

# **U.S. Grain Supply-Demand Projections for 2010**

## **from the USDA Agricultural Outlook Forum**

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The USDA presented its grain market outlook for the 2010/11 marketing year at the USDA Agricultural Outlook Forum in Arlington, Virginia on February 18-19, 2010. Based on largely trend-line U.S. crop yields and on World and U.S. grain market supply-demand conditions present in the 2009/10 marketing year, increased U.S. supplies and lower prices were projected for feedgrains and oilseeds. A continuation of the burdensome World and U.S. supply-demand conditions for wheat were also projected, with a slight improvement in cash wheat prices.

Grain supply-demand projections for wheat, feedgrain, and oilseeds for 2010/11 were based on a) information from the USDA Winter Wheat Seedings Report on January 12, 2010, b) the most recent USDA World Agricultural Supply-Demand Estimates (WASDE) released on February 9<sup>th</sup>, and c) analysis by members of USDA's Interagency Commodity Estimates Committees for Wheat, Feedgrains, Rice and Oilseeds. Plans are to update these 2010/11 marketing year projections in the USDA's May 11<sup>th</sup>, 2010 USDA WASDE report. Presentations from the 2010 USDA Agricultural Outlook Forum pertaining to grain and bioenergy markets can be found at the following website:

<http://www.usda.gov/oce/forum/>

It is important to note that these supply-demand projections for grains are based on information currently available in the grain markets and being used by the USDA, and do not account for such factors as a) possible declines in the size of the 2009 U.S. corn crop due to problems associated with last fall's late-harvest, b) any production problems for World and U.S. wheat, feedgrains and oilseeds crops that could reduce production prospects and supplies, and c) unforeseen changes in World and U.S. economic conditions as well as energy and/or currency markets which could markedly diminish grain demand prospects.

In the sections that follow, the USDA's projections for wheat, corn and soybean markets will be presented along with discussions of how possible changes in supply-demand factors during 2010 could affect actual market outcomes for each grain commodity during their respective 2010/11 marketing years.

### **U.S. Wheat Supply-Demand Projections for 2010/11**

The USDA projected a continuation of the current burdensome supply-demand conditions that now exist in the 2009/10 marketing year for World and U.S. wheat markets on into 2010/11, with a slight improvement in U.S. marketing year average wheat prices (Table 1).

**Table 1. U.S. Wheat Supply-Demand Balance Sheet: 2007/08 - 2010/11 Marketing Years**

(February 9, 2010 USDA WASDE Report &amp; 2010 USDA Agricultural Outlook Forum)

Item	2007/08	2008/09 Estimate	2009/10 Projection	2010/11 Projection	2010/11 Change from 2009/10
Planted Area (million acres)	60.5	63.2	59.1	53.8	(5.3)
Harvested Area (million acres)	51.0	55.7	49.9	45.7	(4.2)
Yield per harvested acre (bushels/acre)	40.2	44.9	44.4	42.6	(1.8)
	million bushels				
Beginning Stocks	456	306	657	981	+324
Production	2,051	2,499	2,216	1,945	(271)
Imports	113	127	115	110	(5)
Total Supply	2,620	2,932	2,988	3,036	+48
Food, Seed & Industrial	1,036	1,002	1,012	1,036	+24
Exports	1,263	1,015	825	850	+25
Feed & Residual	16	258	170	210	+40
Total Use	2,314	2,275	2,007	2,096	+89
Ending Stocks	306	657	981	940	(41)
% Ending Stocks-to-Total Use	13.2%	28.9%	48.9%	44.8%	(4.1%)
U.S. Average Farm Price (\$/bushel)	\$6.48	\$6.78	Avg. = \$4.85 (\$4.75-\$4.95)	Avg. = \$4.90	+\$0.05

**Wheat Acreage & Yields:** Based on reports of lower winter wheat seeded acres as indicated in the USDA's January 12<sup>th</sup> Winter Wheat Seeding Report, and on expected increases in U.S. 2010 spring wheat acres (including durum), the USDA projected that 53.8 million acres (mln. ac.) of wheat will be planted, and 45.7 mln. ac. harvested in the U.S. in the 2010/11 marketing year. Planted area is projected to be down 5.3 mln. ac. (↓ 8.9%), while harvested area is projected to be down 4.2 mln. ac. (↓ 8.4%) from the 2009/10 marketing year. Weather problems during fall 2009 winter wheat seeding periods were a major cause of lower seeded areas in the 2010/11 marketing year. Hard red winter wheat planted area in the U.S. is down 3.8 mln. ac. (↓ 12.0%) to 27.8 mln. ac., while U.S. soft red winter wheat planted area is down 2.4 mln. ac. (↓ 28.9%) to 5.9 mln. ac. in 2010. Lower soft red winter wheat area in the eastern Corn Belt is likely to limit double crop opportunities for U.S. soybeans in 2010.

Average 2010 U.S. wheat yields are projected to be 42.6 bushels per acre (bu./ac.), which is 0.9 bu./ac. below trendline projections based on the 1985-2009 period. This yield projection reflects both acreage reductions in higher yielding soft red winter wheat producing areas, as well as improved or excellent hard red winter wheat yield prospects in Texas, Oklahoma, Kansas and Nebraska.

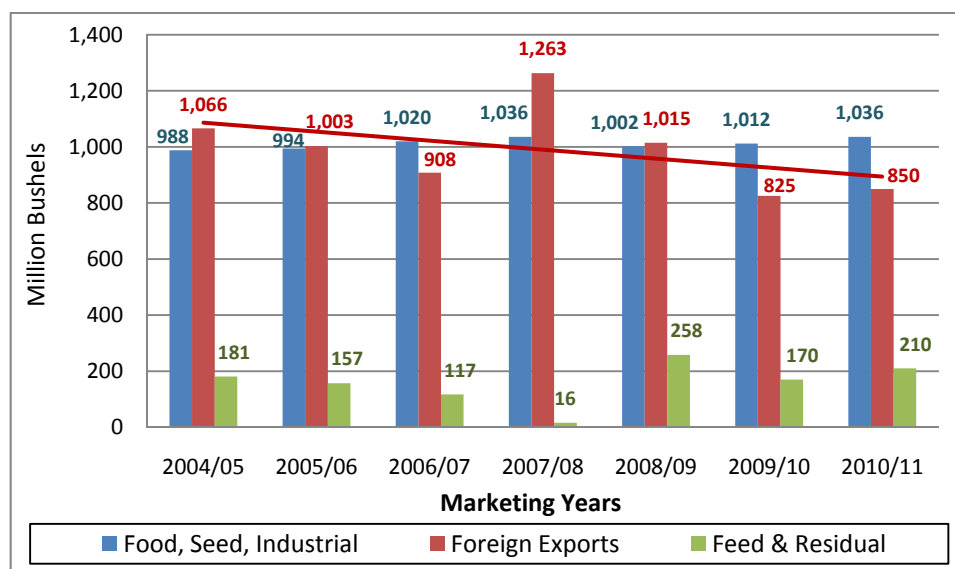
**Wheat Production & Total Supplies:** Wheat production in the U.S. is projected to be 1.945 billion bushels (bb.) in 2010, down 271 million bushels (mb.) from 2009. Combined with estimated 2010/11 U.S. beginning stocks of 981 mb. (up 324 mb. from 2009/10) and imports of 110 mb. (down 5 mb. from 2009/10), total supplies of U.S. wheat are projected to be 3.036 bb. in 2010/11 (up 48 mb. from 2009/10).

**Wheat Use:** Food, seed and industrial use of wheat is projected to increase 24 mb. to 1.036 bb. due to estimates of trendline U.S. population growth and a return to a more normal, lower wheat flour extraction rate for the 2010 U.S. crop (as compared to a higher than average wheat flour extraction

rate for the 2009 U.S. wheat crop). Trends in U.S. wheat use by category since the 2004/05 marketing year are shown in Figure 1. Wheat seed use is projected to decline due to lower winter wheat acreage in fall 2009. Wheat feeding is projected to increase by 40 mb. to 210 mb. because of larger available U.S. stocks of wheat. Wheat exports are projected to increase by 25 mb. to 850 mb. following a 38 year low in U.S. wheat exports of 825 mb. in 2009/10. Exports of U.S. wheat are expected to continue to be under pressure in the coming marketing year due to projections of large World wheat production and supplies, with major wheat export competitors expected to have ample-to-adequate stocks. Note the general downward trend in U.S. wheat exports since 2004/05 in Figure 1. Total U.S. wheat use in the 2010/11 marketing year is projected to increase by 89 mb. to 2.096 bb..

**Figure 1. Trends in U.S. Wheat Use Over the 2004/05 - 2010/11 Marketing Years**

(February 9, 2010 USDA WASDE Report & 2010 USDA Agricultural Outlook Forum)



**Wheat Ending Stocks & Prices:** Ending stocks of U.S. wheat are projected to be 330 mb. in 2010/11, representing 44.8% ending stocks-to-use. Compared to 2009/10, these figures represent an increase of 120 mb. in ending stocks and a decrease of 4.1% in ending stocks-to-use. Cash prices for wheat in the U.S. are projected to average \$4.90 per bushel in 2010/11, up \$0.05 per bushel from the midpoint of the range of the projected U.S. wheat price for 2009/10 (\$4.85 per bushel). This increase is based on expectations of support by the USDA from seasonally higher U.S. corn prices during the September – December 2010 period.

**How U.S. Wheat Supply-Demand Balances for 2010/11 Could Change:** Even with promising crop conditions for winter wheat, the possibility of U.S. winter or spring wheat production problems could markedly reduce the size of the 2010 U.S. wheat crop below current USDA projections. Although periods for fieldwork are 30-60 days away in the U.S., the possibility again exists in 2010 of wet spring field conditions in the northern plains that could delay U.S. and/or Canadian hard red spring wheat seedings. It is also possible that final total 2009/10 wheat exports could decline even further - to below 825 mb. Even if some combination of factors work together to lower U.S. wheat supplies and ending stocks considerably, large competitive exportable supplies of wheat outside of the U.S. are likely to continue to dampen wheat market price prospects in 2010/11.

## U.S. Corn Supply-Demand Projections for 2010/11

The USDA projected small adjustments to 2009/10 U.S. corn supply-demand conditions for the 2010/11 marketing year, with higher corn acreage, increasing ethanol usage and exports, declining feed use and ending stocks, and a small decline in U.S. marketing year average corn prices (Table 2).

**Table 2. U.S. Corn Supply-Demand Balance Sheet: 2007/08 - 2010/11 Marketing Years**

(February 9, 2010 USDA WASDE Report & 2010 USDA Agricultural Outlook Forum)

Item	2007/08	2008/09 Estimate	2009/10 Projection	2010/11 Projection	2010/11 Change from 2009/10
Planted Area (million acres)	93.5	86.0	86.5	89.0	+2.5
Harvested Area (million acres)	86.5	78.6	79.6	81.8	+2.2
Yield per harvested acre (bushels/acre)	150.7	153.9	165.2	160.9	(4.3)
	million bushels				
Beginning Stocks	1,304	1,624	1,673	1,719	+46
Production	13,038	12,092	13,151	13,160	+9
Imports	20	14	10	15	+5
<b>Total Supply</b>	<b>14,362</b>	<b>13,729</b>	<b>14,834</b>	<b>14,894</b>	<b>+60</b>
Ethanol for fuel	3,049	3,677	4,300	4,500	+200
Non-ethanol Food, Seed & Industrial	1,338	1,276	1,265	1,290	+25
Exports	2,437	1,858	2,000	2,100	+100
Feed & Residual	5,913	5,246	5,550	5,350	(200)
<b>Total Use</b>	<b>12,737</b>	<b>12,056</b>	<b>13,115</b>	<b>13,240</b>	<b>+125</b>
Ending Stocks	1,624	1,673	1,719	1,654	(65)
% Ending Stocks-to-Total Use	12.8%	13.9%	13.1%	12.5%	(0.6%)
U.S. Average Farm Price (\$/bushel)	\$4.20	\$4.06	Avg. = \$3.70 (\$3.45-\$3.95)	Avg. = \$3.60	(\$0.10)

**Corn Acreage & Yields:** Due to lower winter wheat acres and fertilizer prices and associated improvements in prospects for corn enterprise profitability, the USDA projects that 89.0 mln. ac. of corn will be planted in the U.S. in 2010, with 81.8 mln. ac. harvested in the 2010/11 marketing year. Planted area in 2010 is projected to be up 2.5 mln. ac. ( $\uparrow$  2.9%), while seeded area is projected to be up 2.2 mln. ac. ( $\uparrow$  2.8%) from the 2009/10 marketing year. Average U.S. corn yields are projected to be 160.9 bu./ac., which is 0.9 bu./ac. below trendline projections based on the 1990-2009 period. This estimate is 4.3 bu./ac. lower than the record high 2009 U.S. corn yield of 165.2 bu./ac..

**Corn Production & Total Supplies:** Corn production in the U.S. is projected to be 13.160 bb. in 2010, up just 9 mb. from 2009. Combined with projected 2010/11 U.S. beginning stocks of 1.719 bb. (up 46 mb. from 2009/10) and imports of 15 mb., total supplies of U.S. corn are projected to be 14.894 bb. in the 2010/11 marketing year (up 60 mb. from the current marketing year).

**Corn Use:** Ethanol fuel use of U.S. corn is projected to be 4.5 bb. in 2010/11, an increase of 200 mb. from the current marketing year (see Figure 2). Rising ethanol use of corn reflects an increase in the Renewable Fuels Standard to 12.4 billion gallons during the September 1, 2010 to August 31, 2011 U.S. corn marketing year. No policy change from E-10 ethanol blends to either E-12 or E-15 were assumed in these corn usage projections. Note the strong upward trend in U.S. ethanol fuel use of

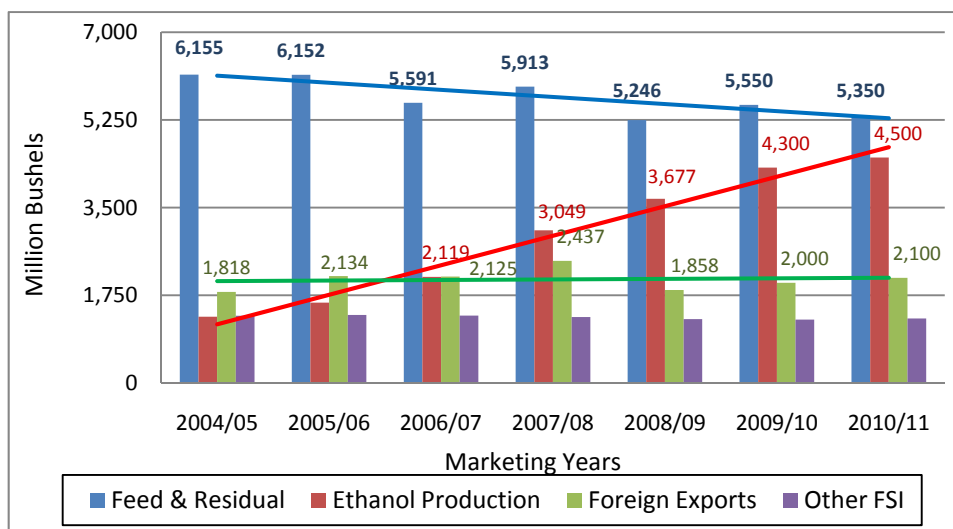
corn since 2004/05 in Figure 2. Non-ethanol food, seed and other industrial use of corn is projected to increase 25 mb. to 1.290 bb. in 2010/11.

Exports of U.S. corn are projected to be up 100 mb. in 2010/11 to 2.1 bb. based on an expected recovery in world livestock production after recent declines which resulted from the global economic recession. Exports of U.S. corn have essentially trended sideways since the 2004/05 marketing year (see Figure 2). Large global supplies of feed-quality wheat are expected to somewhat limit U.S. corn exports.

Feed and residual use of U.S. corn is projected to decline by 200 mb. to 5.350 bb. In 2010/11, based on little net change in U.S. livestock numbers and increased substitution of distillers grains for feedgrains in livestock feed rations. A downward trend in U.S. feed and residual use of corn has been occurring since 2004/05 (Figure 2). Total U.S. corn use is projected to increase by 126 mb. to 13.24 bb. in the 2010/11 marketing year.

**Figure 2. Trends in U.S. Corn Use: 2004/05 - 2010/11 Marketing Years**

(February 9, 2010 USDA WASDE Report & 2010 USDA Agricultural Outlook Forum)



**Corn Ending Stocks & Prices:** Ending stocks of U.S. corn are projected to be 1.654 bb. in 2010/11, representing 12.5% ending stocks-to-use. Compared to 2009/10, these figures indicate that U.S. corn ending stocks will decrease by 65 mb., and that ending stocks-to-use will decrease by 0.6%. Cash prices for corn in the U.S. are projected to average \$3.60 per bushel in 2010/11, down by \$0.10 per bushel from the midpoint of the range of projected U.S. corn prices for 2009/10 (\$3.70 per bushel). This projected decrease is based on expectations of a normal planting season without concerns about U.S. corn planted acres, as well as normal, non-drought U.S. corn production prospects in 2010.

**How U.S. Corn Supply-Demand Balances for 2010/11 Could Change:** A number of factors could cause significant changes in the USDA's U.S. corn supply-demand projections for the 2010/11 marketing year. First, declines in the size of the 2009 U.S. corn crop could cause declines in both total supplies and ending stocks of corn for the 2009/10 marketing year. Fall 2009 harvest problems have left as much as 500-600 mb. of last year's U.S. corn crop still unharvested. As discussed in previous issues of K-State Grain Marketing Newsletters, declines of 100 – 600 million bushels in 2009 U.S. corn

production could drop 2009/10 U.S. corn ending stocks down to the 1.1 – 1.6 bb. range, with 2009/10 ending stocks-to-use possibly declining as low as 8.5%. If such declines in 2009 U.S. corn production were to occur, beginning stocks for the 2010/11 marketing year would likely be affected, as would projected ending stocks for the 2010/11 U.S. corn marketing year. As a result, prospects for U.S. corn prices would be improved for both the 2009/10 and 2010/11 marketing years.

Second, if wet spring field conditions in the U.S. Corn Belt were to lead to prolonged planting delays for U.S. corn in 2010, and eventually to reduced corn acres and production prospects, then 2010/11 marketing year supply-demand balances for U.S. corn would be tightened and price prospects improved.

Third, possible changes in U.S. energy policy to allow for ethanol blends of up to E-12 or E-15 could also increase ethanol usage of corn and diminish projected 2010/11 U.S. corn ending stocks. Fourth, if the amount of corn used by U.S. livestock feeders, ethanol plants, and other users were to increase because of widespread quality problems and light test weights common in the 2009 crop, then U.S. corn ending stocks projections for the 2009/10 marketing year would be affected in the requisite manner, which in turn would impact beginning stocks and supply-demand balance prospects in the 2010/11 U.S. corn marketing year.

### U.S. Soybean Supply-Demand Projections for 2010/11

The USDA projected increases in World and U.S. soybean supplies in the 2010/11 marketing year, with strong world export competition and a moderate decline in soybean prices from 2009/10 (Table 3).

**Table 3. U.S. Soybean Supply-Demand Balance Sheet: 2007/08 through 2010/11 Marketing Years**  
(February 9, 2010 USDA WASDE Report & 2010 USDA Agricultural Outlook Forum)

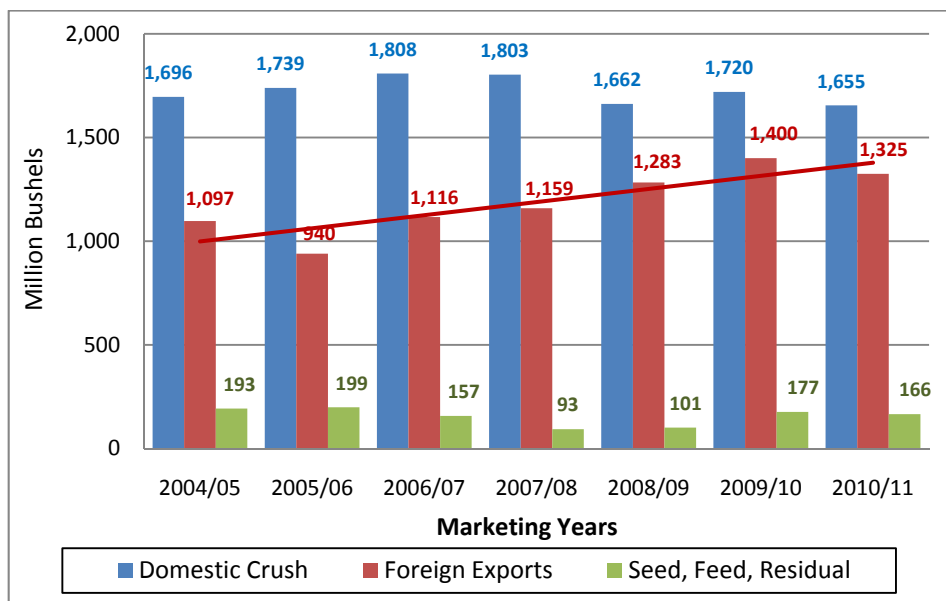
Item	2007/08	2008/09 Estimate	2009/10 Projection	2010/11 Projection	2010/11 Change from 2009/10
Planted Area (million acres)	64.7	75.7	77.5	77.0	(0.5)
Harvested Area (million acres)	64.1	74.7	76.4	76.0	(0.4)
Yield per harvested acre (bushels/acre)	41.7	39.7	44.0	42.9	(1.3)
	million bushels				
Beginning Stocks	574	205	138	210	+72
Production	2,677	2,967	3,361	3,260	(101)
Imports	10	13	8	8	0
Total Supply	3,261	3,185	3,507	3,478	(29)
Domestic Crush	1,803	1,662	1,720	1,655	(65)
Exports	1,159	1,283	1,400	1,325	(75)
Seed	93	95	94	86	(8)
Residual	0	6	83	82	(1)
Total Use	3,056	3,047	3,297	3,147	(150)
Ending Stocks	205	138	210	330	+120
% Ending Stocks-to-Total Use	6.7%	4.5%	6.4%	10.5%	+4.1%
U.S. Average Farm Price (\$/bushel)	\$10.10	\$9.97	Avg. = \$9.45 (\$8.70-\$10.20)	Avg. = \$8.80	(\$0.65)

**Soybean Acreage & Yields:** Because of fewer double-cropping opportunities due to reduced U.S. soft red winter wheat acres, and some acreage shifts to corn and cotton in the Corn Belt and southern U.S., the USDA projected that 77.0 mln. ac. of soybeans will be planted in the U.S. in 2010, with 76.0 mln. ac. harvested in the 2010/11 marketing year. Planted area is projected to be down 0.5 mln. ac. (↓ 0.6%), while seeded area is projected to be down 0.4 mln. ac. (↓ 0.5%) from the 2009/10 marketing year. Average U.S. soybean yields are projected to be 42.9 bu./ac. based on trendline projections from the 1989-2009 period. This soybean yield estimate is 1.1 bu./ac. lower than record 2009 U.S. soybean yields of 44.0 bu./ac..

**Soybean Production & Total Supplies:** Soybean production in the U.S. in 2010 is projected to be 3.260 bb., down 101 mb. from 2009. Combined with estimated 2010 U.S. beginning stocks of 210 mb. (up 72 mb. from 2009/10) and imports of 8 mb., total supplies of U.S. soybeans are projected to be 3.478 bb. in 2010/11 (down 29 mb. from 2009/10).

**Soybean Use:** Domestic U.S. soybean crush is projected to be 1.655 bb. in the 2010/11 marketing year, down 65 mb from 2009/10, and the lowest U.S. domestic crush total since the 2003/04 marketing year (see Figure 3). Demand for soybean crush from soybean meal use in 2010/11 is expected to be limited by a) record large South American soybean crops in 2010 which are expected to provide strong competition for U.S. soybean meal exports, b) limited feed demand due to little if any projected expansion of U.S. livestock herds, and c) increased availability of distillers grains from U.S. ethanol production which are used as a competitive substitute for soybean meal in livestock feed rations. Soybean oil-based demand for soybean crush is projected to be strengthened by increased use of soybeans for biodiesel production on the one hand, but weakened by declining demand for soybeans in domestic food uses on the other.

**Figure 3. U.S. Soybean Use: 2004/05 through 2010/11 Marketing Years**  
(February 9, 2010 USDA WASDE Report & 2010 USDA Agricultural Outlook Forum)



Combined seed and residual use of U.S. soybeans is projected decline by 9 mb. in 2010/11 to 168 mb. Exports of U.S. soybeans are projected to be 1.325 bb. in 2010/11, down from record 2009/10 exports of 1.4 bb. Record large soybean crops in Brazil and Argentina are expected to provide strong

competition for U.S. soybean and soybean product exports in 2010/11, with China projected to remain the predominant World soybean export buyer, accounting for greater than 50% of world soybean export market purchases in 2009/10. South Korea, Japan, Taiwan and the EU-27 have also been active export buyers for soybeans and soybean products in 2009/10, but on a much smaller scale than China has been. Exports of U.S. soybeans have had a strong upward trend since 2005/06, while U.S. domestic soybean crush has declined during the same period (see Figure 3).

**Soybean Ending Stocks & Prices:** Ending stocks of U.S. soybeans are projected to be 330 mb. in 2010/11, representing 10.5% stocks-to-use. Compared to 2009/10, these figures represent an increase of 120 mb. in ending stocks and an increase of 4.1% in ending stocks-to-use. Cash prices for soybeans in the U.S. are projected to average \$8.80 per bushel in 2010/11, down by \$0.65 per bushel from the midpoint of the range of projected price for U.S. soybeans in 2009/10 (\$9.45 per bushel). This projected price decrease is due mainly to strong export competition from South America and increasing U.S. soybean supplies and stocks in the 2010/11 U.S. soybean marketing year.

**How U.S. Soybean Supply-Demand Balances for 2010/11 Could Change:** The major sources of uncertainty affecting U.S. and World soybean supply-demand in 2010 will likely center around a) the size of the 2010 U.S. soybean crop, and b) whether strong foreign export demand for soybeans and soybean products will continue at current levels. Given the predominant position of the U.S. in World soybean export markets (i.e., projections of 47% market share for soybean exports in 2009/10), any threat or actual reduction in U.S. soybean production would likely have a marked impact upon World soybean and oilseed markets. Conversely, a record large U.S. soybean crop in 2010 following the record large 2010 soybean crops in South America could increase World soybean supplies enough that soybean prices could come under pressure.

On the demand side, although World soybean trade has been strong throughout the 2009/10 soybean marketing year, the base of world soy demand has been relatively narrow, i.e., depending primarily on China for over half of World soybean export purchases. If for whatever reason Chinese demand for soybeans and soybean products were to soften appreciably in the coming year, soybean market prices would very likely be negatively affected in a sizable manner.

## **Summary**

These U.S. grain supply-demand projections provided by the USDA for the upcoming 2010/11 marketing year serve as beginning benchmarks for grain markets until more information is available. The USDA plans to update these initial 2010/11 projections in its May 11, 2010 WASDE report. At that time any changes in 2009/10 marketing year supply-demand projections for wheat, feedgrains and oilseeds will be accounted for in early 2010/11 marketing year projections. These grain market projections for 2010/11 point to U.S. feedgrain and oilseed supply-demand scenarios and price prospects that are neutral to somewhat more negative than during the current marketing year. Wheat market prospects in the U.S. for 2010/11 are largely a continuation of the bearish supply-demand situation in U.S. wheat markets in 2009/10, with only a slight projected increase in U.S. wheat prices.

The process of determining the final 2009/10 marketing year supply and demand balances and prices for U.S. grain markets is now occurring and will continue through the end of the current marketing year, i.e., May 31<sup>st</sup> for U.S. wheat, and August 31<sup>st</sup> for feedgrains and oilseeds. Once the final supply-demand and price results for 2009/10 are determined and 2010 crop acreages and production

prospects are known with more certainty, then U.S. grain market supply-demand projections for 2010/11 will take on all that much more clarity and importance to U.S. grain markets.