



September 2016 – Crop Market Update

Public Policy Department
Budget & Economic Analysis Team

U.S. and Foreign Stockpiles Remain Elevated

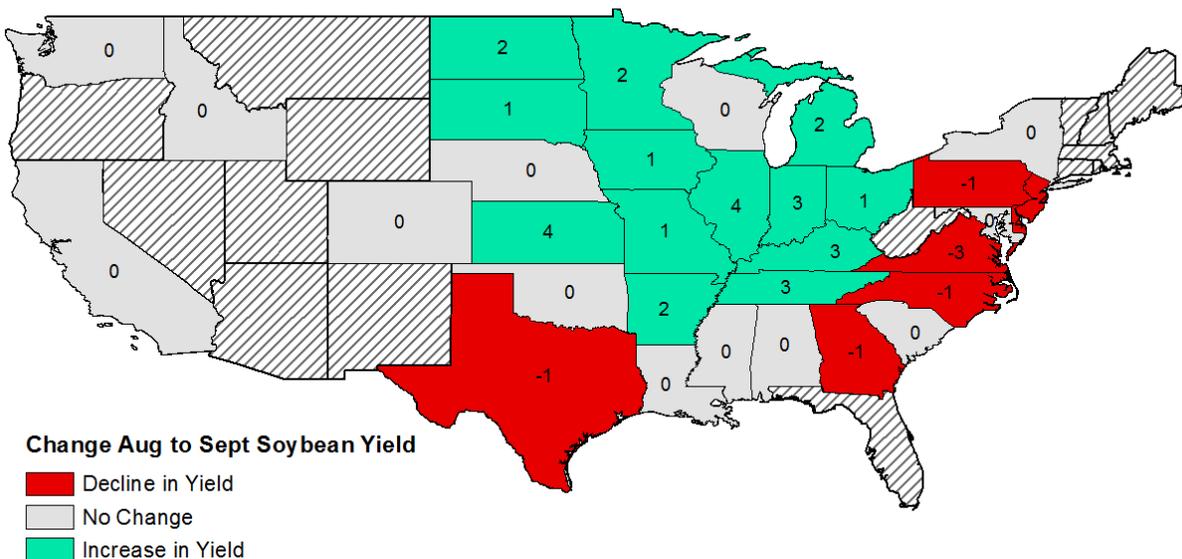
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USDA’s September 12 [Crop Production](#) and [World Agricultural Supply and Demand Estimates](#) reports provided updated projections for the size of the 2016 U.S. harvest and for global supply and utilization of agricultural commodities. All eyes were on the U.S. corn and soybean new-crop balance sheets as these totals were revised based on USDA’s September 1 objective yield data. Specifically, the consensus in the trade was that USDA would increase the soybean yield by three-tenths of a bushel per acre but lower the U.S. corn yield estimate by 1.7 bushels per acre.

USDA did not disappoint (for soybeans). Favorable weather across the Corn Belt in August led to record high implied pod weights and contributed to USDA increasing the soybean yield estimate by 1.7 bushels to 50.6 bushels per acre, an increase of 5 percent year-over-year. Illinois and Nebraska saw the largest increase in the soybean yield estimate from last month at 4 bushels per acre, Figure 1.

Figure 1. Change in 2016 Soybean Yield from August 1 to September 1

Source: USDA NASS



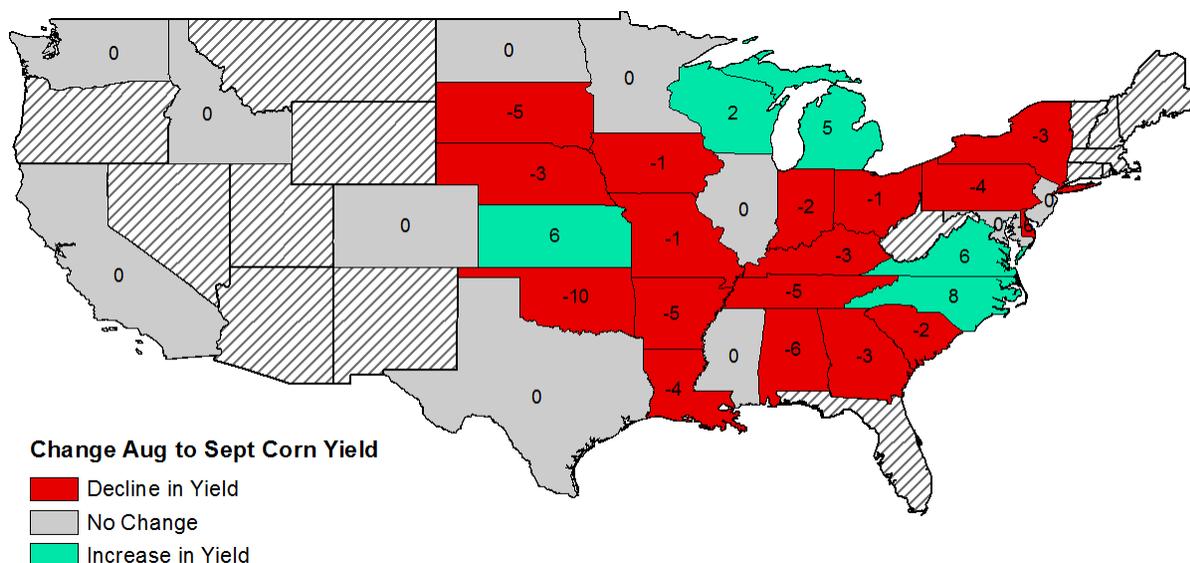
The September projection was 1.3 bushels above the average trade guess of 49.2 bushels per acre. Importantly, if realized, the 2016/17 soybean yield would be the second largest positive deviation from trend since 1960 at 12.4 percent. The higher yield resulted in an increase in total new-crop soybean production by 141 million bushels to a record 4.2 billion bushels, up 7 percent over the 2015/16 soybean crop.

The higher estimate for new-crop soybean production was partially offset by increases in both old- and new-crop soybean demand (exports and crushing) and resulted in a 35-million-bushel increase in the projected carry out for the 2016/17 marketing year. New-crop ending stocks are now projected to be 365 million bushels and would be the highest level (in both bushels and stock-to-use) since the 2006/07 marketing year. As a result of higher ending stocks USDA reduced their price expectations by 5¢ on both ends with a mid-point of \$9.05 per bushel, up 10¢ from the 2015/16 marketing year average price.

For corn, USDA fell short of expectations and did not lower corn yields as much as anticipated. Implied ear weights were reduced gradually and ears per acre were increased from the August estimate. Combined, USDA's September yield projection was reduced by 0.7 bushels for a U.S. average corn yield of 174.4 bushels per acre, an increase of 4 percent year-over-year. Importantly, concerns over the impact of drought conditions in the eastern Corn Belt on yields were confirmed as USDA lowered corn yield projections in these areas by several bushels per acre, Figure 2.

Figure 2. Change in 2016 Corn Yield from August 1 to September 1

Source: USDA NASS



The September projection was one bushel above the average trade guess of 173.4 bushels per acre and remains 10.2 bushels per acre above the unconditional trend yield estimate. The lower yield resulted in a decrease in total new-crop corn production by 60 million bushels to 15.1 billion bushels. This total remains a record high and represents an increase of 11 percent over the 2015/16 corn harvest.

The reduced estimate for new-crop corn production was accompanied by increased beginning stocks (10 million bushels) and lower expectations for new-crop domestic use by 25 million bushels. The net effect was a reduction in new-crop ending stocks by 25 million bushels to 2.384 billion bushels. If realized, this stock level would represent the highest total on hand since the 1987/88 marketing year in terms of volume and would be the highest stocks-to-use ratio since the 2005/06 marketing year. A reduction in stock levels from last month's estimate contributed to an increase in the price expectations by 5¢ on both the high and low-end with a

mid-point of \$3.20 per bushel, down 40¢ from the 2015/16 marketing year average price of \$3.60 per bushel.

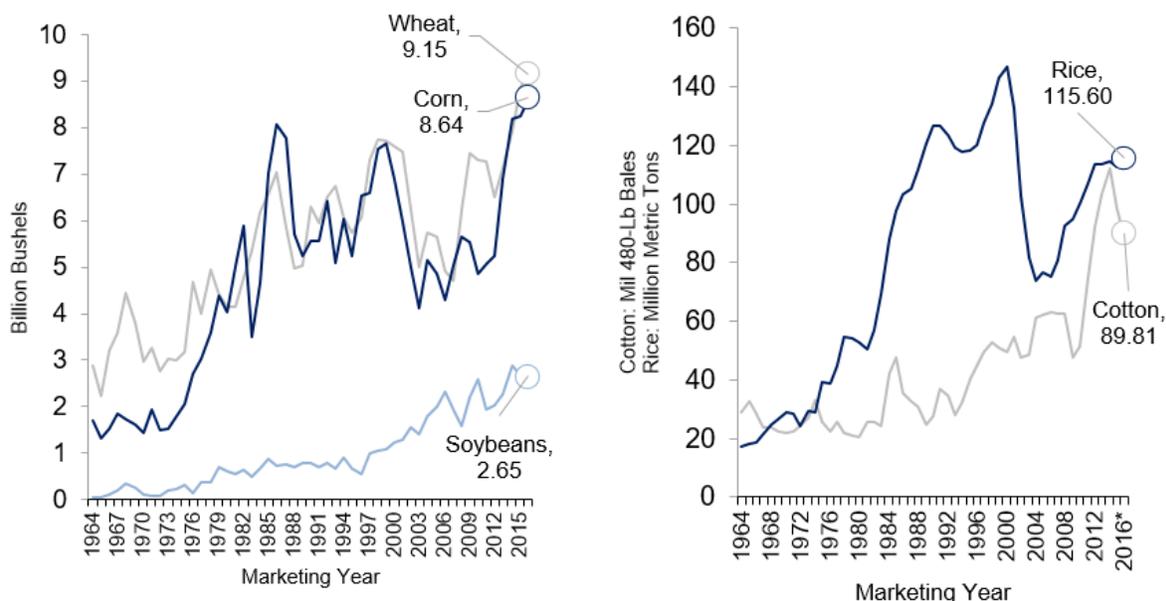
Contribution to Global Inventories

USDA will continue to revise production estimates through January 2017. However, even if corn and soybean yields are ultimately reduced, if harvested acreage remains unchanged, U.S. corn and soybean production remains likely to set new records.

Revised expectations for U.S. soybean production resulted in an increase in projected 2016/17 World ending stocks to 2.65 billion bushels. This total represents a decrease of one percent from projected 2015/16 global stock levels and is the second consecutive year World stocks are projected to decline. The record U.S. harvest further contributes to the increasing global stockpiles. While reduced slightly from August, global corn ending stocks are projected at a record 8.6 billion bushels, up 5 percent year-over-year, and have increased year-over-year for six consecutive years. Similarly, World wheat stocks are projected at a record 9.2 billion bushels, up 3 percent year-over-year. Global cotton inventories are projected to decline for a second consecutive year, but remain at a very high level of 89.8 million 480-Lb bales. Finally, World rice ending stocks are projected to increase by three million metric tons in 2016/17 to 115.6 million metric tons, Figure 3.

Figure 3. Actual and projected World ending stocks for select commodities

Source: USDA Production, Supply and Distribution

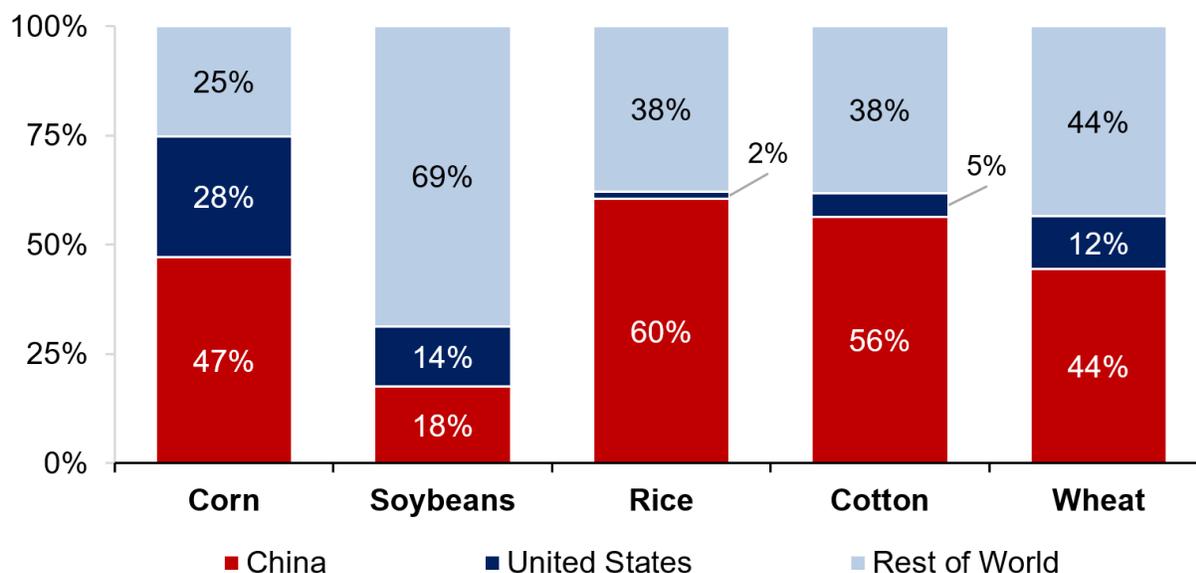


Chinese Stock Levels Declining

A deeper dive into USDA's global stockpiles estimates reveals that a majority of corn, wheat, rice, and cotton projected to be in storage are in China. USDA's most recent supply projections indicate that for the 2016/17 marketing year 47 percent of the corn, 60 percent of the rice, 44 percent of wheat, and 56 percent of cotton in ending inventory are in China, Figure 4. (Sixty-three percent of soybean ending stocks are in Argentina and Brazil).

Figure 4. Percent of World ending stocks held by U.S. and China for select commodities, Projected 2016

Source: USDA Production, Supply and Distribution



A large part of the buildup is related to food and economic security. Chinese soybean stocks are projected at 465 million bushels, down 18 percent from prior year levels, and the second lowest level since 2009. In terms of stocks-to-use, Chinese stocks represent 12.5 percent of total use and are at the lowest level since 2007. Chinese corn stocks are projected at 4.1 billion bushels, down 276 million bushels from the 2015/16 marketing year, and represent a stocks-to-use ratio of 46 percent.

China's cotton stocks, bolstered by the historical price support program, are projected at 50.6 million 480-pound bales and are down 26 percent from the record high set two years ago. Stocks-to-use levels for cotton remain elevated at 144 percent. Rice stocks in China are projected at 69.9 million metric tons, up 11 percent of prior year levels and the highest level since 2001. Finally, Chinese wheat stocks are at record high levels in terms of actual bushels, 4.1 billion, and stocks-to-use ratio, 94 percent.

For corn, soybeans, and cotton Chinese stockpiles are decreasing and ultimately will help to drawn down World supplies. However, when the U.S. built large stockpiles of corn and soybeans in the 1980's, it took years and several short crops to work through the surplus. While higher inventory levels are needed to support the additional consumption that is occurring around the globe, these lofty inventory levels also limit the upside price potential. Price recovery, then, will depend critically not only on the size of the U.S. harvests but also on the ability of the Chinese to continue to draw down their massive stock levels in corn, cotton, and wheat. This process is ongoing through a series of auctions in China, and while the uptake has been slow (quality concerns on aging product), once the surplus is worked through commodity prices could be in line for a long awaited improvement.

Summary

USDA will continue to update their yield, acreage, and production data through January 2017 and a variety of factors will determine the pace and level of consumption for this new crop. While changes in the yield and acreage will impact the U.S. balance sheets, there is no way to overlook the magnitude of global inventories and their weight on commodity prices and U.S. farm income. Lower prices should drive additional consumption and help to work through the inventory levels, but a multi-billion-bushel, bale, or ton decrease in Chinese stocks wouldn't hurt either.