2015 Corn Markets & Profit Prospects

2015 KSU Corn School

Atchison, Kansas

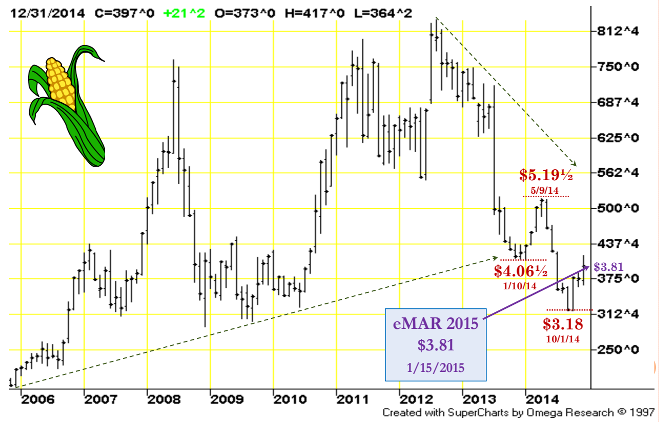
January 16, 2015

Daniel O'Brien, Extension Ag Economist

Kansas State University
Department of Agricultural Economics

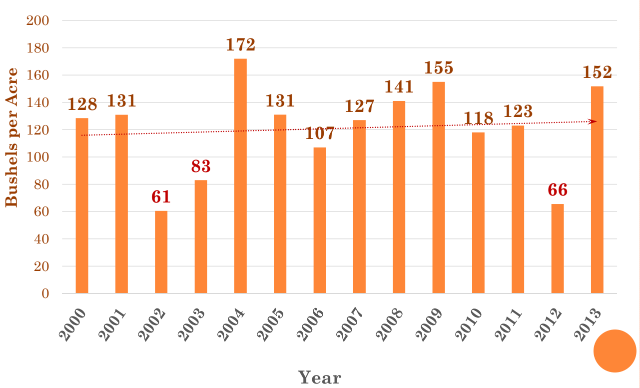
CBOT Corn Futures

Monthly Chart: November 2005 – December 2014 + 1/15/2015



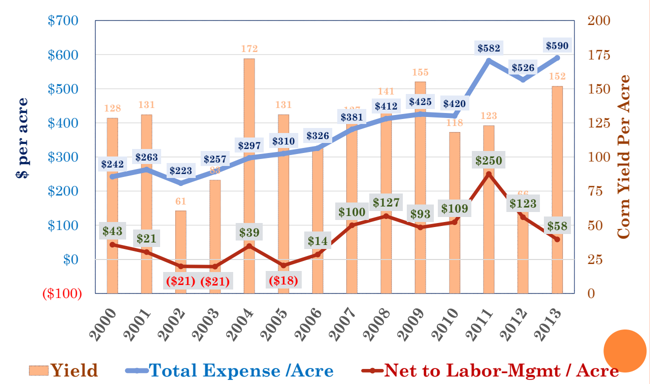
Non-Irrigated Corn in NE Kansas

KFMA Enterprise Yields (2000 – 2013)



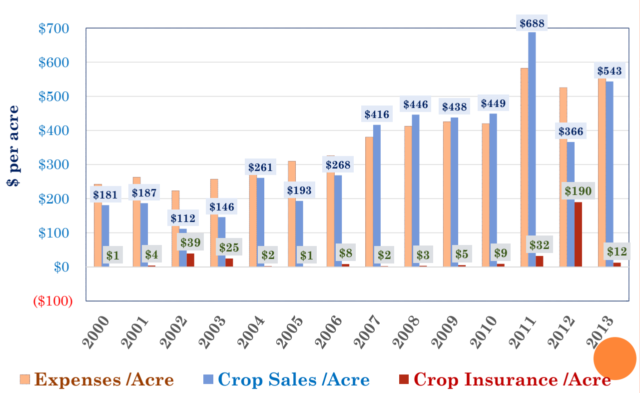
Non-Irrigated Corn in NE Kansas

KFMA Enterprise Yields, Costs & Returns / acre



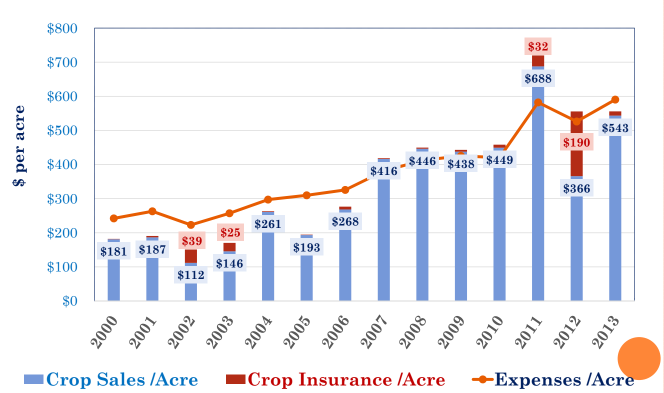
Non-Irrigated Corn in NE Kansas

KFMA Enterprise Costs, Sales & Insurance / acre



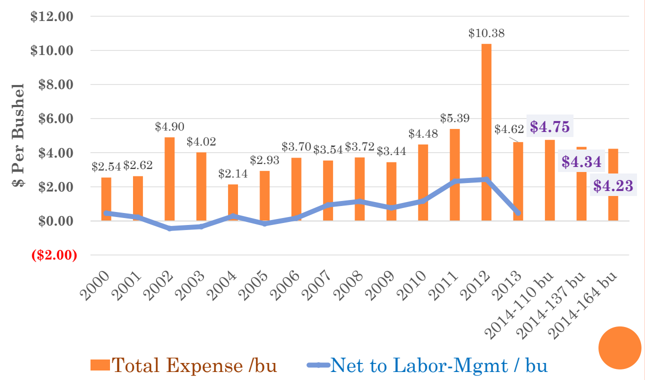
Non-Irrigated Corn in NE Kansas

KFMA Enterprise Costs, Sales & Insurance / acre



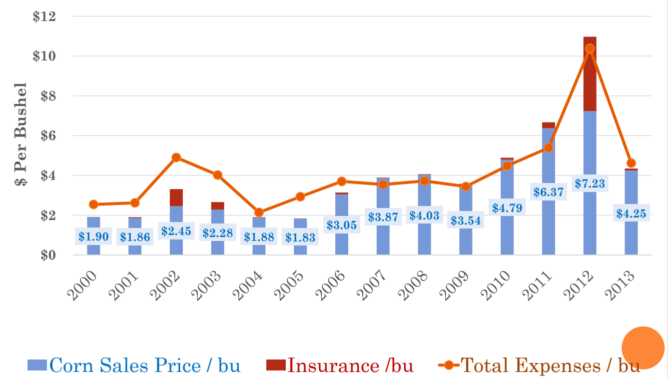
Non-Irrigated Corn in NE Kansas

KFMA & KSU Total Expenses & Returns / Bushel



Non-Irrigated Corn in NE Kansas

KFMA & KSU Expenses, Sales & Insurance / Bushel



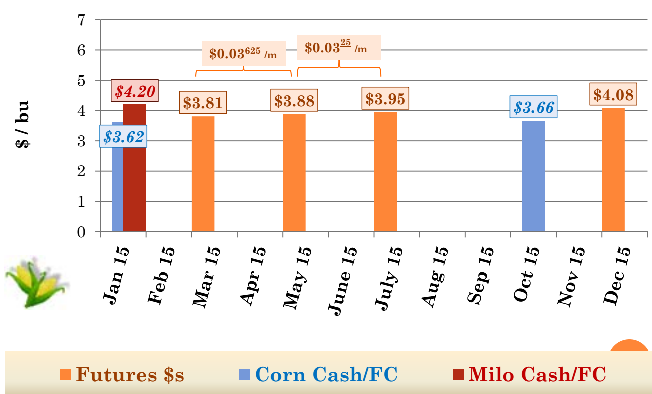
Feed Grain Market "Drivers"

- A large 2014 U.S. corn crop & higher end stocks caused Kansas cash bids to ⇩ ($3.39-$3.62 /bu)
- **In Question**: Prospects for higher prices from mid-January through Summer & Fall 2015???
- ⇧ **World Corn/Coarse Grain** Supplies & Ending Stocks in "new crop" 2014/15

Q?: Will questions about 2015 U.S. corn planted acres & crop development *boost prices* seasonally in the spring?

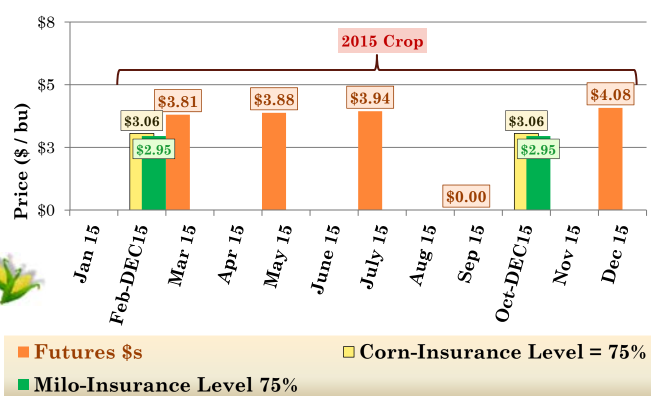
Corn Futures - Feedgrain Cash$

Atchison-Cash, Lancaster-FC[CN] 1/15/2015



Corn Futures & Crop Insurance

Crop Revenue price Calculations, January 15, 2015



RMA Price Discovery Periods for 2015 Crops – Projected Prices

A. 2015 Kansas Corn

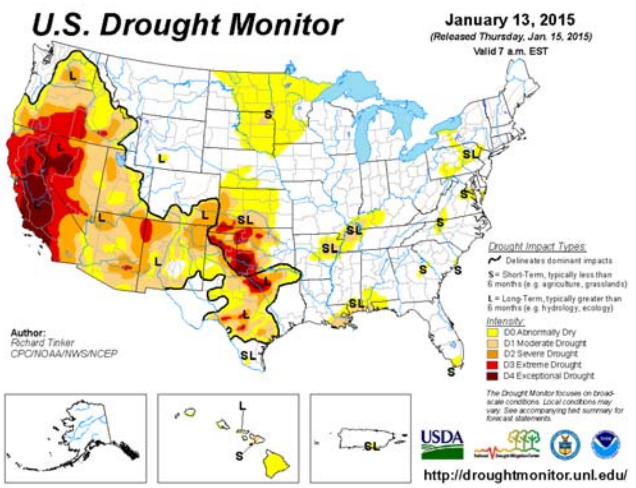
- DEC 2015 CBOT Corn Futures (Currently ≈ $4.07 ¾ /bu)
  - *Projected $* Discovery Period: 2/1/2015 – 2/28/2015
- **@ 75% APH: Price coverage = 75% x $4.07 ¾ /bu**

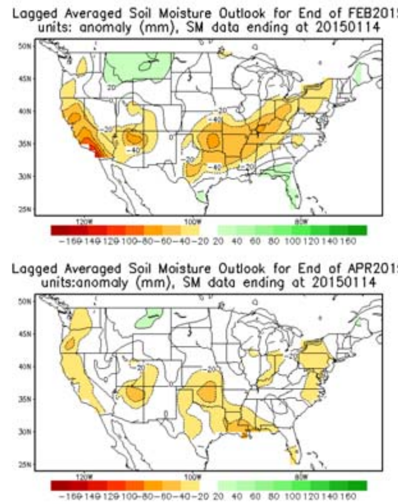
≈ $3.06

B. 2015 Kansas Grain Sorghum

- DEC 2015 CBOT Corn Futures (Currently ≈ $4.07 ¾ /bu)
  - *Projected $* Discovery Period: 2/1/2015 – 2/28/2015
- **@ 75% APH: Price coverage = 75% x $4.10 /bu x .9660**

≈ $2.95





Light Crude Oil (NYMEX Futures)

Monthly Chart: November 2005 – December 2014 + 1/15/2014

U.S. Dollar Index (ICE Futures)

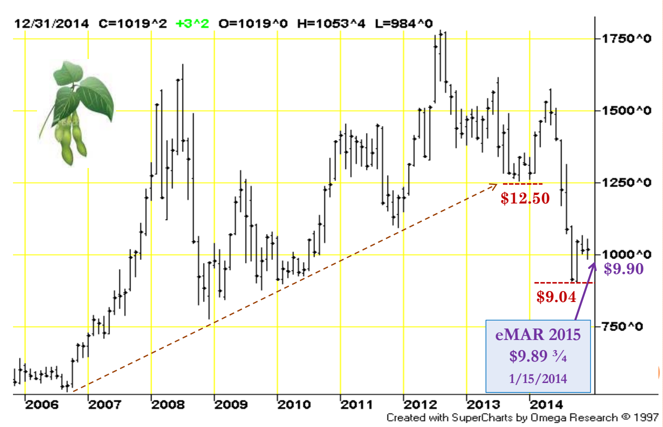
Weekly Chart: January 2013 – January 15, 2014

Kansas City Wheat Futures

Monthly Chart: November 2005 – December 2014 + 1/15/2015

CBOT Soybean Futures

Weekly Chart: November 2005 – December 2014 + 1/15/2015



RMA Price Discovery Periods for 2015 Crops – Projected Prices

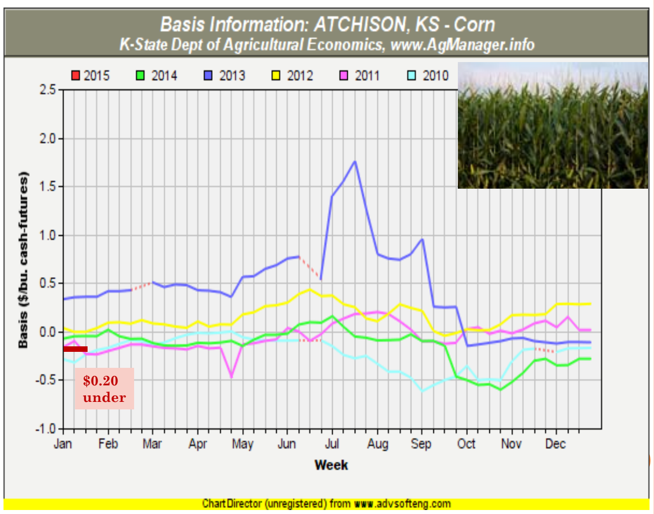
A. 2015 Kansas HRW Wheat

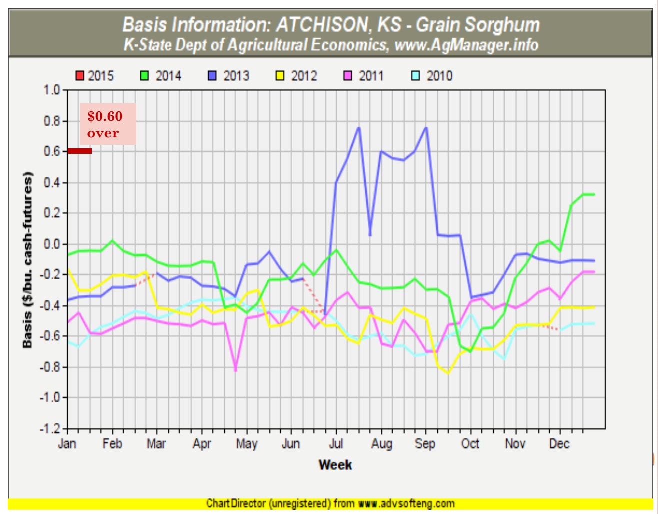
- JULY 2015 Kansas Wheat Futures (= $6.30 /bu projected price)
  - *Projected $* Discovery Period: 8/15/2014– 9/15/2014
- Current JULY 2015 Kansas Wheat Futures (= $5.83 ¼ /bu)
  - *Harvest $* Discovery Period: 6/1/2015– 6/30/2015
- **At 75% APH: Price coverage = 75% x $6.30 /bu = $4.72[50]**

B. 2015 Kansas Soybeans

- NOV 2015 CBOT Soybean Futures (Currently ≈ $9.74 ¾ /bu)
  - *Projected $* Discovery Period: 2/1/2015 – 2/28/2015
- **At 75% APH: Price coverage = 75% x $9.74 ¾ /bu = $7.31**

Corn Market

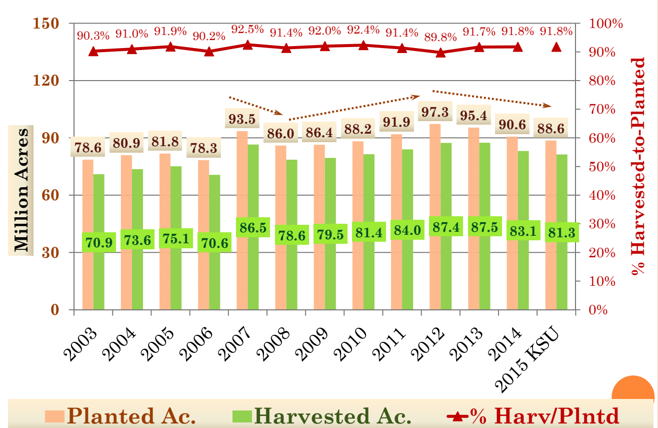




U.S. Corn Supplies

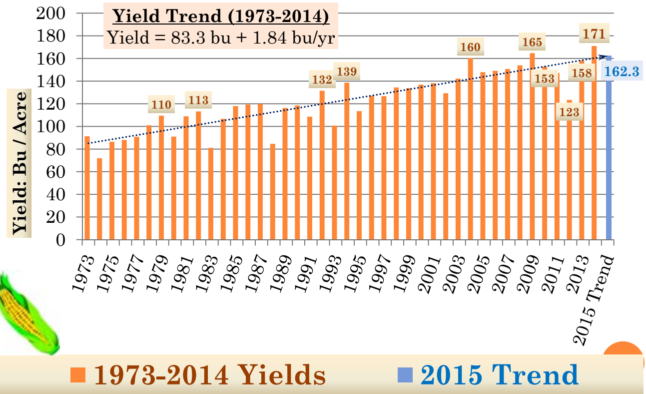
- **Planted Area**^{2014} = 90.6 mln ac
  - ⇩ 2.0 to 88.6 mln ac in 2015? *KSU*
- **Harvested Area**^{2014} = 83.1 mln ac
  - ⇩ 1.8 to 81.3 mln ac in 2015? *KSU*
- **Yield**^{2014} = 171.0 bu/ac
  - 2015 Trend (1973-2014)= 162.3 bu/ac *KSU*
- **Production**^{2014} = 14.216 bln bu (record)
  - 2015^{est} = 13.191 bln bu *KSU*
- **Total Supply**^{2014} = 15.472 bln bu (record)
  - 2015^{est} =15.093 bln bu *KSU*

U.S. Corn Acreage

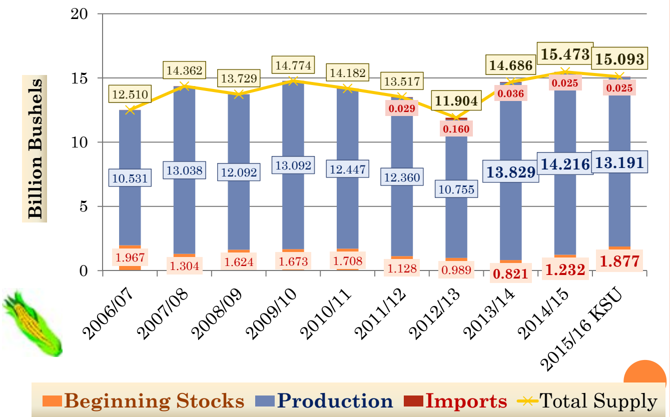


U.S. Corn Yields

USDA 2014 = 171.0 bu/ac; 2015 Trend[1973-2014] = 162.3



U.S. Corn Total Supplies



U.S. Corn Use in 2014/15

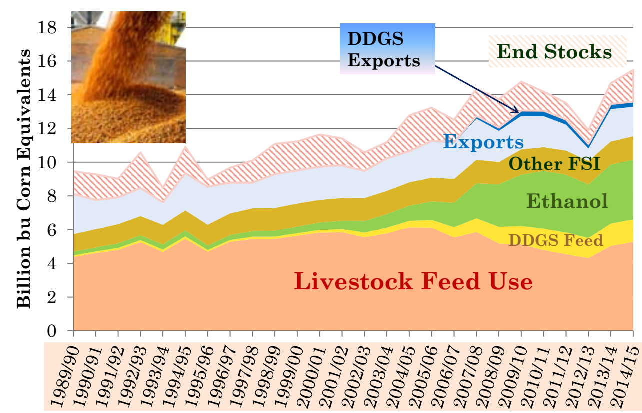
- **Ethanol** – 5.175 bln bu. *record!*
  - *"Blend wall" / RFS / DDG Exports?*

- **Other FSI** – 1.395 bb (⇧2%)

- **Exports** – 1.750 bb (⇩9%)
  - ⇩ vs 1.917 bb in MY 2013/14

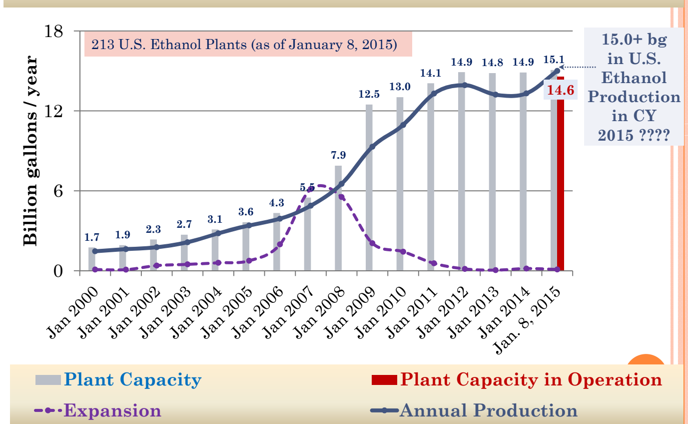
- **Feed+Residual** – 5.275 bb (⇧3%)
  - ⇧ vs 5.134 bb in MY 2013/14
- **Total Use** – 13.595 bb (⇧1%) *record!*
  - ⇧ vs 13.454 bb in MY 2013/14 *(old record)*

U.S. Corn Use - With Est. DDGS #s



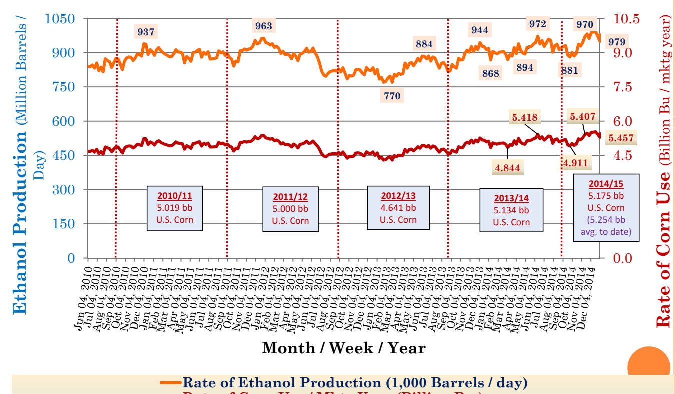
U.S. Ethanol Capacity & Production

Source: Renewable Fuels Association as of January 8, 2015



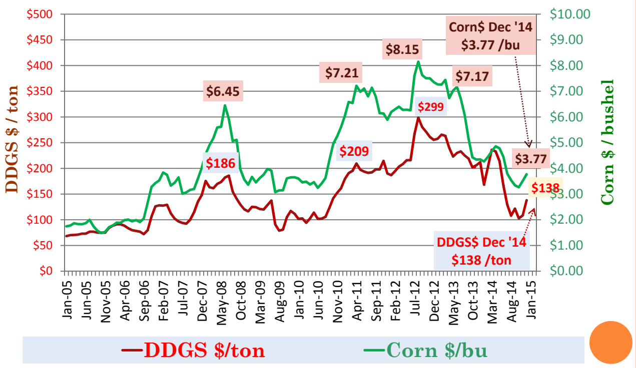
U.S. Ethanol Production & Corn Use

Weekly EIA ethanol data & KSU corn use est's. (6/4/2010 thru 1/2/2015)



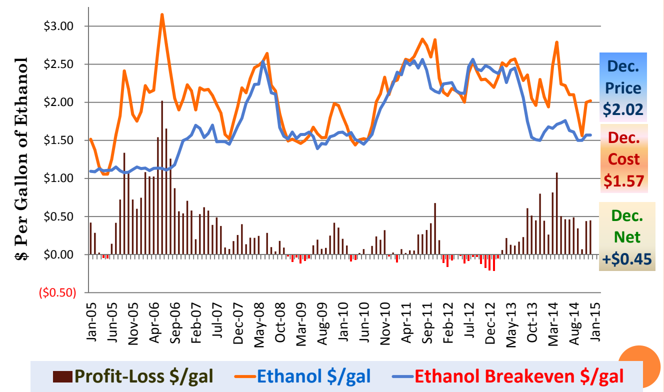
Ethanol DDGS & Corn Prices

ISU Ethanol Plant Model (January 2005 – December 2014)



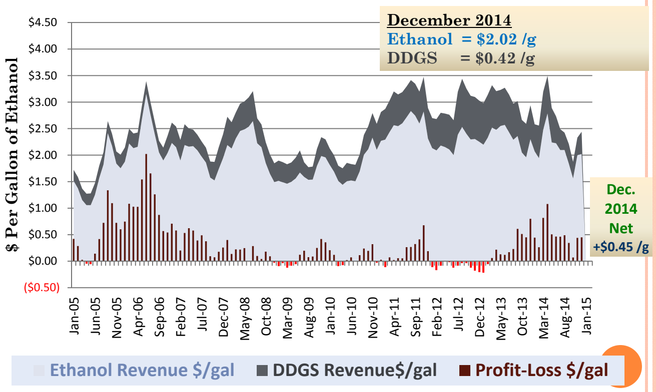
Ethanol Price, Cost & Profits

ISU Ethanol Plant Model (January 2005 – December 2014)



Ethanol Revenues & Net Returns

ISU Ethanol Plant Model (January 2005 – December 2014)



U.S. Corn Supply-Demand

USDA WASDE Report: January 12, 2015

	2012/13	2013/14	2014/15
Planted Ac. (mln.)	97.3	95.4	90.6
Harvested Ac (mln.)	87.4	87.5	83.1
Yield (bu./ac.)	123.1	158.1	171.0
Beginning Stocks	989	821	*-4 mb* 1,232
Imports	160	36	25
Production	**10,755**	*-96 mb* **13,829**	*-191 mb* **14,216**
Total Supplies	11,904	*-96 mb* 14,686	*-196 mb* 15,472
Ethanol	**4,641**	**5,134**	*+25 mb* **5,175**
Other FSI	1,397	1,367	1,395
Exports	730	1,917	1,750
Feed & Residual	4,315	*-96 mb* 5,036	*-100 mb* 5,275
Total Use	**11,083**	*-92 mb* **13,454**	*-75 mb* **13,595**
End Stocks (%S/U)	(7.4%) 821	(9.2%) 1,232	(13.8%) 1,877
U.S. Avg. Farm *$/bu*	*$6.89*	*$4.46*	*+$0.15* *$3.65*

U.S. Corn S-D Projections

USDA WASDE Report (1/12/2015) & KSU Estimates

	2014/15 USDA	2014/15 KSU	2015/16 KSU
Planted Ac. (mln.)	90.6	90.6	*-2.0 ma* 88.9
Harvested Ac (mln.)	83.1	83.1	-1.8 ma 81.3
Yield (bu./ac.)	171.0	171.0	*-8.7 bu* 162.3
Beginning Stocks	1,232	1,232	1,877
Imports	25	25	25
Production	14,216	14,216	13,191
Total Supplies	15,472	15,472	15,093
Ethanol	5,175	*+0.5%* 5,201	5,150
Other FSI	1,395	1,395	1,385
Exports	1,750	*+5%* 1,838	1,800
Feed & Residual	5,275	5,275	5,275
Total Use	13,595	*+0.8%* 13,709	13,610
End Stocks (%S/U)	(13.8%) 1,877	(12.9%) 1,763	(10.9%) 1,483
U.S. Avg. Farm $	***$3.65***	+$0.20 *$3.85*	*$4.20*

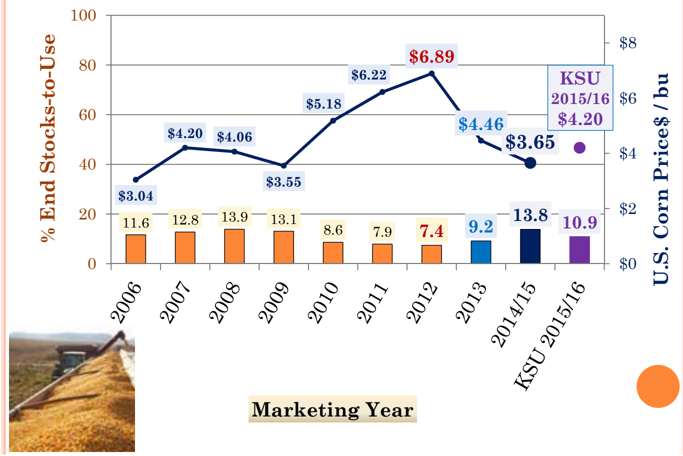
U.S. Corn End Stocks & %S/U

U.S. Sorghum Supply-Demand

USDA WASDE Report: January 12, 2015

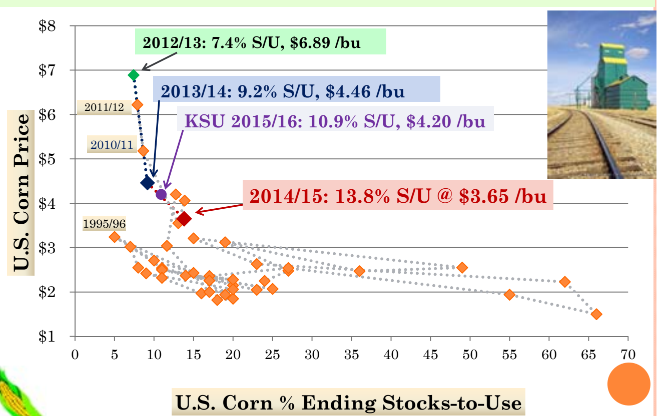
	2012/13	2013/14		2014/15
Planted Ac. (mln.)	6.2	8.1		7.1
Harvested Ac (mln.)	5.0	6.6		6.4
Yield (bu./ac.)	49.6	59.6		67.6
Beginning Stocks	23	15		34
Imports	10	0		0
Production	**248**	**392**	+25 mb	**433**
Total Supplies	280	408	+25 mb	467
Food, Seed, Indust.	95	**70**	-35 mb	**45**
Exports	76	**212**	+40 mb	**270**
Feed & Residual	94	**92**	+25 mb	**120**
Total Use	265	**374**	+30 mb	**435**
End Stocks (%S/U)	(5.7%) 15	(9.1%) 34		(7.4%) 32
U.S. Avg. Farm $	$6.33	$4.28	+$0.30	$3.80

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

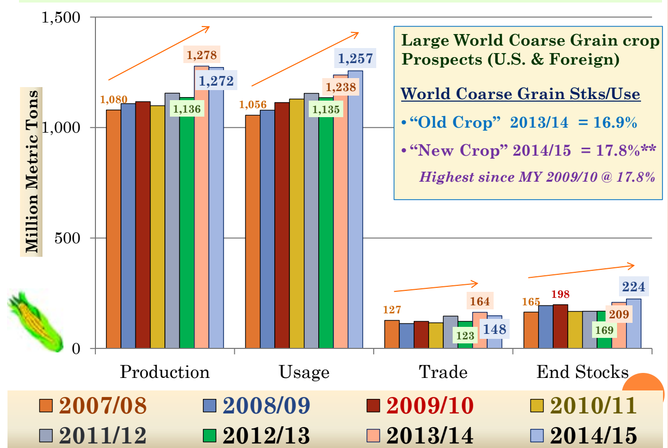


U.S. Corn $ vs % Stocks-to-Use

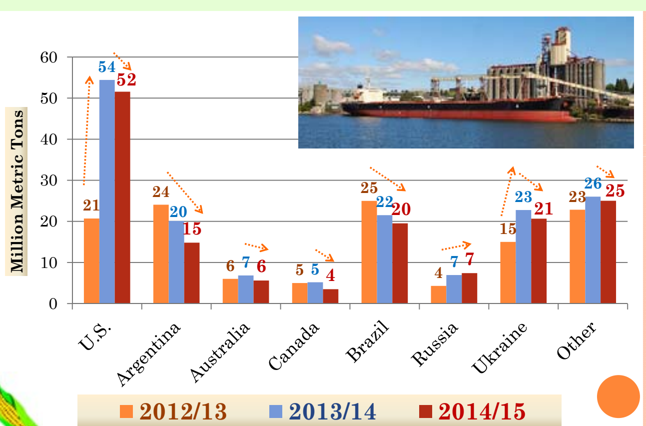
MY 1973/74-2014/15 1/12/2015 USDA Reports & KSU Forecast



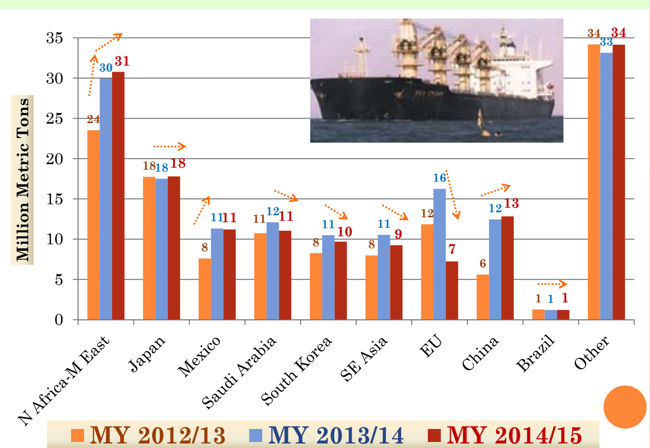
World Coarse Grain S-D



Coarse Grain Exporters

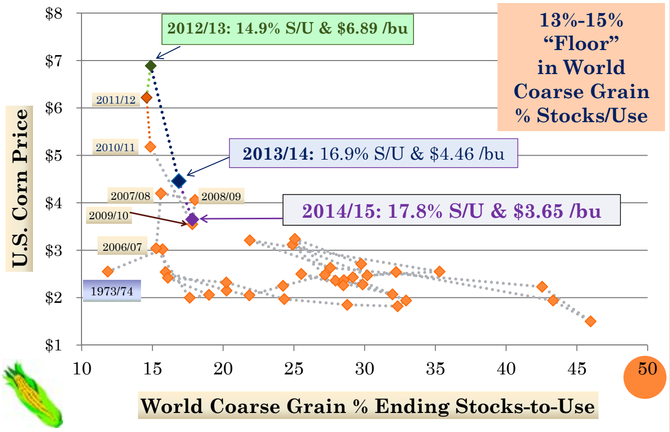


Coarse Grain Importers



U.S. CORN$ vs WORLD COARSE GRAIN %S/U

MY 1973/74 - 2014/15, JANUARY 12, 2015 USDA WASDE



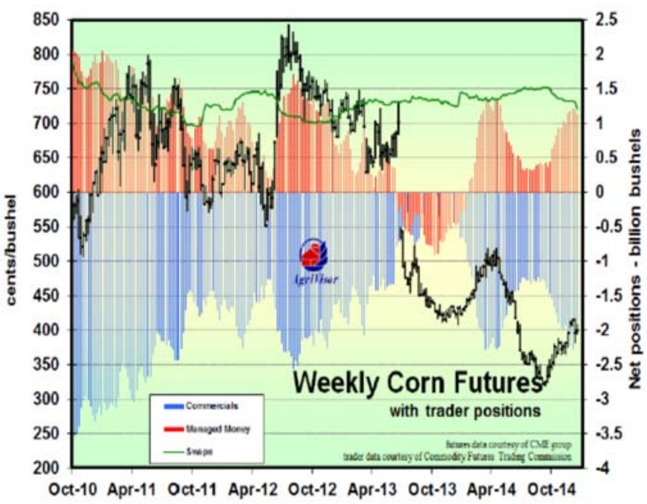
FEEDGRAIN MARKET PROSPECTS

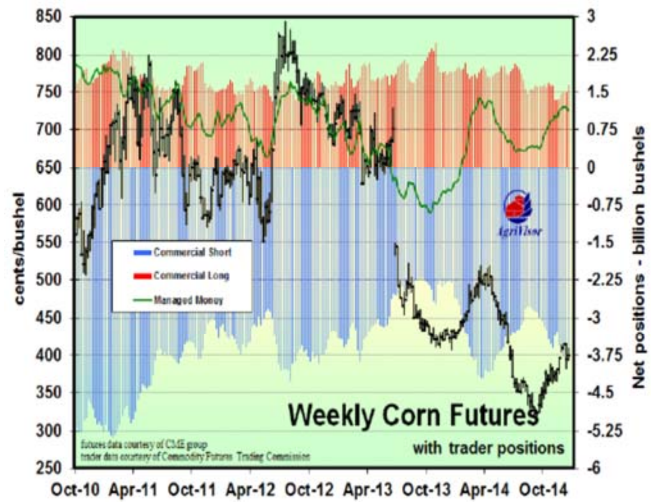
- **Large 2014 Crops are here!**
  - MAR 2015 corn < $4.00 /bu ($3.81)

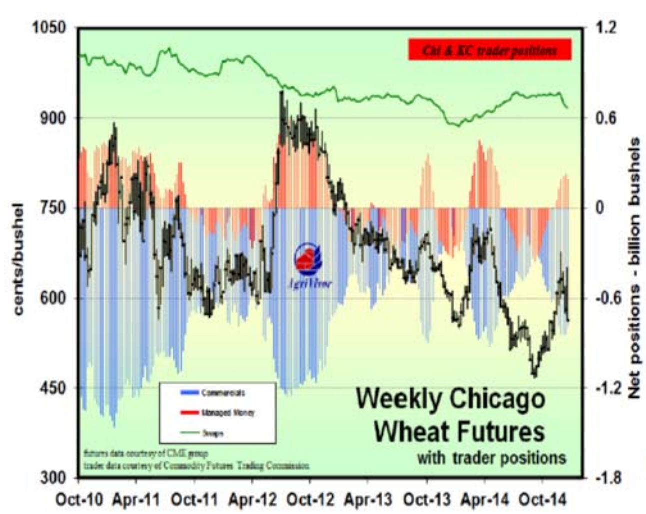
- **2015 Market Prospects?**
  - A "**storage-till-Spring**" market – holding grain & look for opportunities
  - *South American Crop Prospects may "drive the market" until Spring 2015*

- **Planted Acres in 2015?**
  - New Crop Soy/Corn^{2015} Ratio = **2.39**

⇒ **Favors soybeans "slightly"**







QUESTIONS?

DANIEL O'BRIEN – EXTENSION AGRICULTURAL ECONOMIST

KANSAS STATE UNIVERSITY

DOBRIEN@KSU.EDU

KSUGRAINS ON TWITTER & FACEBOOK

WWW.AGMANAGER.INFO

KANSAS STATE UNIVERSITY | Department of Agricultural Economics