

Commodity Market Outlook

Jim Hilker
Professor and MSU Extension Economist
Department of Agricultural, Food, and Resource Economics
Michigan State University

Market Outlook Reports For July 11, 2017

(Written August 7, 2017 for release in Michigan Farm News August 15)

WHEAT

In keeping with the theme of this issue, we will start off with wheat for a change. As we will discuss, the size of winter wheat crop is pretty well known, but due to the nasty drought in the northern plains, the spring and durum wheat crops are not. However, between now and when you receive this issue the USDA will release updated estimates on August 12. What did the updated production report show?

On July 12 the USDA/NASS released the July Crop Production Report which showed winter wheat production was 2%, 1,280 million bushels, higher than the June estimate. This was the beginning of the end of the early July wheat rally. The projected winter wheat yield of 49.7 bu/ac was down 5.6 bushels from last year's record of record winter wheat yield, but is actually right about the long run trend winter wheat yield.

Hard Red Winter production, at 758 million bushels, is up 2 percent from last month. Soft Red Winter, at 306 million bushels, is up 3 percent from the June forecast. White Winter, at 216 million bushels, is up 3 percent from last month. Of the White Winter production, 18.5 million bushels are Hard White and 198 million bushels are Soft White.

Durum wheat production is forecast at 57.5 million bushels, down 45 percent from 2016. The United States yield is forecast at 30.9 bushels per acre, down 13.1 bushels from last year. Expected area to be harvested for grain totals 1.86 million acres, unchanged from the Acreage report released on June 30, 2017, but 21 percent below 2016.

Other spring wheat production is forecast at 423 million bushels, down 21 percent from last year. Area harvested for grain is expected to total 10.5 million acres, unchanged from the Acreage report released on June 30, 2017, but down 7 percent from last year. The United States yield is forecast at 40.3 bushels per acre, down 6.9 bushels from last year. Of the total production, 385 million bushels are Hard Red Spring wheat, down 22 percent from last year.

Michigan winter wheat production, made up of soft red and soft white wheat was projected to be 36.12 million bushels, down from last year's 50.73 million. They do not break out the two wheat types until the September 30 Small Grains Summary. Harvested acreage was 430,000 acres, down from 570,000 acres in 2016. And the yield was estimated to be 84 bu/ac, down from last year's record yield of 89 bu/ac, but still the second highest Michigan wheat yield on record.

Check out Table 2, the Supply/Demand Balance Sheet for Wheat. While 2017 production is down, the drop was partially offset by the increase in beginning stocks, and while total U.S. supply is down meaningfully, it is still the second highest since 2012-13. Total use for 2017-18 is projected to be down, all due to lower projected exports. And this leaves projected ending stocks at 938 million bushels, 43.7% of use. And while this is down substantially from the past two years, it is still a lots of stocks.

The real kicker is the rest of the world's wheat production and projected ending stocks. While the rest of the world's projected wheat production is down marginally, the decrease was completely offset by higher beginning stocks. And projected world 2017-18 ending stocks are projected to increase.

Did the August 10 report start a rally? If it did, it may be a pricing decision time.

CORN

So what did the August 10 USDA/NASS Crop Report, the first survey estimate of the size of the 2017 corn crop, project for 2017 U.S. corn production? How close was it to trade expectations? Was the new information bullish or bearish for corn prices? If it was bullish, watch closely for realistic pricing opportunities. Especially if you have not priced much new crop to date.

In Table 1 below, the Supply/Demand Balance Sheet for Corn, I have put in a 2017-18 projection of what I, the trade, and corn prices think the combination of the crop report and the update August 10 USDA/WASDE report will suggest. How close is it? If the USDA came in with a higher number, I suspect prices are down, and vice versa.

The weekly crop progress reports indicate a corn yield of around 167.5 bu/acre, and that is the number I have used in Table 1. While this number is lower than any of the last three years yields, we have had the highest three corn yields ever in the last three years. And while it is lower than the USDA's 170.7 bu/ac weather adjusted trend yield for 2017, it is pretty much the same as the long term, 1978-2016, straight trend yield would indicate.

While the lower projected 2017 harvested acres combined with the lower yields, makes this year's expected corn production down substantially from last year's production, the increase in beginning stocks, offsets over half the reduction. Which leaves total supplies the lower than last year, but still the second highest on record.

After putting in reasonable use projections, higher feed and ethanol use, and lower exports, makes for total use just smaller than last year. And as can be seen on Table 1, this would drop ending stocks 13%, and lower projected ending stocks to use from 16.3% to 14.3% this marketing year. This would indicate an annual average price in the \$3.60 range, about what the market was offering as I wrote this issue.

SOYBEANS

And now for a stab at soybeans, pre-report, to be read post report. You will get a firsthand view of how "good/bad" I am at this forecasting gig. Or can I throw darts randomly better than you can? As with corn, the USDA/NASS August 10 Crop Production Report will be the first survey based projection of the size of the 2017 soybean crop. And while the saying August makes soybeans is often true, it is always useful to have a survey based estimate to base the changes August brings off it.

So what did the report suggest soybean production would be if the rest of the season was "normal" growing conditions? How did the market react? Did it provide pricing opportunities? Or not?

In Table 3 below, the Supply/Demand Balance Sheet for Soybeans, I have put in a 2017-18 projection of what I, I think the trade, and not so much prices think the combination of the crop report and the updated August 10 USDA/WASDE report will suggest. The weekly crop progress reports suggest, based on historical relationships, that this year's soybean yields will be 46.8 bu/ac. Like corn, while this 46.8 bu/ac is lower than any of the last three years yields, we have had the highest three soybean yields ever in the last three years. And while 46.8 is lower than the USDA's 48 bu/ac weather adjusted trend yield for 2017, 46.8 is just higher the long term, 1978-2016, straight trend yield, 46.5 bu/ac.

While 2017 production is projected to be down due to the lower projected yield, it is not down much due to the increase in projected acres harvested. And when you add the massive beginning stocks left over from the 2016-17 marketing year, total 2017-18 total supply is projected to be higher, which means a new record.

After putting in reasonable total use projections for 2017-18 into Table 3, ending stocks are projected to grow. And the stocks to use ratio goes from 10% in 2016-17, to 10.3% in 2017-18. My projected price of \$9.30 is down a bit from last year, as the increase in stocks to use would indicate, but higher than what we are seeing today.

How does Table 3 match up with the August 10 report?

**TABLE 1
SUPPLY/DEMAND BALANCE SHEET FOR CORN**

	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	Est. 2016- 2017	Hilker 2017- 2018
(million acres)																
Acres Planted	78.9	78.6	80.9	81.8	78.3	93.5	86.0	86.4	88.2	91.9	97.3	95.4	90.6	88.0	94.0	90.9
Acres Harvested	69.3	70.9	73.6	75.1	70.6	86.5	78.6	79.5	81.4	84.0	87.4	87.5	83.1	80.7	86.7	83.5
Yield/Bushels	129.3	142.2	160.4	148	149.1	150.7	153.9	164.7	152.8	147.2	123.1	158.1	171.0	168.4	174.6	167.5
(million bushels)																
Beginning Stocks	1596	1087	958	2114	1967	1304	1624	1673	1708	1128	989	821	1232	1731	1737	2370
Production	8967	10089	11807	11114	10531	13038	12092	13092	12447	12360	10755	13829	14216	13602	15148	13986
Imports	14	14	11	9	12	20	14	8	28	29	160	36	32	68	55	50
Total Supply	10578	11190	12776	13237	12510	14362	13729	14774	14182	13517	11904	14686	15479	15401	16940	16406
Use:																
Feed & Residual	5563	5798	6158	6155	5591	5913	5182	5125	4795	4557	4315	5040	5280	5113	5425	5475
Food, Seed & Ind	2340	2537	2686	2981	3490	4387	5025	5961	6426	6428	6038	6493	6601	6650	6920	7000
Ethanol for fuel	996	1168	1323	1603	2119	3049	3709	4591	5019	5000	4641	5124	5200	5224	5450	5500
Total Domestic	7903	8335	8844	9136	9081	10300	10207	11086	11221	10985	10353	11534	11881	11763	12345	12475
Exports	1588	1897	1818	2134	2125	2437	1849	1980	1834	1543	730	1920	1867	1901	2225	1875
Total Use	9491	10232	10662	11270	11206	12737	12056	13066	13055	12528	11083	13454	13748	13664	14570	14350
Ending Stocks	1087	958	2114	1967	1304	1624	1673	1708	1128	989	821	1232	1731	1737	2370	2056
Ending Stocks, %of Use	11.5	9.4	19.8	17.5	11.6	12.8	13.9	13.1	8.6	7.9	7.4	9.2	12.6	12.7	16.3	14.3
U.S. Loan Rate	\$1.98	\$1.98	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95
U.S. Season Ave Farm Price, \$/Bu.	\$2.32	\$2.42	\$2.06	\$2.00	\$3.04	\$4.20	\$4.06	\$3.55	\$5.18	\$6.22	\$6.89	\$4.46	\$3.70	\$3.61	\$3.35	\$3.60

Source: USDA/WASDE and Jim Hilker. (7 - 12 - 17)

**TABLE 2
SUPPLY/DEMAND BALANCE SHEET FOR WHEAT**

	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	Est. 2017	Proj. 2018
(Million Acres)																
Acres Planted	62.1	59.7	57.2	57.3	60.5	63.2	59.2	53.6	54.4	55.3	56.2	56.8	55.0	50.2	45.7	
Acres Harvested	53.1	50.0	50.1	46.8	51.0	55.7	49.9	47.6	45.7	48.8	45.3	46.4	47.3	43.9	38.1	
Bu./Harvested Acre	44.2	43.2	42.0	38.6	40.2	44.9	44.5	46.3	43.7	46.2	47.1	43.7	43.6	52.6	46.2	
(Million Bushels)																
Beginning Stocks	491	546	540	571	456	306	657	976	862	743	718	590	752	976	1184	
Production	2345	2158	2105	1808	2051	2499	2218	2207	1999	2252	2135	2026	2062	2310	1760	
Imports	68	71	82	122	113	127	119	97	112	123	173	151	113	118	140	
Total Supply	2904	2775	2727	2501	2620	2932	2993	3279	2974	3118	3026	2768	2927	3403	3084	
Use:																
Food	907	910	915	938	948	927	919	926	941	951	955	958	957	955	955	
Seed	80	78	78	82	88	78	69	71	76	73	77	79	67	61	66	
Feed and Residual	212	182	160	117	16	255	150	132	162	364	228	114	149	148	150	
Total Domestic	1194	1169	1152	1137	1051	1260	1138	1128	1180	1388	1260	1151	1174	1164	1171	
Exports	1159	1066	1003	908	1263	1015	879	1289	1051	1012	1176	864	778	1055	975	
Total Use	2353	2235	2155	2045	2314	2275	2018	2417	2231	2400	2436	2015	1951	2219	2146	
Ending Stocks	546	540	571	456	306	657	976	862	743	718	590	752	976	1184	938	
Ending Stocks, %of Use	23.2	24.2	26.5	22.3	13.2	28.9	48.3	35.7	33.3	29.9	24.2	37.3	50.1	53.4	43.7	
U.S. Loan Rate	\$2.80	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	
U.S. Season Ave U.S. \$/Bu.	\$3.40	\$3.40	\$3.42	\$4.26	\$6.48	\$6.78	\$4.87	\$5.70	\$7.24	\$7.77	\$6.87	\$5.99	\$4.89	\$3.89	\$4.80	

Source: USDA/WASDE and Jim Hilker (7 - 12 - 2017)

**TABLE 3
SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS**

	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	Est. 2017	Hilker 2018
(Million Acres)																	
Acres Planted	74	73.4	75.2	72	75.5	64.7	75.7	77.5	77.4	75.0	77.2	76.8	83.3	82.7	83.4	89.5	
Acres Harvested	72.5	72.3	74.0	71.3	74.6	64.1	74.7	76.4	76.6	73.8	76.1	76.3	82.6	81.7	82.7	88.7	
Yield/Bushels	38.0	33.9	42.2	43.0	42.9	41.7	39.7	44.0	43.5	41.9	40.0	44.0	47.5	48.0	52.1	46.8	
(Million Bushels)																	
Beginning Stocks	208	178	112	256	449	574	205	138	151	215	169	141	92	191	197	410	
Production	2756	2454	3124	3063	3197	2677	2967	3359	3329	3094	3042	3358	3927	3926	4307	4154	
Imports	5	6	6	3	9	10	13	15	14	16	41	72	33	24	25	25	
Total Supply	2969	2638	3242	3322	3656	3261	3185	3512	3495	3325	3252	3570	4052	4140	4528	4589	
Use:																	
Crushings	1615	1530	1696	1739	1808	1803	1662	1752	1648	1703	1689	1734	1873	1886	1900	1925	
Exports	1045	885	1097	940	1116	1159	1279	1499	1501	1365	1317	1638	1842	1942	2100	2100	
Seed	89	92	88	93	80	93	90	90	87	90	89	97	96	97	104	101	
Residual	41	19	105	101	77	0	16	20	43	-2	16	10	50	18	14	34	
Total Use	2791	2526	2986	2873	3081	3056	3047	3361	3280	3155	3111	3478	3862	3944	4118	4160	
Ending Stocks	178	112	256	449	574	205	138	151	215	169	141	92	191	197	410	429	
Ending Stocks, %of Use	6.4	4.4	8.6	15.6	18.6	6.7	4.5	4.5	6.5	5.4	4.5	2.6	4.9	5.0	10.0	10.3	
U.S. Loan Rate	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	
U.S. Season Ave Farm Price, \$/Bu.	\$5.53	\$7.34	\$5.74	\$5.66	\$6.43	\$10.10	\$9.97	\$9.59	\$11.30	\$12.50	\$14.40	\$13.00	\$10.10	\$8.95	\$9.50	\$9.30	

Source: USDA/WASDE and Jim Hilker. (7 - 12 - 17)