USDA September 2011 WASDE Report - Soybean Market Impacts

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Summary

The September 12th USDA reports projected an increase in 2011 U.S. soybean yields and production, rationing of soybean usage, near record tight ending stocks, and record high soybean prices. Projected U.S. soybean supply-demand balances show evidence of rationing of usage, with lower projected exports and domestic crush. It is likely that further changes will occur in U.S. soybean supply-demand balances in USDA October and November Crop Production and World Supply and Demand Estimates (WASDE) reports, but it is unlikely that major changes will occur in the overall tight supply-demand balance situation that the soybean market now finds itself in.

In its September 12th Crop Production report, the USDA National Agricultural Statistical Service projected U.S. 2011 soybean yields to be 41.8 bushels per acre yield, the lowest yield level since 39.7 bushels in 2008. Soybean production was projected to be 3.085 billion bushels (bb), in the range of 274 and 244 million bushels (mb) less than in 2009 and 2010, respectively.

In the September WASDE, lower U.S. soybean production more than offset increased beginning stocks to leave projected MY 2011/12 U.S. total supplies at 3.325 bb, the lowest level in three marketing years. The USDA also projected that significant price rationing would occur to U.S. soybean, soybean oil and soybean meal exports in MY 2011/12. U.S. soybean crushings are projected to be marginally lower than in MY 2010/11, and markedly less than MY 2009/10, respectively.

With lower U.S. soybean supplies and expected rationing of usage projected for MY 2011/12, ending stocks are estimated to decline to 165 mb (down 60 mb vs. a year ago). U.S. soybean % ending stocks-to-use are projected to be 5.2% in MY 2011/12, down from 6.9% the previous year. This would be the 4th lowest on record, and still above the record low of 4.0% in MY 2003/04.

Even with these projected declines in current supplies, 2011 U.S. soybean yields and production prospects are still somewhat uncertain, with the possibility of more reductions being made by by the USDA in future reports due to number of possible reasons, including a) reductions in harvested acreage, b) varying degrees of freeze damage in the northern plains, c) more extreme damage in drought damaged areas of the central and southern plains and the southeastern U.S. than currently accounted for, or d) simply lower yields in the Corn Belt than have been projected to date.

These reports point toward tight supply-demand conditions and historically high soybean prices from fall 2011 through spring-summer 2012. There will likely be strong competitive pressure to at least maintain if not increase 2012 U.S. soybean and corn acreage in an attempt to rebuild or replenish U.S. supply-demand balances for both crops.

Grain markets in 2012 will likely continue to be extremely sensitive to any threats to U.S. soybean production, and to U.S. corn and wheat crops as well. Record high soybean prices are having their intended impact, i.e., that of rationing limited supplies to highest value users to ensure that adequacy of U.S. soybean supplies for the duration of the 2011/12 marketing year.

I. U.S. Soybean Market Situation and Outlook

A. **Higher 2011 U.S. Soybean Production Prospects**: In its September Crop Production report, the USDA National Agricultural Statistical Service (NASS) raised its projection of 2011 U.S. soybean production by 0.01%. However, projected soybean production is still low enough relative to usage that U.S. soybean prices are projected to remain at high levels and lead to some rationing of soybean crush and exports in MY 2011/12 (**see Table 1**).

   a. **U.S. 2011 Soybean Yields = 41.8 bu/acre**: USDA NASS projected 2011 U.S. soybean yields at 41.8 bu/acre, up from 41.4 bu in August, but still below the previous two years. Soybean yield prospects in 2011 have been affected by the cumulative impact of a) difficult spring planting conditions in the eastern and northern Corn Belt, b) hot, dry July and August weather in parts of the central Corn Belt, and c) continuing drought in the southern and central Plains and the southeastern United States.

      i. Over the last 5 years, U.S. soybean yields have been 41.7 bu/ac in 2007, 39.7 bu/ac in 2008, 44.0 bu/ac in 2009, 43.5 bu/ac in 2010, and are now projected to be 41.8 bu/ac in 2011.

      ii. Since early August U.S. soybean crop condition ratings have generally declined, indicating the possibility of lower projected yields in October and November USDA reports. Whether or not late planted soybeans in some areas of the eastern and northern U.S. Corn Belt are able to reach maturity this fall before either a killing frost or the cessation of development processes will be a key issue determining the amount and quality of U.S. soybean production.

      iii. If the 2011 U.S. soybean yield projection of 41.8 bu/ac holds true, it will be the 6th highest U.S. soybean yield on record, with the highest being 44.0 bu/ac in 2009, followed by 2010 (43.5 bu), 2005 (43.1 bu), 2006 (42.9 bu), and 2004 (42.2 bu).

      Commentary: During the 1970-1999 period, U.S. soybean yields trended higher at rate of 0.43 bushels per acre annually, with a standard deviation of 2.58 bushels. However, since 2000 (i.e., 2000-2011 (projected)), U.S. soybean yields are estimated to have trended higher at a rate of 0.51 bushels per acre per year, with a standard deviation of 2.44. Taken together, the increasing yield trend for U.S. soybeans has been larger since 2000 than during the 1970-1999 time period, with statistical measures of yields varying around the trend by a greater degree during the earlier period.

   b. **U.S. 2011 Soybean Production = 3.085 billion bushels**: USDA NASS projected 2011 U.S. soybean production to be 3.085 billion bushels (bb), up 29 million bu (mb) or 0.95% since August. Uncertainty about final 2011 U.S. soybean planted and harvested acreage still exists – following from planting delays in spring 2011 and major flooding events along the Missouri, Ohio and Mississippi rivers and their tributaries. If adjustments / reductions to 2011 soybean planted and/or harvested acreage do occur, it will likely be reflected in the October or November USDA NASS Crop Production reports.

      i. Over the last 5 years, U.S. soybean production has been 2.677 bb in 2007, 2.967 bb in 2008, 3.359 bb in 2009, 3.329 bb in 2010, and is now projected to be 3.085 bb in 2011.

ii. If the 2011 U.S. soybean production projection of 3.085 bb holds true, this will be the fifth largest U.S. soybean crop in history, trailing 2009 (3.359 bb), 2010 (3.329 bb), 2006 (3.197 bb), and 2004 (3.124 bb), and only slightly ahead of 2005 (3.068 bb).

Commentary: Since 2004, U.S. soybean production has on average trended higher at a rate of 22 mb per year, but because of the large amount of variability around the upward trend, it was not statistically significant. During the same period, U.S. total soybean use trended higher at a statistically significant rate of 48 mb per year. This disparity of these trends is a primary cause for the continuation of extremely tight U.S. soybean ending stocks-to-use since MY 2007/08.

Given the ongoing growth in U.S. soybean export demand – primarily from China – and the competing demands for U.S. cropland to produce feedgrains, wheat and other crops, it seems unlikely that U.S. soybean supply-demand balances will remain historically tight. Either a return to yearly trendline increases in U.S. soybean yields, a large increase in U.S. soybean acreage, or a sizable reduction in U.S. soybean usage will be needed to rebuild U.S. soybean stocks in MY 2012/13 and later years.

B. **"Old Crop" U.S. Soybean Supply-Demand for MY 2010/11**: In its September 12th World Agricultural Supply and Demand Estimates (WASDE), the USDA World Agricultural Outlook Board made a minor increase in its projection of domestic crush and total usage, resulting in a minor decrease in projected ending stocks (**Table 1 & Figure 1**). A projected increase in domestic crushings (1.650 bb, up 5 mb), combined with exports of 1.495 bb, and seed and residual use of 125 mb, led to increased total use (3.270 bb, up 5 mb), and to decreased ending stocks (225 mb, down 5 mb).

a. **% Ending Stocks-to-Use (6.9%) for MY 2010/11**: Projected % ending stocks-to-use of 6.9% for "old crop" MY 2010/11 is down from 7.0% in August, and the sixth lowest since MY 1973/74. However, MY 2010/11 ending stocks are still the largest amount in the last five years (i.e., MY 2007/08 through projected MY 2011/12).

b. **Prices ($11.35 /bu) for MY 2010/11:** In spite of these historically tight U.S. soybean ending stocks-to-use figures, U.S. average soybean price estimate for MY 2010/11 is estimated to be a historic record high $11.35 per bushel, unchanged from the August WASDE report. Projections for new crop MY 2011/12 prices are higher still.

C. **"New Crop" U.S. Soybean Supply-Demand for MY 2011/12**: In response to small increases in 2011 U.S. soybean production prospects and export trends the USDA made small adjustments to supplies, exports, total usage, ending stocks, and price estimates in its September 12th WASDE report (**Table 1 & Figure 1**). Even with an increase in U.S. soybean ending stocks and % ending stocks-to-use, projected MY 2011/12 increased marginally. There is some evidence of price rationing on a year to year basis in domestic crushings and export usage.

a. **U.S. Soybean Total Supplies for MY 2011/12 = 3.325 bb**: With projected MY 2011/12 beginning stocks of 225 bb (down 5 mb and the largest since MY 2007/08), 2011 U.S. production of 3.085 bb, and imports of 15 mb, total supplies of U.S. soybeans for MY 2011/12 are projected to be 3.325 bb (up 24 mb).

i. Projected total U.S. soybean supplies of 3.325 bb for MY 2011/12 are down from 3.495 bb in MY 2010/11 and from 3.512 bb in MY 2009/10. Total supplies of 3.325 bb in MY

2011/12 are the lowest since 3.185 bb in MY 2008/09 and 3.261 bb in MY 2007/08 (**Table 1 & Figure 2**).

Commentary: The decline in projected 2011 U.S. soybean production relative to a year ago (down 244 mb) is less than the increase in beginning stocks (up 74 mb), causing the projected 170 mb decline in total supplies for MY 2011/12. Because of what are likely to be historically tight new crop beginning stocks for U.S. soybeans in MY 2012/13, soybean markets are likely to be extremely to any threats to the U.S. soybean crop through at least the early summer of 2012.

b. **U.S. Total Soybean Use Down to 3.161 bb in MY 2011/12**: Following from expectations of reduced new crop total U.S. soybean supplies, the USDA projected that price rationing would bring about moderate declines in U.S. soybean usage in order to maintain minimal required ending stocks for MY 2011/12 (**Table 1 & Figure 1**). Total soybean use for MY 2011/12 is projected to be 3.161 bb, down 15 mb from August, and down from 3.270 bb in MY 2010/11 and 3.361 bb in MY 2009/10.

Commentary: The U.S. soybean market is exhibiting inflexible, highly responsive price behavior. From MY 2009/10 to MY 2010/11 U.S. soybean use declined 2.7% while U.S. soybean prices increased 18.4%. Then again from MY 2010/11 to MY 2011/12 U.S. soybean use is projected to decline another 3.3% while U.S. soybean prices are projected to increase 20.3%. If further declines in U.S. soybean supplies and use occur for MY 2011/12 in the October or November crop reports, the soybean market would be expected to result in yet higher soybean prices and highly volatile soybean market conditions.

i. Soybean crush of 1.635 bb for MY 2011/12 is down from 1.650 bb in MY 2010/11 and 1.752 bb in MY 2009/10. This marginal 0.6% projected decline from last year, and 6.6% decline from 2 years ago are indicators of both price rationing on the one hand and of a recovery in South American soybean production and exports since MY 2009/10 on the other.

   Domestic crush has trended lower since the highs of 1.808, 1.803, and 1.752 bb in MY 2006/07, MY 2007/08, and MY 2009/10, respectively, down to a projection of 1.635 bb in MY 2011/12 (**Figure 1**)

ii. Soybean exports are projected to be 1.415 bb in MY 2011/12 – up 15 mb from July, and less than the near record high of 1.495 bb in MY 2010/11 and the record high of 1.499 bb in MY 2009/10.

   Exports have trended strongly higher from 940 mb in MY 2005/06 up to 1.499 bb and 1.495 bb in MY 2009/10 and MY 2010/11, respectively. A decline to a projected level of 1.415 bb in MY 2011/12 signals at least a temporary moderation in that trend (**Figure 1**).

   Commentary: U.S. export prospects have diminished over the last two marketing years largely due to export completion from South America. Brazil soybean production was record large MY 2010/11 (75.5 mmt), and is projected to be 73.5 mmt (2nd largest on record) in MY 2011/12. Argentina soybean production in MY 2010/11 was the second largest crop on record (49 mmt) versus a record high 54.5 mmt in MY 2009/10, and is projected to be 53 mmt in MY 2011/12 (which would be the 2nd highest on record). China imports of soybeans and soybean products have spurred World soybean and soybean product market prices higher and led to increased South American soybean production (and also to higher U.S. soybean production in 2009-2010).

C. **U.S. "New Crop" MY 2011/12 Ending Stocks (165 mb) & Ending Stocks-to-Use (5.2%)**: The USDA projects MY 2011/12 U.S. soybean ending stocks to be 165 mb, up 10 mb from August. This amount of MY 2011/12 ending stocks (165 mb) compares to 225 mb in MY 2010/11 and 151 mb in MY 2009/10 (**Table 1 & Figure 1**).

The MY 2011/12 supply-demand balance projection equals 5.2% ending stocks-to-use, up from 4.9% in August, and compares to 6.9% in MY 2010/11, and 4.5% in MY 2009/10 (**Table 1 & Figure 3**). Soybean ending stocks-to-use of 5.2% in MY 2011/12 would be the fourth tightest since MY 1973/74, behind the historic low of 4.00% in MY 2003/04, 4.49% in MY 2009/10, and 4.53% in MY 2008/09.

Commentary: It is still possible that % ending stocks to use levels of 5.0% or less may occur in MY 2011/12 for a number of plausible reasons. **If** either a) projected 2011 U.S. soybean production is reduced further due to early freeze, more extensive production losses exist or lower harvested acres than has yet been accounted for, etc., or b) greater usage of soybean in any of the major categories than is currently projected later in the marketing year, **then** there is a reasonable possibility U.S. soybean % ending stocks-to-use falloing to 5.0% or less for in MY 2011/12.

Whereas uncertainty about estimates of U.S. soybean production typically are mostly resolved by the November or following January USDA Crop Production reports, questions about whether the rate of usage will lead to reductions in ending stocks are "worked through" in the cash market throughout the marketing year. If soybean usage is on a more rapid pace than can be sustained to maintain a level of 4.5%-to-5.2% endings stocks-to-use for MY 2011/12, then it will likely be reflected in improved cash soybean basis bids, the pace of both U.S. domestic soybean crushings and soybean / soybean product exports, and in quarterly stocks on March 1st, June 1st and September 1st in 2012.

D. **"New Crop" MY 2011/12 U.S. Soybean Prices = $12.65-$14.65 /bu.**: On a year-to-year basis, U.S. soybean prices have responded sharply higher in response to tightening of U.S. soybean ending stocks-to-use (**Table 1 & Figure 2**). The USDA projected MY 2011/12 U.S. average soybean prices to be record high in the range of **$12.65 - $14.65 per bushel**, up $0.15 on each end of the range from August, and up from $11.35 in MY 2010/11 and $9.59 in MY 2009/10.

Inflexible Demand – Tight Stocks / High Prices: Record high prices in conjunction with historically tight U.S. soybean ending stocks-to-use projections (5.2%) supports the idea that soybean supply-demand balances and associated prices are in an "inflexible box". In other words, U.S. soybean markets are operating in regions characterized by very inelastic, price responsive supply-demand relationships.

Commentary: Tight corn supplies and high corn prices have provided carryover support for wheat and soybean prices. Market arbitrage forces are likely to force new crop 2012 futures prices for corn and soybeans higher through the late winter/spring months in an effort to convince U.S. farmers to plant both crops. Market concerns about 2012 U.S. soybean plantings and production and uncertainty about 2012 South American soybean production are likely to provide continuing support for soybean markets for the remainder of 2011 through at least spring / early summer of 2012.

E. **World Soybean Supply-Demand Trends**: Consistent growth in World soybean usage since MY 2008/09 has occurred in spite of periods of record high prices from MY 2007/08 to projections for MY 2011/12 (**Figure 3**). In the September WASDE report, the USDA projected MY 2011/12 World soybean ending stocks at 62.55 mmt (23.9% S/U) (up 1.60 mmt), down from 68.82 mmt (27.2% S/U) in MY 2010/11, but up from 59.34 mmt (24.9% S/U) in MY 2009/10.

a. Consistent growth in World Soybean use combined with level or declining World soybean production has led to a projected year-to-year decline in World soybean ending stocks in MY 2011/12.

b. Strength in Chinese soybean imports has been a staple demand (usage) component of the World soybean market, with China accounting for 58%, 58%, and 59% of total World soybean imports for MY 2009/10, MY 2010/11 and MY 2011/12, respectively.

c. Due to growth in World soybean usage, World % ending stocks-to-use have declined from 24.9% in MY 2009/10 and 27.2% in MY 2010/11 to a projected level of 23.9% S/U in MY 2011/12. This trend toward tighter World soybean supply-demand balances will continue to provide support for soybean markets for the remainder of 2011 and on into 2012.

Commentary: A broader trend toward tighter World oilseed, coarse grain and wheat % ending stocks-to-use has occurred since MY 2009/10. Recoveries / increases in U.S. and World production are needed in the coming year to begin to rebuild both U.S. and World supply-demand balances for all these major crop categories.

D. **Persistence of Tight Supply-Demand for Soybeans into MY 2012/13**: Given a) the likelihood of historically tight ending stocks for U.S. soybeans in MY 2011/12 and b) competition for U.S. crop acres between soybeans, corn and other crops in spring 2012, and c) uncertainty about South American crop prospects for MY 2011/12 in light of recent long term weather forecasts (i.e., the reemergence of the La Nina weather pattern), ***concerns about the adequacy of U.S. soybean supplies and supply-demand balances are likely to persist into MY 2012/13***. These factors are likely to both support soybean market prices and to make them more volatile through the 2012 U.S. soybean growing season.

Table 1. U.S. Soybean Supply-Demand Balance Sheet: MY 2007/08 through MY 2011/12
(September 12, 2011 USDA WASDE Report)

Item	2007/08	2008/09	2009/10	2010/11	2011/12
Planted Area (million acres)	64.7	75.7	77.5	77.4	75.0
Harvested Area (million acres)	64.1	74.7	76.4	76.6	73.8
Yield per harvested acre (bushels/acre)	41.7	39.7	44.0	43.5	41.8
	million bushels				
Beginning Stocks	574	205	138	151	225
Production	2,677	2,967	3,359	3,229	3,085
Imports	10	13	15	15	15
Total Supply	3,261	3,185	3,512	3,495	3,325
Domestic Crushings	1,803	1,662	1,752	1,650	1,635
Exports	1,159	1,279	1,499	1,495	1,415
Seed	89	90	90	87	88
Residual	5	16	20	38	23
Total Use	3,056	3,047	3,361	3,270	3,161
Ending Stocks	205	138	151	225	165
% Ending Stocks-to-Total Use	6.7%	4.5%	4.5%	6.9%	5.2%
U.S. Average Farm Price ($/bushel)	$10.10	$9.97	$9.59	$11.35	$12.65-$14.65 *Midpoint = $13.65*

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

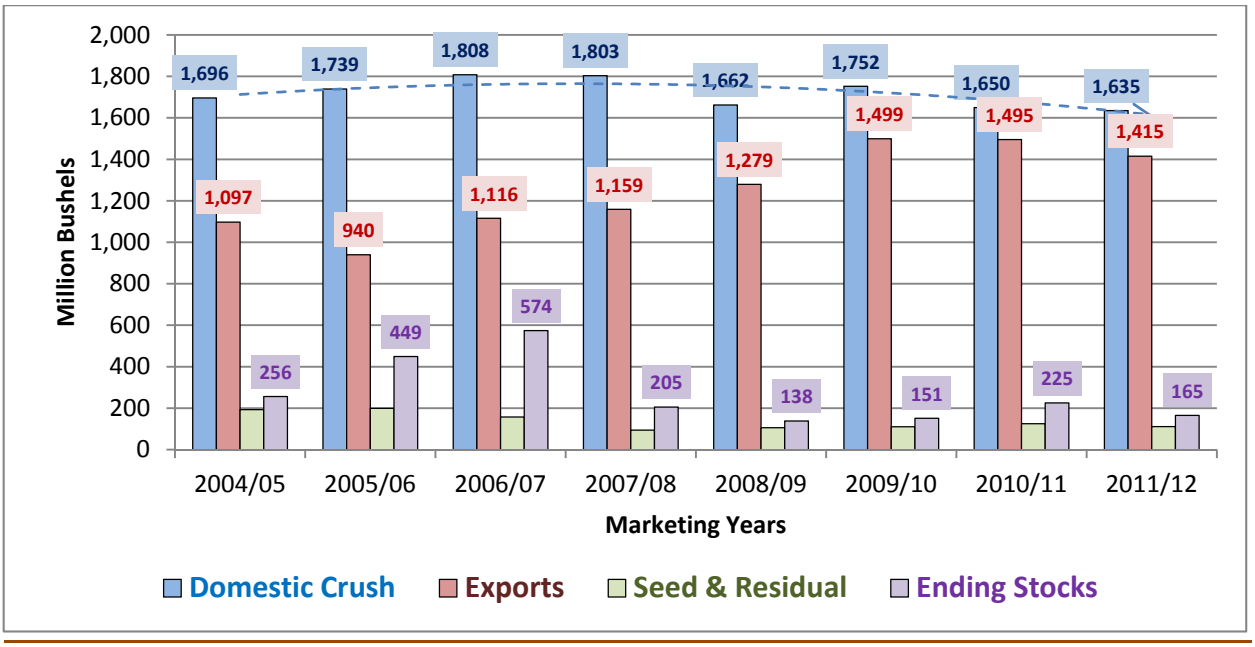

Figure 2. U.S. Soybean Ending Stocks vs U.S. Avg. Cash Prices: MY 1973/74 through MY 2011/12
(September 12, 2011 USDA WASDE Report)

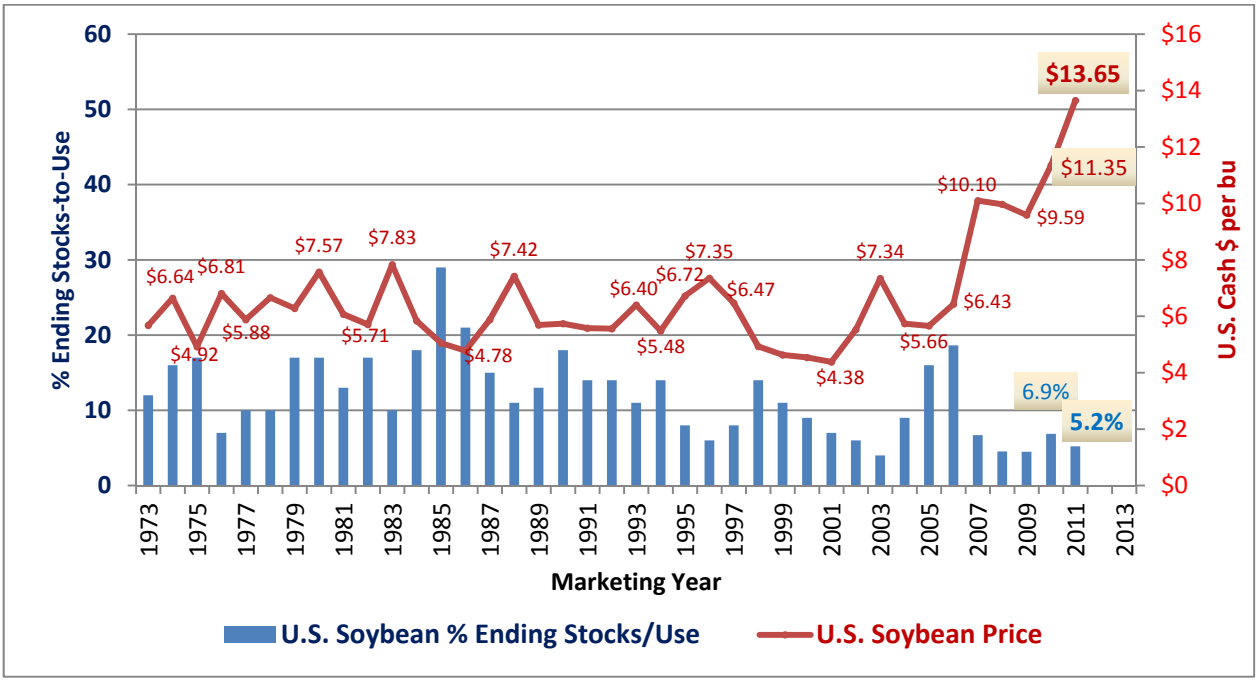

Figure 3. World Soybean Usage & Ending Stocks: MY 2007/08 thru MY 2011/12

(September 12, 2011 USDA WASDE Report)