Market Outlook with
Supply and Demand for Field Crops
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Archie Flanders
Production and Farm Management Extension Economist
Northeast Research and Extension Center
Keiser, AR

For questions and comments related to this report contact Archie Flanders at 870-526-2199 ext. 108 or aflanders@uaex.edu.

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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 2017). 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 2006-2015 annual average (FSR 2017). Figures 2-16 present S/U measures with a comparison to the average for the 2006-2015 period (USDA, ERS 2016; USDA, FAS 2017). 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 2017).

The dollar index has been above the 2006-2015 annual average for the previous 13 months. Increasing strength of the dollar results in downward pressure for U.S. commodity prices.

Figure 1. Broad Dollar Index, Price Adjusted, Monthly March 2016 to March 2017, Average 2006-2015 = 89.0
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 $3.40/bu. for the crop harvested in 2016. Historically, U.S. corn price is significantly responsive to S/U.

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 $3.40/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.

The April projection for August 2017 U.S. corn S/U is unchanged from the February and March projections.

S/U in the rest of the world for 2016 is slightly less than the 2015 S/U and is approximately equal to the long-term average. The current USDA price forecast of $9.55/bu. for the crop harvested in 2016 is less than the 2006-2015 average U.S. soybean price.

The April projection for August 2017 U.S. soybean S/U is following an increasing trend from previous 2017 projections.
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 $4.41/bu. for long-grain rice harvested in 2016. Projected S/U for 2016 represents an increase from 2015 ending S/U.

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 $4.41/bu. for long-grain rice harvested in 2016.

The April projection for the 2016-2017 ending long-grain rice S/U is decreased from the February and March projections. Projections for the current market year are significantly greater than ending S/U for the previous market year.
U.S. medium\short-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 $6.45/bu. for Delta rice. The current USDA price forecast is $4.50/bu. for Delta medium\short-grain rice harvested in 2016. Projected S/U for 2016 represents a decrease from 2015 ending S/U.

The April projection for the 2016-2017 ending medium\short grain rice S/U is decreased from previous 2017 projections. Projections for the current market year are less than ending S/U for the previous market year.

Large supplies have all rice markets with declining price trends. Delta medium\short-grain price is converging to equal U.S. long-grain rice price.
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 $3.85/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 14 correspond to beginning stocks for winter wheat planted in 2016 and harvested in 2017.

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 $3.85/bu. for the crop harvested in 2016. Ending stocks in Figure 15 correspond to beginning stocks for winter wheat planted in 2016 and harvested in 2017.

The April projection for May 2017 U.S. all wheat S/U increased slightly from the March projection. Ending stocks in Figure 16 correspond to beginning stocks for winter wheat planted in 2016 and harvested in 2017.

Soft red winter wheat ending S/U for the current 2016-2017 market year is projected as 74.0 which compares to a long-term average of 36.0. This exerts downward pressure on prices for Arkansas wheat planted in the fall of 2016 for harvest in 2017.
U.S. cotton S/U for 2016 is projected less than the average for 2006-2015. Projected 2016 price of $0.68/lb. in the April WASDE report is an increase from earlier 2016 monthly reports and is greater than the 2006-2015 average price. Projected 2016 price is for lint only and does not include cottonseed value. The April S/U projection is a decrease from the 27.3 projection in March. Ending 2016 S/U is beginning S/U for the 2017 crop. Thus, decreasing 2016 S/U is the reason for favorable 2017 crop pricing opportunities.

Cotton 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. Superior fiber quality of U.S. cotton creates potential for price premiums, and U.S. cotton is often blended with inferior foreign cotton.


The U.S.D.A. October 2016 estimate for 2015 peanut use was increased from the estimate in the September report (USDA, FAS 2017). Consequently, beginning stocks for 2016 were decreased. This leads to a decrease in subsequent S/U projections for the 2016-2017 crop year to a level that is less than the 2006-2015 average.
Table 1. U.S. Annual Animal Product Production

<table>
<thead>
<tr>
<th>Year</th>
<th>Beef</th>
<th>Pork</th>
<th>Broiler</th>
<th>Turkey</th>
<th>Total Red Meat &amp; Poultry</th>
<th>Egg</th>
<th>Milk</th>
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<tbody>
<tr>
<td></td>
<td>Million Pounds</td>
<td>Million</td>
<td>Billion</td>
<td>Pounds</td>
<td></td>
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<tr>
<td>2015</td>
<td>23,698</td>
<td>24,501</td>
<td>40,048</td>
<td>5,627</td>
<td>94,630</td>
<td>8,053</td>
<td>208.6</td>
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<td>2016 Estimate</td>
<td>25,212</td>
<td>24,939</td>
<td>40,695</td>
<td>5,981</td>
<td>97,601</td>
<td>8,565</td>
<td>212.4</td>
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<tr>
<td>2017 Projected</td>
<td>26,500</td>
<td>26,095</td>
<td>41,525</td>
<td>6,110</td>
<td>101,003</td>
<td>8,775</td>
<td>217.3</td>
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Table 2. U.S. Annual Prices for Animal Products

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<tr>
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<tr>
<td>2015</td>
<td>148.12</td>
<td>50.23</td>
<td>90.50</td>
<td>116.20</td>
<td>181.80</td>
<td>17.12</td>
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<td>2016 Estimate</td>
<td>120.86</td>
<td>46.16</td>
<td>84.30</td>
<td>117.10</td>
<td>85.70</td>
<td>16.24</td>
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<td>2017 Projected</td>
<td>118.00</td>
<td>44.00</td>
<td>88.00</td>
<td>106.50</td>
<td>90.50</td>
<td>17.65</td>
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References


