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**Supply and Demand for Field Crops**  
**November 2016**

# Supply and Demand for Field Crops

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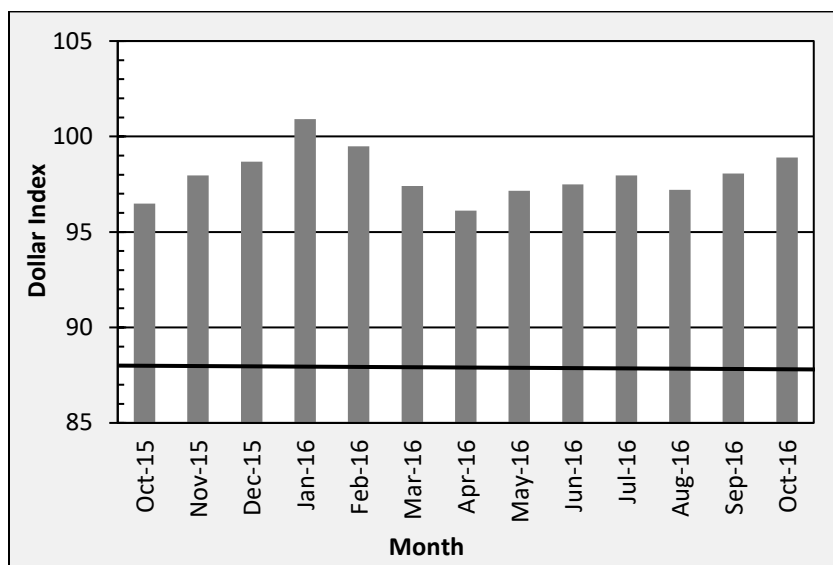
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## Supply and Demand

The primary components of market conditions that determine prices for U.S. field crops are the supply and demand situation for each crop and the value of the dollar. Supply and demand conditions are indicated by stocks-to-use (S/U) ratios which are reported monthly (USDA, WASDE 2016). Stocks are the ending quantity of a crop in the final month of the market year. Use is total distribution for the market year and includes total domestic consumption and exports. Measures of S/U represent the percentage of annual use that is available for the period between the end of the current crop market year and the time when production from the subsequent market year enters the industry supply. Crop prices attempt to ration supply with anticipated demand to achieve equilibrium stocks-to-use throughout the market year.

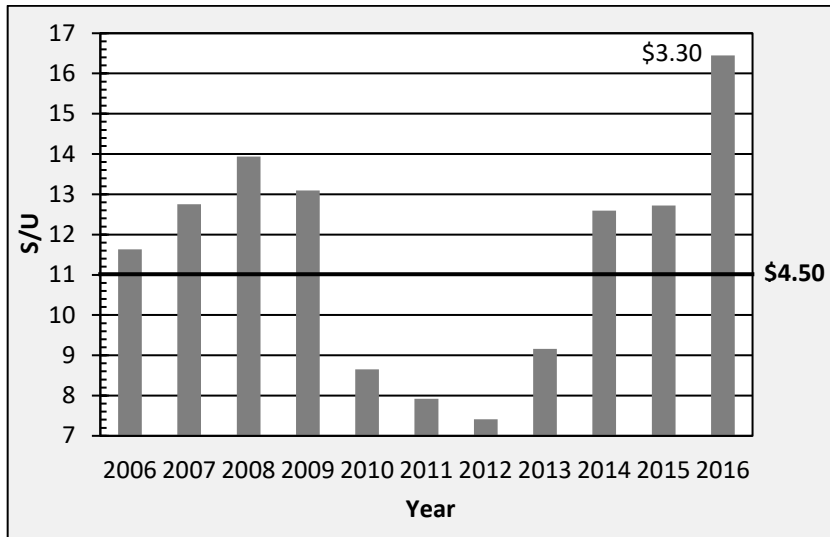
Crops are traded in global markets with U.S. currency as the common medium of exchange. Fluctuations in the value of the dollar relative to other currencies impacts U.S. crop prices. Increased value of the dollar leads to increased expenditures in terms of currencies for international purchasers of U.S. crops. This results in downward pressure for U.S. prices and could provide incentives for purchases from foreign competitors producing crops.

Figure 1 presents the dollar index for the previous year with a comparison to the 2006-2014 annual average (FSR 2016). Figures 2-16 present S/U measures with a comparison to the average for the 2006-2015 period (USDA, ERS 2016; USDA, FAS 2016). Market years are September-August for corn and soybeans, August-July for rice, cotton, and peanuts, and June-May for wheat. Current price forecasts are compared to historical average prices that correspond to historical S/U measures (USDA, NASS 2016).



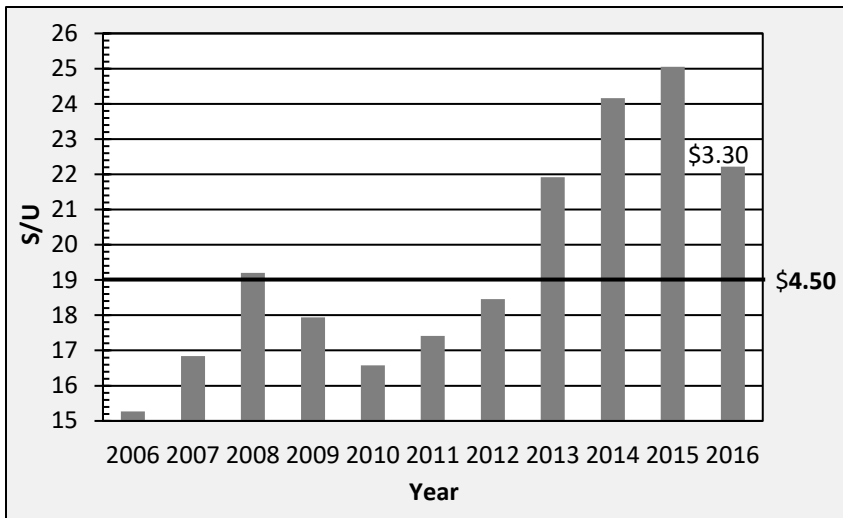
The dollar index has been above the 2006-2014 annual average for the previous 13 months. Increasing strength of the dollar results in downward pressure for U.S. commodity prices. The dollar index increased in October and is following an increasing trend after reaching an annual low in April 2016.

Figure 1. Broad Dollar Index, Price Adjusted, Monthly October 2015 to October 2016, Average 2006-2014 = 88.0



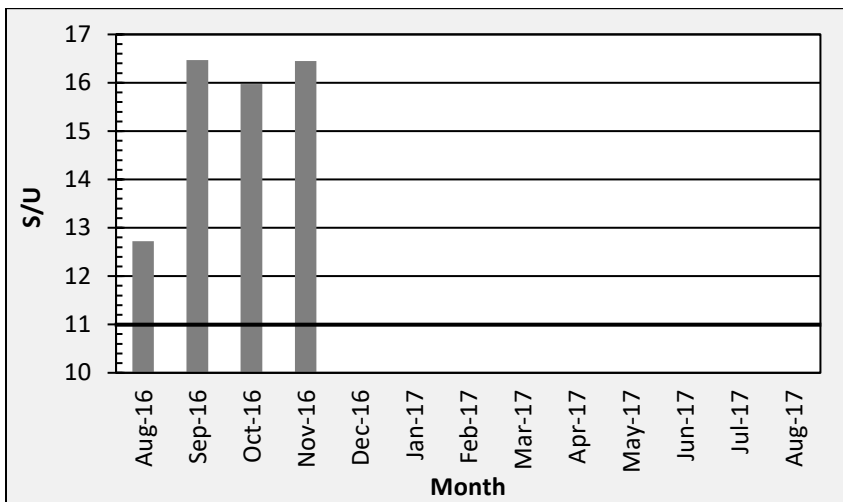
U.S. corn S/U for 2016 is projected greater than the average for 2006-2015 which results in downward pressure for price that is below the corresponding average of \$4.50/bu. The current USDA price forecast is \$3.30/bu. for the crop harvested in 2016. Historically, U.S. corn price is significantly responsive to S/U.

Figure 2. Corn U.S. Stocks-to-Use, 2006-2015 and Average Price = \$4.50/bu., Long-term Average S/U = 11.0, 2016 S/U and Price Forecasts



S/U in the rest of the world for 2016 is projected greater than the average for 2006-2015 which results in downward pressure for price that is below the corresponding average of \$4.50/bu. The current USDA price forecast is \$3.30/bu. for the crop harvested in 2016. Large foreign supply limits export potential for relieving excessive supply in the U.S. Ending 2016 S/U is projected lower than 2015 S/U.

Figure3. Corn ROW Stocks-to-Use, 2006-2015 and Average U.S. Price = \$4.50/bu., Long-term Average S/U = 19.0, 2016 S/U and Price Forecasts



The November projection for August 2017 U.S. corn S/U increased from the October projection.

Figure 4. Corn U.S. Stocks-to-Use, Year Ending August 2016, Projected Year Ending August 2017, by September 2016 to August 2017 WASDE Report, Long-term Average S/U = 11.0

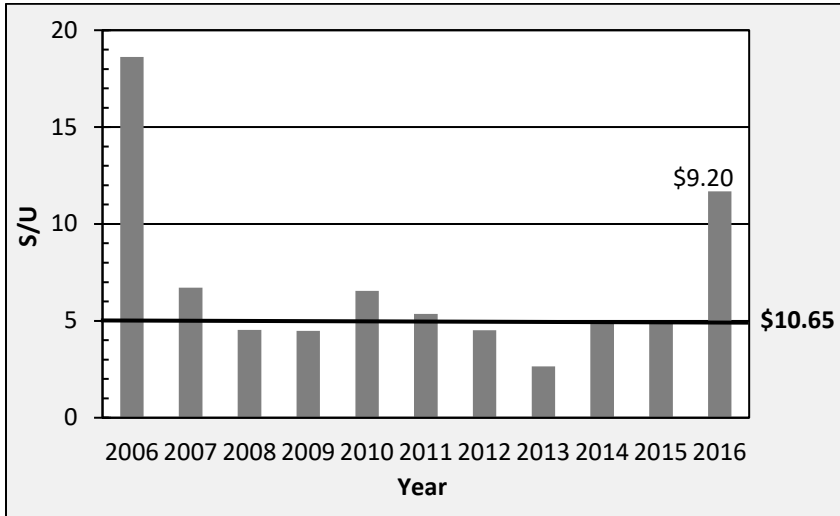


Figure 5. Soybean U.S. Stocks-to-Use, 2006-2015 and Average Price = \$10.65/bu., Long-term Average S/U = 5.0, 2016 S/U and Price Forecasts

U.S. soybean S/U for 2016 is projected greater than the average for 2006-2015 which results in downward pressure for price that is below the 2006-2015 average price of \$10.65/bu. The current USDA price forecast is \$9.20/bu. for the crop harvested in 2016. Historically, U.S. soybean price is significantly responsive to S/U.

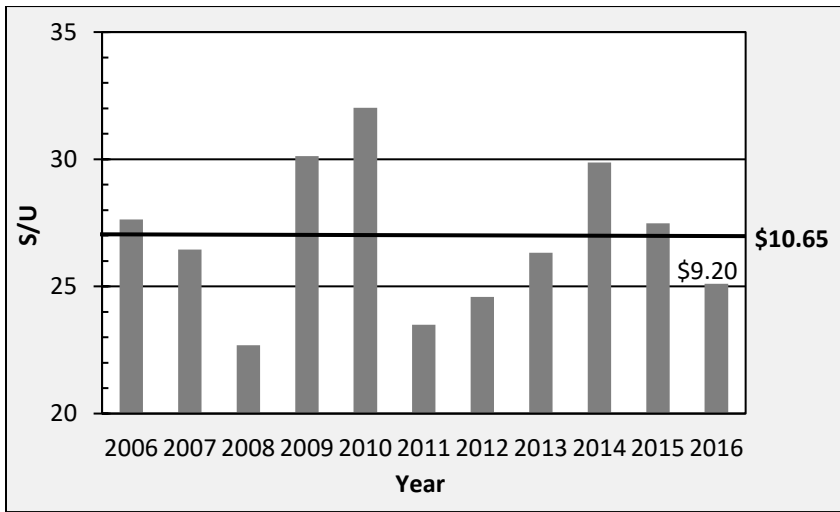


Figure 6. Soybean ROW Stocks-to-Use, 2006-2015 and Average U.S. Price = \$10.65/bu., Long-term Average S/U = 27.0, 2016 S/U and Price Forecasts

S/U in the rest of the world for 2016 is less than the 2015 S/U and less than the long-term average. ROW S/U indicates potential for increased exports to relieve excessive U.S. supply. However, the current USDA price forecast of \$9.20/bu. for the crop harvested in 2016 is less than the 2006-2015 average U.S. soybean price.

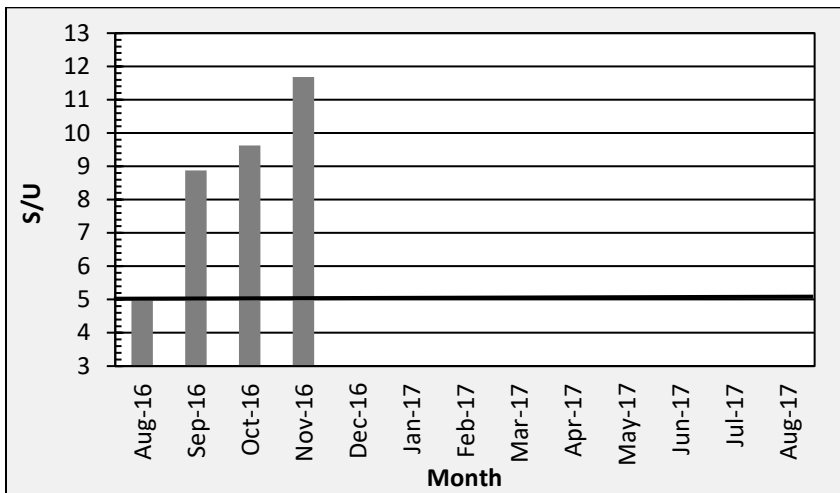
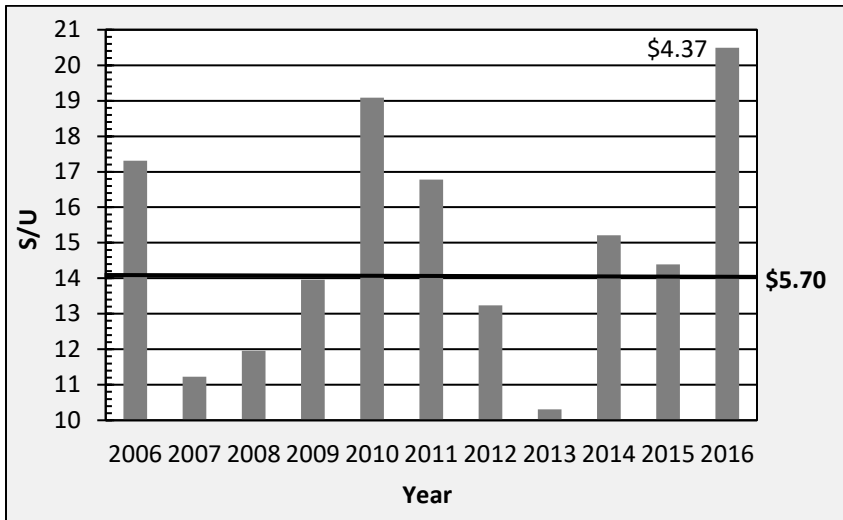


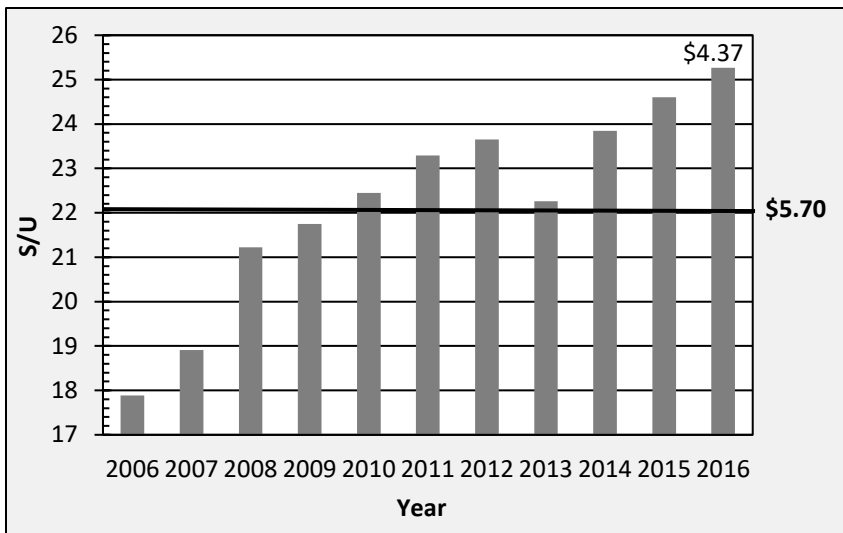
Figure 7. Soybean U.S. Stocks-to-Use, Year Ending August 2016, Projected Year Ending August 2017, by September 2016 to August 2017 WASDE Report, Long-term Average S/U = 5.0

The November projection for August 2017 U.S. soybean S/U increased from the October projection.



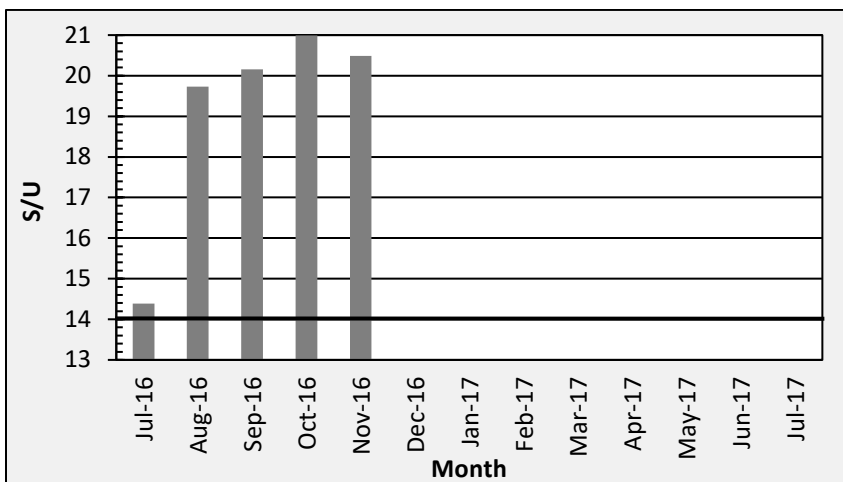
U.S. long-grain rice S/U for 2016 is projected greater than the average for 2006-2015 which results in downward pressure for price that is below the corresponding average of \$5.70/bu. The current USDA price forecast is \$4.37/bu. for long-grain rice harvested in 2016. Projected S/U for 2016 represents an increase from 2015 ending S/U.

Figure 8. U.S. Long-Grain Rice Stocks-to-Use, 2006-2015 and Average Price = \$5.70/bu., Long-term Average S/U = 14.0, 2016 S/U and Price Forecasts



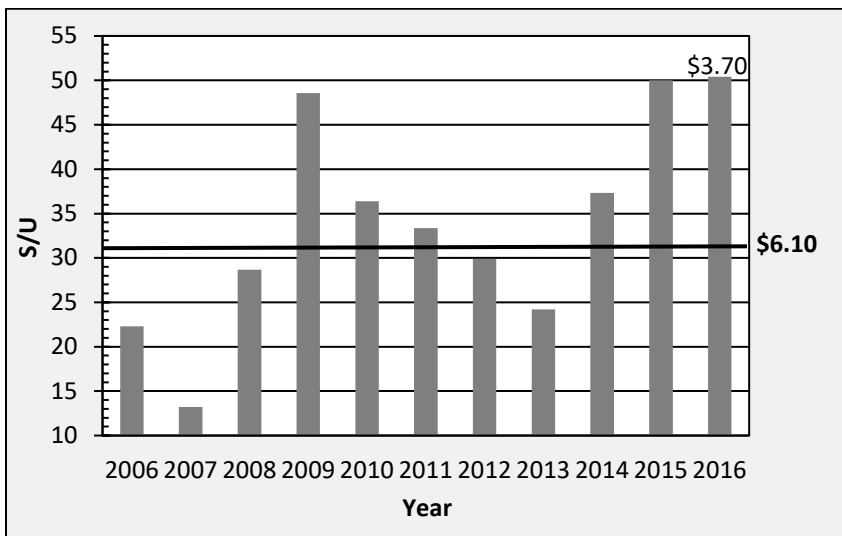
S/U in the rest of the world for 2016 is greater than the average for 2006-2015 which results in downward pressure for price that is below the corresponding long-grain rice average of \$5.70/bu. The current USDA price forecast is \$4.37/bu. for long-grain rice harvested in 2016.

Figure 9. All Rice ROW Stocks-to-Use, 2006-2015 and Average U.S. LG Price = \$5.70/bu., Long-term Average S/U = 22.0, 2016 S/U and Price Forecasts



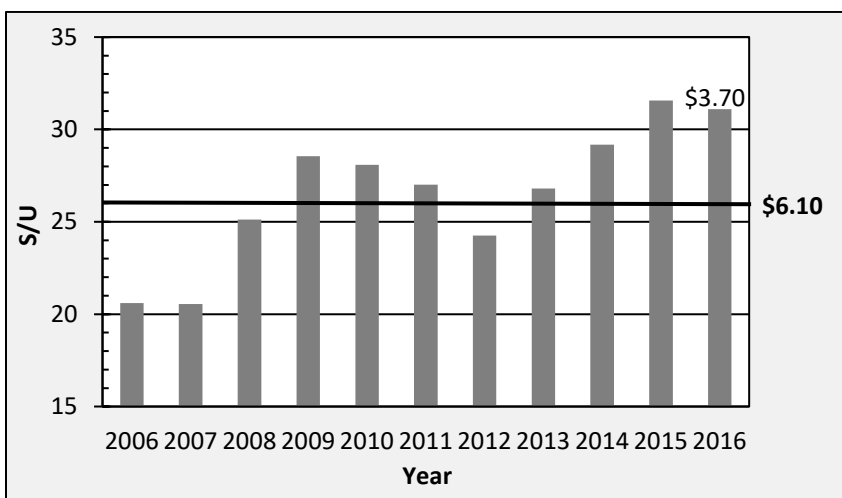
The November projection for the 2016-2017 ending long-grain rice S/U decreased from the October projection. Projections for the current market year are significantly greater than ending S/U for the previous market year.

Figure 10. U.S. Long-Grain Rice Stocks-to-Use, Year Ending July 2016, Projected Year Ending July 2017, by August 2016 to July 2017 WASDE Report, Long-term Average S/U = 14.0



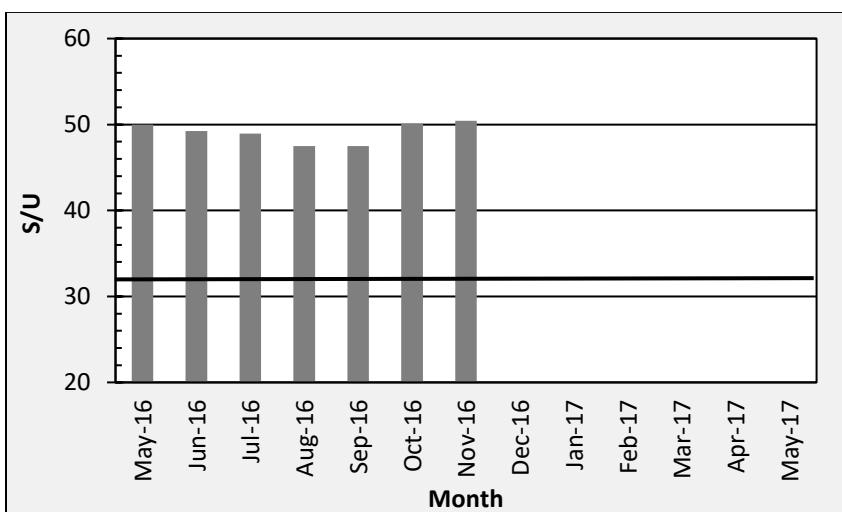
U.S. all wheat S/U for 2016 is greater than the average for 2006-2015 which results in downward pressure for price that is below the corresponding average of \$6.10/bu. The current USDA price forecast is \$3.70/bu. for the crop harvested in the 2016 market year. Historically, U.S. wheat price is significantly responsive to S/U. Ending stocks in Figure 11 correspond to beginning stocks for winter wheat planted in 2016 and harvested in 2017.

Figure 11. All Wheat U.S. Stocks-to-Use, 2006-2015 and Average Price = \$6.10/bu., Long-term Average S/U = 32.0, 2016 S/U and Price Forecasts



All wheat S/U in the rest of the world for 2016 is greater than the average for 2006-2015 which results in downward pressure for price that is below the corresponding average of \$6.10/bu. The current USDA price forecast is \$3.70/bu. for the crop harvested in 2016. Ending stocks in Figure 12 correspond to beginning stocks for winter wheat planted in 2016 and harvested in 2017.

Figure 12. All Wheat ROW Stocks-to-Use, 2006-2015 and Average U.S. Price = \$6.10/bu., Long-term Average S/U = 26.0, 2016 S/U and Price Forecasts



The November projection for May 2017 U.S. all wheat S/U is holding steady for the current market year. Ending stocks in Figure 13 correspond to beginning stocks for winter wheat planted in 2016 and harvested in 2017.

Figure 13. All Wheat U.S. Stocks-to-Use, Year Ending May 2016, Estimated Year Ending May 2017, by June 2016 to May 2017 WASDE Report, Long-term Average S/U = 32.0

Soft red winter wheat ending S/U for the current 2016-2017 market year is projected as 57.5 which compares to a long-term average of 36.0. This exerts downward pressure on prices for Arkansas wheat potentially planted in the fall of 2016 for harvest in 2017.

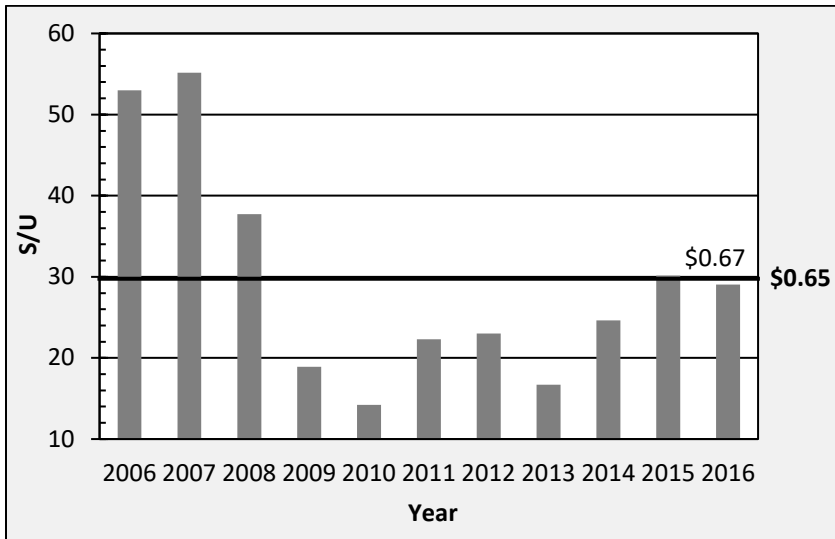


Figure 14. Cotton U.S. Stocks-to-Use, 2006-2015 and Average Price = \$0.65/lb., Long-term Average S/U = 30.0, 2016 S/U and Price Forecasts

U.S. cotton S/U for 2016 is projected slightly less than the average for 2006-2015. Projected 2016 price of \$0.67/lb. in the November WASDE report is an increase from \$0.64/lb. in the October report. Projected price is for lint only and does not include cottonseed value.

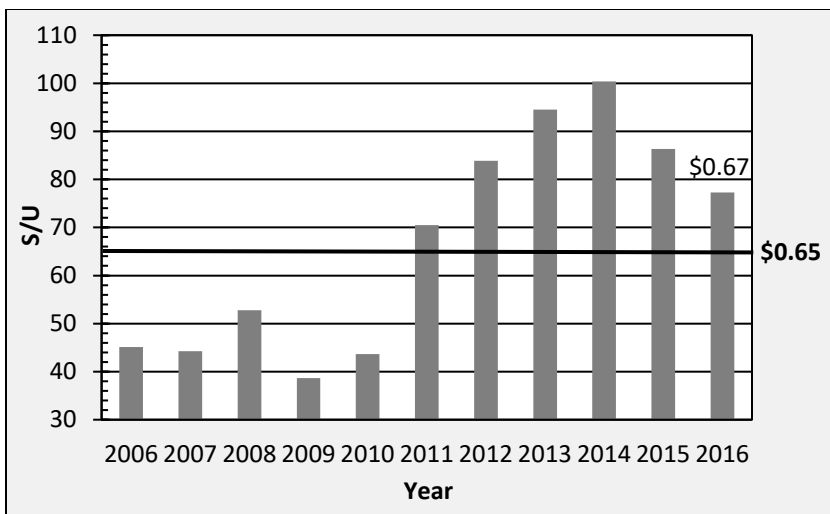


Figure 15. Cotton ROW Stocks-to-Use, 2006-2015 and Average U.S. Price = \$0.65/lb., Long-term Average S/U = 65.0, 2016 S/U and Price Forecasts

Cotton S/U in the rest of the world for 2016 is projected greater than the average for 2006-2015. 2016 ROW S/U is projected to decline for the second consecutive year.

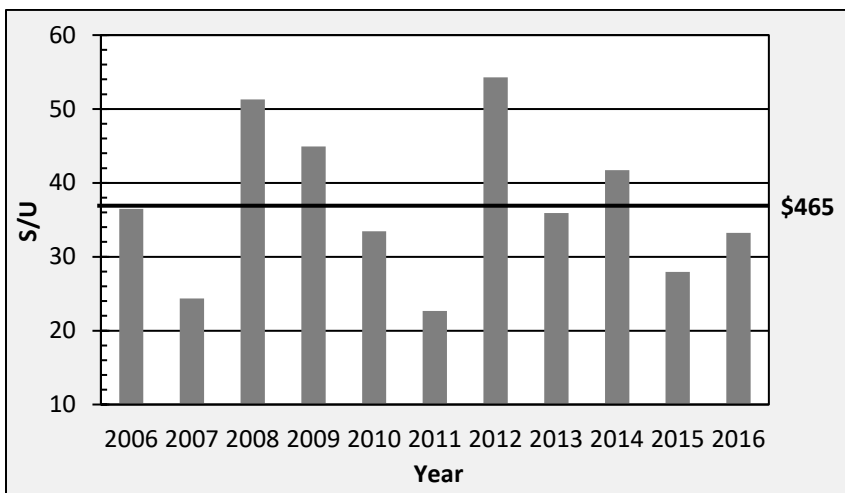


Figure 16. Peanut U.S. Stocks-to-Use, 2006-2015 and Average Price = \$465/ton, Long-term Average S/U = 37.0, 2016 S/U and Price Forecasts

U.S. peanut S/U for 2016 is projected less than the average S/U for 2006-2015.

The U.S.D.A. October estimate for 2015 peanut use was increased from the estimate in the September report (USDA, FAS 2016). Consequently, beginning stocks for 2016 were decreased. This leads to a decrease in subsequent S/U projections for the 2016 crop year to a level that is less than the 2006-2015 average.



Table 1. U.S. Annual Animal Product Production

Year	Beef	Pork	Broiler	Turkey	Total Red Meat & Poultry	Egg	Milk
	<i>Million Pounds</i>					<i>Million Dozen</i>	<i>Billion Pounds</i>
2015	23,698	24,501	40,048	5,627	94,630	7,975	208.6
2016 Projected	25,055	24,946	40,725	6,020	97,513	8,373	212.5
2017 Projected	26,160	25,800	41,550	6,135	100,430	8,540	217.0

Table 2. U.S. Annual Prices for Animal Products

Year	Steers	Barrows and Gilts	Broilers	Turkeys	Eggs	Milk, All
	<i>\$/Cwt.</i>	<i>\$/Cwt.</i>	<i>Cents/lb.</i>	<i>Cents/lb.</i>	<i>Cents/doz.</i>	<i>\$/Cwt.</i>
2015	148.12	50.23	90.50	116.20	181.80	17.12
2016 Projected	119.94	45.65	83.10	118.00	84.00	16.05
2017 Projected	106.00	40.00	80.50	115.50	91.50	16.75

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