The drought reduced U.S. corn crop of 2012 created expectations that corn prices would follow a “short crop, long tail” price pattern characterized by a price peak early in the marketing year, followed by an unpredictable pattern of declining prices and a return to pre-drought price levels. With a short crop, high prices early in the marketing year signal the necessity to reduce consumption, with subsequent price declines reflecting the reduced rate of consumption and eventually a return to more abundant U.S. and world supplies.

Prices were elevated even before the drought of 2012 due to a combination of below-trend yields in the U.S. in 2010 and 2011, a small Argentine corn crop in 2012, and robust corn demand for ethanol production. Spot cash prices in central Illinois averaged about $3.10 in September 2009, increased to near $7.35 in April 2011, declined to just under $6.00 in December 2011, and peaked at $8.15 in August 2012. The peak in the daily average price was near $8.50. The average spot cash price in central Illinois was near $5.80 in late May 2012, just before drought conditions unfolded, and was at $5.81 on August 2, 2013. The cash bid for harvest delivery is near $4.40. Prices since last summer have generally followed the expected pattern.

While corn prices have behaved as expected, the consumption response to high prices was not as expected. The bulk of the consumption response was in the export market. With less than a month left in the 2012-13 marketing year, U.S. corn exports are expected to reach only 700 million bushels, 843 million less than exported last year, and 550 million less than the USDA forecast in September 2012. The sharp decline is in contrast to previous short crop, high priced years when exports remained strong. The decline reflects, at least in part, the increased feed grain production in the rest of the world in response to high prices in recent years. In contrast, domestic feed and residual use of corn this year is expected to total 4.45 billion bushels, only 95 million less than consumed last year and 300 million more than the USDA’s September 2012 projection. The sharp decline in exports resulted in larger domestic availability than expected and required a much smaller reduction in domestic livestock production than anticipated. Ethanol use of corn this year is expected to be 150 million bushels larger than projected last fall, again due to more abundant domestic corn supplies.
With December 2013 corn futures now trading under $4.60, the question is whether or not the long tail price pattern is complete. Evidence for addressing that question is in two categories: consumption prospects for U.S. corn and size of the 2013 U.S. corn crop. There are clear prospects for increased consumption of U.S. corn during the year ahead if new crop prices remain near or below current levels. In the case of domestic feed consumption, prospects are bolstered by indications of expanding broiler and hog production. The number of broiler chicks placed for meat production in the first seven months of the year was near the level of a year ago, with year-over-year increases of one to four percent in recent weeks. Prospects of lower feed prices are expected to result in a continuation of the recent expansion. The USDA’s June Hogs and Pigs report revealed intentions for modest expansion in hog production, which could accelerate with confirmation of a large U.S. corn crop and continued strong hog prices. Corn used for ethanol production could get a modest boost from increased E85 consumption as lower corn prices and continued high gasoline prices will make it possible for E85 to be competitively priced with E10 on an energy equivalent basis. The question is how fast E85 consumption can increase under favorable economic conditions given the current infrastructure limitations.

Finally, exports of U.S. corn are expected to recover from the dismal level of the current marketing year as U.S. corn becomes more competitively priced with grain in the rest of the world. The magnitude of the increase is difficult to anticipate, but should be supported by increased imports by China and Mexico. As of July 25, the USDA reported that 358 million bushels of U.S. corn had been sold for export during the 2013-14 marketing year, 100 million more than new crop sales at this time last year. Sales to China have already reached 116 million bushels, compared with total sales for the current marketing year of only 98 million bushels.

The size of the 2013 U.S. corn crop remains clouded by both acreage and yield uncertainty resulting from the late planting and late maturity of the crop in some areas. Summer weather conditions have been generally favorable for crop development, but with some important exceptions. The USDA will release its first survey-based yield and production forecasts on August 12. Confirmation of large production prospects would suggest that some further modest price weakness would be expected as the long tail price pattern is completed near harvest.