

2017 Risk and Profit Conference General Session Speakers



GENERAL SESSION IV Grain Market Situation and Outlook

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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

"Grain price volatility in response to production uncertainty" was the rule in July 2018 as serious drought conditions developed in the U.S. Northern Plains states and expanded into Iowa late in the month. As a result, 2017 U.S. and Canadian Hard Red Spring wheat production prospects declined significantly from a year earlier, as did prospects for corn and soybean production in these drought-affected areas.

Throughout June-July and into early August, U.S. grain markets had reflected this production uncertainty via volatile futures trade. From June 1st through July 28th, CME DEC 2017 corn futures traded in the range from \$3.74 per bushel (on 6/23) to \$4.17 ¼ (on 7/11), closing at \$3.88 on 7/28. During the same period, CME NOV 2017 soybean futures traded in the range from \$9.11 (on 6/23) to \$10.47 (on 7/11), closing at \$10.13 on 7/28. Also since June 1st, CME DEC 2017 Kansas HRW wheat futures traded in the range from \$4.67 ¾ (on 6/1) to \$6.02 (on 7/5), closing down to \$5.08 ¼ on 7/28. Spot cash grain basis levels in Kansas for corn, grain sorghum, wheat and soybeans all continue to be "weaker" or "wider" than in previous years through late July – reflecting large carryover stocks resulting from several consecutive years of large, successful production in Kansas and the U.S..

The final "destination" of grain market prices in September-November 2017 is primarily dependent on the crop production-related results of the August 10th, September 12th, October 12th, and November 9th USDA Crop Production and World Agricultural Supply and Demand Estimates (WASDE) reports. Through the July 12th USDA reports the USDA has maintained it's "large crops, and low prices" projections for corn, grain sorghum and soybeans. However, as actual USDA farmer and in-the-field crop surveys come available in the August 10th reports, there is much more likelihood of "supply shocks" occurring from either higher or lower than expected 2017 production estimates. These USDA reports could cause feedgrain, wheat and oilseed markets to be extremely volatile – in either or both directions! The Kansas wheat market continues to be plagued with large local carryover stocks and moderate-at-best protein levels. But 2017 U.S. and Canadian HRS wheat production problems have dramatically raised premiums for HRW wheat offered by processors in Wichita for available moderate-to-high protein supplies (i.e., from Ordinary to 11%, 12%, and 13% protein).

From the perspective of grain market information available in early August 2017, it would not be surprising to see at least moderately if not sharply **lower** U.S. corn production prospects from August 17-18th (i.e., the dates of the 2017 K-State Risk and Profit Conference) through September-November 2017. If this were to happen, then prices for all major U.S. grains and oilseeds would likely move at least sideways to somewhat higher from early August levels. For this **NOT** to happen, a major positive change in 2017 U.S. crop production prospects will have to occur from August 1st through 18th. While possible, the likelihood of lower U.S. grain prices in fall 2017 than a year earlier is considerably less than it was one year ago.



Topics to be discussed.....

1) Financial Needs that will drive Kansas Grain Markets

2) Grain Market Analysis & Outlook

- Corn & Grain Sorghum
 - Wheat
 - Soybeans & Cotton

3) Economic "forces at work" in the grain markets & where they are taking us...

Financial <u>Needs</u>

that will "Drive"

A farm level "Cash Flow" CRISIS that may FORCE early grain marketings in Fall-Winter 2017**

Kansas Farmer's

Grain Marketings















U.S. Corn & Sorghum Supply-Use

- Corn "issues" in the August USDA Crop Production Report
- Large Corn Stocks are limiting Feedgrain Price\$'s
- Low Price\$'s supporting "New Crop" MY 2017/18 Corn Use
 - Livestock Feed 2017/18 = 5.450 bln bu (10 year high vs 5.858 bb in 2007/08)
 - Ethanol $^{2017/18}$ = 5.500 bln bu (*Record high* vs 5.425 bb last year)
 - o Other FSI $^{2017/18}$ = 1.500 bln bu (4 year high vs 1.424 bb in 2011/12)
 - **Exports**^{2017/18} = 1.850 bln bu (*vs* 2.225 *bb in* '16/17 & 1.901 *in* '15/16)

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U.S. Corn & Sorghum Stocks.....

<u>Corn</u>: "Large" Stocks & % S/U

• End Stocks $^{2017/18}$ \Rightarrow	2.273 bln bu	(2 nd highest since 1987/88)
o % Stocks/Use ^{2017/18} ⇔	15.9% S/U	(2 nd highest since 2005/06)

• Grain Sorghum: "Low" Price\$'s (following low Corn Price\$'s)

\circ End Stocks ^{2017/18}	\Rightarrow	52 Mln bu	(2 nd highest since 2008/09)

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• **% Stocks/Use**^{2017/18} ⇒ 14.1% S/U (Highest since 2005/06)







Kansas Corn Seasonal Cash \$ Index

Monthly: 17 yr Avg thru 2015/16 + MY 2016/17 & MY 2017/18



Sorghum Cash & Futures \$'s

Salina & Garden City, KS Local Elevators - August 17, 2017







U.S. Corn Supply and Demand

		-		
	2016/17	2017/18	Change from	Change from
	estimate	forecast	July 12	2016/17
Planted area (million acres)	94.0	90.9		-3.1
Harvested area (million acres)	86.7	83.5		-3.3
Yield (bushels per acre)	174.6	169.5	-1.2	-5.1
		Millio	on bushels	
Beginning stocks	1,737	2,370		633 🖌
Production	15,148	14,153	-102	-995 🖌
Imports	55	50		-5
Total supply	16,940	16,573	-102	-367
Feed and residual	5,425	5,450	-25	25
Food, seed, and industrial	6,920	7,000		80
Ethanol	5,450	5,500		50
Domestic use	12,345	12,450	-25	105
Exports	2,225	1,850	-25	-375 🖌
Total use	14,570	14,300	-50	-270
Ending stocks	2,370	2,273	-52	-97 🖌
		P	ercent	
Stocks to use ratio	16.3	15.9	-0.3	-0.4
		Dollars	per bushel	
Average market price	3.30/3.40	2.90/3.70		-0.05











U.S. Meat Production and Prices

	2017	2017 change	2018	2018 change	Change fron
	forecast	from July 12	forecast	from July 12	2017
Production			Billion pour	ıds	
Beef	26.70	0.20	27.36	0.29	0.66
Pork	25.81	-0.03	26.74		0.93
Broilers	41.49	0.01	42.28		0.79
Turkey	5.98	-0.08	6.18		0.20
Total meat	100.74	0.10	103.32	0.30	2.58
Prices			Dollars/cw	rt	
Steers	120.93	-2.00	116.25	-1.75	-4.68
Hogs	51.11	2.00	48.25	0.75	-2.86
-			Cents/lb		
Broilers	94.3	1.0	88.5		-5.8
Turkey	100.4	-2.5	104.5	-2.0	4.1

U.S. Corn Exports – Weekly thru August 10, 2017









Country or	2016/17	2016/17 change	2017/18	2017/18 change	Change from
Region	estimate	from July 12	forecast	from July 12	2016/17
			Million Tons	~	
World	1,070.5	1.72	1,033.5	-3.43 \	-37.0
United States	384.8		359.5	-2.59	-25.3
Foreign	685. 7	1.72	674.0	-0.83	-11.8
Argentina	41.0		40.0		-1.0
Brazil	98.5	1.50	95.0		-3.5
Mexico	27.4		25.0		-2.4
Canada	13.2		13.9	-0.50	0.7
European Union	61.1	0.43	60.0	-1.59	-1.1
Serbia	7.6		6.6	-0.40	-1.0
FSU-12	47.4		49.3	0.50	1.9
Ukraine	28.0		28.5		0.5
Russia	15.3		16.5	0.50	1.2
South Africa	16.7	0.30	12.5		-4.2
China	219.6		215.0		-4.6
India	26.0		25.0		-1.0

World Corn Production

World Corn Supply and Use

	2016/17	2017/18	Change from	Change from
	estimate	forecast	July 12	2016/17
		M	illion Tons	
Beginning stocks	213.5	228.6	1.10	15.1
Production	1,070.5	1,033.5	-3.43	-37.0
Total Supply	1,284.0	1,262.1	-2.32	-21.9
Feed use	630.8	651.3	-0.84	20.5
Total use	1,055.4	1,061.2	-2.38	5.8
Trade	162.4	152.0	-0.44	-10.4
Ending Stocks	228.6	200.9	0.06	-27.7







U.S. Sorghum Yields





U.S. Wheat Supply-Use

- Wheat "<u>issues</u>" in the August USDA Crop Production Report
- Large U.S. & World Stocks continue to limit Wheat Price\$'s **
- "Moderate" Exports limiting 2017/18 Wheat Disappearance
 - **Exports** ^{2017/18} = 975 mln bu (778 mb 1.291 bb range since 2008/09)
 - Food Use ^{2017/18} = 950 mln bu (*Level Use since MY 2012/13*)
 - Feed Use+ ^{2017/18} = 150 mln bu (*Down from 228-365 mb in 2012 2013*)

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• **HRW Exports** $^{2017/18}$ = 410 mln bu (*Down* from 455 mb in MY 2016/17)

U.S. Wheat Stocks..... • Al U.S. Wheat: "Large" Stocks (but declining) • End Stocks ^{2017/18} → 933 mln bu (1.184 bb last year) • % Stocks/Use ^{2017/18} → 43.6% S/U (53.4% S/U last year) • L.S. HRW Wheat: "Large" Carryovers (but also declining) • End Stocks ^{2017/18} → 453 mln bu (593 mb last year) • Stocks/Use ^{2017/18} → 453 mln bu (593 mb last year) • % Stocks/Use ^{2017/18} → 10.1% S/U (53.4% S/U last year)

U.S. Wheat Quality & Grade

- U.S. HRW Wheat ²⁰¹⁷ ⇒ 11.4% protein, 60.4 lb test, 1.2% defects
 Versus 11.2% protein, 60.7 lb test wt, 1.2% defects in 2016
- <u>U.S. SRW Wheat ²⁰¹⁷</u> ⇒ **9.5% protein**, 58.8 lb test, 1.7% defects
 Versus 9.4% protein, 58.6 lb test wt, 1.4% defects in 2016
- U.S. Soft White ²⁰¹⁷ ⇒ 9.6% protein, 61.1 lb test, 0.6% defects
 Versus 10.1% protein, 60.8 lb test wt, 0.6% defects in 2016
- U.S. Spring Wheat ²⁰¹⁷ ⇒ ___% protein, ___ lb test, __% defects
 Versus 14.2% protein, 61.3 lb test wt, 0.9% defects in 2016

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U.S. Wheat Supply and Demand

		2		
	2016/17	2017/18	Change from	Change from
	estimate	forecast	July 12	2016/17
Planted area (million acres)	50.2	45.7		-4.5
Harvested area (million acres)	43.9	38.1		-5.8
Yield (bushels per acre)	52.6	45.6	-0.5	-7.0
		Millie	on bushels	
Beginning stocks	976	1,184		209
Production	2,310	1,739	-21	-570
Imports	118	150	10	32
Total supply	3,403	3,074	-11	-330
Food use	949	950	-5	1
Seed	61	66		5
Feed and residual	154	150		-4
Domestic use	1,164	1,166	-5	2
Exports	1,055	975		-80
Total use	2,219	2,141	-5	-78
Ending stocks	1,184	933	-6	-252
		P	ercent	
 Stocks to use ratio 	53.4	43.6	-0.2	-9.8
		Dollar	s per bushel	
Average market price	3.89	4.40/5.20		0.91





U.S. Wheat Yields









U.S. Wheat Production & Supplies





Weeks of Marketing Year (September 1st - August 31st)

→ 2012/13 → 2013/14 → 2014/15 → 2015/16 → 2016/17 → 2017/18

U.S. Hard Red Winter Wheat Exports - Weekly



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






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





Country or Region	2016/17 estimate	2017/18 forecast	Change from July 12	Change from 2016/17		
Country of Region	cstimate	Million Tons				
World	755.0	743.2	5.4	-11.8		
United States	62.9	47.3	-0.6	-15.5		
Foreign	692.1	695.9	5.9	3.7		
Argentina	17.5	17.5		0.0		
Canada	31.7	26.5	-1.9	-5.2		
Australia	35.1	23.5		-11.6		
European Union	145.7	149.6	-0.4	> 3.9		
Turkey	17.3	19.5		2.3		
Russia	72.5	77.5	5.5	5.0		
Ukraine	26.8	26.5	2.5	-0.3		
Kazakhstan	15.0	14.0	1.0	-1.0		
China	128.9	130.0		1.2		
India	87.0	96.0		→ 9.0		

World Wheat Production

August 10, 2017

World Wheat Supply and Use

	2016/17 estimate	2017/18 forecast	Change from July 12	Change from 2016/17		
	Million Tons					
Beginning stocks	242.9	258.6	0.5	15.7		
Production	755.0	743.2	5.4	-11.8		
Total Supply	997.9	1,001.8	5.9	3.9		
Feed use	146.9	140.6	1.3	-6.2		
Total use	739.3	737.1	1.8	-2.2		
Trade	182.3	179.9	1.5	-2.3		
Ending Stocks	258.6	264.7	4.1	6.1		



Ukraine Wheat – Area, Yield Production









U.S. Soybean Supply-Use

- Soybean "<u>issues</u>" in the August Crop Production Report
- Large Soybean Stocks in U.S.-So. America limit Price\$'s
- Low Price\$'s to support "New Crop" MY 2017/18 Use ***
 - **Soy Crush**^{2017/18} = 1.940 bln bu (*Record vs 1.890 bb last year*)
 - **Exports**^{2017/18} = 2.225 bln bu (*Record vs* 2.150 bb last year)
 - **Total Use** ^{2017/18} = 4.301 bln bu (*Record vs 4.158 bb last year*)
 - SBM Use ^{2017/18} = 22.750 bln lbs (vs 22.0 bb in 2016/17 & 22.4 bb in 2015/16)

U.S. Soybean & Cotton Stocks.....

- Soybean: "Large" Stocks & % S/U
 - End Stocks ^{2017/18} ⇒ 475 mln bu (*High vs 574 mb in 2006/07*)
 - **% Stocks/Use**^{2017/18} ⇒ 11.0% S/U (*High vs 18.6% in 2006/07*)
- <u>Cotton</u>: "Large" 2017 Crop & "Growing" Stocks
 - **Production** ^{2017/18} \Rightarrow 20.6 mln bales (12.9 & 17.2 mb last 2 years)
 - End Stocks ^{2017/18} \Rightarrow 5.8 mln bales (3.8 & 2.8 mb last 2 years)
 - o **% Stocks/Use**^{2017/18} ⇒ 33.0% S/U (30.2% & 15.4% last 2 years)

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U.S. Soybean Supply and Demand

	2016/17 estimate	2016/17 change from July 12	2017/18 forecast	2017/18 change from July 12	Change from 2016/17
	estimate	from July 12	lorecast	from July 12	2010/17
Planted area (million acres)	83.4		89.5		6.1
Harvested area (million acres)	82.7		88.7		6.0
Yield (bushels per acre)	52.1		49.4	1.4	-2.7
			Million bushels		
Beginning stocks	197		370	-40	174
Production	4,307		4,381	121	74
Imports	25		25		0
Total supply	4,528		4,777	81	248
Crush	1,890	-10	1,940	-10	50
Seed and residual	118		136	1	18
Domestic use	2,008	-10	2,076	-9	68
Exports	2,150	50	2,225	75	75
Total use	4,158	40	4,301	66	143
Ending stocks	370	-40	475	15	105
	~		Percent		
Stocks to use ratio	8.9	-1.1	11.1	0.2	2.1
			Dollars per bushe	1	
Average market price	9.50		8.45/10.15	-0.10	-0.20









U.S. Soybean Use & End Stocks





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







World Soybean Production

Country or Region	2016/17 estimate	2017/18 forecast	Change from July 12	Change from 2016/17		
		Million Tons				
World	351.7	347.4	2.3	-4.4		
United States	117.2	119.2	3.3	2.0		
Foreign	234.5	228.1	-1.0	-6.4		
Argentina	57.8	57.0		-0.8		
Brazil	114.0	107.0		-7.0		
Paraguay	10.7	9.4		-1.3		
Canada	6.6	8.2	-0.2	> 1.7		
India	11.5	10.0	-1.5	-1.5		
China	12.9	14.0		> 1.1		





USDA-NASS 8-10-17



U.S. Cotton Supply and Demand

	2016/17 estimate	2017/18 forecast	Change from July 12	Change from 2016/17
	estimate	lorecast	July 12	2010/17
Planted area (million acres)	10.07	12.06		1.98
Harvested area (million acres)	9.51	11.05	-0.13	1.55
Yield (pounds per acre)	867	892	76	25
		Milli	ion bales	
Beginning stocks	3.80	2.80	-0.40	-1.00
Imports	0.01	0.01		0.00
Production	17.17	20.55	1.55	3.38
Total supply	20.98	23.36	1.15	2.38
Mill use	3.25	3.35	-0.05	0.10
Exports	14.92	14.20	0.70	-0.72
Total use	18.17	17.55	0.65	-0.62
Unaccounted	0.01	0.01	-0.01	
Ending stocks	2.80	5.80	0.50	3.00
		Percent		
Stocks/use	15.4	33.0	1.7	17.6
		Cents	Cents per pound	
Average market price	68.00	55.0/67.0		-7.00

Questions?

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