

# July 2011 USDA WASDE Report – Corn & Grain Sorghum

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## Summary of July 2011 USDA WASDE Report for Feedgrains

The July 12<sup>th</sup> USDA Crop Production and World Agricultural Supply-Demand estimates reports were initially interpreted negatively by feedgrain markets. However, ongoing questions and uncertainties about a) final 2011 U.S. corn planted and harvested acreage, b) 2011 growing season weather patterns and feedgrain yield-production prospects, c) the effects of increasingly likely changes in domestic ethanol support policy on ethanol production and needed corn usage, and d) influences of broader financial and economic events and trends on corn, grain sorghum and other agricultural commodity prices. Given the questions remaining to be answered about 2011 corn and grain sorghum production, the information in upcoming August, September and October USDA Crop Production and WASDE reports will have a greater impact on U.S. feedgrain market price prospects than will the July WASDE.

**U.S. Corn S-D Adjustments for Old Crop MY 2010/11:** Several adjustments were made to the old crop 2010/11 supply-demand balance sheet – reflecting the results of the June 30<sup>th</sup> USDA Grain Stocks report. The 2010/11 marketing year lasts from September 1<sup>st</sup>, 2010 till August 31<sup>st</sup>, 2011. After moderately lowering exports and non-ethanol FSI use, sharply dropping livestock feed and residual use, and an increasing in ethanol usage for corn, old crop MY 2010/11 ending stocks were projected to increase by 150 million bushels from June to 880 million in the July WASDE. Projected MY 2010/11 ending stocks-to-use were increased marginally to 6.6%. As small decrease of \$0.10 was made for MY 2010/11 projected U.S. corn prices – down to \$5.15-\$5.35 per bushel.

**U.S. Corn S-D Adjustments for New Crop MY 2011/12:** The USDA WASDE report reflected increased projections of 2011 U.S. corn planted and harvested acreage, taken from the June 30<sup>th</sup> USDA NASS Acreage report. Increased U.S. corn planted acres (up to 92.3 million after dropping to 90.7 million in the June WASDE) was a surprise to the corn markets - causing some market analysts to discount their accuracy. To at least partially address this issue, USDA NASS plans to resurvey selected northern Corn Belt states (North Dakota, Minnesota, South Dakota, and Montana) in July to attempt to account for the impact of either delayed or prevented planting of feedgrains and other crops in those regions.

Projected increases in U.S. 2011 corn production (up 420 million bushels from the June projection to 13.427 billion) combined with increased beginning stocks for MY 2011/12 motivated an increase in projected total usage of corn (i.e., increased ethanol, export and feed and residual use – offsetting a decrease in non-ethanol FSI use). Taken together, even with expected increases in projected corn usage, MY 2011/12 U.S. corn ending stocks are projected to increase to 870 million bushels. Projected ending stocks-to-use increased to 6.4% from the June projection of 5.2% for MY 2011/12. As a result of the increased ending stocks and stocks-to-use, projected corn prices for MY 2011/12 were dropped by \$0.50 to \$5.50-\$6.50 per bushel.

**U.S. Grain Sorghum S-D Adjustments for MY 2010/11 and MY 2011/12:** U.S. grain sorghum old crop and new crop supply-demand balances both were projected to narrow in the July WASDE report. Accounting for a) a small increase in old crop MY 2010/11 feed and residual use which lead to a 5 million bushel decrease in MY 2010/11 ending stocks to 27 million bushels, b) 300,000 acre declines in U.S. grain sorghum planted and harvested acreage following from the June 30<sup>th</sup> USDA NASS Acreage report, and c) requisite declines in 2011 production and MY 2011/12 total supplies, feed and residual use, FSI use and exports, projected MY 2011/12 U.S. grain sorghum ending stocks were projected to decline to 27 million bu.. Projected U.S. grain sorghum ending stocks-to-use for MY 2011/12 declined to 9.0%. However, even with a decline in ending stocks and ending stocks-to-use, U.S. grain sorghum price projections followed the direction of the much larger U.S. corn market, with projected MY 2011/12 grain sorghum average price declining \$0.50 per bushel to a range of \$5.10-\$6.10 per bushel.

**World Coarse Grain Supply-Demand Trends for MY 2011/12:** Even with increased World coarse grain and corn ending stocks for MY 2011/12, these USDA World projections are subject to major change over the coming 3-5 months. The increased World coarse grain and corn production and ending stocks projections for MY 2011/12 stemming from the July WASDE report are heavily dependent on increases 2011 U.S. corn production numbers. For reasons discussed above, prospects for increased U.S. feedgrain production in MY 2011 are highly uncertain at this time, and are subject to changing 2011 acreage numbers, worrisome weather patterns in the U.S. Corn Belt, and prospects for behind schedule crop development and maturity issues in fall 2011. It may be that these issues do not come to fruition in terms of limiting U.S. feedgrain production in 2011. Until more is known with surety about 2011 U.S. feedgrain crop prospects, judgement needs to be reserved about World coarse grain and corn supply-demand balances for MY 2011/12.

## I. U.S. Corn & Grain Sorghum Market Situation and Outlook

**Corn & Grain Sorghum Markets** ⇒ Continued at least moderately strong support for feedgrain prices, with acreage, yield and production uncertainty dominating markets through summer-fall 2011.

However, with USDA corn supply-demand balances at least modestly more negative following the July Crop Production and WASDE reports, farmers should be wary of major downturns that could occur in corn futures markets if the 2011 U.S. corn crop fully overcomes the lingering questions and problems it now faces going through the summer growing season.

### U.S. Corn Supply-Demand & Price Projections for MY 2010/11 & MY 2011/12

**Changes in Old Crop MY 2010/11 U.S. Supply-Demand & Prices:** The USDA made several changes in the old crop MY 2010/11 U.S. supply-demand balance sheet in response to larger than expected June 1<sup>st</sup> U.S. corn stocks in the June 30<sup>th</sup> U.S. Grain Stocks report (Table 1). The 2010/11 marketing year for U.S. corn runs from September 1, 2010 to August 31, 2011 – with the summer quarter (June-August) still to be completed.

**Table 1. U.S. Corn Supply-Demand Balance Sheet: MY 2007/08 through MY 2011/12**

(July 12, 2011 USDA WASDE Report)

Item	2007/08	2008/09	2009/10	2010/11	2011/12
Planted Area (million acres)	93.5	86.0	86.4	88.2	92.3
Harvested Area (million acres)	86.5	78.6	79.5	81.4	84.9
Yield per harvested acre (bushels/acre)	150.7	153.9	164.7	152.8	158.7
	million bushels				
Beginning Stocks	1,304	1,624	1,673	1,708	880
Production	13,038	12,092	13,092	12,447	13,470
Imports	20	14	8	30	20
Total Supply	14,362	13,729	14,774	14,185	14,370
Ethanol for fuel	3,049	3,709	4,568	5,050	5,150
Non-ethanol Food, Seed & Industrial	1,393	1,316	1,371	1,380	1,400
Exports	2,437	1,849	1,987	1,875	1,900
Feed & Residual	5,858	5,182	5,140	5,000	5,050
Total Use	12,737	12,056	13,066	13,305	13,500
Ending Stocks	1,624	1,673	1,708	880	870
% Ending Stocks-to-Total Use	12.8%	13.9%	13.1%	6.6%	6.4%
U.S. Average Farm Price (\$/bushel)	\$4.20	\$4.06	\$3.55	\$5.15-\$5.35 Midpoint = \$5.25	\$5.50-\$6.50 Midpoint = \$6.00

Ethanol production usage of corn in MY 2010/11 was estimated to be 5.050 billion bushels (bb), up 50 million bushel (mb) from the June WASDE report. Non-ethanol food, seed and industrial use of corn was estimated to be 1.380 bb, down 20 mb from June. Corn exports are projected to be 1.875 bb, down 25 mb from June. Feed and residual usage of corn was estimated to be 5.000 bb, down 150 mb from June. Total usage of corn is projected to be 13,305 bb, down 145 mb from June.

U.S. corn ending stocks for MY 2010/11 are estimated at 880 mb for MY 2010/11, up 150 mb from June. The % ending stocks-to-use for MY 2010/11 is projected to be 6.6%, up from 5.4% in the June WASDE report, and marginally higher than the record low of 5.0% in MY 1995/96. Average U.S. corn prices for MY 2010/11 were adjusted lower to \$5.15-\$5.35 per bushel, down from \$5.20-\$5.50 in the June WASDE, and above the average price of \$3.55 in MY 2009/10.

***Comments: Adjustments made in MY 2010/11 old crop U.S. corn supply-demand balances reflect the USDA's efforts to reconcile previous June WASDE projections with lower than expected corn usage during the March-May 2011 period as indicated in the June 30<sup>th</sup> USDA National Agricultural Statistics Service (NASS) Grain Stocks report. According to these figures, the brunt of old crop corn price rationing was borne by reduced livestock feed usage (down 150 mb), with exports (down 25 mb) and non-ethanol FSI use (down 20 mb) also declining.***

*These cumulative reductions in projected MY 2010/11 use of 195 mb were offset to some degree by a projected increase in corn ethanol use (up 50 mb), giving a net reduction in corn usage of 145 mb. Combined with a small (5 mb) increase in U.S. corn imports, ending stocks of U.S. corn in the old crop 2010/11 marketing year increased to 880 mb, from 730 mb to 880 mb.*

**U.S. New Crop Corn Production in 2011:** The USDA World Agricultural Outlook Board increased its projection of 2011 U.S. corn production in the July 12, 2011 WASDE report (Table 1). Planted acreage of corn in 2011 is projected to be 92.3 million acres (ma) – up 1.6 ma from the 90.7 ma projection in the June WASDE report. This increase was based on the results of the June 30<sup>th</sup> USDA NASS Acreage report, and will be subject to adjustment in the August Crop Production report due to additional July surveys to be taken in the northern states of Minnesota, Montana, North Dakota, and South Dakota. Harvested corn area in the U.S. in 2011 is projected to be 84.9 ma, up 1.7 ma from the June WASDE report – but also subject to potential adjustments in the August Crop Production report.

The average 2011 U.S. corn yield is projected to be 158.7 bu/ac., unchanged from the May and June WASDE reports. This yield estimate is based on a simple linear trend of the national average yield for 1990-2010 adjusted for slower than normal 2011 U.S. corn planting progress. U.S. corn production in 2011 is projected to be 13.470 billion bushels (bb), up from the June WASDE estimate of 13.200 bb, and a record high compared to 12.447 bb in 2010 and 13.092 bb in 2009.

***Comments: This projection of U.S. 2011 corn production is “highly tentative”.*** Questions about a) the impact of late planted corn in the eastern and northern U.S. Corn Belt on crop development and maturity in fall 2011, b) the amount of flood damaged corn and other crop acres in the U.S. along the Missouri, Ohio and Mississippi rivers and the tributaries, c) extreme wind damage to corn in parts of Iowa and adjoining states in response to a recent major storm, and d) potential dry weather / drought effects in the western Corn Belt during the later half of July following from intermediate term weather forecasts are all relevant to reasonable expectations for final 2011 U.S. corn production.

*In most years a majority of the possible environmental threats during the growing season to U.S. corn production do not come to fruition. However, given the number of potential damaging factors that are affecting the prospects for the 2011 U.S. corn crop, the likelihood of significant production shortfalls seem to be larger than usual.*

**Total New Crop Corn Supplies for MY 2011/12:** Following from changes in projected old crop MY 2010/11 ending stocks, beginning stocks for MY 2011/12 were projected to be of 880 mb, up 150 mb from the June WASDE report. With 2011 U.S. corn production projected to be 13.470 bb (see comments above), and imports of 20 mb, total U.S. corn supplies for MY 2011/12 are projected to be 14.370 bb, up 420 mb from the projection in the June WASDE. Total corn supplies of 14.470 bb in MY 2011/12 would be up from 14.185 bb in MY 2010/11, but down from 14.774 bb in MY 2009/11.

**Comments:** *The large changes or “swings” in USDA projections of 2011 crop production from the May WASDE (14.255 bb), to June (13.950 bb), and then to July (14.370 bb) are a major contributing factor in the increasing volatility of corn futures prices during spring-summer 2011. Concerns about 2011 corn production and supply prospects and the likelihood of continued changes and adjustments in USDA corn production and supply projections are likely to continue to cause corn prices to be volatile through the remainder of the summer and possibly the early fall of 2011.*

**U.S. Corn Usage for MY 2011/12:** Ethanol use of U.S. corn for MY 2011/12 is projected to be 5.150 bb, up 100 mb from 5.050 bb in MY 2010/11 and from 4.568 bb in MY 2009/10. The annual rate of increase in U.S. ethanol production has slowed, and may be affected by what appear to be increasingly likely changes in U.S. ethanol policy in regards to blenders’ credits and import tariffs during MY 2011/12. U.S. ethanol exports have increased recently, with the U.S. stepping into export market niches previously taken by Brazil. Non-ethanol food, seed and industrial corn use is projected to be 1.400 bb in MY 2011/12, down 5 mb from June, but still up from 1.380 bb and 1.371 bb in MY 2010/11 and MY 2009/10, respectively.

Corn exports are projected to be 1.900 bb in MY 2011/12, up from 1.800 bb in the June WASDE, and up from 1.875 bb in MY 2010/11, but down from 1.987 bb in MY 2009/10, respectively. Feed and residual use of U.S. corn is projected to be 5.150 bb in MY 2011/12, up 50 mb from the June WASDE, and up from 5.000 bb in MY 2010/11, and from 5.140 bb in MY 2009/10. Increased projections of new crop U.S. corn exports and feed and residual use result from the projected increase in U.S. corn supplies, less “tightness” in supply-demand balances, and lower projected corn prices for MY 2011/12 in the July WASDE.

**Comments:** *Prospects for U.S. corn exports remain positive in the near term – even with the rationing effect of higher prices having a negative impact. Consistent increases in World coarse grain/corn usage since MY 2009/10 are outpacing these World coarse grain production increases, keeping foreign (non-U.S.) export trade of coarse grains “running strong” and leading to projections of tighter World coarse grain and corn ending stocks. Over the MY 2009/10 – MY 2011/12 period, projections are for World coarse grain production overall to increase 40.73 mmt (up 3.7%) while usage increases 49.95 mmt (up 4.5%). As a consequence of usage outpacing production, World coarse grain ending stocks are projected to decline by 45.89 mmt (down 23.5%) over the MY 2009/10 – MY 2011/12 period.*

*Corn production prospects in 2011 for other major World corn and other coarse grain exporters (Argentina, Brazil, Ukraine, Russia, etc.) will continue to influence U.S. corn exports in the coming year, along with broader financial (U.S. dollar exchange rate) and economic (economic growth of corn importing countries) factors.*

*The continued availability of distillers grains from grain-starch based ethanol production for livestock feeding is competing with and affecting the use of corn for domestic livestock feeding. Prospects for livestock enterprise profitability and feed usage remain moderately positive for MY 2011/12, but would be negatively impacted if a short crop / extremely high price market outcome occurred this year. USDA projections of quarterly cash prices for steers and broilers are projected to remain strong through the remainder of 2011 and into 2012. Prices for barrows and gilts are projected to decline seasonally in fall 2011, but then to be moderately strong in 2012. Turkey prices are expected to remain strong throughout 2011, but then to decline in the first half of 2012.*

**Corn Ending Stocks in MY 2011/12:** Ending stocks of U.S. corn are projected at 870 mb in MY 2011/12, up 175 mb from a projection of 695 mb in the June WASDE. A total of 870 mb ending stocks is MY 2001/12 is marginally less than 880 bb in MY 2010/11 and less than 1.708 bb in MY 2009/10. This represents 6.4% ending stocks-to-use, up from the projection of 5.2% from MY 2011/12 in the June WASDE. It is also lower than the estimate of 6.6% in MY 2010/11 (which had been 5.4% in the June WASDE), and markedly lower than 13.1% S/U in MY 2009/10, 13.9% in MY 2008/09, and 12.8%

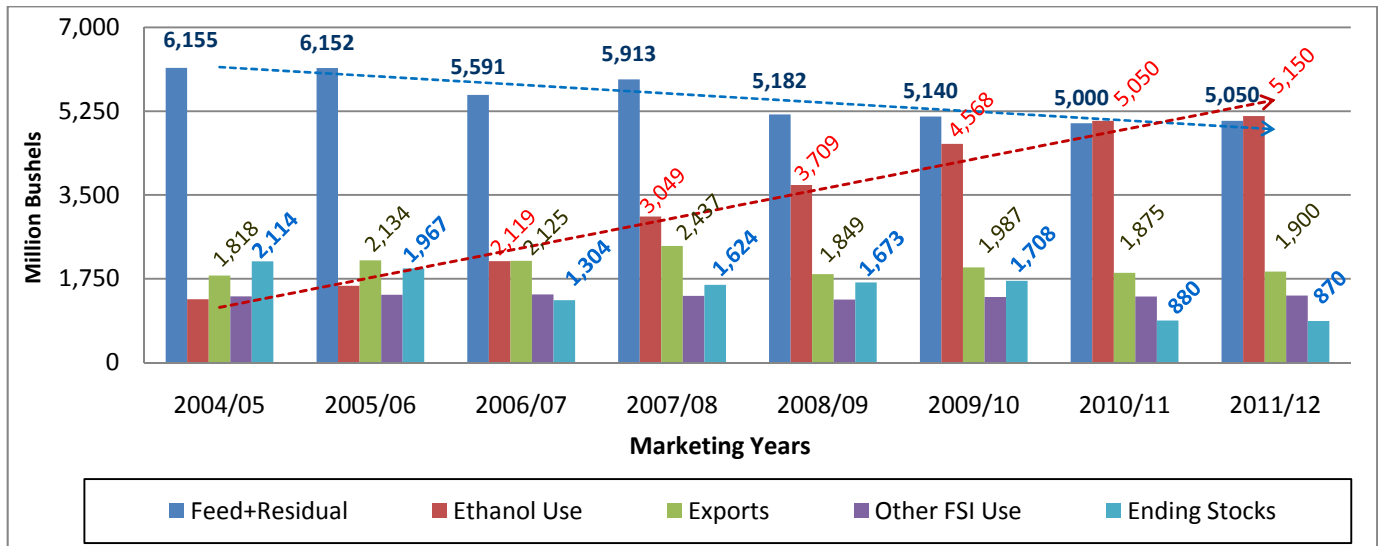
in MY 2007/08. The record low U.S. corn % stocks-to-use figure since the early 1970s was 5.0% in MY 1995/96.

**Comments:** Given 2011 U.S. corn production uncertainties about acreage and yields, this projection for MY 2011/12 of 880 mb ending stocks and 6.4% ending stocks-to-use is “highly tentative”. If final 2011 U.S. corn production is 250 – 500 mb lower than the 13.470 bb amount projected by the USDA in the July WASDE report, then after accounting for the impact of price rationing on usage, final U.S. MY 2011/12 ending stocks could drop to 450 – 650 mb (a near record low 5% stocks-to-use or less).

**Corn Use and Ending Stocks Trends During MY 2004/05 through MY 2011/12:** Since MY 2004/05, U.S. feed and residual use of corn has generally declined (Figure 1). The 5.050 bb projection for MY 2011/12 continues this general trend (although MY 2010/11 use of 5.000 bb is marginally – 50 mb - less than in MY2011/12). Corn use for ethanol has increased steadily but at a decreasing rate over the same period - from 1.323 bb to 5.150 bb (if the July WASDE projection holds true). These results indicate that domestic usage of U.S. corn for ethanol production is greater than the amount of corn used directly for domestic livestock feeding. However, if distillers dried grain and solubles (DDGS) production as a byproduct of corn ethanol is taken into account – assuming 17 pounds of DDGS for each 56 lb bushel of corn – then the impact of ethanol use on livestock feed availability of corn or corn feed equivalents is not as negative.

Exports of U.S. corn have averaged 2.032 bb for MY 2004/05 – MY 2010/11 period, above the 1.900 bb projection for MY 2011/12. Corn ending stocks increased from 1.304 bb in MY 2006/07 to a high of 1.708 bb in MY 2009/10. However, MY 2009/10 U.S. corn ending stocks are estimated to decline markedly to 880 mb in MY 2010/11, with an early projection of 870 mb in MY 2011/12.

**Figure 1. Trends in U.S. Corn Use and Ending Stocks: MY 2004/05 through MY 2011/12**  
(July 12, 2011 USDA WASDE Report)



**Projected U.S. Corn Prices in MY 2011/12:** United States season average corn prices for MY 2011/12 are projected to be in the range of \$5.50-\$6.50 per bushel with a midpoint of \$6.00, which is down from the \$6.00-\$7.00 range in the June WASDE. This compares to an estimated MY 2010/11 price

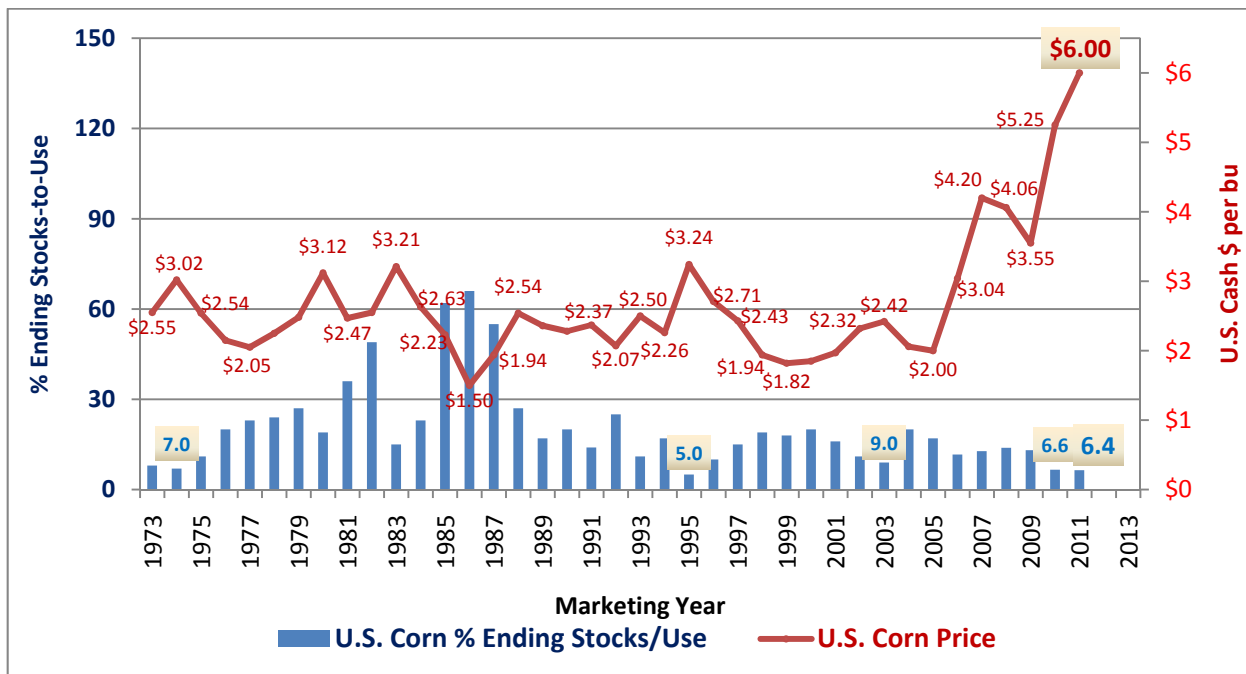
range of \$5.15-\$5.35 (\$5.25 midpoint), \$3.55 /bu in MY 2009/10, \$4.06 /bu in MY 2008/09, and \$4.20 /bu in MY 2007/08.

**Comments:** These USDA corn price projections for MY 2011/12 are still very tentative, and could change markedly by fall 2011 – depending on the size of the 2011 U.S. corn crop and resulting U.S. corn supply-demand balances.

**Relationship of U.S. Corn Prices to % Ending Stocks-to-Use:** Comparing U.S. corn prices with U.S. corn % ending stocks-to-use for the period since MY 1973/74 shows an inverse or negative relationship – with corn prices tending to move in the opposite direction of changes in % ending stocks-to-use (Figure 2).

**Comments:** U.S. corn ending stocks-to-use for MY 2011/12 (6.4%) and MY 2010/11 (6.6%) are the 2<sup>nd</sup> and 3<sup>rd</sup> tightest on record since MY 1973/74 – behind only MY 1995/96 (5.0%). Historically speaking, projected U.S. corn ending stocks-to-use are still extremely tight – leading corn prices to respond to any threat of tightening supply-demand balances in an extremely volatile and strong manner throughout the summer and early fall of 2011. The recent trend since MY 2005/06 toward higher levels of corn prices relative to price levels attained prior to that time is indicative of recent broader inflationary trends in agricultural, energy and other commodity prices.

**Figure 2. U.S. Corn Ending Stocks vs U.S. Avg. Cash Prices: MY 1973/74 through MY 2011/12**  
(July 12, 2011 USDA WASDE Report)



### U.S. Grain Sorghum S-D & Price Projections for MY 2010/11 & MY 2011/12

**Small Changes in U.S. Grain Sorghum Supply-Demand for MY 2010/11:** An increase of 5 mb in feed and residual use for U.S. grain sorghum (up to 125 mb) lead to an equal 5 mb increase in total use (up to 360 mb for MY 2010/11 (Table 2). U.S. grain sorghum ending stocks are estimated at 27 mb for MY 2010/11, down 5 mb from the June WASDE and down from 41 mb in MY 2009/10. The % ending

stocks-to-use is 7.5% for MY 2010/11, down from 10.4% in MY 2009/10, 11.7% in MY 2008/09, and 11.1% in MY 2007/08. Average U.S. Grain Sorghum prices for MY 2010/11 of \$5.10-\$5.30 per bushel, were lower than the \$5.15-\$5.45 range in the June WASDE, and above the average price of \$3.22 in MY 2009/10, \$3.20 in MY 2008/09, and above the previous record high of \$4.08 in MY 2007/08.

**U.S. New Crop Grain Sorghum Production in 2011:** The USDA World Agricultural Outlook Board decreased its projection of 2011 U.S. grain sorghum production in the July 12, 2011 WASDE report (Table 2). Planted acreage of grain sorghum in 2011 is projected to be 5.3 million acres (ma) – down 0.3 ma from the 5.6 ma projection in the June WASDE report. This increase was based on the results of the June 30<sup>th</sup> USDA NASS Acreage report. Harvested area of grain sorghum in the U.S. in 2011 is projected to be 4.6 ma, down 0.3 ma from the June WASDE report.

The average 2011 U.S. grain sorghum yield is projected to be 65.4 bu/ac., up 0.1 bu/ac from the June WASDE report. This yield estimate is based on a simple linear trend of the national average yield for 2001-2010, excluding low yields in 2002 and 2003 and high yields in 2007. U.S. grain sorghum production in 2011 is projected to be 300 million bushels (mb), down from the June WASDE estimate of 320 mb, and less than 345 mb in MY 2010/11 and 383 mb in MY 2009/08. This is the lowest U.S. grain sorghum production amount since at least MY 2006/07 (277 mb), and the second lowest since MY 1956/57 (205 mb).

***Comments:** Just as for corn, this projection of 2011 U.S. grain sorghum production is highly tentative, as dry conditions in major grain sorghum production areas (Kansas and Texas) could very possibly lead to at least marginal changes in acreage, yields and production. The yield estimate of 65.4 bu/ac is less than 71.8 bu/ac in 2010 and 69.4 bu/ac in 2009 – reflecting dry early season conditions in the central and southern Great Plains.*

**Grain Sorghum Supplies & Use in MY 2011/12:** With projected beginning stocks of 27 mb (down 5 mb from June) and production of 300 mb, total U.S. grain sorghum supplies for MY 2011/12 are projected to be 327 mb, down from 387 mb in MY 2010/11, and from 438 mb in MY 2009/11. Regarding usage, food, seed and industrial corn use (including ethanol) is projected to be 90 mb in MY 2011/12, down 5 mb from June, and less than 95 mb in MY 2010/11. Exports are projected to be 130 mb, down 5 mb from the June WASDE, but down from 140 mb in MY 2010/11, and down from 166 mb in MY 2009/10.

Feed and residual use of U.S. grain sorghum is projected to be 80 mb in MY 2011/12, down 10 mb from June, and down from 125 mb in MY 2010/11 and down from 140 mb in MY 2009/11. Total use of U.S. grain sorghum is projected to be 300 mb in MY 2011/12, down 20 mb from the June WASDE, and down from 360 mb in MY 2010/11 and from 396 mb in MY 2009/11.

**Grain Sorghum Ending Stocks in MY 2011/12:** Ending stocks are projected at 27 mb in MY 2011/12, down 5 mb from the June WASDE, but equal to 27 mb in MY 2010/11, and less than 41 mb in MY 2009/10, 55 mb in MY 2008/09, and 53 mb in MY 2007/08. This represents 9.0% ending stocks-to-use, compared to 7.5% in MY 2010/11, 10.4% in MY 2009/10, 11.7% in MY 2008/09, and 11.1% in MY 2007/08.

**Grain Sorghum Prices in MY 2011/12:** United States season average prices for MY 2011/12 are projected to be in the range of \$5.10-\$6.10 per bushel with a midpoint of \$5.60 (down \$0.50 per bushel on each end of the range). This compares to an estimated MY 2010/11 price range of \$5.10-\$5.30 (\$5.20 midpoint), \$3.22 /bu in MY 2009/10, \$3.20 /bu in MY 2008/09, and a record high \$4.08 /bu in MY 2007/08.

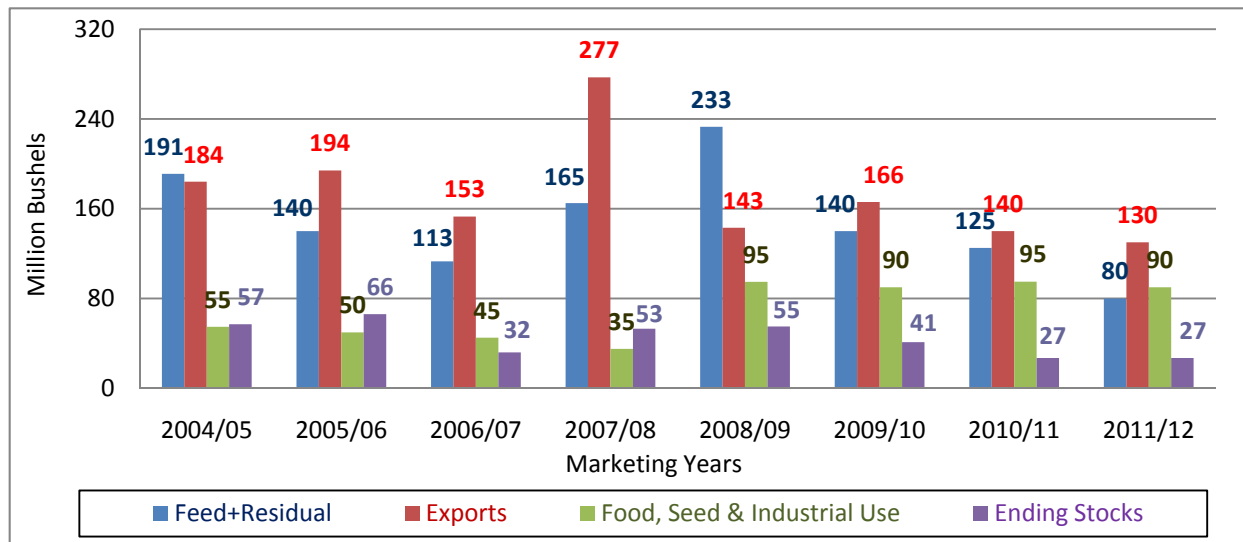
**Table 2. U.S. Grain Sorghum Supply-Demand Balance Sheet: MY 2007/08 through MY 2011/12**  
(July 12, 2011 USDA WASDE Report)

Item	2007/08	2008/09	2009/10	2010/11	2011/12
Planted Area (million acres)	7.7	8.3	6.6	5.4	5.3
Harvested Area (million acres)	6.8	7.3	5.5	4.8	4.6
Yield per harvested acre (bu./acre)	73.2	65.0	69.4	71.8	65.4
	million bushels				
Beginning Stocks	32	53	55	41	27
Production	497	472	383	345	300
Total Supply	530	525	438	387	327
Food, Seed & Industrial	35	95	90	95	90
Exports	277	143	166	140	130
Feed & Residual	165	233	140	125	80
Total Use	477	471	396	360	300
Ending Stocks	53	55	41	27	27
% Ending Stocks-to-Total Use	11.1%	11.7%	10.4%	7.5%	9.0%
U.S. Average Farm Price (\$/bu.)	\$4.08	\$3.20	\$3.22	\$5.10-\$5.30 Midpoint = \$5.20	\$5.10-\$6.10 Midpoint = \$5.60

**U.S. Grain Sorghum Use and Ending Stocks Trends During MY 2004/05 through MY 2011/12:**

Increased use of grain sorghum for ethanol production for the last four marketing years (MY 2008/09 through MY 2011/12) is reflected by higher food, seed and industrial use in Figure 3. Ending stocks for U.S. grain sorghum have remained in the range of 27 to 66 mb since MY 2004/05, with 27 mb of ending stocks (9.0% stocks-to-use) projected for MY 2011/12 being equal to the bottom of that range.

**Figure 3. Trends in U.S. Grain Sorghum Use & Ending Stocks During MY 2004/05 thru MY 2011/12**  
(July 12, 2011 USDA WASDE Report)



Since MY 2008/09 the general decline in U.S. grain sorghum production has had a marked impact on usage by category, with feed and residual use declining sharply, while food, seed and industrial use and exports have remained somewhat steady.

**Comments:** Although acreage and production of U.S. grain sorghum have been declining in recent years, supplies of the crop as a competitive substitute for corn are especially important in MY 2011/12. As U.S. corn supplies have tightened and prospects for 2011 U.S. corn production are uncertain, it is likely that the supply-demand balance for U.S. grain sorghum will tighten up even further. As evidence of this, old crop spot basis bids for grain sorghum in Salina (central Kansas) and Scott City (west central Kansas) have tightened markedly in the last 30-60 days as have those for corn.

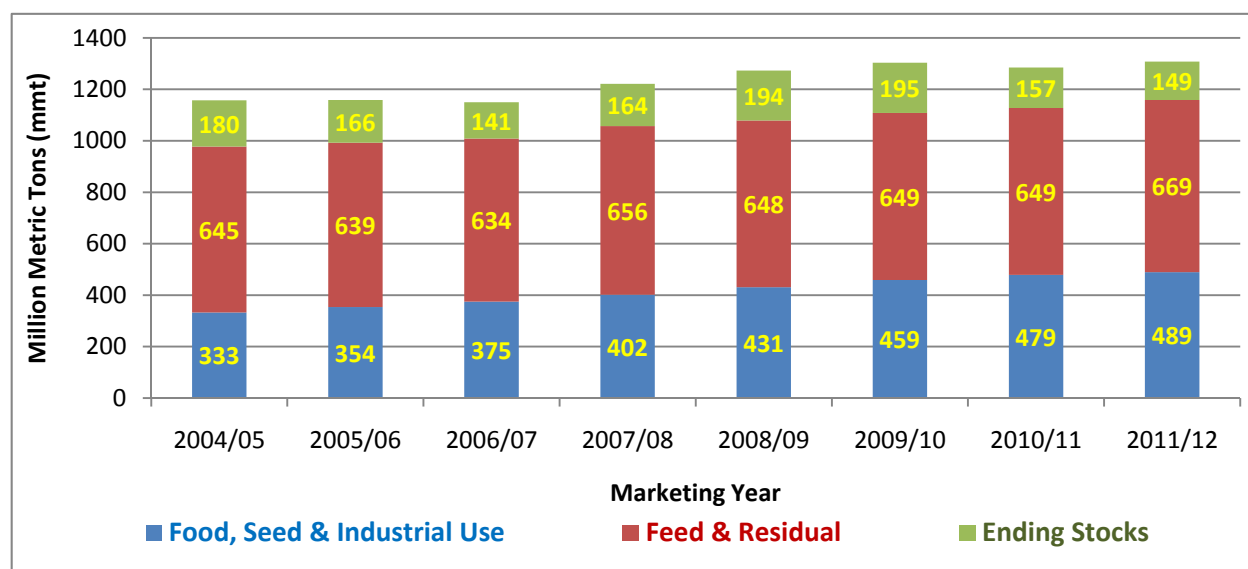
## II. World Supply-Demand for Coarse Grains

### World Coarse Grain Supply-Demand in MY 2011/12

World coarse grain supply-demand balances have been “tightening” since MY 2008/09, with the largest year-to-year decline occurring between MY 2009/10 and MY 2010/11 (Figure 4). Although the category of “coarse grains” includes corn, grain sorghum, barley, oats, rye, millet and mixed grains, corn is the predominant crop, making up an estimated 76% of total World coarse grain production in MY 2011/12.

**Figure 4. World Coarse Grain Usage & Ending Stocks: MY 2004/05 thru MY 2011/12**

(July 12, 2011 USDA WASDE Report)



**Production** of World coarse grains in MY 2011/12 is projected to be 1,150.3 mmt, up 6.5 mmt from June, and up from 1,089.9 mmt in MY 2010/11, and from 1,109.6 mmt in MY 2009/10. No adjustment was made in South American production in this report, although reports of production problems have been circulating in recent weeks. **Total supplies** are projected to be 1,307.6 mmt, up 10.3 mmt from June, and up from 1,285.1 mmt in MY 2010/11, but less than 1,303.6 mmt in MY 2009/10. Most of the increase in World coarse grain supplies are attributed to increases in U.S. corn beginning stocks and 2011 U.S. corn production prospects.

**World coarse grain trade** is projected to be 115.9 mmt in MY 2011/12, up 1.6 mmt from June. Trade of 115.9 mmt in MY 2011/12 is up from 114.4 mmt in MY 2010/11, but down from 123.1 mmt in MY 2009/10. China is projected to have 3.73 mmt coarse grain imports in MY 2011/12, up 1.60 mmt from the June, and up from 3.18 mmt in MY 2010/11, but marginally less than 3.78 mmt in MY 2009/10.

**Total use** of coarse grains is projected to be 1,158.4 mmt, up 6.3 mmt from June, and up from 1,127.8 mmt in MY 2010/11, and up from 1,108.5 mmt in MY 2009/10.

**World coarse grain ending stocks** are projected to be 149.2 mmt (12.9% S/U) in MY 2011/12, up 4.0 mmt from June, but down from 157.3 mmt (13.9% S/U) in MY 2010/11, and down from 195.1 mmt (17.6% S/U) in MY 2009/10. Projected MY 2011/12 World coarse grain ending stocks of 149.23 mmt (12.6% S/U) are the smallest since 141.22 mmt (14.0% S/U) in MY 2006/07 (Figure 4).

**Comments: Questions and uncertainty about 2011 U.S. corn production prospects have a significant impact on the potential variability of these World coarse grain supply-demand estimates.** Increases in projected MY 2011/12 U.S. coarse grain production from the June to the July WASDE reports (i.e., from 348.45 mmt in June to 354.52 mmt in July – an increase of 6.07 mmt), accounts for 94% of the increase in World coarse grain production (i.e., from 1,143.86 mmt in June to 1150.34 mmt in July – an increase of 6.48 mmt).

Similarly, increased U.S. coarse grain usage from the June to July reports (up 3.14 mmt) accounts for 50% of the increase in World coarse grain usage. Increased projected U.S. coarse grain ending stocks in the from June to July (up 4.08 mmt) are larger than the increases made in World coarse grain ending stocks (up 3.97 mmt).

These calculations support the idea that World coarse grain supply-demand balances are vulnerable to changing U.S. feedgrain crop production prospects in the summer of 2011.

## World Coarse Grain Market Specifics

**Prospects for MY 2011/12 World coarse grain supply-demand** are very uncertain at this point time, depending on 2011 production prospects primarily in the U.S., China, the European Union, Argentina, Mexico, and elsewhere.

**Global coarse grain production** is projected to be record high of 1,150.3 mmt in MY 2011/12, with year-over-year increases in many countries.

- **Higher** coarse grain production is projected in the United States (up 7.4% to 354.5 mmt), China (up 2.8% to 184.3 mmt), the European Union (up 2.7% to 143.4 mmt), Argentina (up 12% to 33.1 mmt), Mexico (up 11.6% to 31.7), North Africa/Middle East (up 4.3% to 29.8 mmt), Russia (up 79.0% to 29.4 mmt), Southeast Asia (up 7.9% to 25.0 mmt), Ukraine (up 13.8% to 24.4 mmt), and Canada (up 3.3% to 22.8 mmt).
  - Canadian coarse grain production in MY 2011/12 may be lowered in later reports to reflect planting and crop development problems encountered in spring – early summer 2011.
- **Nearly unchanged/marginally lower** coarse grain production from the previous year is projected for Brazil (unchanged at 57.3 mmt) and Australia (down 1.7% to 13.4 mmt).

**Global coarse grain import** projections of 112.6 mmt in MY 2011/12 shows signs of price rationing and recovery in production prospects, as a number of major coarse grain importing countries are expected to decrease purchases.

- **Decreased** in coarse grain imports for MY 2011/12 are projected for the European Union (down 36.4% to 5.3 mmt), Saudi Arabia (down 11.1% to 7.2 mmt), South Korea (down 3.7% to 7.8 mmt), and Southeast Asia (down 1.4% to 7.2 mmt).
- **Nearly Unchanged** coarse grain imports are projected for Japan (unchanged at 19.1 mmt).
  - Japan imports have remained steady in spite of the carryover effects of earthquake / tsunami damage to coastal livestock feeding industries and ports
- **Increased** coarse grain imports are projected for China (up 17.3% to 3.7 mmt), Mexico (up 12.9% to 11.6 mmt) and North Africa / Middle East (up 1.7% to 21.2 mmt).
  - Projected China corn imports in MY 2011/12 have been increased from 2.13 mmt in June to 3.73 mmt in the July WASDE report. China's participation in World corn trade would be viewed as an extra, additional source of demand supporting coarse grain / corn markets in MY 2011/12.

**Global coarse grain export** projections of 115.9 mmt in MY 2011/12 show a positive response to increased World coarse grain production prospects and lower projected prices for MY 2011/12 – although exports are markedly lower than 123.1 mmt in MY 2009/10.

- **Decreased** in coarse grain exports for MY 2011/12 are projected for Brazil (down 5.9% to 8.0 mmt), the European Union (down 61.2% to 2.3 mmt), and Canada (down 33.0% to 3.0 mmt).
  - Canadian export prospects are declining in conjunction with reduced 2011 coarse grain production prospects.
- **Increased** coarse grain imports are projected for the United States (up 0.8% to 51.8 mmt), Argentina (up 20.4% to 21.3 mmt), Ukraine (up 18.8% to 10.4 mmt), Australia (up 0.9% to 5.7 mmt), and Russia (up 236.4% to 1.1 mmt)
  - Uncertainty about 2011 U.S. and Canadian coarse grain production prospects and crop weather risks elsewhere in the World make these MY 2011/12 export projections very tentative.

**Global coarse grain usage** continues to trend higher, with record high use of 1,158.4 mmt projected for MY 2011/12.

- **Largest projected domestic users of coarse grains** are the United States (up 0.9% to 306.3 mmt), China (up 5.9% to 190.6 mmt), the European Union (down 2.9% to 148.4 mmt), Brazil (up 3.3% to 53.3 mmt), North Africa / Middle East (up 2.2% to 51.8 mmt), Mexico (up 8.9% to 42.1 mmt), Southeast Asia (up 4.3% to 31.6 mmt), Russia (up 48.7% to 27.3 mmt), Canada (up 0.8% to 21.4 mmt), Japan (down 0.7% to 19.4 mmt), Ukraine (up 2.3% to 13.7 mmt), Argentina (up 4.1% to 11.5 mmt), followed by Saudi Arabia (8.3 mmt), South Korea (8.1 mmt), and Australia (7.7 mmt).
- **Changing production prospects in Russia and the European Union affect these coarse grain usage projections.**
  - Projected Russia coarse grain usage of 27.3 mmt in MY 2011/12 is above 18.4 mmt in MY 2010/11, but below 30.6 mmt in MY 2009/10.
  - Projected European Union coarse grain usage of 148.4 mmt in MY 2011/12 is less than 152.8 mmt in MY 2010/11 and 150.4 mmt in MY 2009/10.
- **Rationing of Coarse Grain Use:** *If July projections of larger 2011 U.S. coarse grain / corn production hold true, then there is likely to be a weakening of the pressure to ration corn usage through the remainder of MY 2010/11 and on into MY 2011/12. However, if July WASDE World and U.S. coarse grain and corn production falls markedly below current USDA WASDE projections, then the episode of price rationing that has occurred to date in 2011 would likely continue in bioenergy production, livestock feeding and imports/exports.*
  - Should energy prices move higher in the summer of 2011, it would lead to higher breakeven purchasing prices for coarse grains for energy production – leaving World livestock feeding enterprises in a less competitive position (in turn having a limiting effect on U.S. coarse grain exports)

**World Coarse Grain & Corn Ending Stocks:** Current projections of World coarse grain and corn ending stocks for MY 2011/12 are very tentative, with uncertainty surrounding corn and other coarse grain production in the United States, Canada, the European Union, China, Mexico and elsewhere.

- **Projected World Coarse Grain ending stocks in MY 2011/12 = 149.23 mmt (12.9% S/U)**
  - Compared to 157.3 mmt (13.9% S/U) for MY 2010/11, and 195.1 mmt (17.6% S/U) for MY 2009/10

## **World Corn Supply-Demand in MY 2011/12**

World corn production and total use both are projected to account for 75.8% of both World coarse grain production and total use, respectively, in MY 2011/12. Markedly lower World corn beginning stocks offset projected increases in World corn production by a large enough amount that projected increases in World corn usage are larger than increases in total supplies. This has led to a projected decline in MY 2011/12 corn ending stocks from MY 2010/11 to MY 2011/12. Since most of the increase in 2011 World corn production is attributed to the United States, projected increases in World corn usage are larger than increases in World corn production in MY 2011/12, leading to a marked tightening of both World corn ending stocks and % ending stocks-to-use in comparison to MY 2010/11 levels, and especially in comparison to MY 2009/10.

**Production** of World corn in MY 2011/12 is projected to be 872.4 mmt, up 6.3% from 820.0 mmt in MY 2010/11, and up from 813.0 mmt in MY 2009/10 (Figure 5). **Total corn beginning stocks plus production** is projected to be 993.3 mmt, up 3.1% from 963.7 mmt in MY 2010/11 and up from 960.2 mmt in MY 2009/10. World corn **exports** are projected to be 94.9 mmt in MY 2011/12, up from 90.2 mmt in MY 2010/11, but less than 97.0 mmt in MY 2009/10. **Total domestic use** of corn is projected to be 877.6 mmt, up 4.1% from 842.8 mmt in MY 2010/11, and up from 816.6 mmt in MY 2009/10.

World corn **ending stocks** are projected to be 115.7 mmt (13.2% S/U) in MY 2011/12, down from 120.9 mmt (14.3% S/U) in MY 2010/11, and down from 143.6 mmt (17.6% S/U) in MY 2009/10.

**Comments:** Figure 5 shows that World corn usage has been growing steadily during the MY 2007/08 through MY 2010/11 period at an average rate of 17.75 mmt annually. Usage is projected to grow by 30 mmt in MY 2011/12. World corn production has also grown during the MY 2007/08-MY2010/11 time frame at a slower average annual rate of 6.25 mmt. Projected growth in MY 2011/12 is 52 mmt. While World corn exports have varied in the range of 84 to 99 mmt over the MY 2007/08-MY 2010/11 period (with 95 mmt projected for MY 2011/12), World corn ending stocks have been declining since MY 2008/09 (147 mmt) down to a projected level of 116 mmt in MY 2011/12.

**Illustration:** This Figure illustrates the risk to World corn supply-demand balances of any shortfall in 2011 U.S. corn production. For example, a 12.7 mmt (500 million bushel) shortfall in 2011 U.S. corn production from current projected levels (13.470 billion bu) would lead to a reduction in World corn production – down to the United States in 2011 would drop 2011 World corn production down to 859 mmt. Assuming that some further rationing of World usage due to tighter ending stocks-to-use and consequently higher corn prices, it is likely that there would be approximately a 10-12 mmt (i.e. 11 mmt) reduction in total World corn usage down to approximately 863 mmt. World corn ending stocks would be reduced by the difference in the production versus usage declines in World corn or of the 1.7 mmt difference, down to near 114 mmt (with approximately a 12.0%-13.0% World corn ending stocks-to-use).

Given that a 500 mb or 12.7 mmt reduction in the U.S. 2011 corn crop from the July USDA projection of 13.470 bb is entirely possible, then it should be noted how vulnerable World corn supply-demand balances and market prices are to possible shortfalls in the 2011 U.S. corn crop.

**Figure 5. World Corn Usage & Ending Stocks: MY 2007/08 thru MY 2011/12**

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