

# 2018 Grain Sorghum Market Outlook

## 2018 Sorghum School

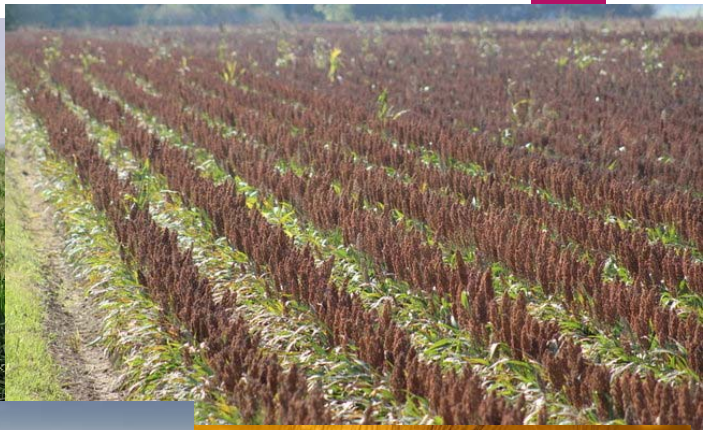
Dodge City, Kansas

DANIEL O'BRIEN

EXTENSION AGRICULTURAL ECONOMIST

**KANSAS STATE**  
UNIVERSITY

Department of Agricultural Economics



# Dow Jones Industrial Index

## Weekly, October 2015 – February 5, 2018

**\$INDU** Dow Jones Industrial Average INDX

© StockCharts.com

5-Feb-2018 **Open** 25337.87 **High** 25520.53 **Low** 23923.88 **Close** 24345.75 **Volume** 726.7M **Chg** -1175.21 (-4.60%)

\$INDU (Weekly) 24345.75

MA(7) 25481.92

Volume 726,687,104



# New York Stock Exchange Index

## Weekly, October 2015 – February 5, 2018

**\$NYA** NYSE Composite Index INDX

© StockCharts.com

5-Feb-2018 **Open** 12974.19 **High** 13050.16 **Low** 12518.21 **Close** 12572.93 **Volume** 5.2B **Chg** -512.42 (-3.92%)

\$NYA (Weekly) 12572.93

MA(7) 13126.60

Volume 5,205,213,696



# U.S. Dollar Index

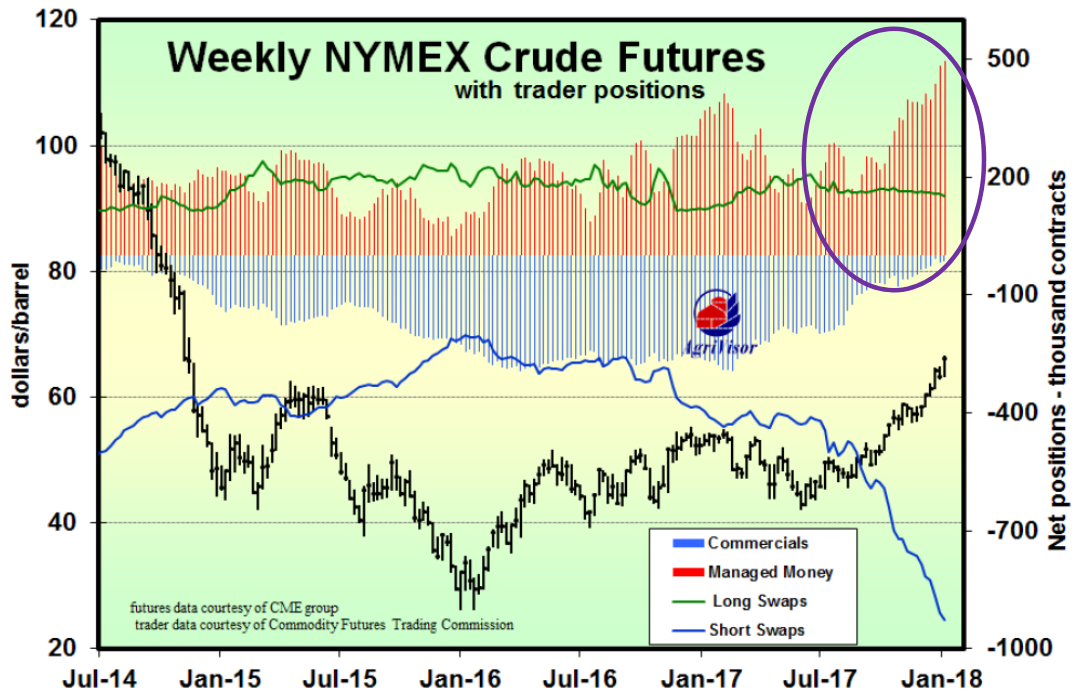
Weekly, August 2015 – February 5, 2018



# CME Light Crude Oil

Weekly, September 2015 – February 5, 2018





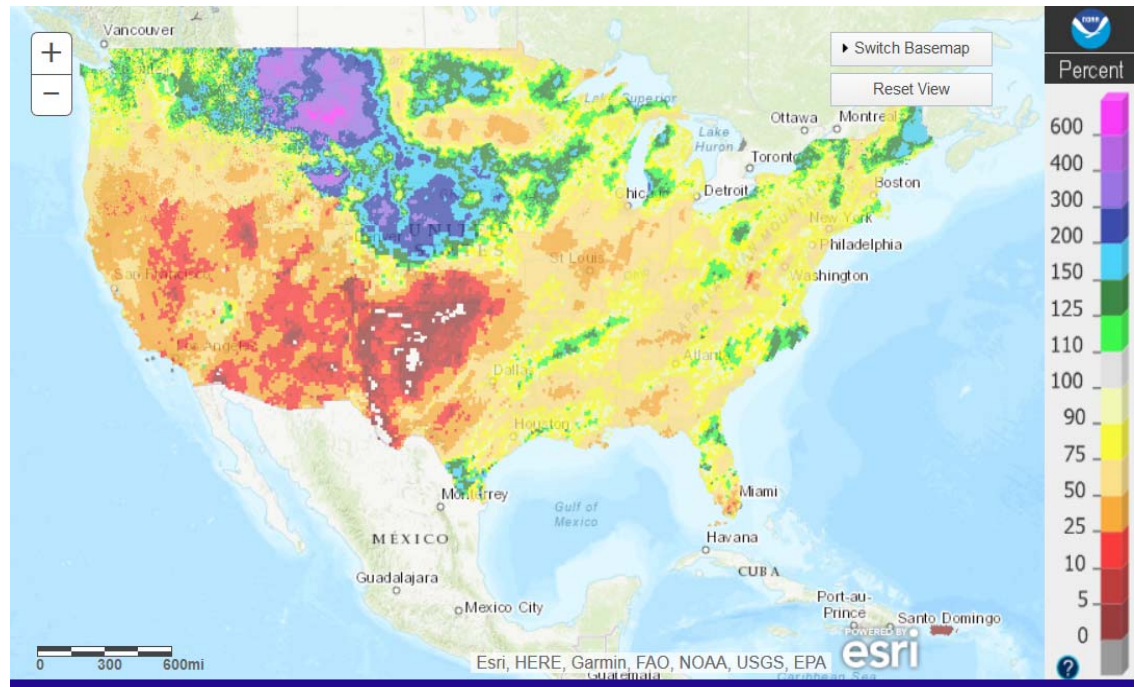
# CME Unleaded Gasoline

Weekly, September 2015 – February 5, 2018

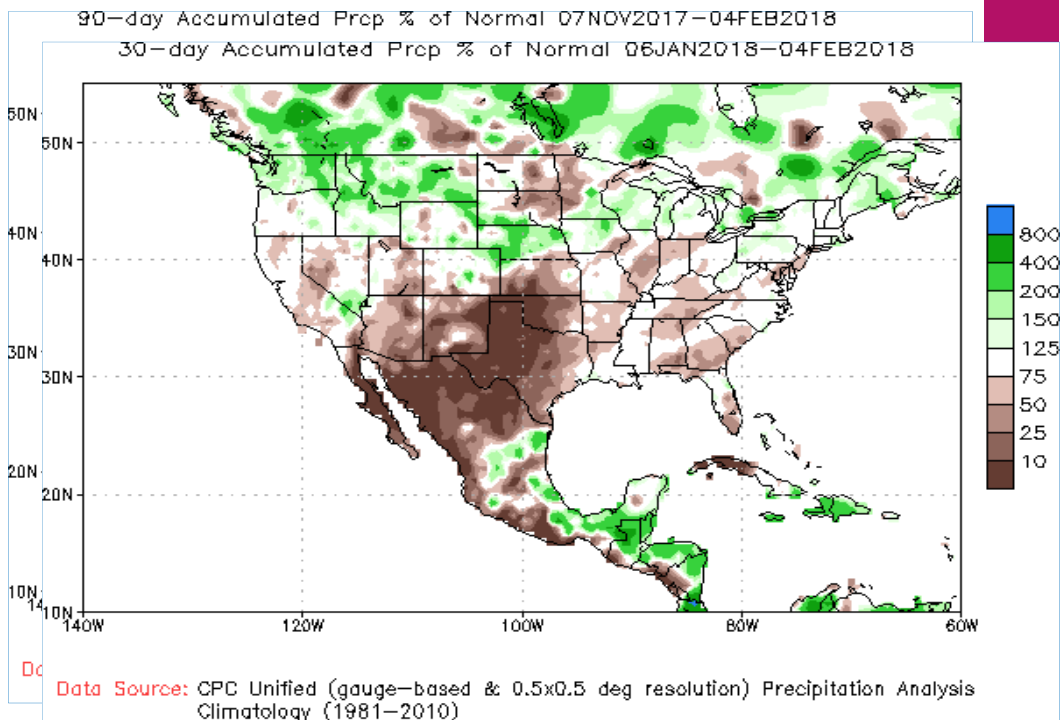


# Reuters/Jefferies CRB Index

## Weekly, August 2015 – February 5, 2018

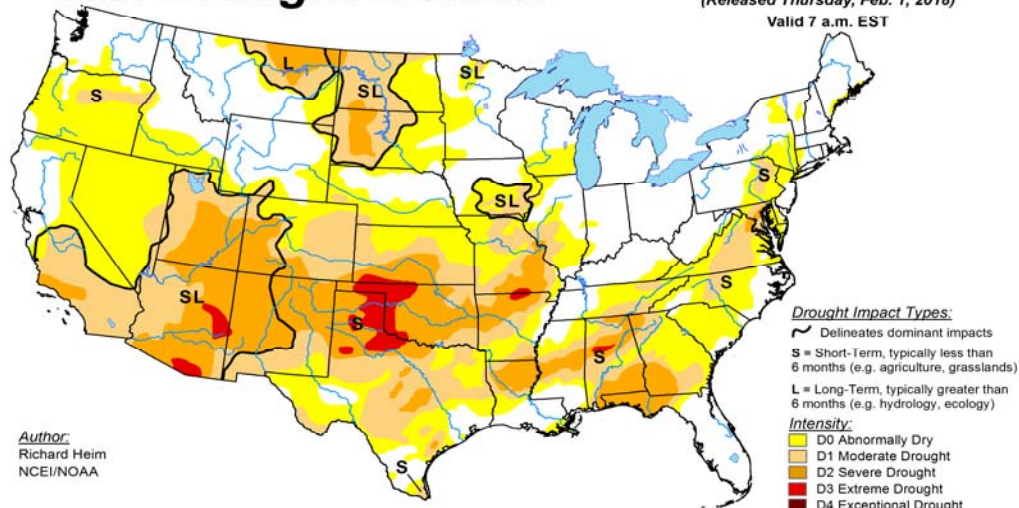


Displaying Last 60-Day Percent of Normal Precipitation  
Valid on: February 05, 2018 12:00 UTC

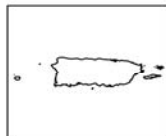
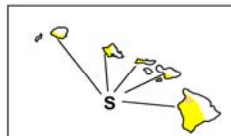


# U.S. Drought Monitor

January 30, 2018  
 (Released Thursday, Feb. 1, 2018)  
 Valid 7 a.m. EST

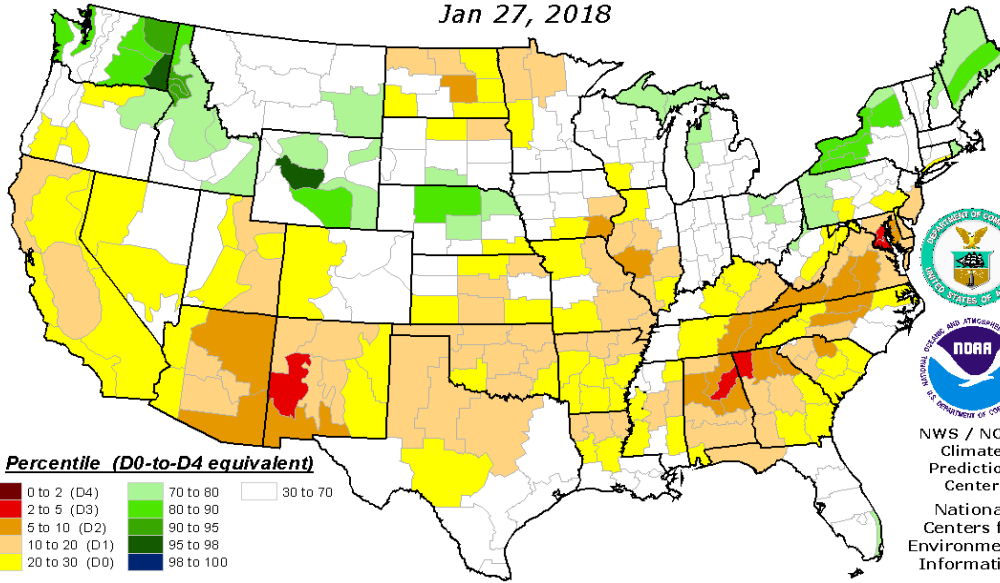


Author:  
 Richard Heim  
 NCEI/NOAA



# Objective *Short-Term* Drought Indicator Blend Percentiles

Jan 27, 2018



**Percentile (D0-to-D4 equivalent)**

0 to 2 (D4)	70 to 80	30 to 70
2 to 5 (D3)	80 to 90	
5 to 10 (D2)	90 to 95	
10 to 20 (D1)	95 to 98	
20 to 30 (D0)	98 to 100	

**Inputs (as percentiles):**

- 35% Palmer Z-Index
- 25% 3-Month Precipitation
- 20% 1-Month Precipitation
- 13% CPC Soil Moisture Model
- 7% Palmer Drought Index



NWS / NCEP  
Climate  
Prediction  
Center  
National  
Centers for  
Environmental  
Information

This map approximates impacts that respond to precipitation over several days to a few months, such as agriculture, topsoil moisture, unregulated streamflows, and most aspects of wildfire danger. The relationship between indicators and impacts can vary significantly with location and season. Do not interpret this map too literally.

This map is based on preliminary climate division data. Local conditions and/or final data may differ. See the detailed product suite description for more details.

# Grain Sorghum Markets



**KANSAS STATE UNIVERSITY**

Department of Agricultural Economics

## U.S. Corn & Sorghum Supply-Use

- Prospects ➔ "**LARGE**" 14.6 billion bu 2017 U.S. Corn Crop
- Large Supplies & Stocks are limiting Feedgrain Price\$'s
- Low Price\$'s are supporting Corn Use
  - **Livestock Feed** <sup>2017/18</sup> = 5.550 bln bu (*10 year high* – vs 5.858 bb in 2007/08)
  - **Ethanol** <sup>2017/18</sup> = 5.525 bln bu (*Record high* – vs 5.439 bb last year)
  - **Other FSI** <sup>2017/18</sup> = 1.470 bln bu (*Record high* – vs 1.452 bb in 2016/17)
  - **Exports** <sup>2017/18</sup> = 1.925 bln bu (*vs 2.293 bb in '16/17 & 1.901 in '15/16*)

## U.S. Corn & Grain Sorghum Stocks.....

- Grain Sorghum: "**Tighter**" Stocks & % Stx/Use than Corn
  - **End Stocks** <sup>2017/18</sup> ⇒ 24 Mln bu (*15 - 55 mb since 2008/09*)
  - **% Stocks/Use** <sup>2017/18</sup> ⇒ 6.8% S/U (*Historically "tight"*)
- Corn: "**Large**" Stocks & % Stx/Use
  - **End Stocks** <sup>2017/18</sup> ⇒ 2.477 bln bu (*2<sup>nd</sup> highest since 1987/88*)
  - **% Stocks/Use** <sup>2017/18</sup> ⇒ 17.1% S/U (*Highest since 2005/06*)



# CME Corn Futures

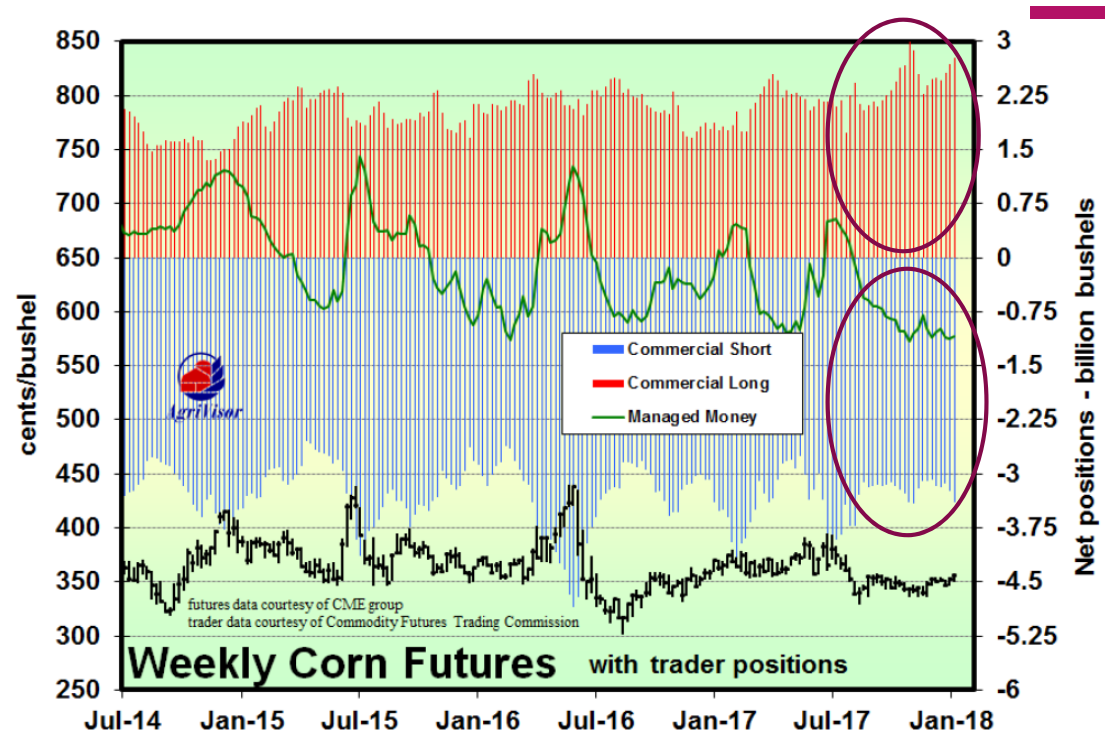
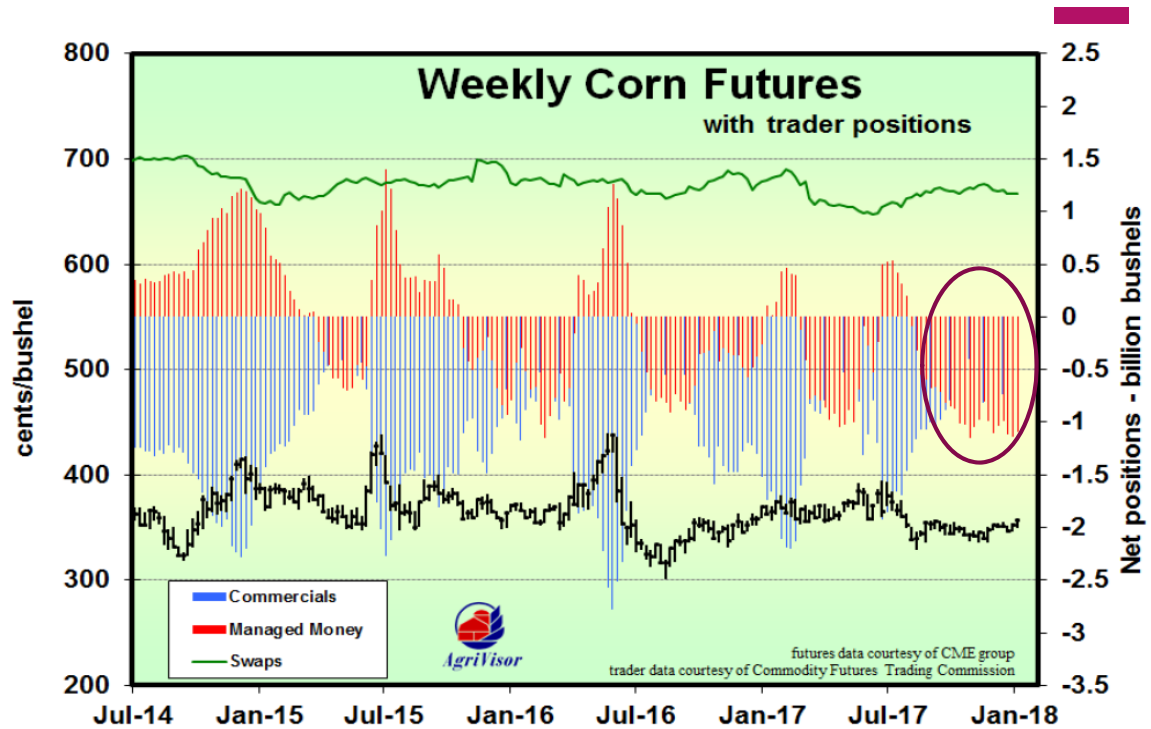
Weekly Chart: December 2008 – January 2018 + 2/5/2018



# CME Corn Futures

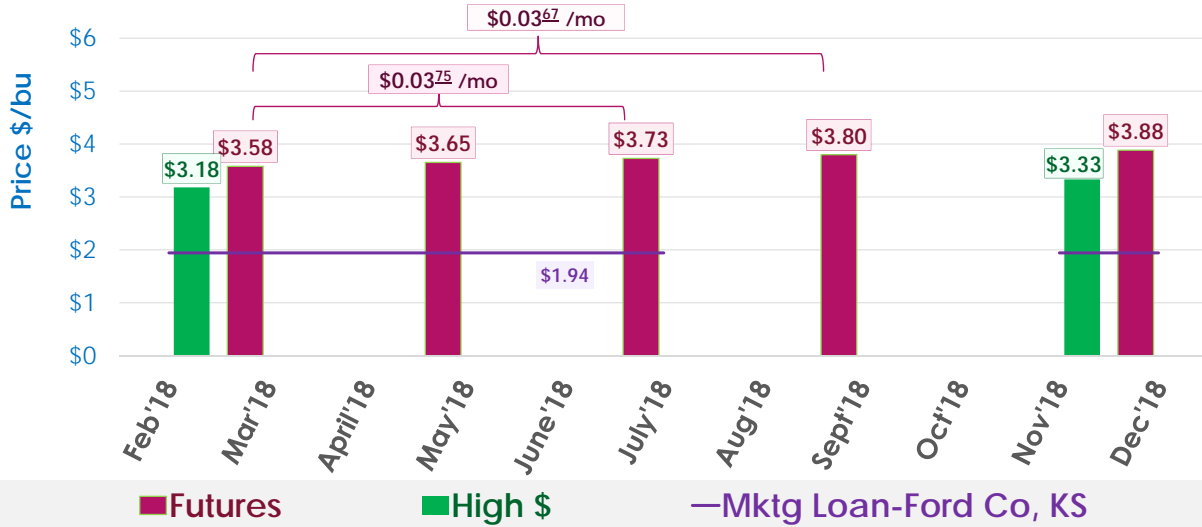
Weekly Chart: December 2008 – January 2018 + 2/5/2018





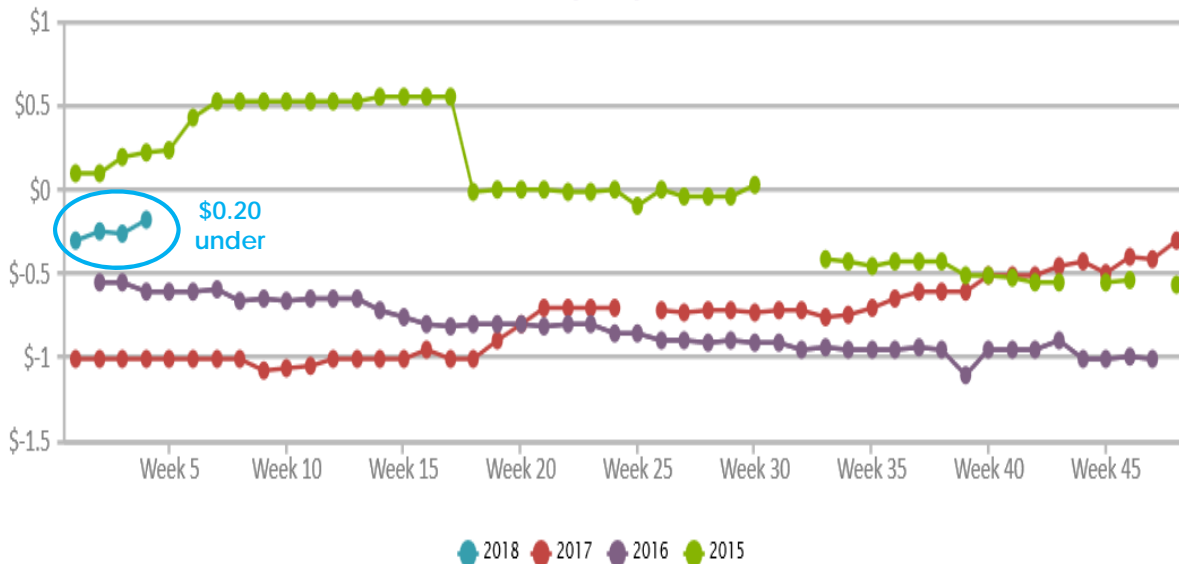
# Grain Sorghum Cash & Corn Futures \$'s

Dodge City, KS Local Elevators – February 5, 2018



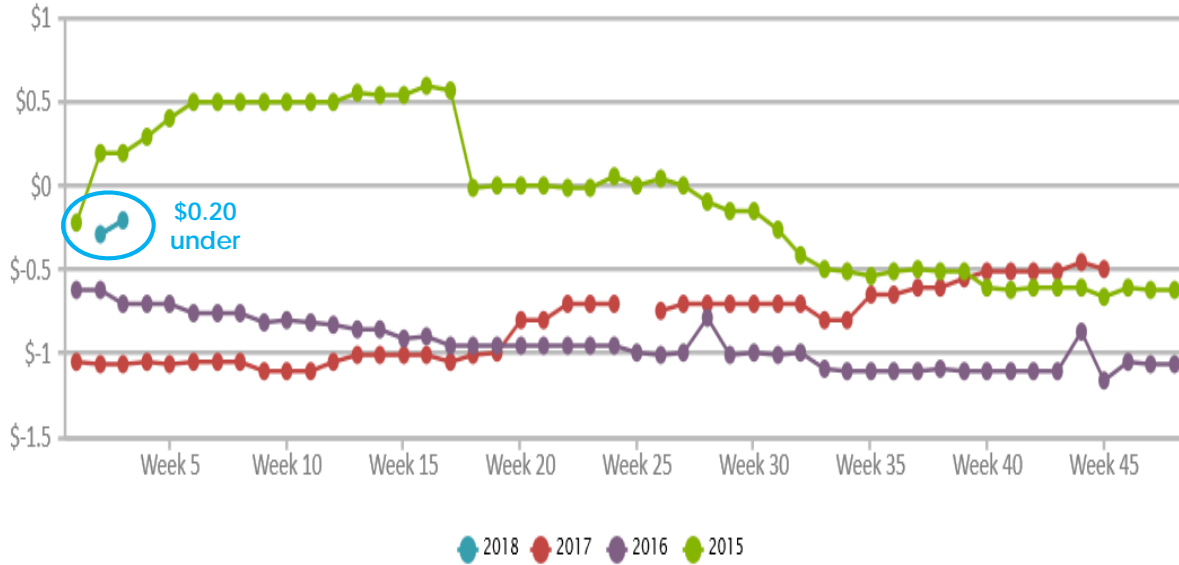
## DODGE CITY, KS: Grain Sorghum Basis - USDA WIRE

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

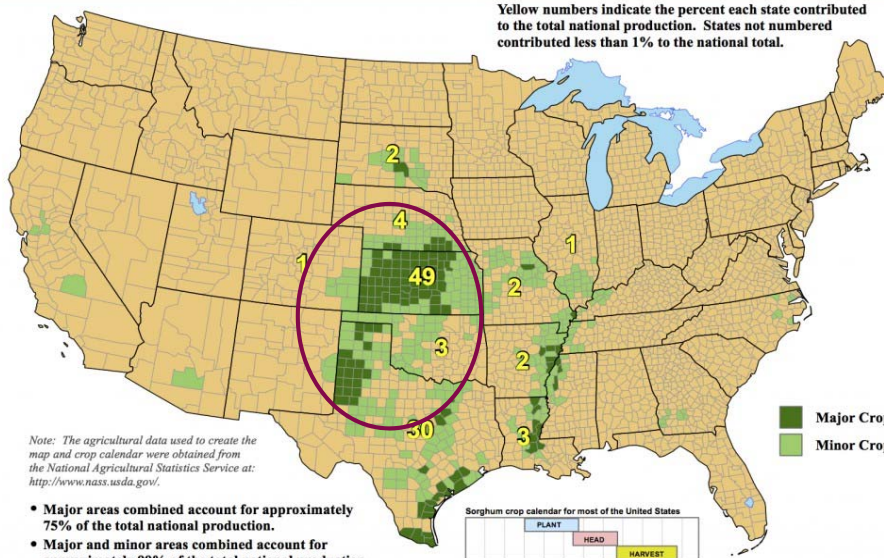


# GARDEN CITY, KS: Grain Sorghum Basis - GARDEN CITY COOP

www.AgManager.info

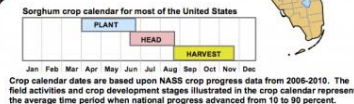


## United States: Sorghum



Note: The agricultural data used to create the map and crop calendar were obtained from the National Agricultural Statistics Service at: <http://www.nass.usda.gov/>.

- Major areas combined account for approximately 75% of the total national production.
- Major and minor areas combined account for approximately 99% of the total national production.
- Major and minor areas and state production percentages are derived from NASS county- and state-level production data from 2006-2010.



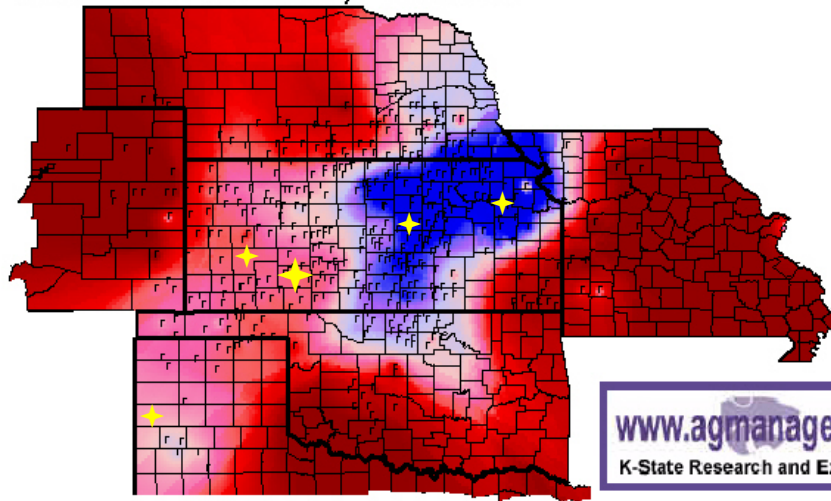
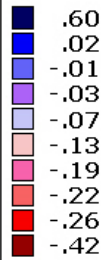
USDA Agricultural Weather Assessments  
World Agricultural Outlook Board

## Grain Sorghum Basis, 01-31-2018

Basis = Cash Price - Nearby Futures Price

CBT Corn  
Mar Futures  
Price: \$3.59

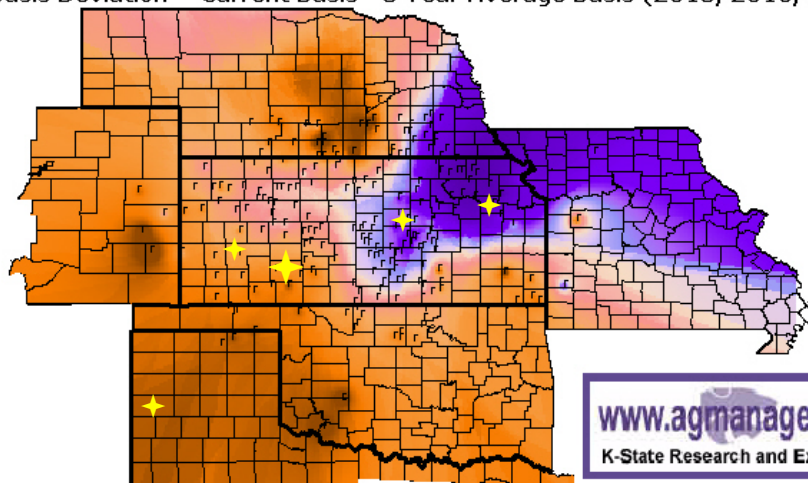
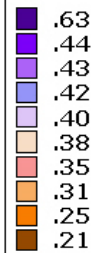
\$/Bushel



## Grain Sorghum Basis Deviation, 01-31-2018

Basis Deviation = Current Basis - 3 Year Average Basis (2015, 2016, 2017)

\$/Bushel



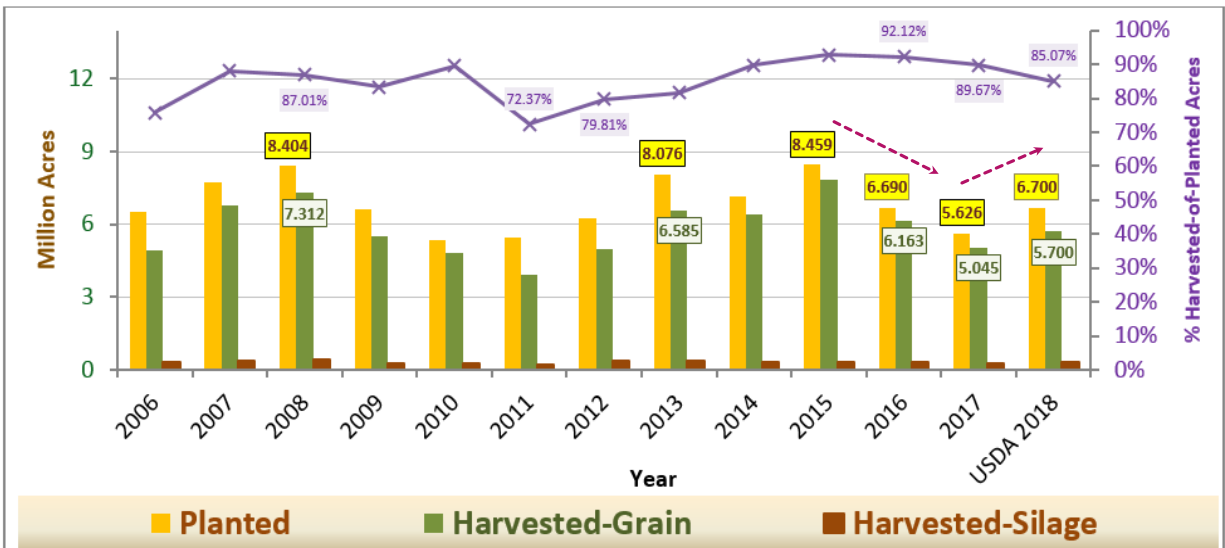
# U.S. Grain Sorghum Supply-Demand

SORGHUM	2015/16	2016/17 Est.	2017/18 Proj.	2017/18 Proj.	
					Dec Jan
	<i>Million Bushels</i>				
Area Planted (mil. acres)	8.5	6.7	5.7	5.6	↓ Crop
Area Harvested (mil. acres)	7.9	6.2	5.0	5.0	
Yield (bushels/acre)	76.0	77.9	70.4	72.1	↓ Supply
Beginning Stocks	18	37	34	33	
Production	597	480	356	364	↓ Domestic Use & ↑ Exports
Imports	5	2	2	2	
Supply, Total	620	519	391	399	↓ Domestic Use & ↑ Exports
Feed and Residual	107	130	60	65	
Food, Seed & Industrial	137	115	50	50	↑ Exports
Total Domestic	244	245	110	115	
Exports	340	241	260	260	↓ Stocks ↑ Prices
Use, Total	583	485	370	375	
Ending Stocks	37	33	21	24	
Avg. Farm Price (\$/bu) 2/	3.31	2.79	2.75 - 3.45	2.85 - 3.45	

# U.S. Corn Supply and Demand

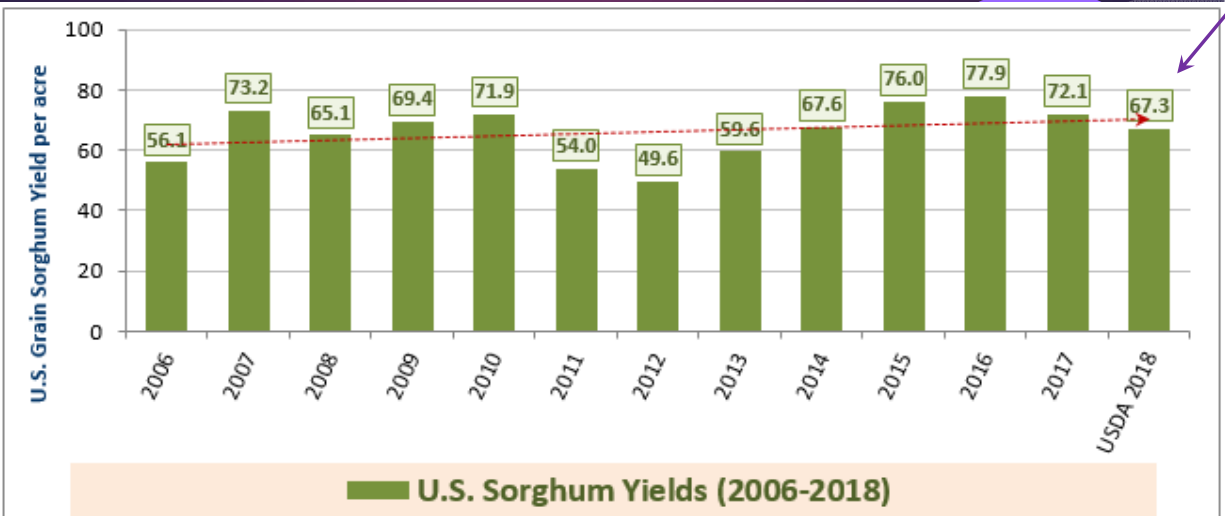
	2016/17 estimate	2017/18 forecast	Change from December 12	Change from 2016/17	
<b>Planted area (million acres)</b>	94.0	90.2	-0.3	-3.8	↓ Crop BUT still Large Supply
<b>Harvested area (million acres)</b>	86.7	82.7	-0.4	-4.0	
<b>Yield (bushels per acre)</b>	174.6	176.6	1.2	2.0	
	<i>Million bushels</i>				
<b>Beginning stocks</b>	1,737	2,293	-2	556	↑ Domestic Use & ↓ Exports
<b>Production</b>	15,148	14,604	27	-544	
<b>Imports</b>	57	50	--	-7	↑ % Stocks/Use & ↓ Prices
<b>Total supply</b>	16,942	16,947	25	5	
<b>Feed and residual</b>	5,467	5,550	-25	83	
<b>Food, seed, and industrial</b>	6,889	6,995	10	106	
<b>Ethanol</b>	5,439	5,525	--	86	
<b>Domestic use</b>	12,356	12,545	-15	189	
<b>Exports</b>	2,293	1,925	--	-368	
<b>Total use</b>	14,649	14,470	-15	-179	
<b>Ending stocks</b>	2,293	2,477	40	184	
	<i>Percent</i>				
<b>Stocks to use ratio</b>	15.7	17.1	0.3	1.5	
	<i>Dollars per bushel</i>				
<b>Average market price</b>	3.36	2.95/3.55	0.05	-0.11	

# U.S. Sorghum Acreage

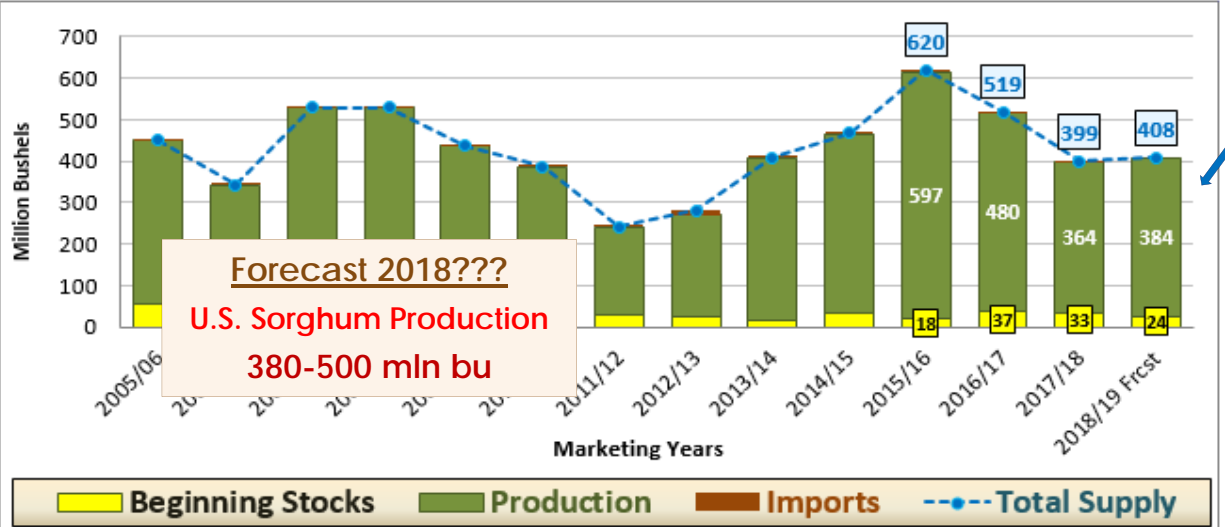


# U.S. Sorghum Yields

USDA 2018 USDA Forecast = 67.3 bu/ac

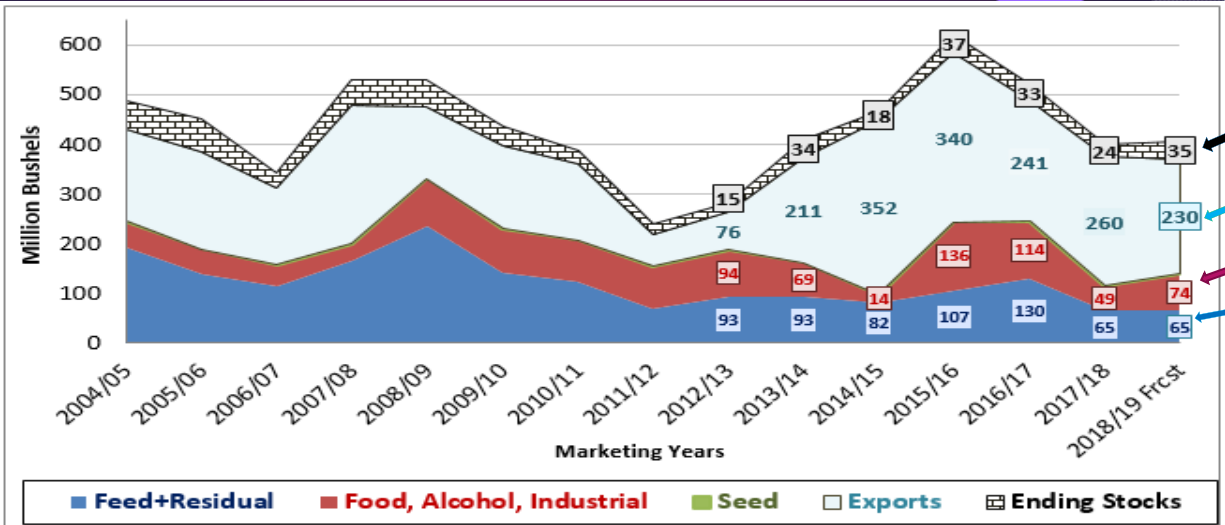


# U.S. Sorghum Crop & Supplies





# U.S. Sorghum Use – By Category



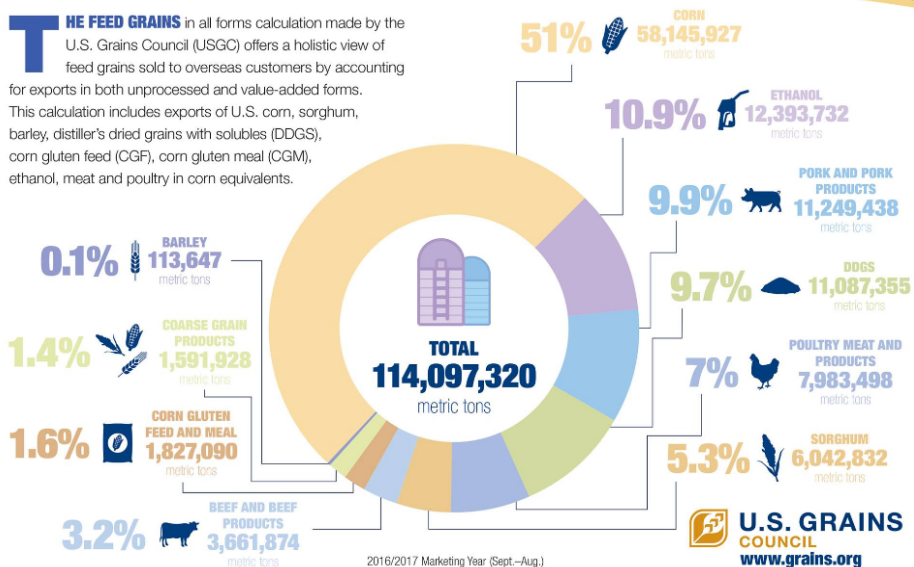
# U.S. Meat Production and Prices

	2017 forecast	2018 forecast	Change from 2017	
<b>Production</b>				
		<i>Billion pounds</i>		
Beef	26.17	27.76	1.59	+6.1%
Pork	25.59	26.96	1.38	+5.3%
Broilers	41.59	42.45	0.86	+2.1%
Turkey	5.99	6.00	0.01	+0.2%
<b>Total meat</b>	<b>100.09</b>	<b>103.94</b>	<b>3.85</b>	<b>+3.8%</b>
<b>Prices</b>				
		<i>Dollars/cwt</i>		
Steers	121.52	118.25	-3.27	} Prices to decline
Hogs	50.48	47.75	-2.73	
		<i>Cents/lb</i>		
Broilers	93.5	90.5	-3.0	
Turkey	96.1	91.0	-5.1	



## How US Grain Was Exported in 2016/2017

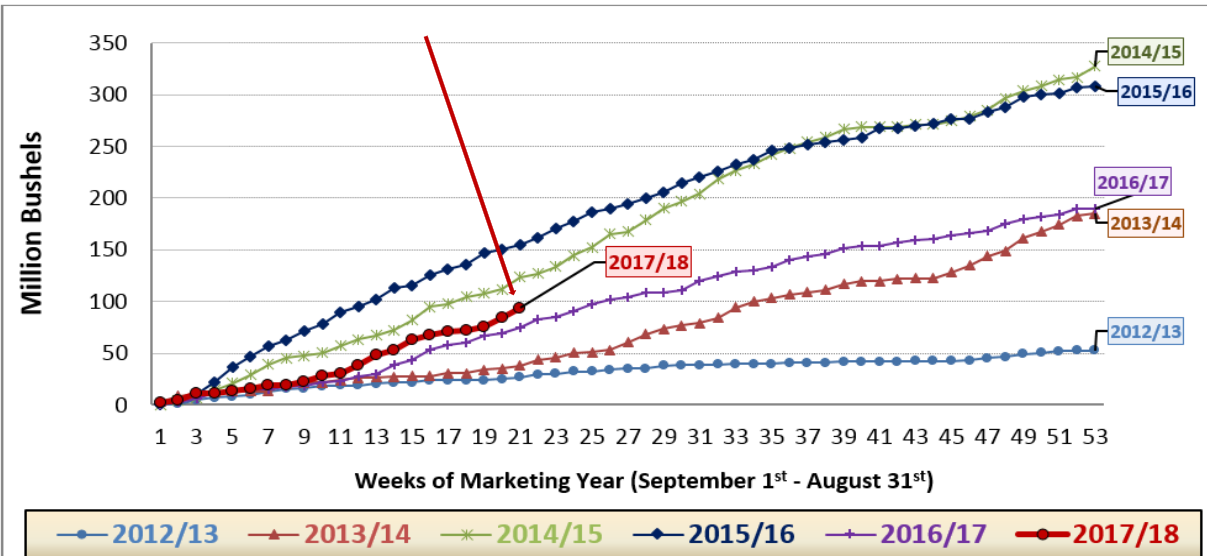
**T**HE FEED GRAINS in all forms calculation made by the U.S. Grains Council (USGC) offers a holistic view of feed grains sold to overseas customers by accounting for exports in both unprocessed and value-added forms. This calculation includes exports of U.S. corn, sorghum, barley, distiller's dried grains with solubles (DDGS), corn gluten feed (CGF), corn gluten meal (CGM), ethanol, meat and poultry in corn equivalents.



2016/2017 Marketing Year (Sept.-Aug.)

**U.S. GRAINS COUNCIL**  
www.grains.org

# U.S. Sorghum Exports – Weekly thru January 25, 2018



## Where Is U.S. Sorghum Going?

### TOP U.S. EXPORT CUSTOMERS





### Dollar amount\*

1	CHINA	\$1.47 BILLION
2	MEXICO	\$117.3 MILLION
3	PAKISTAN	\$41.7 MILLION
4	SUDAN	\$34.9 MILLION
5	SOUTH AFRICA	\$17.5 MILLION
	Kenya	\$15.8 million
	Djibouti	\$14.6 million
	Japan	\$12.4 million
	Somalia	\$11.2 million
	Colombia	\$11.1 million

### Metric tons

1	CHINA	7,005,660
2	MEXICO	606,127
3	PAKISTAN	204,394
4	SUDAN	193,040
5	SOUTH AFRICA	99,266
	Kenya	86,337
	Djibouti	80,528
	Japan	67,788
	Colombia	63,528
	Somalia	58,107

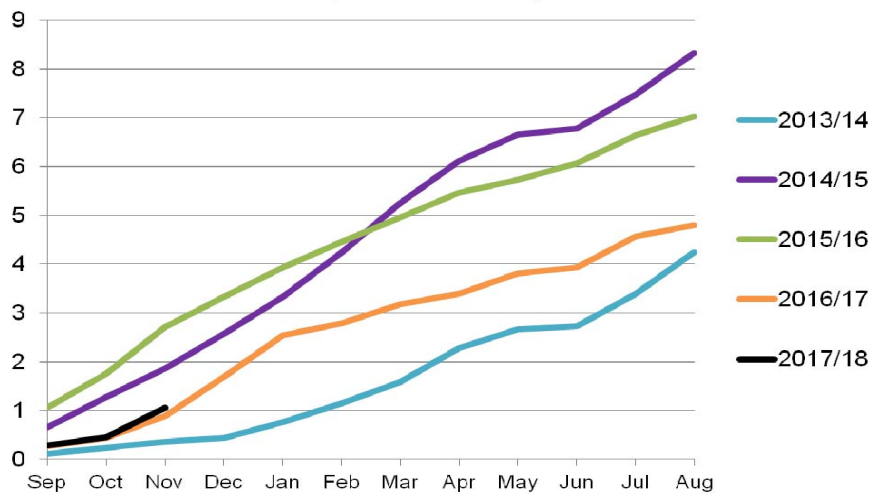
Source: USDA Foreign Agriculture Service's Global Agriculture Trading System report for marketing year Sept. 1, 2015 to Aug. 31, 2016.

\*Sorghum is sold based on contract and at varying rates, therefore, top rankings for tonnage do not align with rankings for value.



## U.S. Exports of Sorghum to China

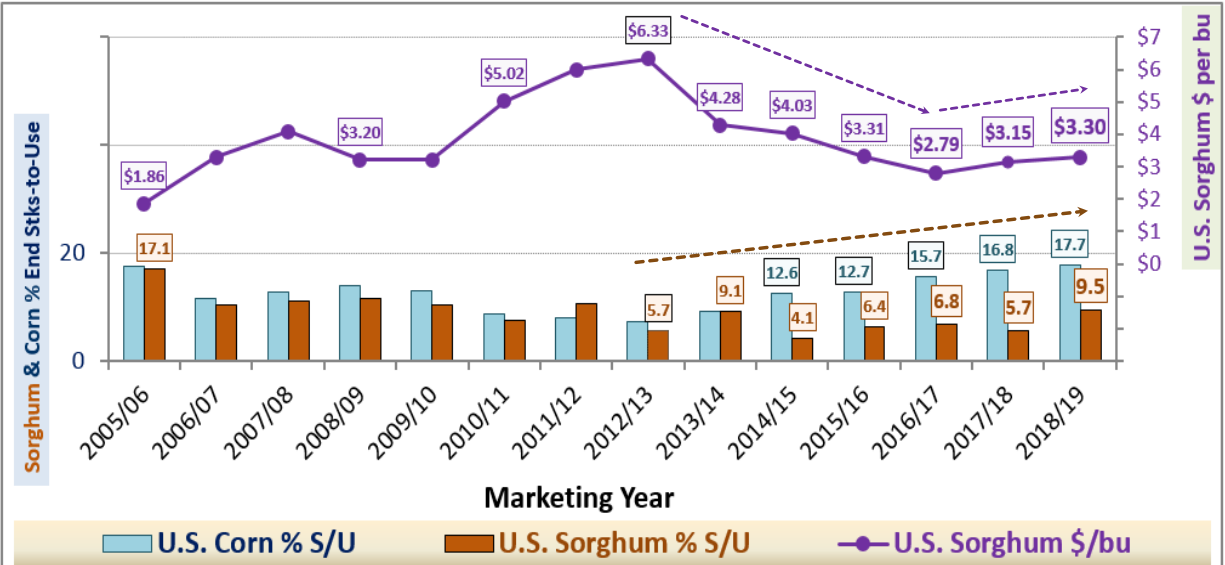
(millions of tonnes)



Data source: U.S. Department of Agriculture/Foreign Ag Service

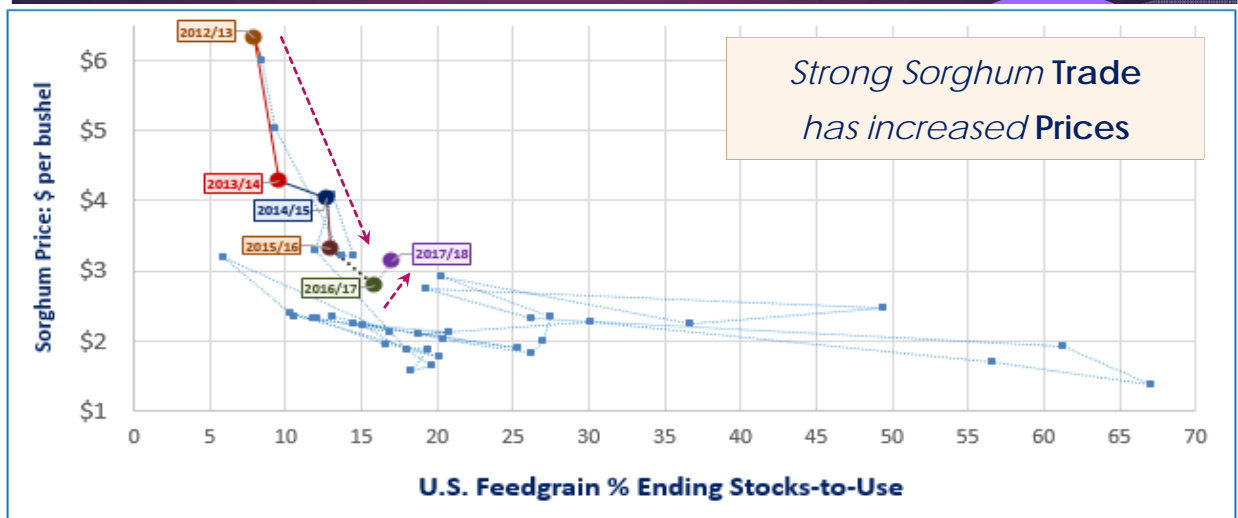
@kannbwx

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



# U.S. Milo \$ vs U.S. Feedgrain % Stocks/Use

MY 1973/74 thru "New Crop" MY 2017/18





# Questions?

**Daniel O'Brien – Extension Ag Economist**

Blog: [www.ksugrains.wordpress.com](http://www.ksugrains.wordpress.com)

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



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