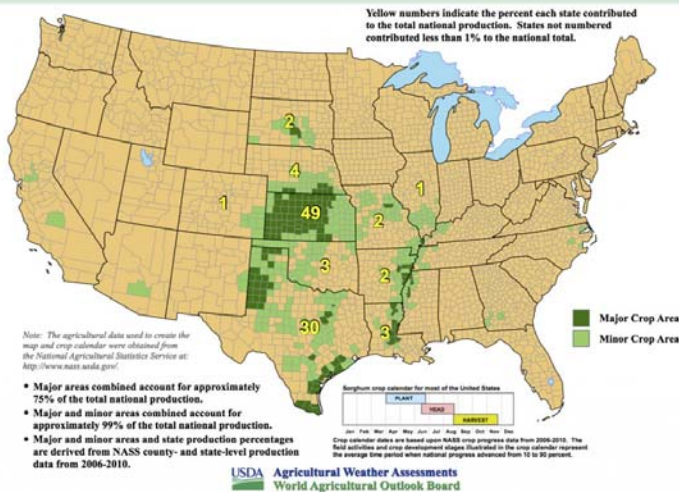


U.S. Corn Price \$ vs World % Stocks-to-Use

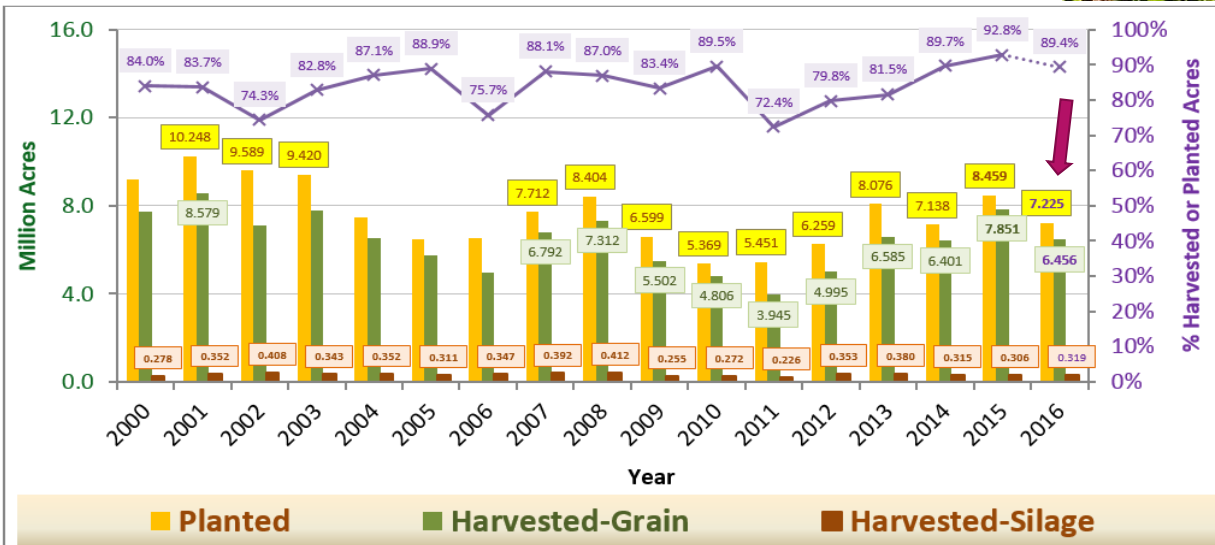
MY 1973/74 through "New Crop" MY 2016/17



United States: Sorghum

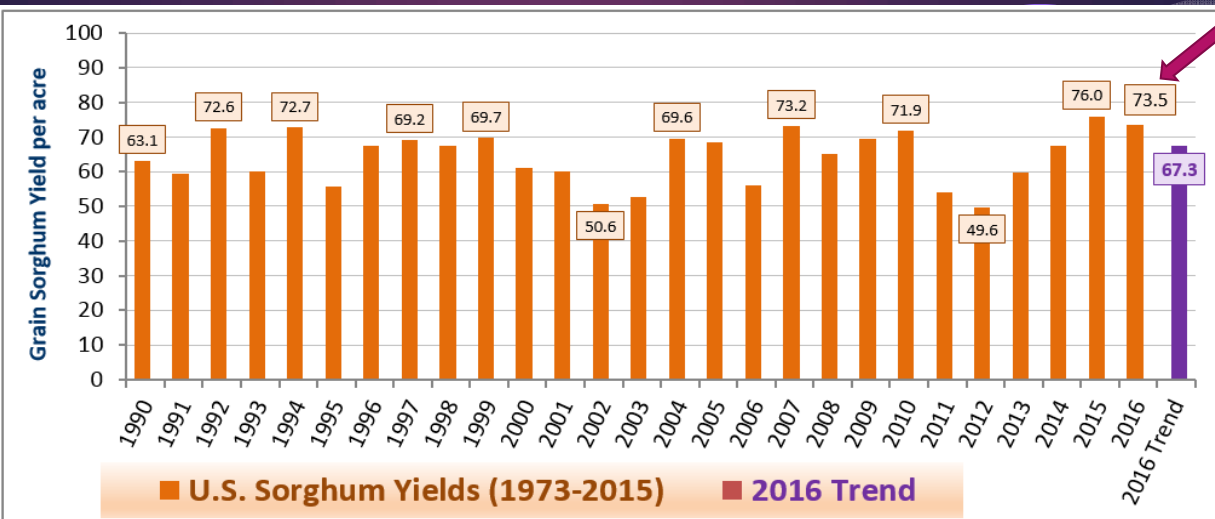


U.S. Sorghum Acreage

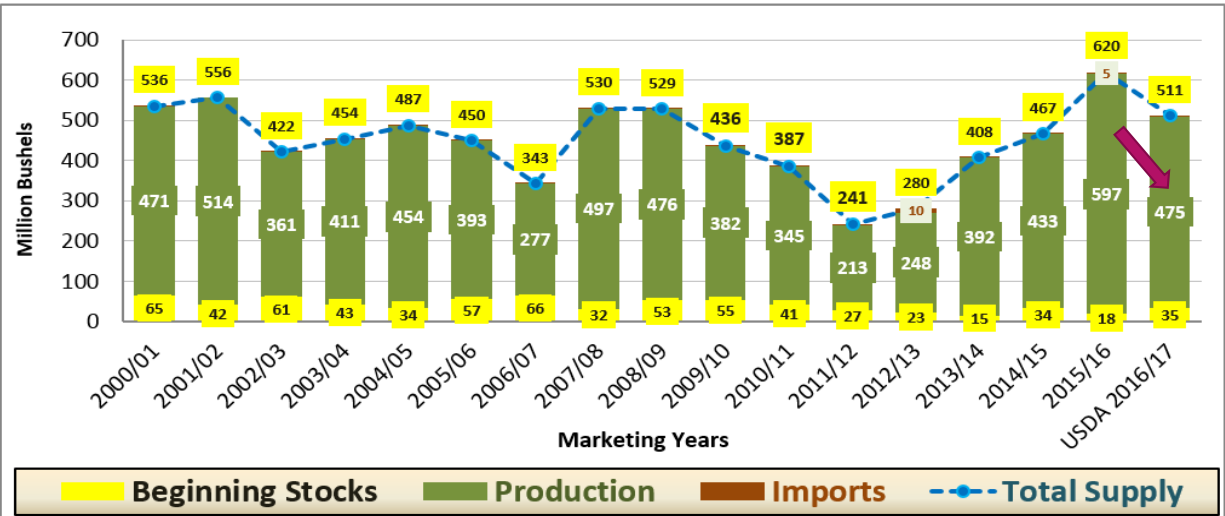


U.S. Sorghum Yields

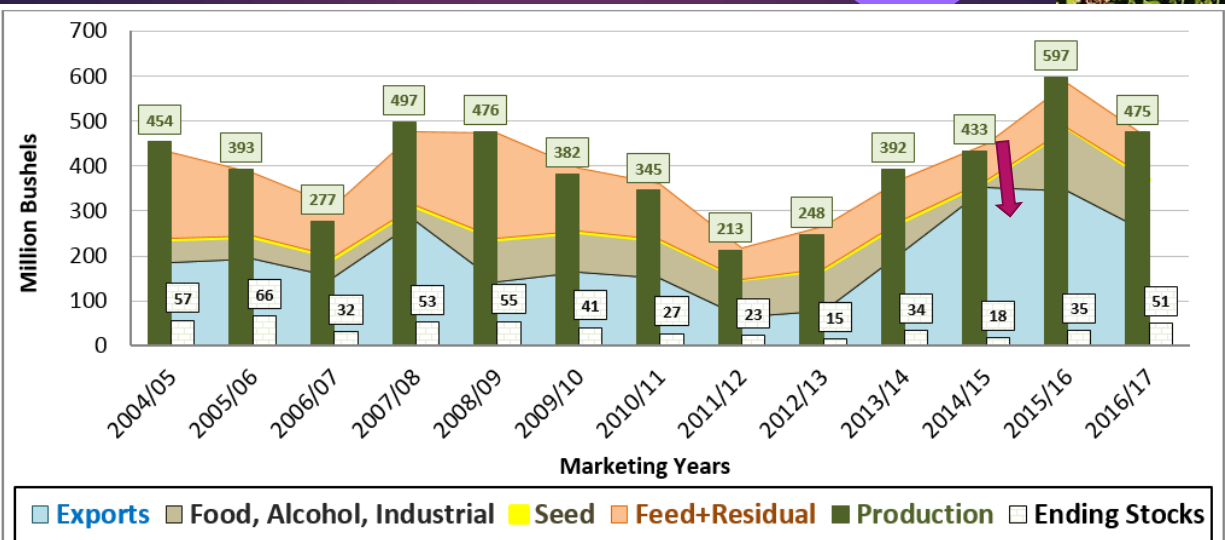
USDA 2016 USDA Forecast = 67.3



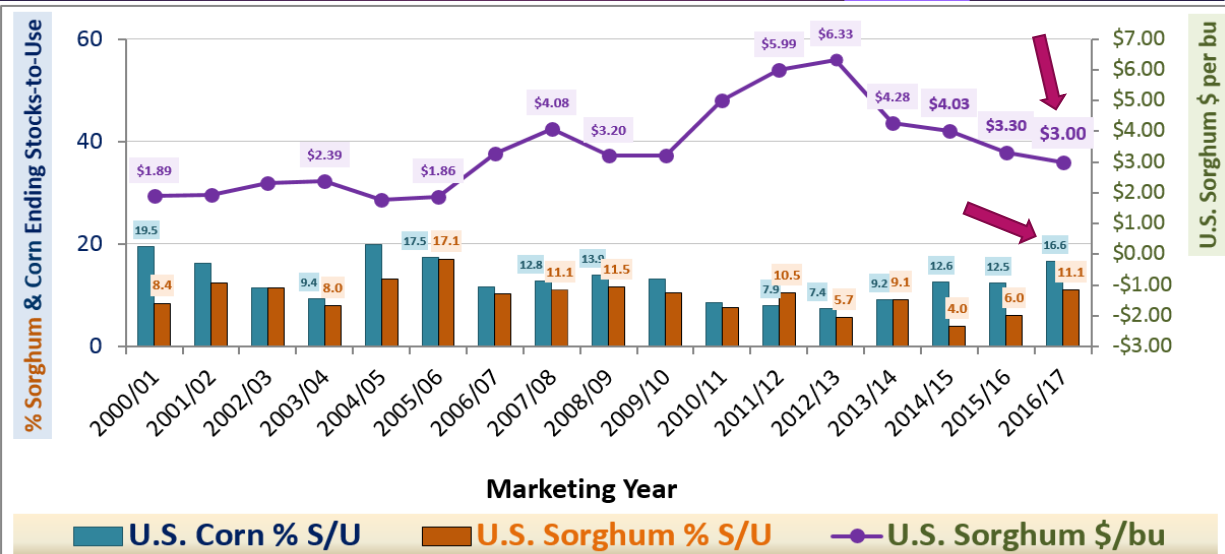
U.S. Sorghum Production & Supplies



U.S. Sorghum Use - By Category



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



U.S. Feedgrain Market Prospects:

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

- Record large World & U.S. feedgrain supplies
- Low Corn Prices have supported U.S. domestic use
 - Livestock Feed^{2016/17} = 5.675 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 built "demand" from China "run"

Monthly Crop Calendar for Corn

1/12/2016

	USDA Prod Est.		Plant		Silk		Harvest							
	15/16	Change	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EU	57.75	0.00				P	P	P	P		H	H	H	H
US	345.49	(1.33)					P	P	P	S	S	S		
Mexico Summer	23.50	0.00	H	H	H	H	H						H	H
Ukraine	23.50	0.50				P	P	P		S	S		H	H
Russia	13.00	(0.50)					P	P		S	S		H	H
China	224.58	(0.42)					P	P	P	P			H	H
Indonesia Dry Region	9.60	0.00					P	P	P	P	H	H	H	H
Philippines Main	7.80	0.00	P	P	P	P	H	H	H	H	H	H		
Canada	13.60	0.00					P	P	P	P	S	S	H	H
India	21.00	0.00	H	H					P	P	P	P	H	H
Brazil 1st crop	81.50	0.00	H	H	H	H	H	H					H	H
Argentina	25.60	0.00	S	S		H	H	H	H				H	H
Philippines 2nd Crop			H	H	H	H							H	H
South Africa	8.00	(4.00)	P	S	S			H	H	H	H	H	H	H
Mexico Winter			P	P	P	P	P	H	H	H	H	H		
Brazil 2nd crop				P	P	P		H	H	H	H	H	H	H
Indonesia Rainy Region				P	P	P	P	P	P				H	H
Nigeria	7.00	0.00			P	P	P	P	P	P	H	H	H	H

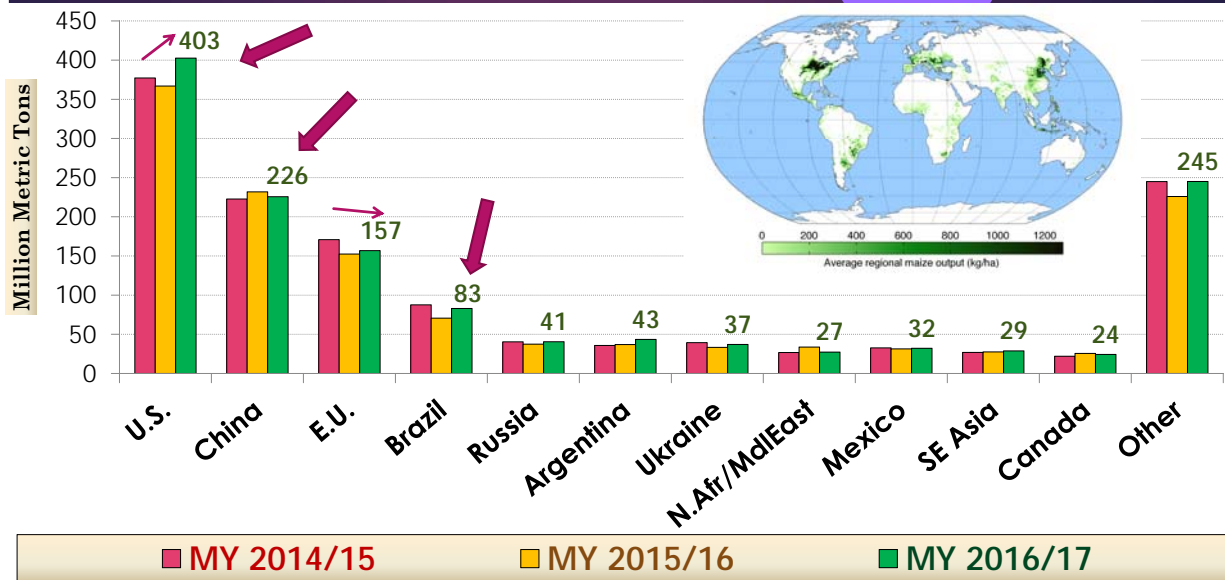


Sources: USDA, AMIS, and CHS, Inc. locations

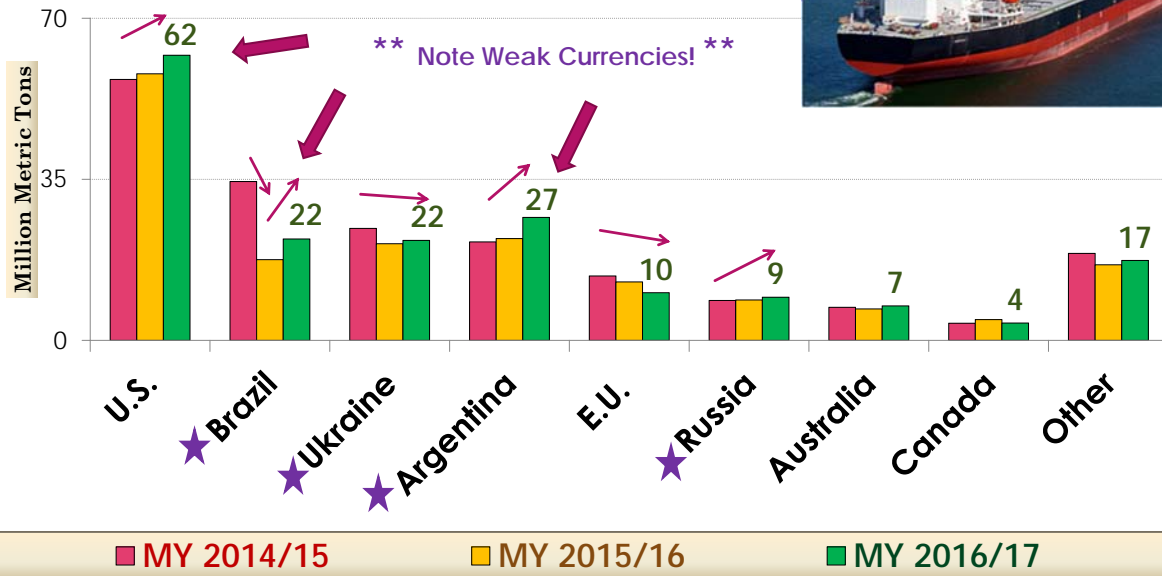
*Production estimates are in million metric tons and come from the FAS/USDA's most recent monthly World Agricultural Production report.

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

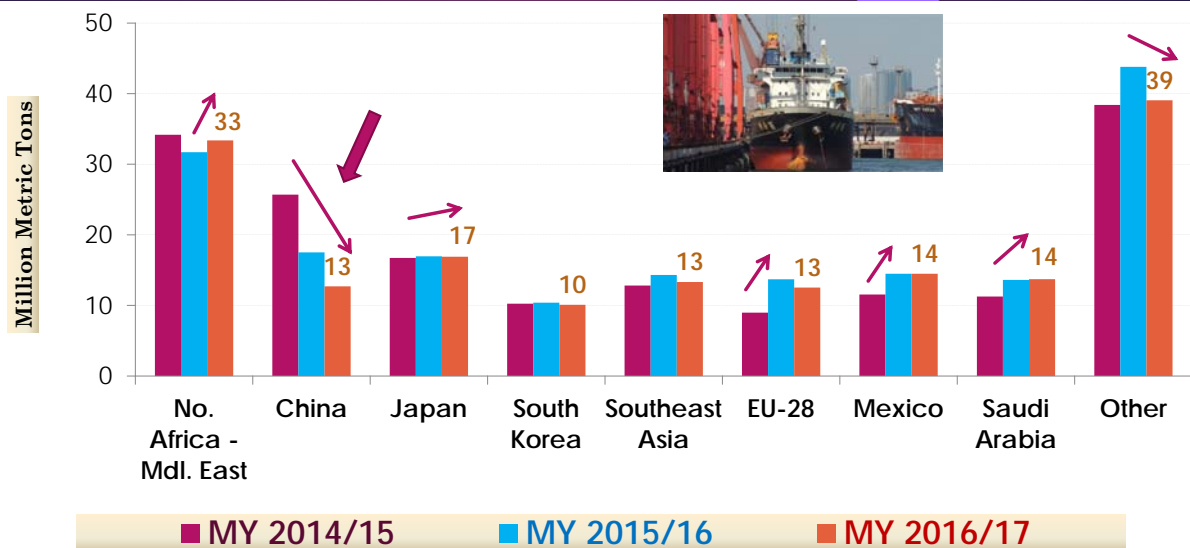
World Coarse Grain Production



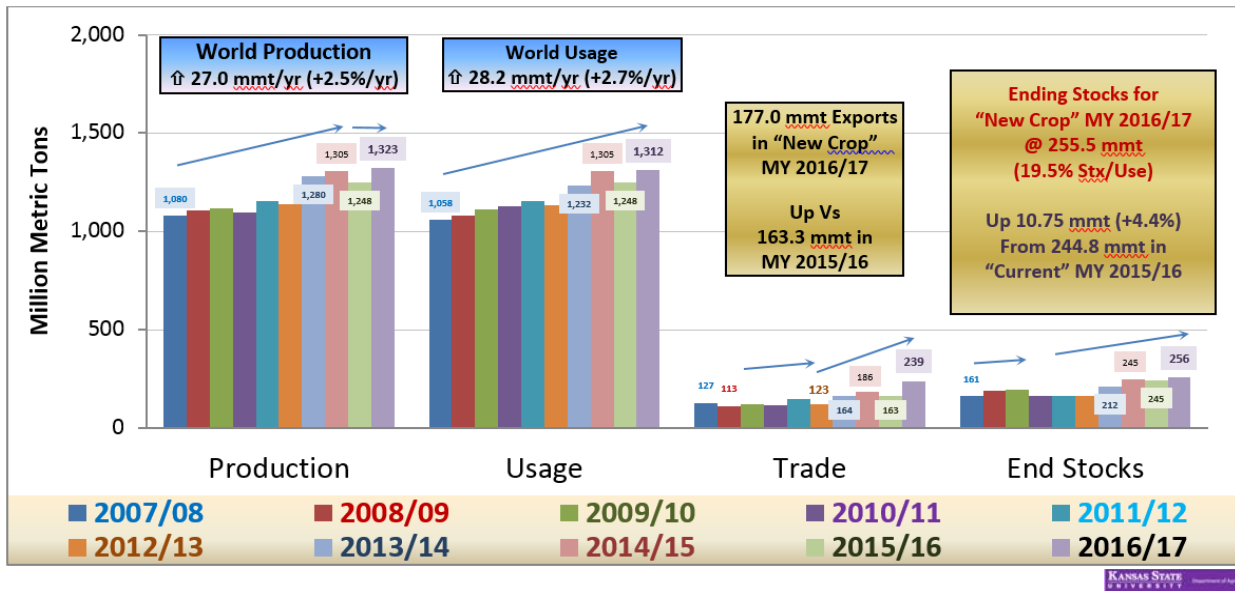
Coarse Grain Exporters



Coarse Grain Importers

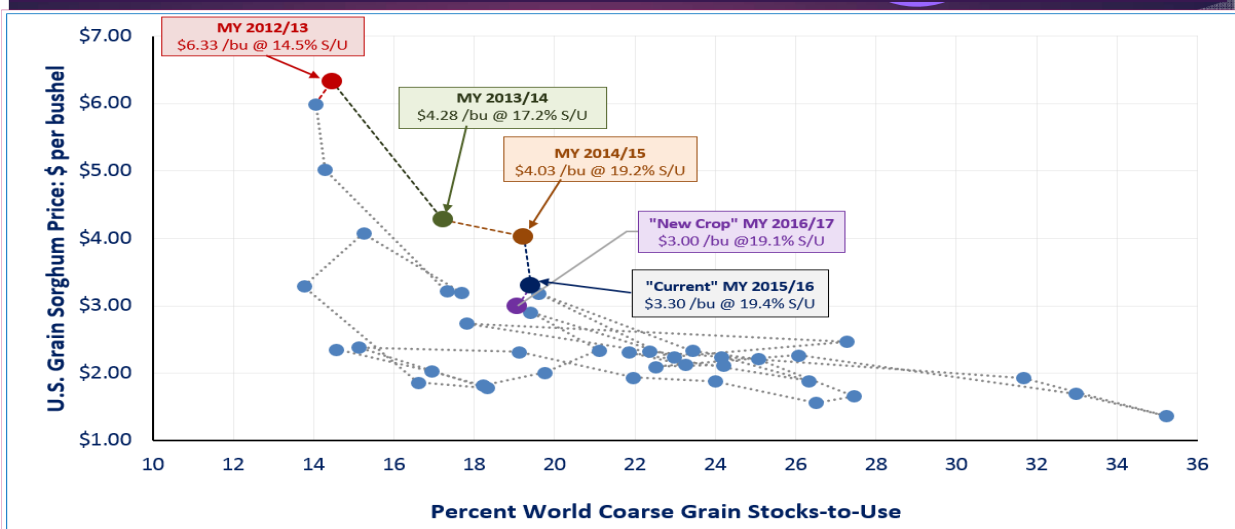


World Coarse Grain Supply, Use & Stocks



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

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



Wheat Markets



KANSAS STATE UNIVERSITY Department of Agricultural Economics

CME Kansas Hard Red Winter Wheat

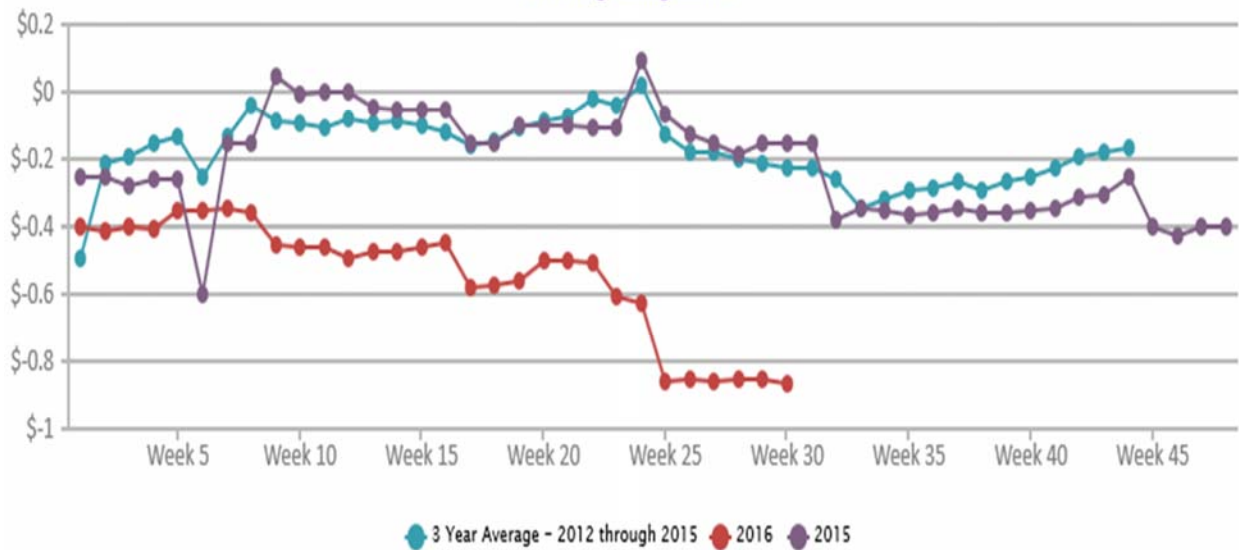


Monthly Chart: June 2007 – July 2016 + 8/18/2016



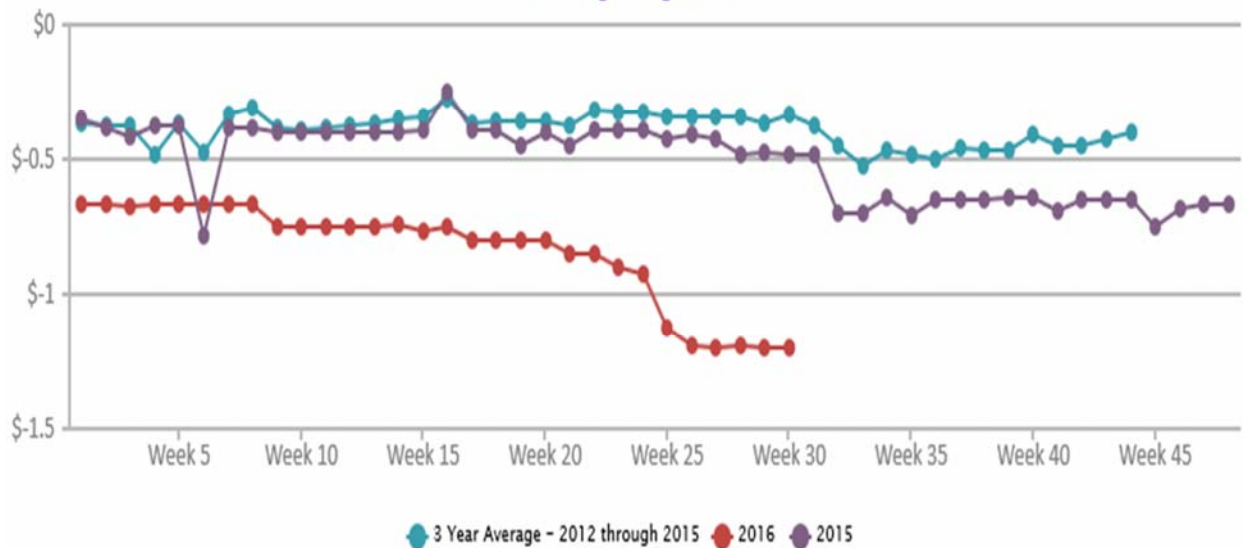
SALINA, KS: Hard Red Winter Wheat Basis - CARGILL

www.AgManager.info



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

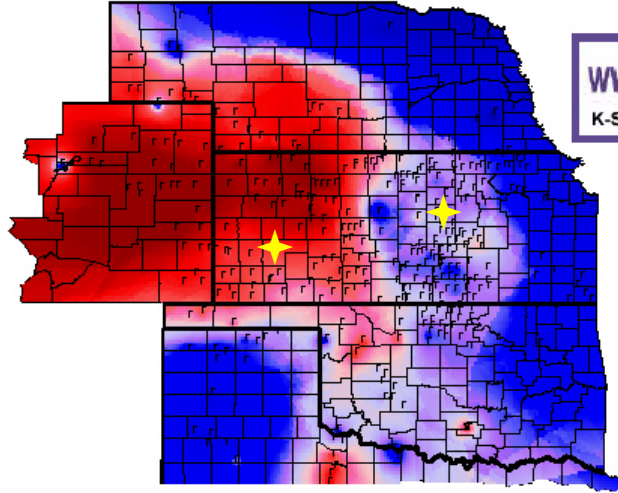
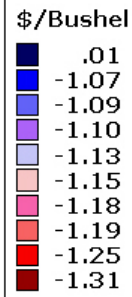
www.AgManager.info



Wheat Basis, 08-10-2016

Basis = Cash Price - Nearby Futures Price

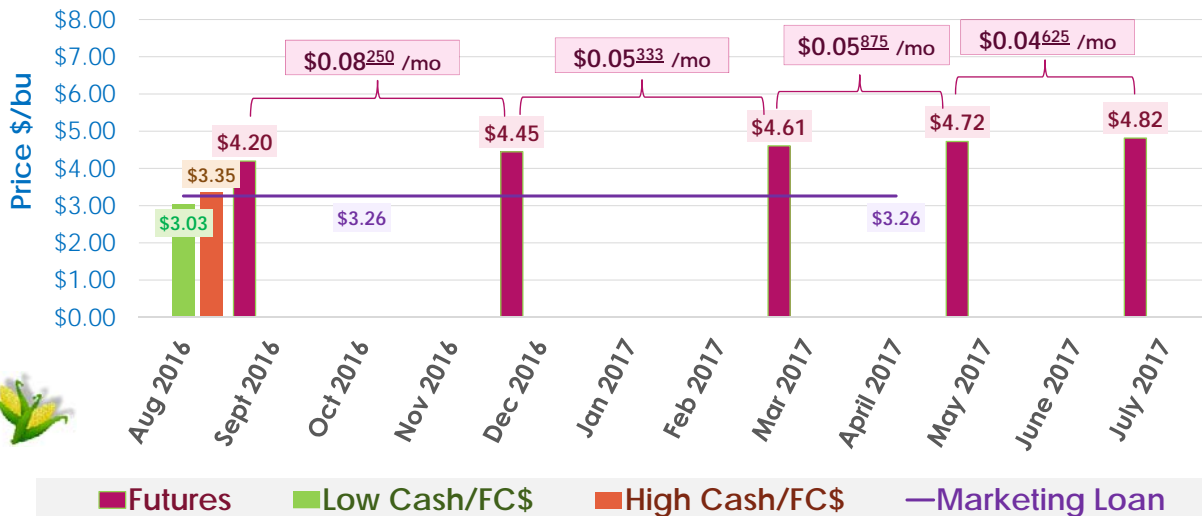
KCBT Sept
Futures
Price: \$4.12



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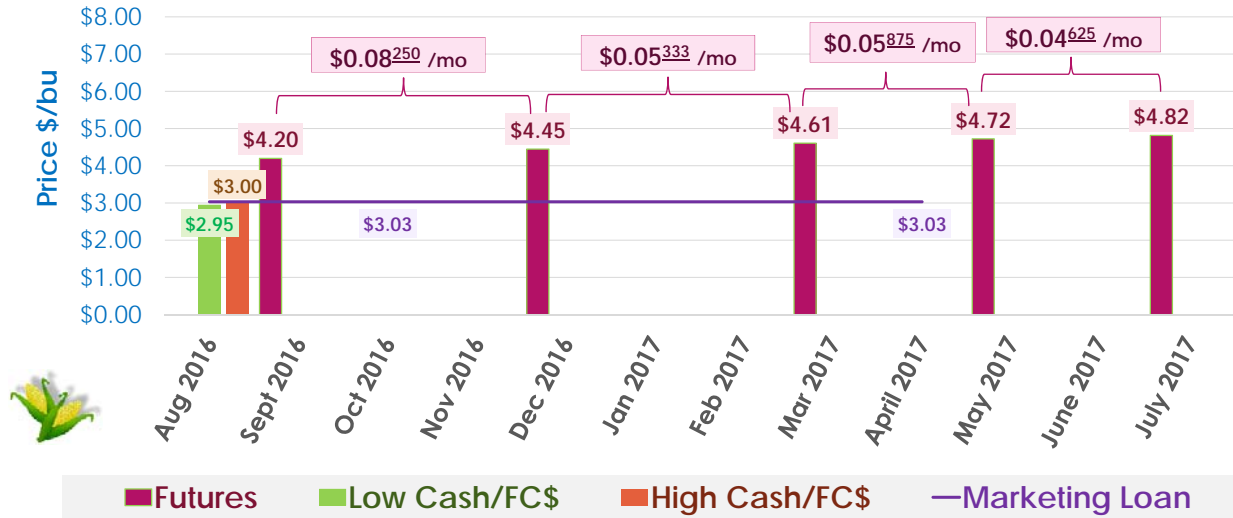
Wheat Cash & HRW Wheat Futures - Salina

Salina, Kansas Local Elevators - August 18, 2016



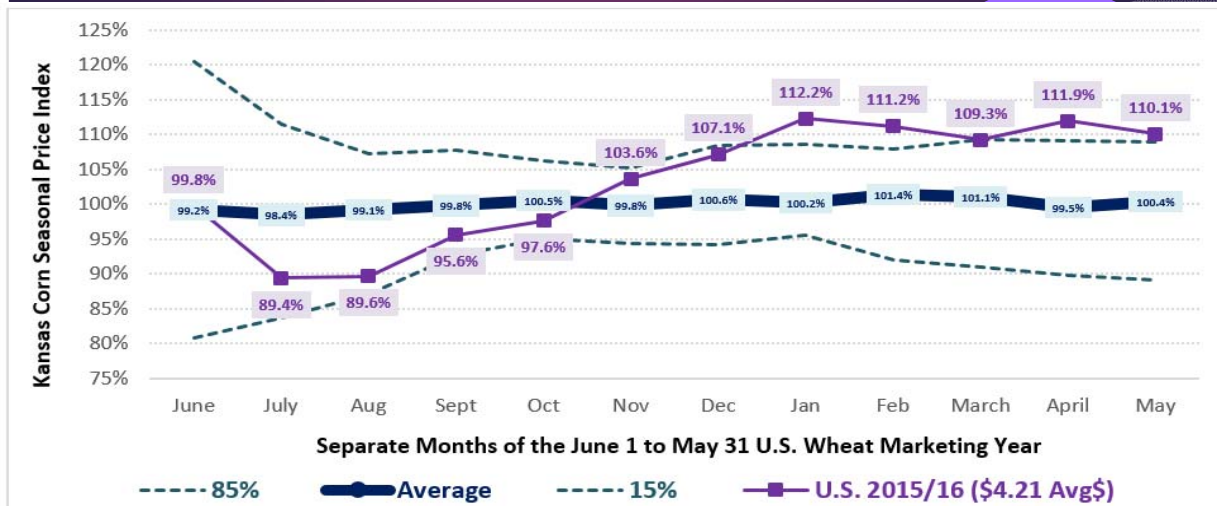
Wheat Cash & HRW Wheat Futures

Garden City, Kansas Local Elevators - August 18, 2016

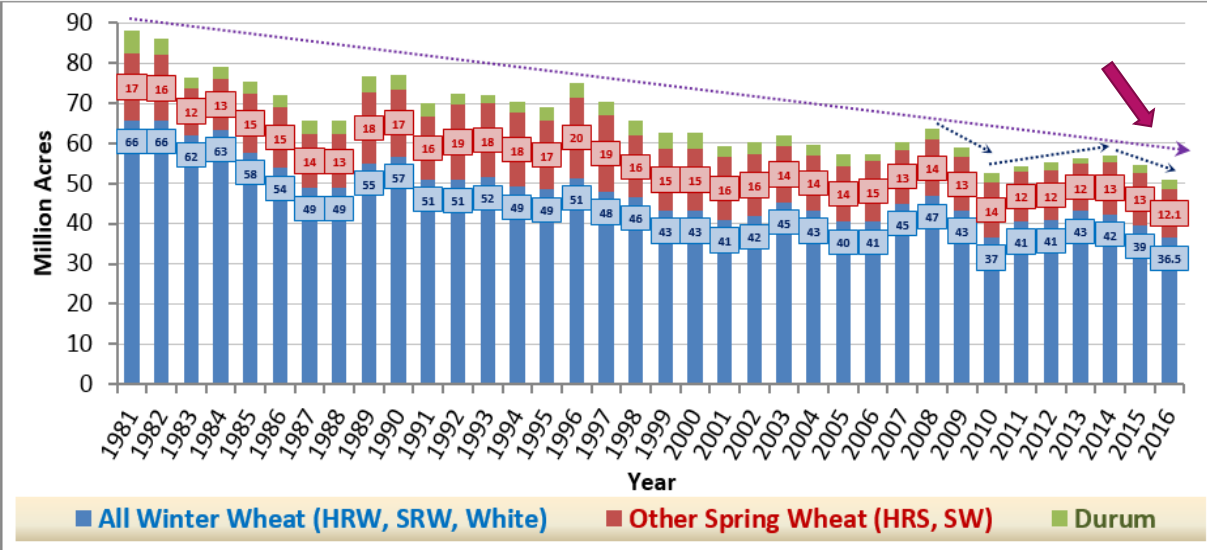


Kansas Wheat Seasonal Cash \$ Index

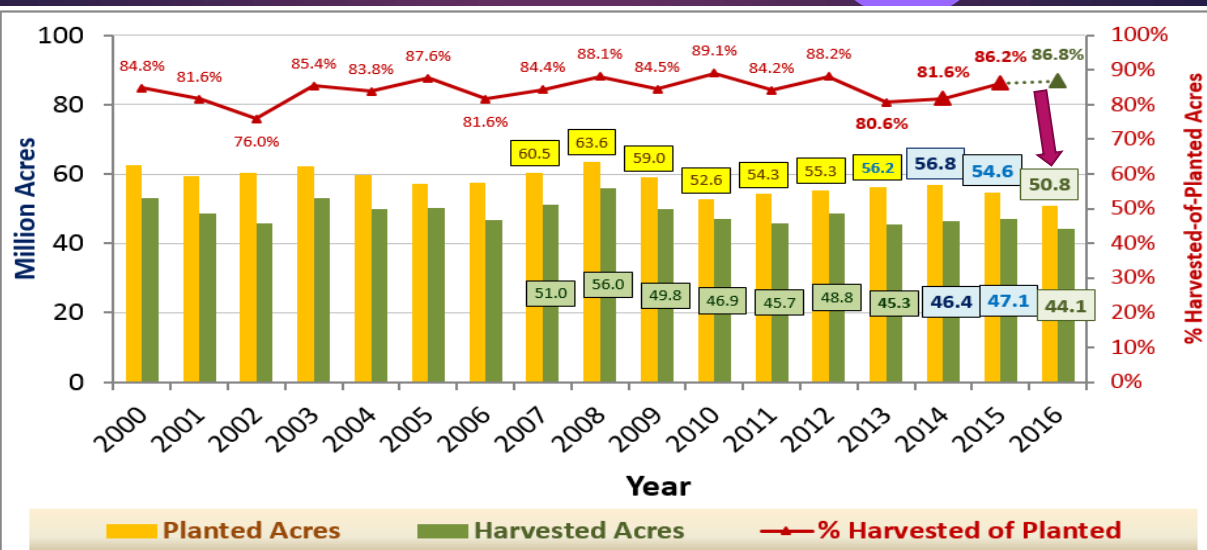
Monthly Prices: 1999/00 – 2014/15 + "New Crop" MY 2016/27



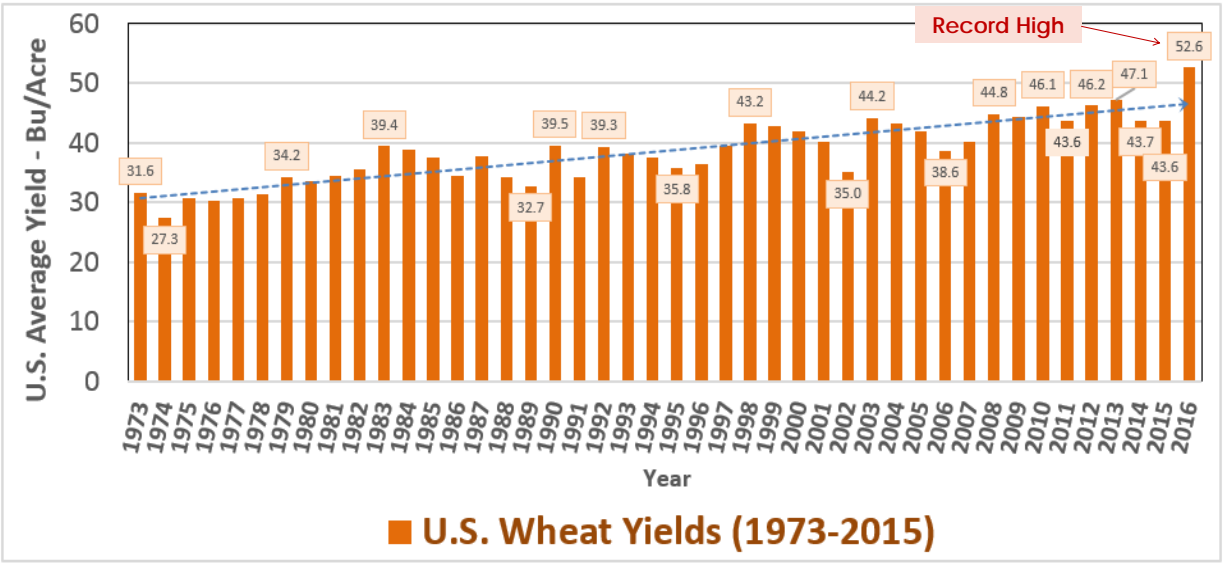
U.S. Wheat Seeded Acreage



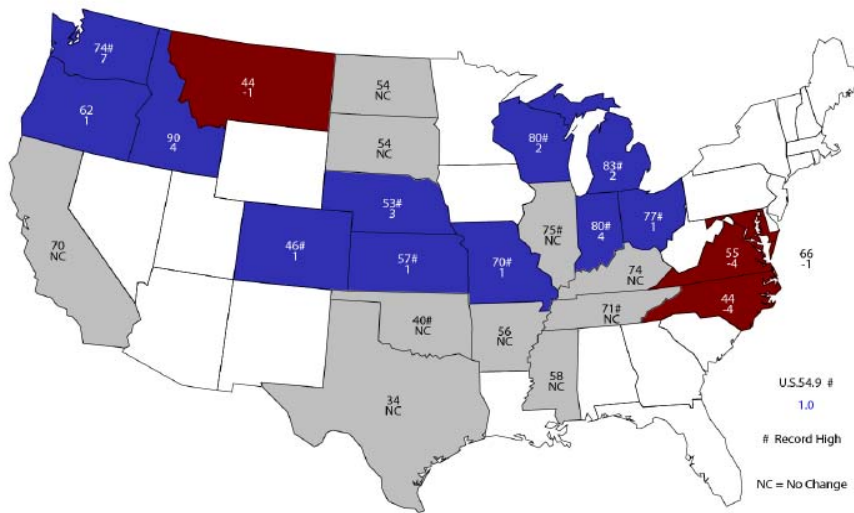
U.S. Wheat Acreage



U.S. Wheat Yields



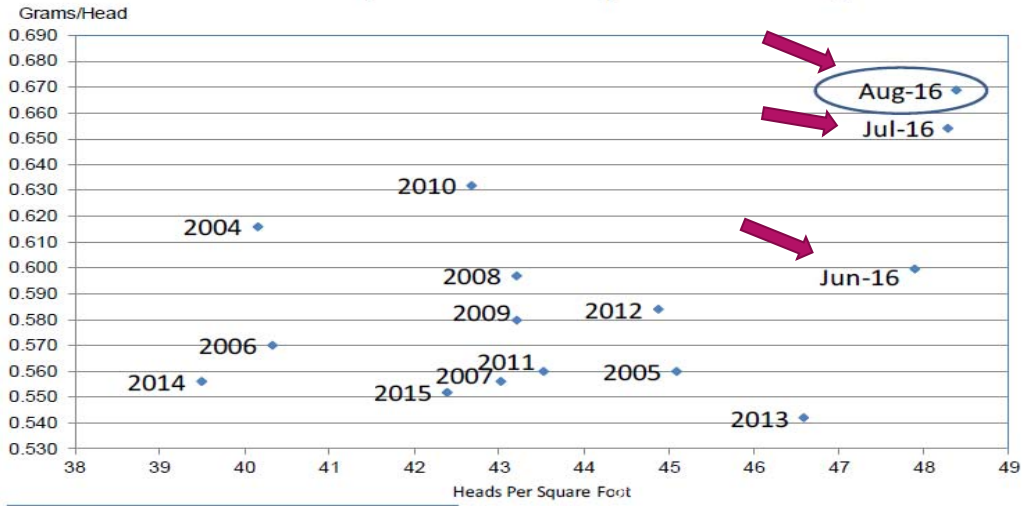
August 1, 2016 Winter Wheat Yield Bushels and Change From Previous Month



USDA-NASS
8-12-16



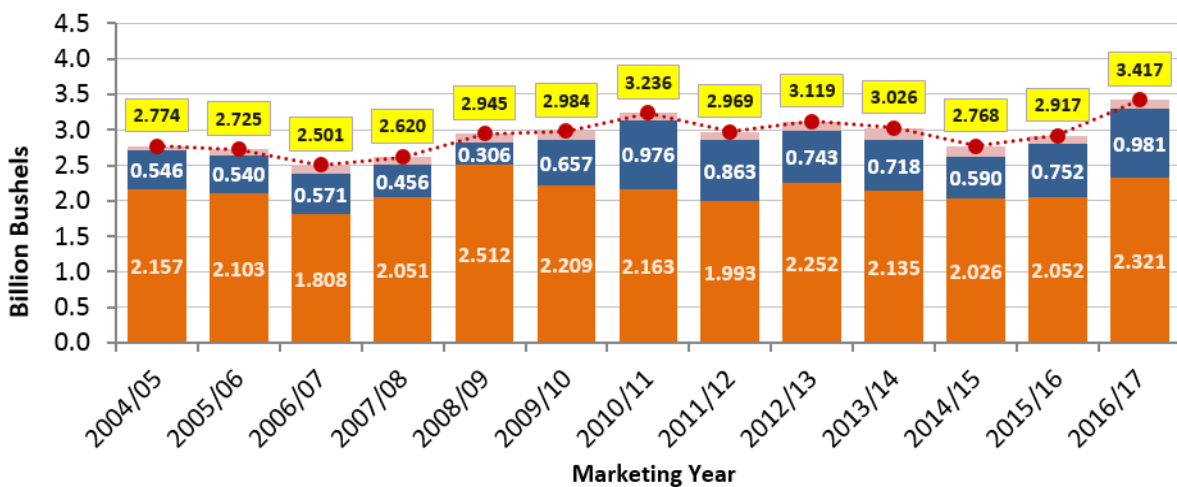
Wheat Objective Yield Region Heads Per Square Foot vs. Implied Head Weight



Implied Head Weight = Published Yield / (Heads*1.6006)

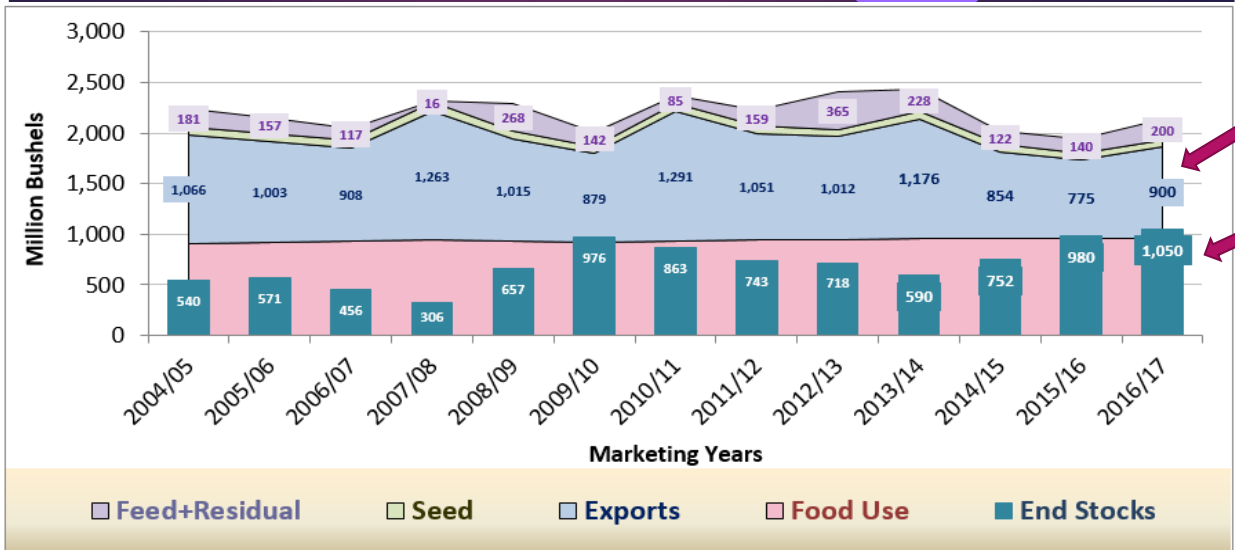
USDA-NASS
8-12-16

U.S. Wheat Production & Supplies

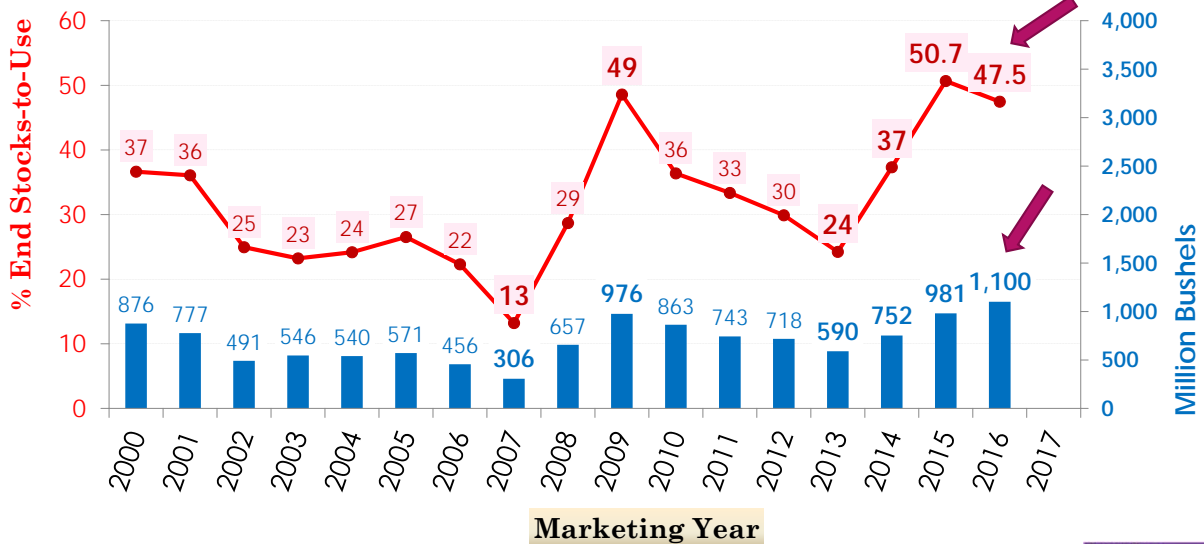


Production Beg Stocks Imports Total Supply

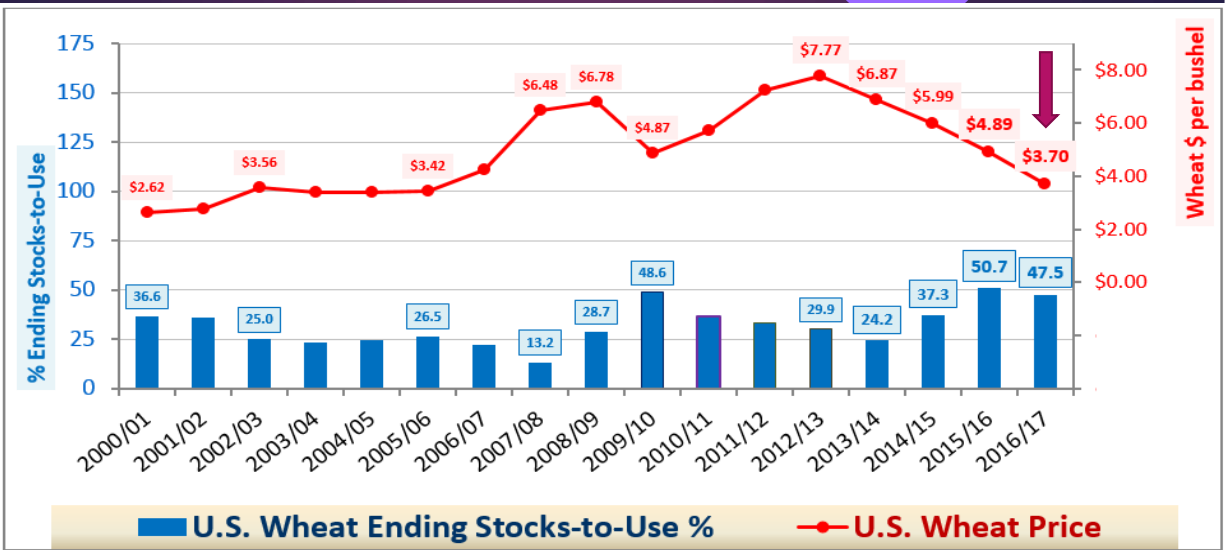
U.S. Wheat Use by Category



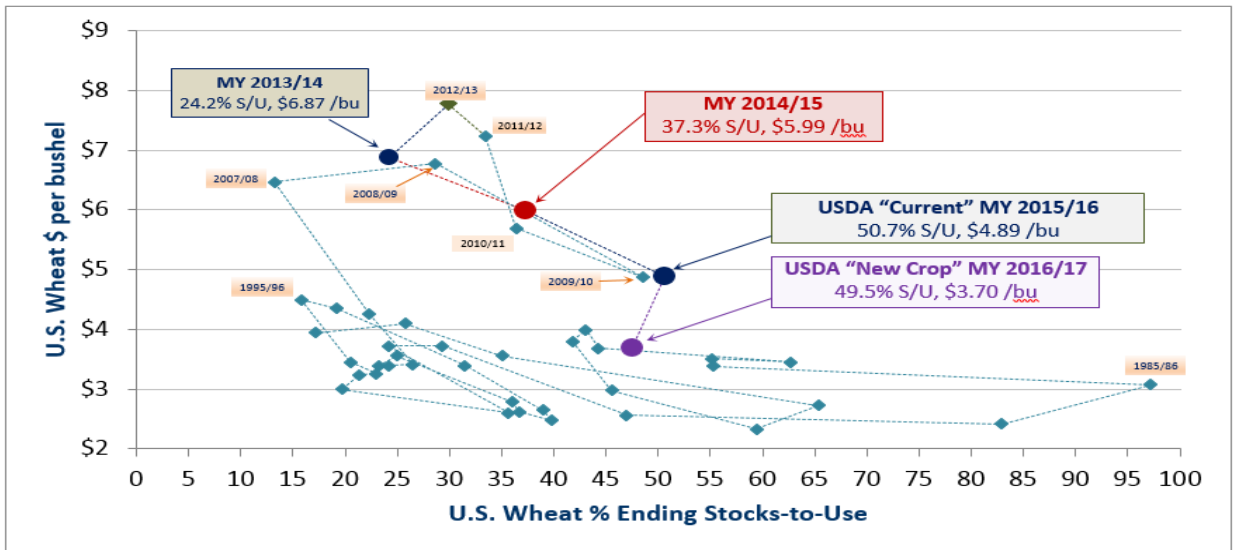
U.S. Wheat Ending Stocks & % Stx/Use



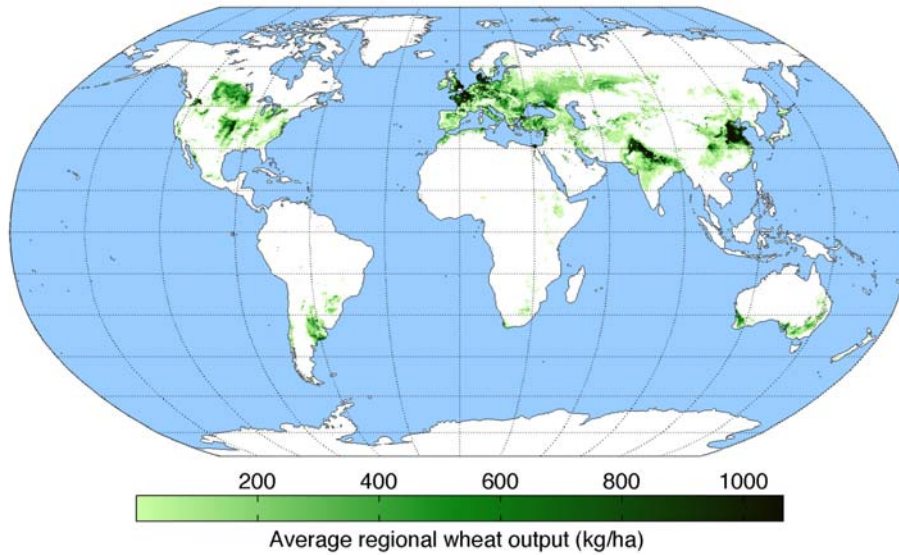
U.S. Wheat Ending Stocks & Prices



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



World Wheat Production Regions



Monthly Crop Calendar for Wheat

1/12/2016

	USDA Prod Est.		Plant		Headed		Harvest																			
	15/16	Change	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec												
Brazil	5.60	(0.40)				P	P	P	P	P	P	HE	HE	HE	H	H	H	H	H	H	H	H	H	H		
Canada Spring	27.60	0.00					P	P	P	P	HE	HE	HE		H	H	H	H								
US Spring	55.84	0.00					P	P	P		HE	HE	HE		H	H	H									
Australia	26.00	0.00					P	P	P	P	P												H	H	H	H
Russia Spring	61.00	0.50						P	P	P	HE	HE	HE		H	H	H	H								
Kazakhstan	14.00	0.00						P	P						H	H	H	H								
China Spring	130.19	0.19						P	P	P	P				H	H	H	H								
Ukraine Spring	27.00	0.00						P	P	P	HE	HE	HE		H	H	H									
Argentina	10.50	0.00	H	H				P	P	P	P	P		HE	HE		HE	HE	H	H	H	H	H	H	H	H
Russia Winter									HE	HE	HE	H	H	H	P	P	P									
Ukraine Winter									HE	HE			H	H	P	P	P									
EU Winter	157.98	0.32										H	H	H	H	P	P	P	P	P	P	P	P	P	P	P
Turkey	19.50	0.00										H	H	H	H	P	P	P	P	P	P	P	P	P	P	P
Egypt	8.10	0.00						H	H	H	H	H	H			P	P	P	P							
US Winter								HE	HE	HE	HE	H	H	H	H			P	P	P						
India	88.94	0.00						H	H	H	H											P	P	P	P	P
China Winter									H	H	H	H										P	P	P	P	P

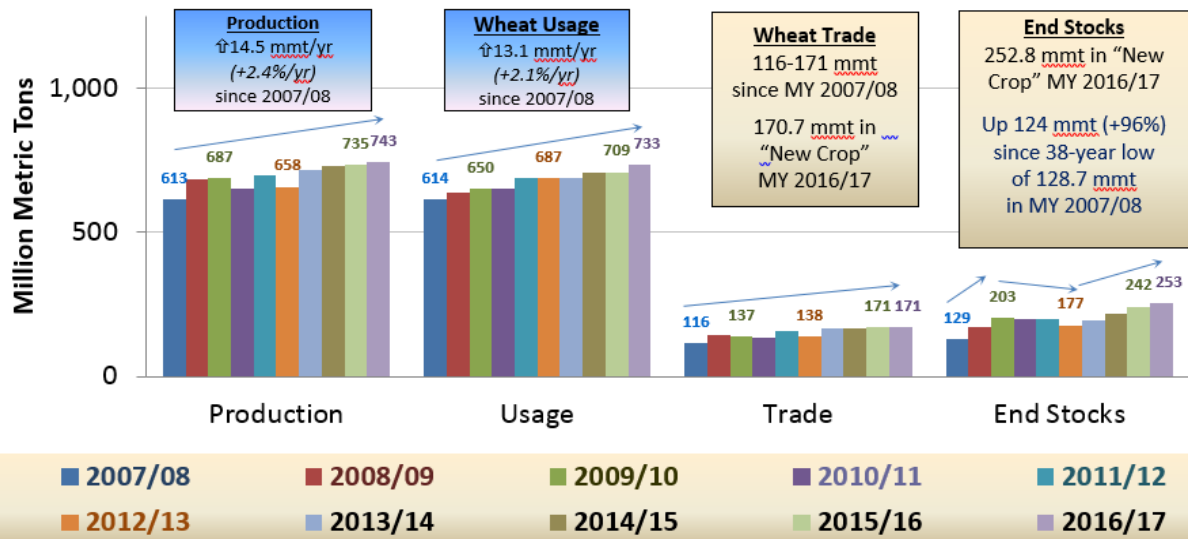


Sources: USDA and AMIS

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

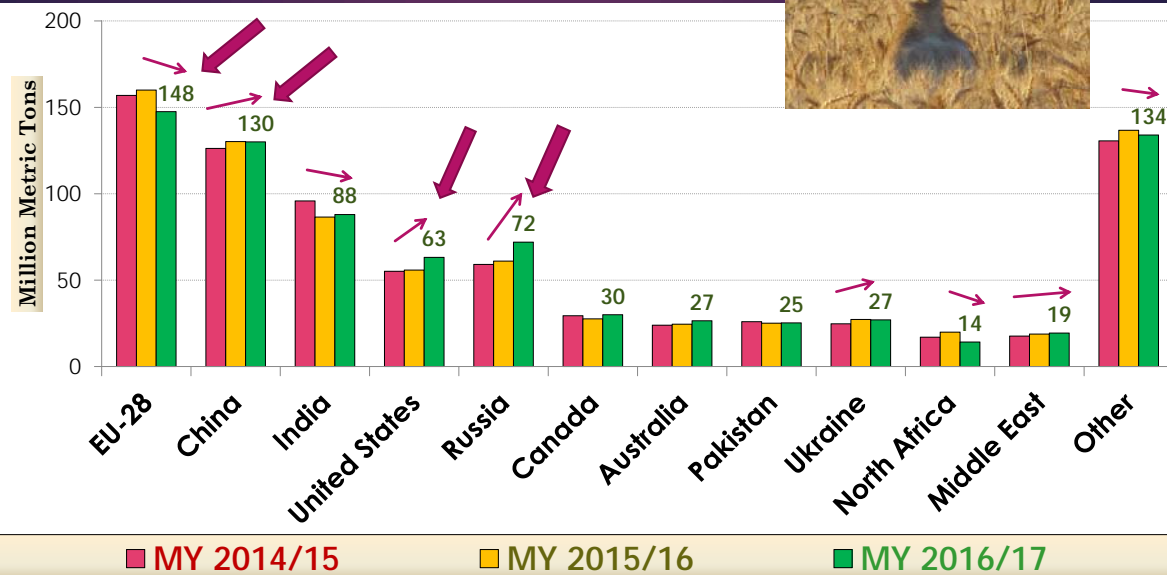
**Production estimates are for ALL WHEAT. Numbers will be listed next to the variety that comes first in the chart.

World Wheat Supply, Use & Stocks

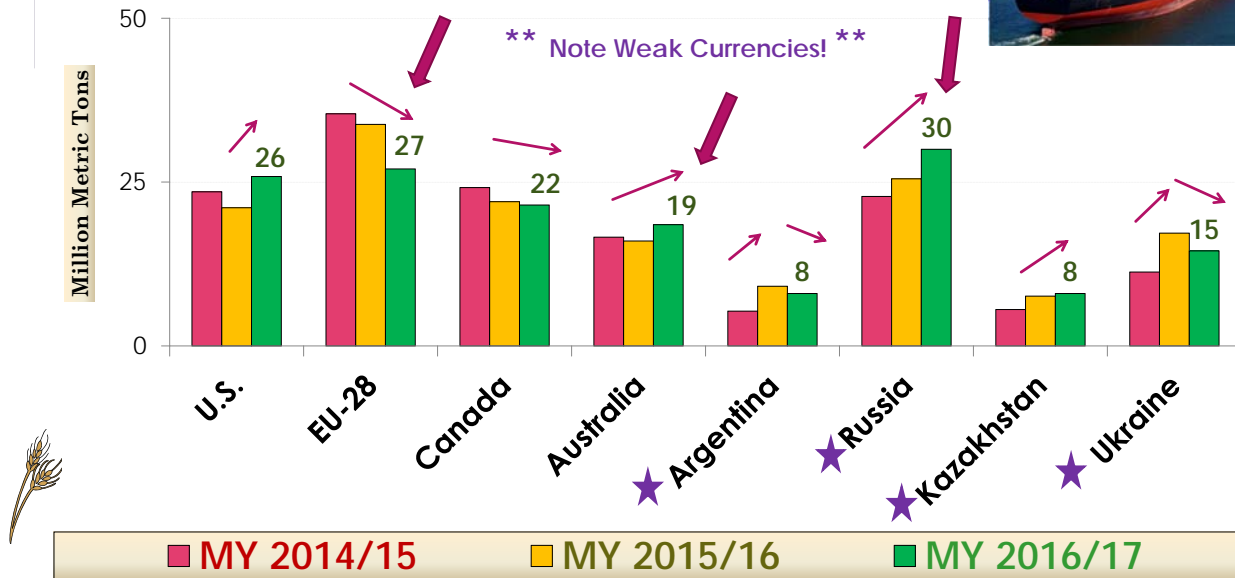


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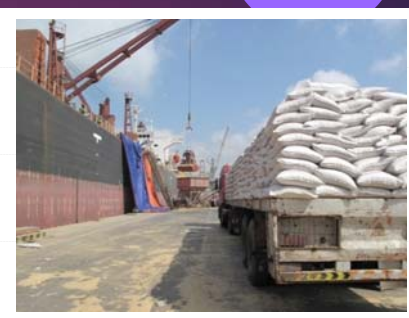
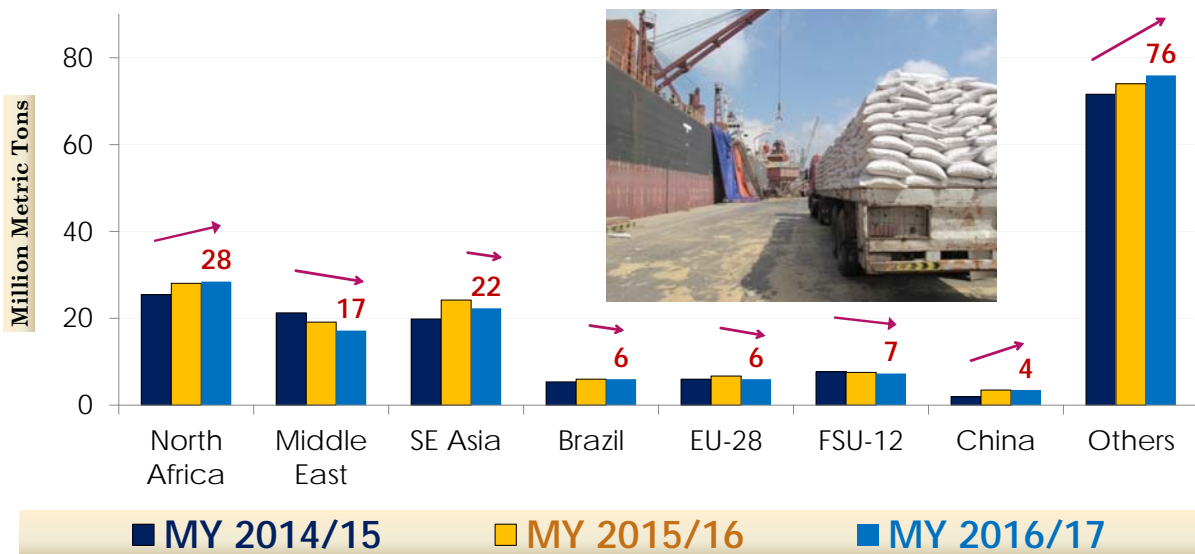
World Wheat Producers



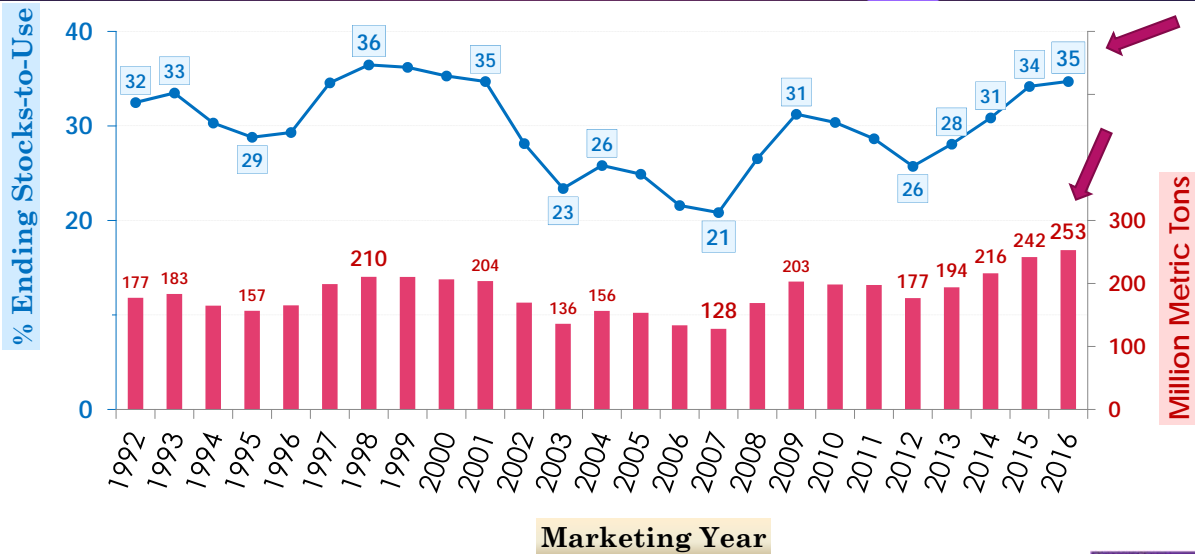
World Wheat Exporters



World Wheat Importers

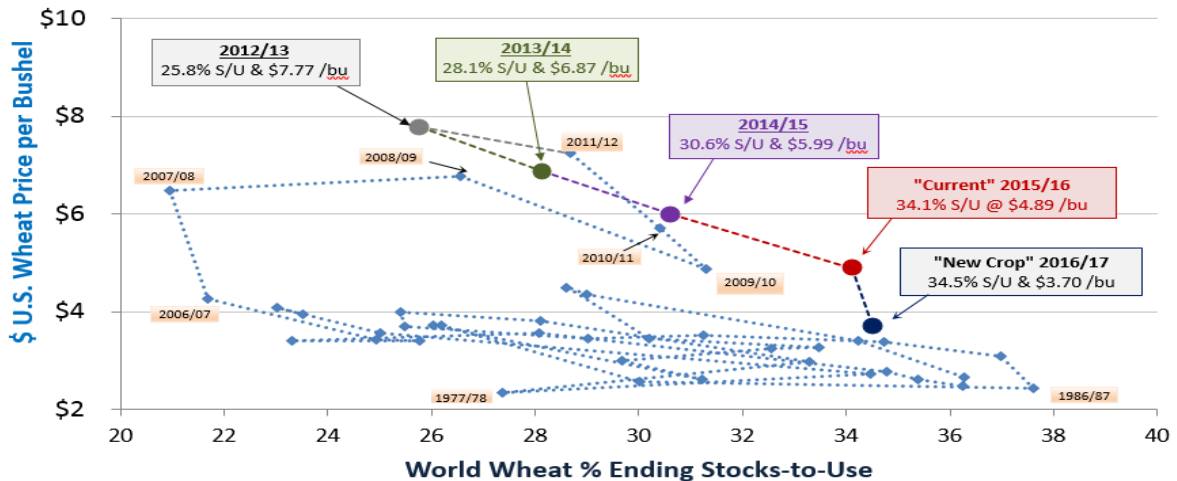


World Wheat Ending Stocks & % Stx/Use



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

MY 1973/74 – "New Crop" MY 2016/17



U.S. Wheat Market Prospects:

Slow Exports, Large Stocks, & Weak Prices

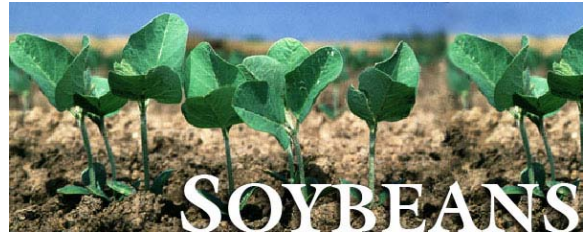
- U.S. wheat exports are likely to remain weak until the high U.S. dollar &/or record World stocks situation changes
- U.S. Spring Wheat²⁰¹⁶ ⇒ 13.8% protein & 62.2 lb test, 0.7% defects
 - Versus 14.2% protein, 61.4 lb test wt, 1.0% defects in 2015
- U.S. HRW Wheat²⁰¹⁶ ⇒ 11.2% protein, 60.6 lb test, 1.3% defects
 - Versus 12.3% protein, 59.3 lb test wt, 1.7% defects in 2015
- U.S. SRW Wheat²⁰¹⁶ ⇒ 9.5% protein & 57.9 lb test, 1.8% defects
 - Versus 9.9% protein, 56.9 lb test wt, 4.1% defects in 2015

World Wheat Market Prospects:

Large Supplies ⇒ A "Buyer's Market"

- **Record World Supplies & Usage Forecast in 2016/17**
 - 4 consecutive record high World wheat crops
- **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**
 - U.S. & World Crop Uncertainty in 2016? (La Nina...??)

Soybean Markets



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Department of Agricultural Economics

CME Soybean Futures

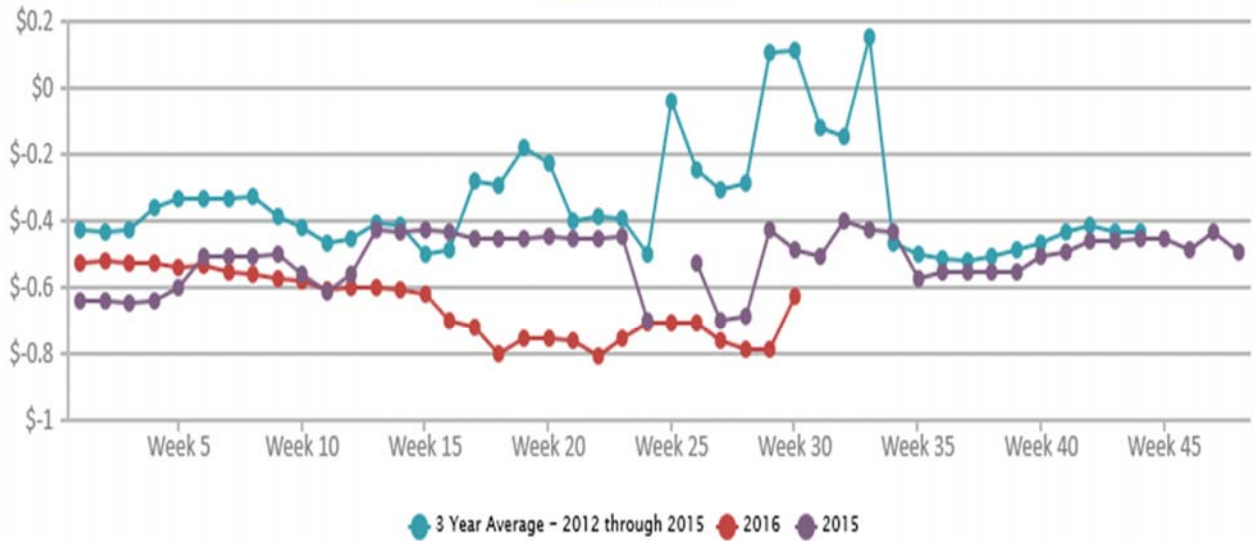


Monthly Chart: June 2007 through July 2016 + 8/18/2016



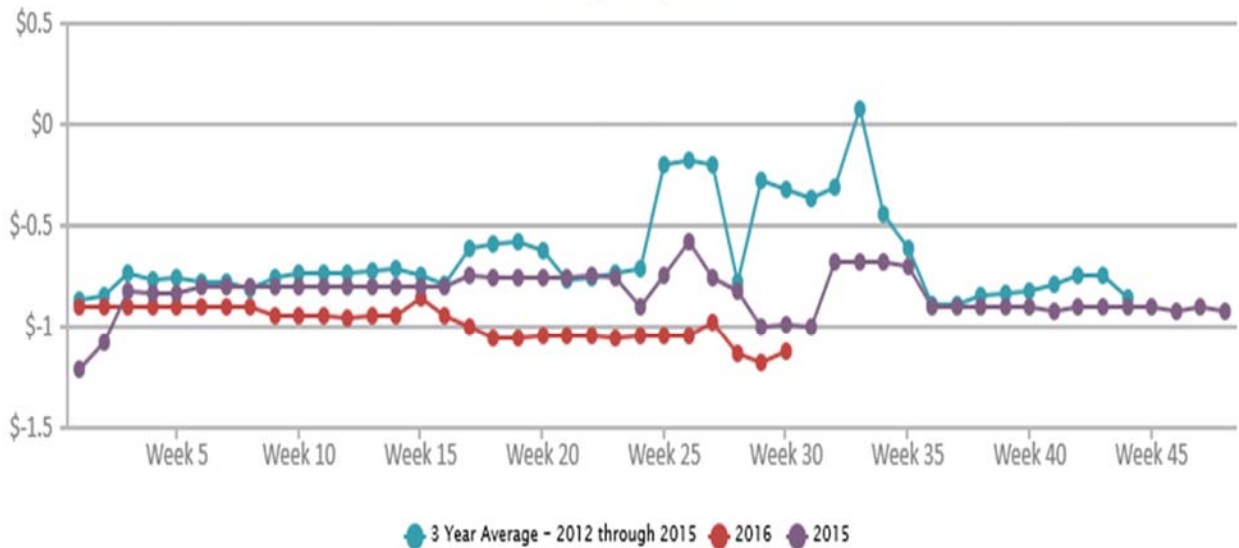
SALINA, KS: Soybeans Basis - CARGILL

www.AgManager.info



GARDEN CITY, KS: Soybeans Basis - GARDEN CITY COOP

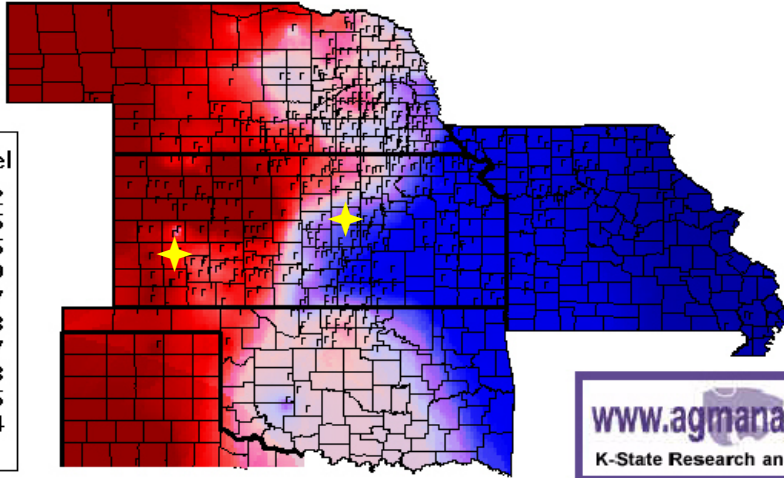
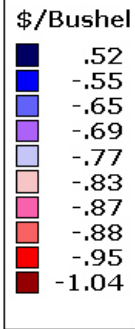
www.AgManager.info



Soybean Basis, 08-10-2016

Basis = Cash Price - Nearby Futures Price

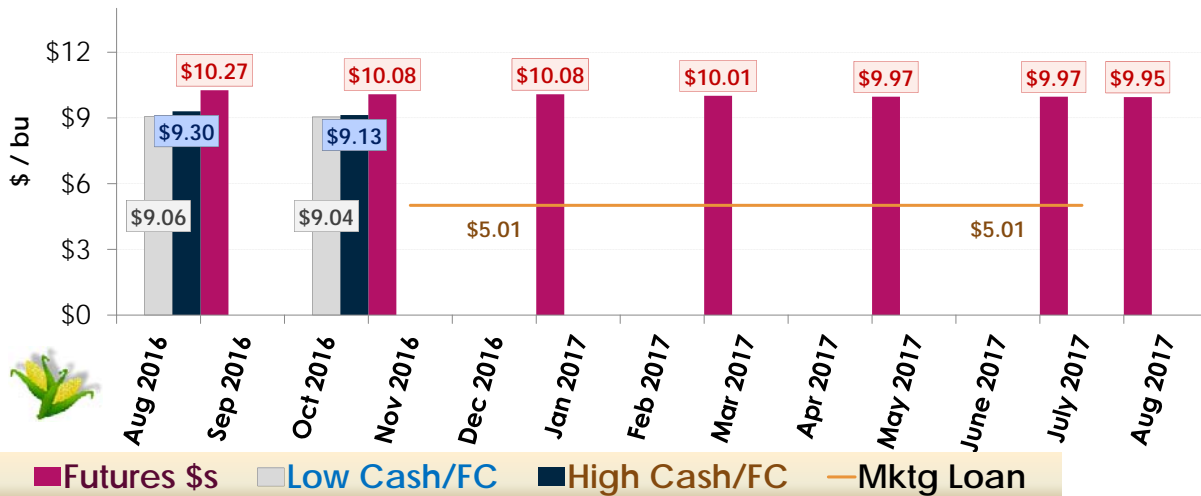
CBT Sept
Futures
Price: \$9.99



www.agmanager.info
K-State Research and Extension

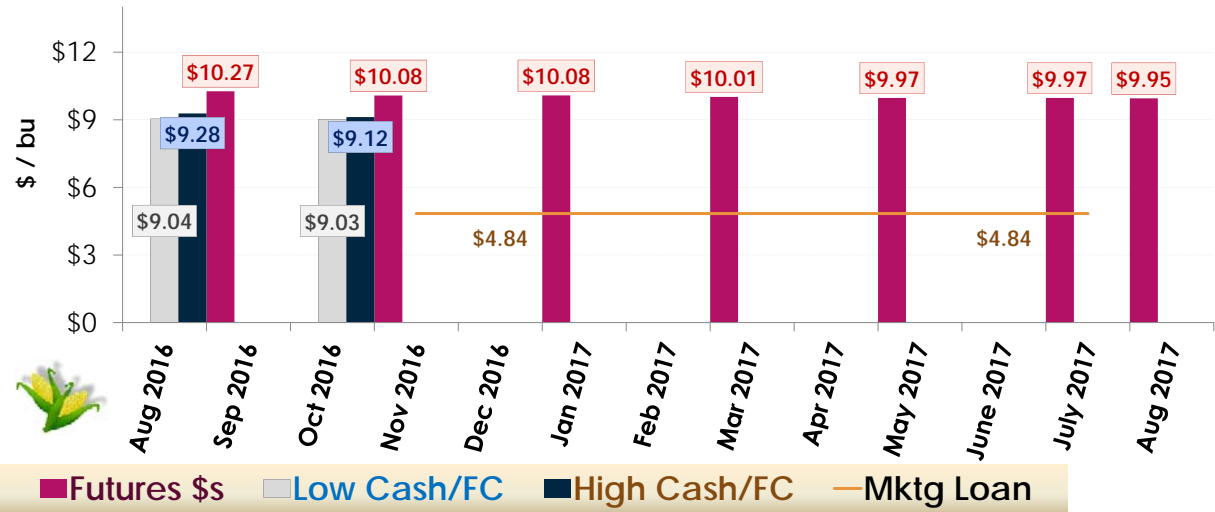
Soybean Cash & Futures Prices - Salina

Salina, Kansas Local Elevators – August 18, 2016



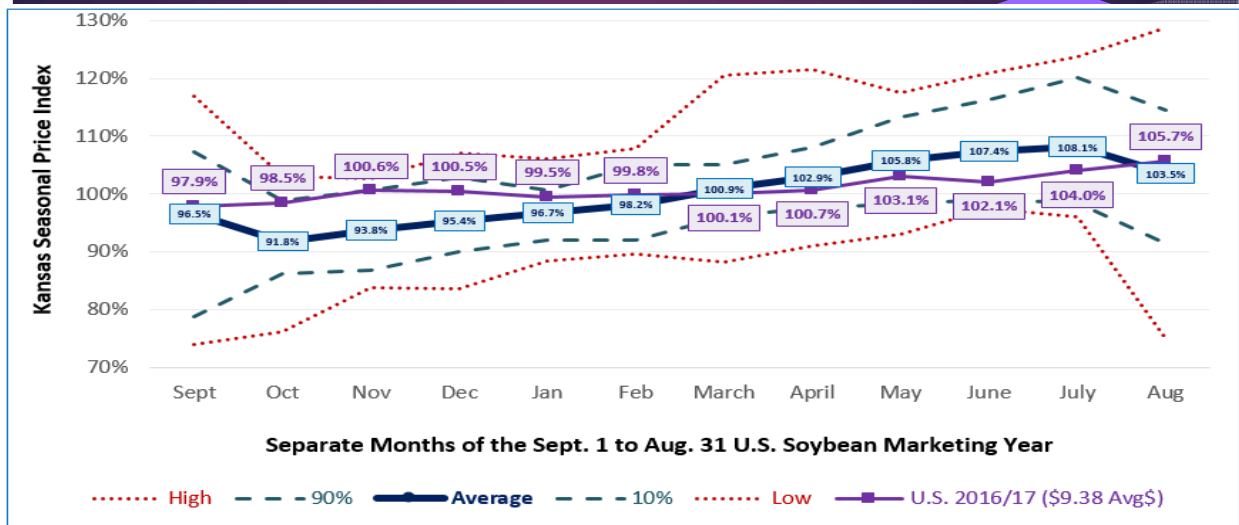
Soybean Cash & Futures Prices

Garden City, Kansas Local Elevators – August 18, 2016

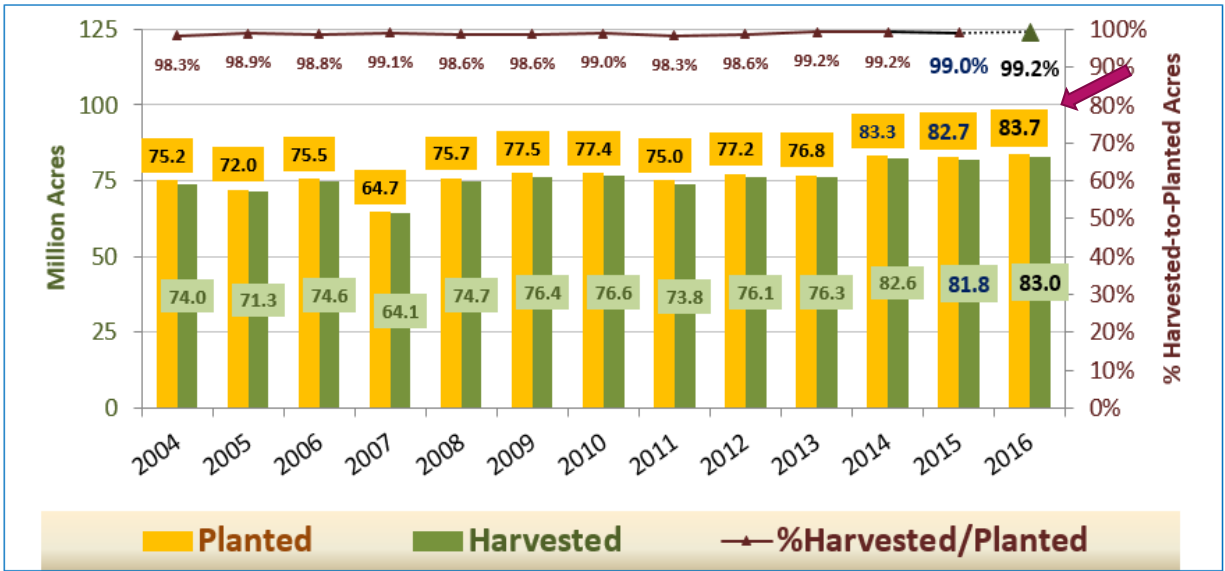


Kansas Soybean Seasonal Cash \$ Index

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

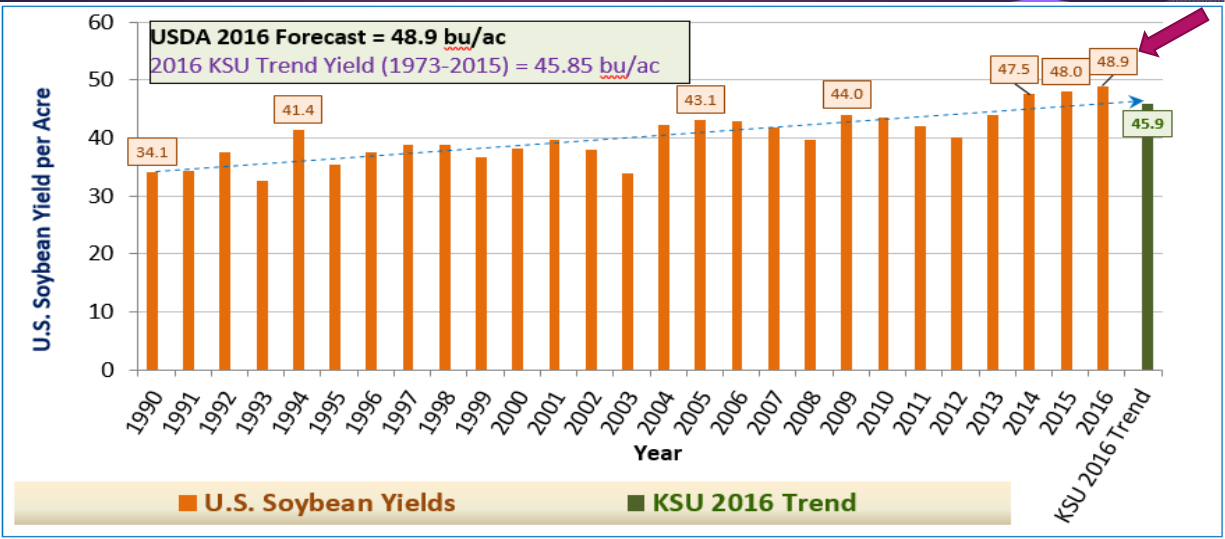


U.S. Soybean Acreage

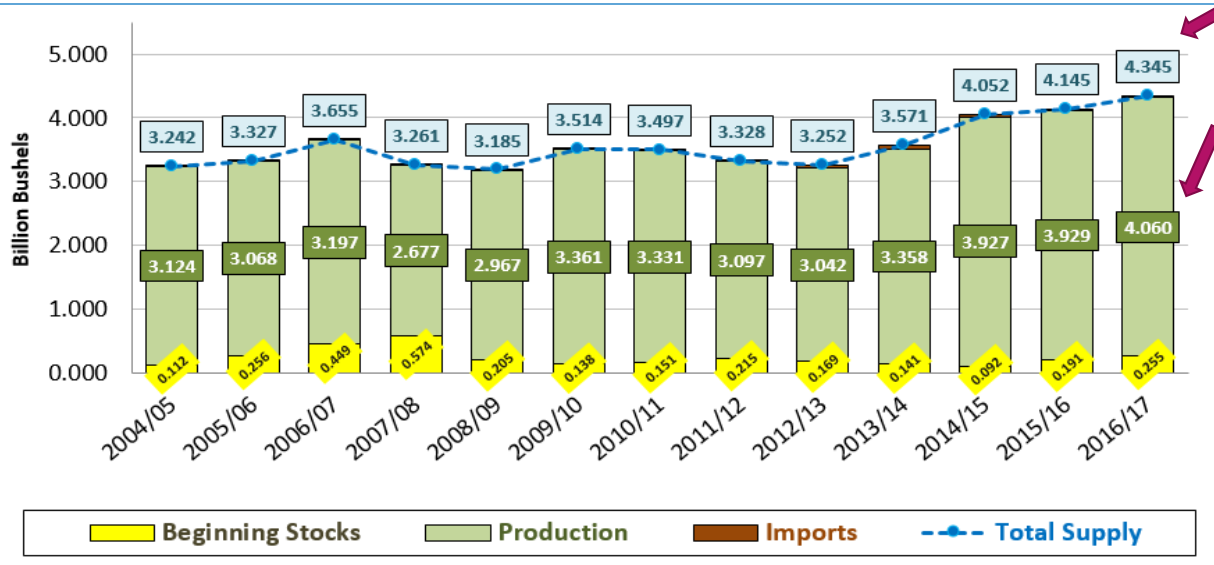


U.S. Soybean Yields

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



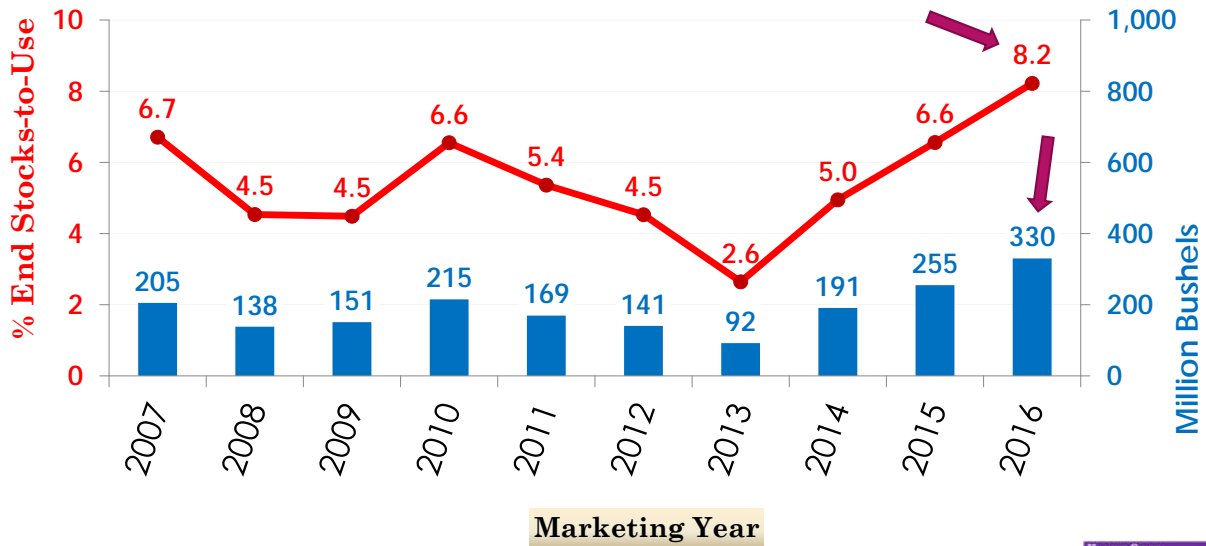
U.S. Soybean Production & Supplies



U.S. Soybean Use & End Stocks

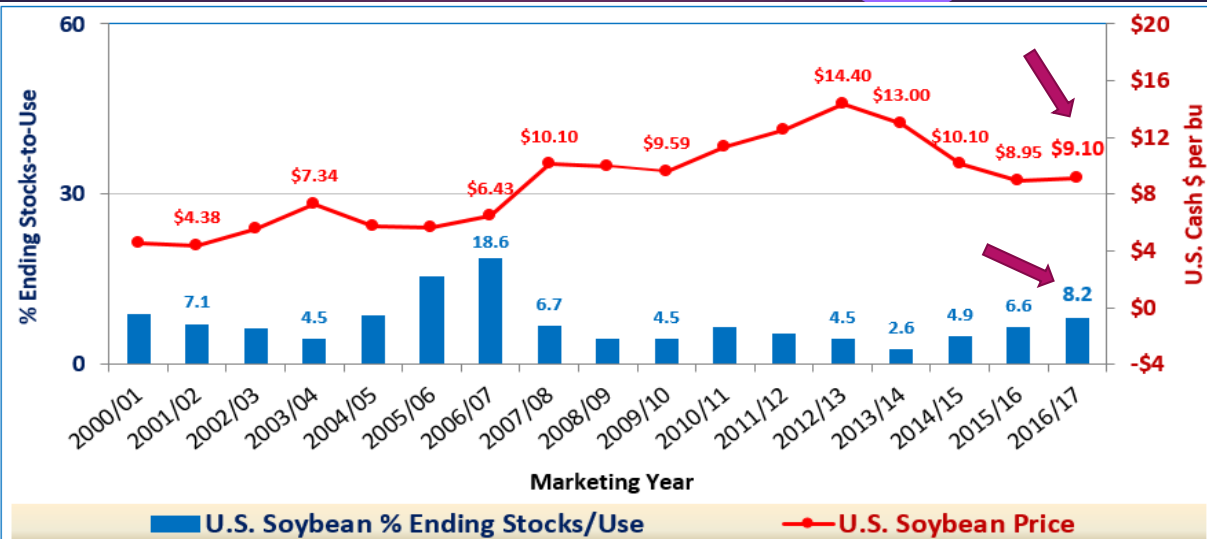


U.S. Soybean Ending Stocks & % Stx/Use



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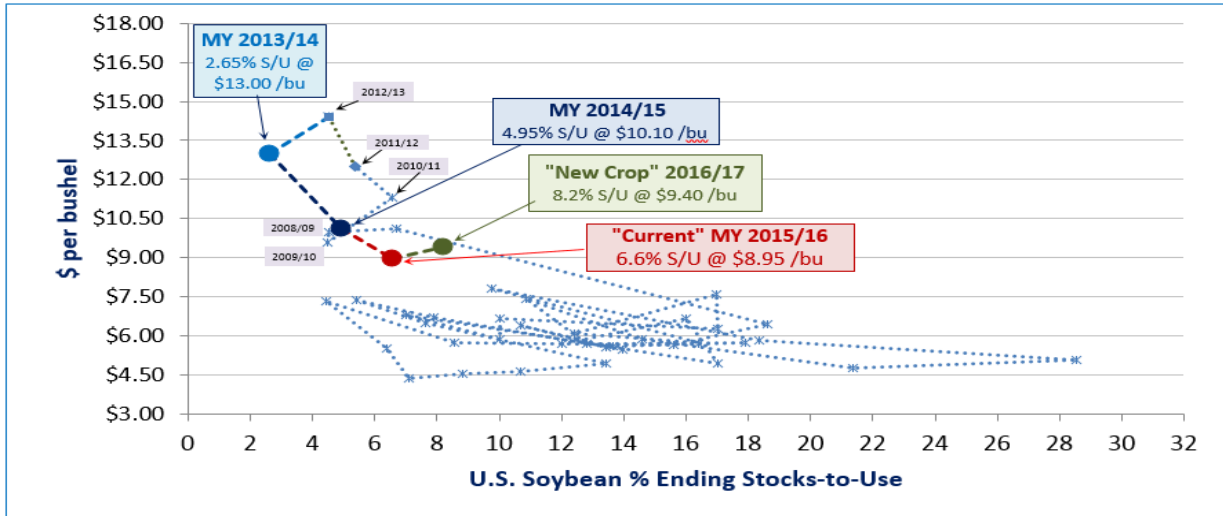
U.S. Soybean % Stocks/Use vs Price\$



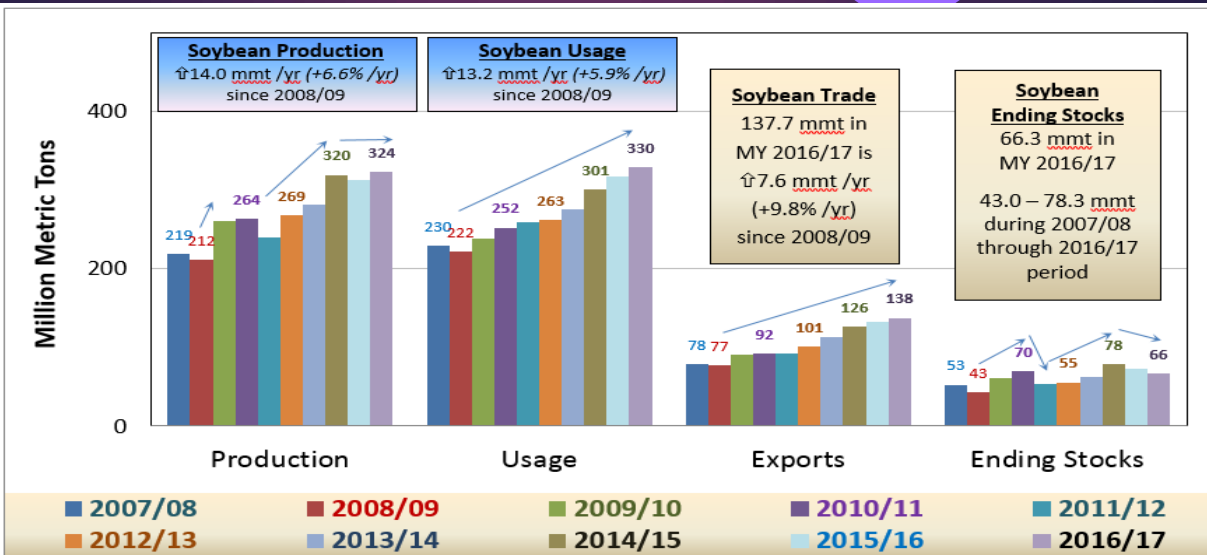
U.S. Soybean \$ vs U.S. Stx-to-Use



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

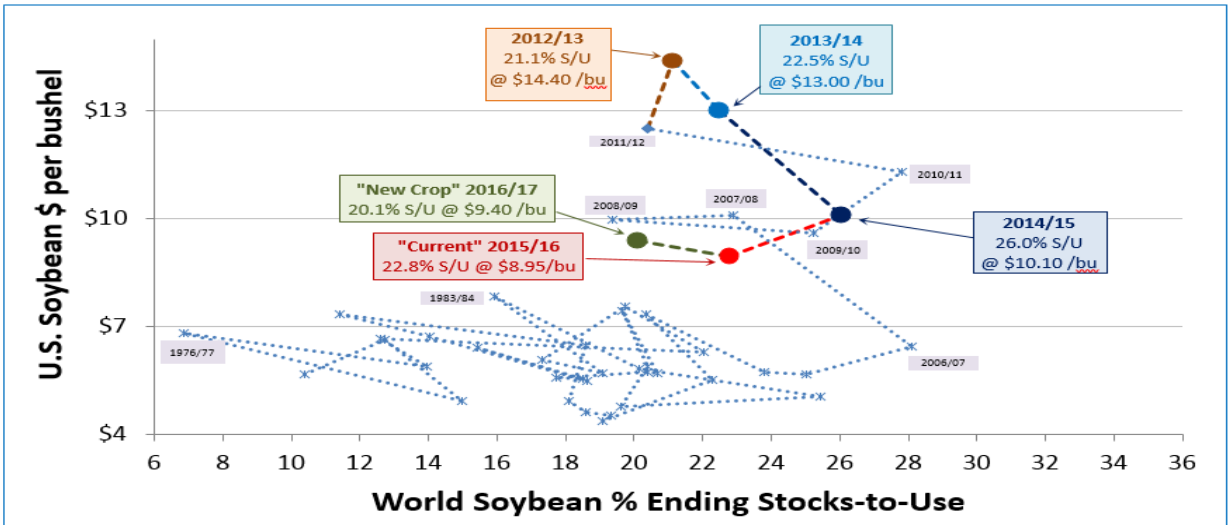


World Soybean Supply, Use & Stocks



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

MY 1973/74 through "New Crop" MY 2015/16



Monthly Crop Calendar for Soybeans

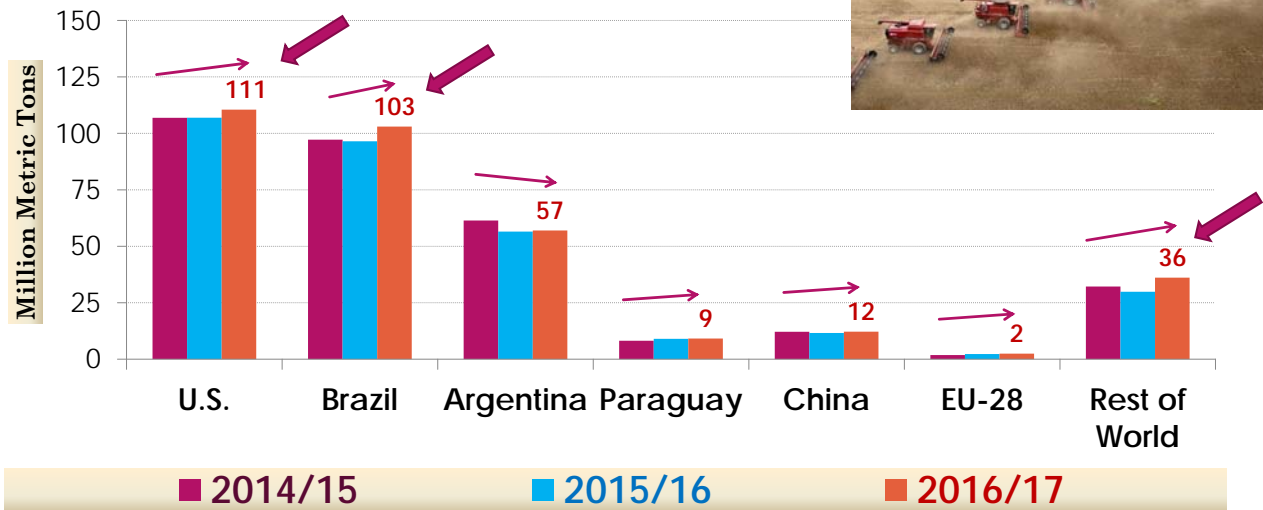
1/12/2016

	USDA Prod Est.		Plant		Bloom		Harvest							
	15/16	Change	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ukraine	3.80	0.00				P	P	P		H	H	H	H	
EU	2.05	0.00				P	P	P			H	H	H	H
Russia	2.85	0.05				P	P	P			H	H	H	H
US	106.95	(1.40)					P	P	P	B	B	B	H	H
China	12.00	0.50					P	P	P			H	H	H
Canada	6.24	0.00					P	P	P	B	B	B	B	H
Indonesia	0.62	0.00					P	P	P	H	H	H	H	H
Mexico	0.36	0.00	H	H	H	H	P	P	P	P	P	P	H	H
India	8.00	0.00						P	P	P	P		H	H
Paraguay	8.80	0.00	H	H	H	H	H	H	H			P	P	P
Brazil	100.00	0.00	H	H	H	H	H	H				P	P	P
Argentina	57.00	0.00	P		B	B	H	H	H				P	P
South Africa	0.89	(0.25)		H	H	H	H						P	P

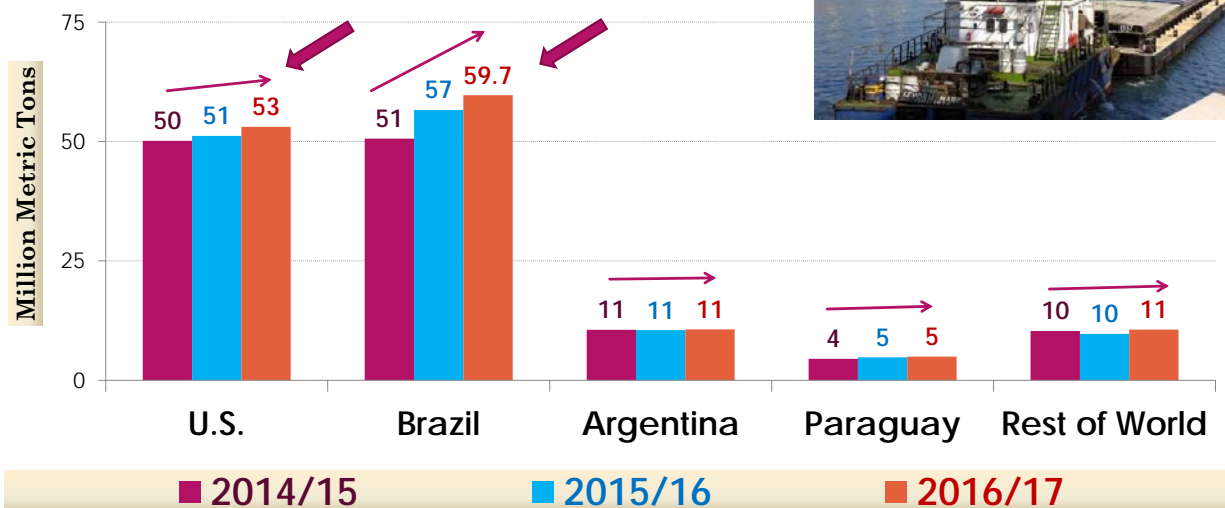
Sources: USDA, AMIS, and CHS, Inc. locations

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

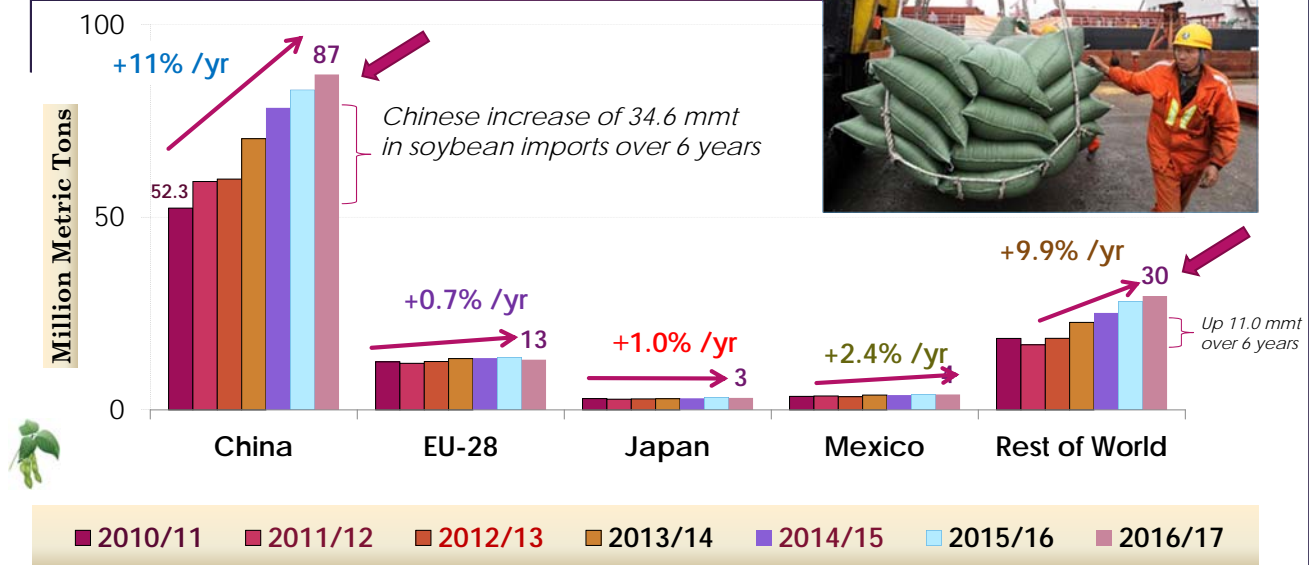
Soybean Production



Soybean Exporter Sales



Soybean Importer Purchases



U.S. Soybean Market Prospects:

Strong Use & Exports, Large Stocks, & Weak Prices

- U.S. soybean exports in 2016/17 to remain historically large in spite of high U.S. Dollar
 - Depends on China import demand & 2017 South American crops
- Low Prices have supported U.S. Soybean Use
 - **Crush**^{2016/17} = 1.940 bln bu (record > 1.900 bb in MY 2015/16)
 - **Exports**^{2016/17} = 1.9590 bln bu (record > 1.880 bb vs MY 2015/16)
- Uncertainty re: 2017 South American soybean crop size

Questions?

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