6-2016

Crop Price Patterns

Jessica J. Groskopf
University of Nebraska-Lincoln, JJohnson@unl.edu

Department of Agricultural Economics
Farm and Ranch Management

June 2016

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Jessica Groskopf, Extension Educator
Phone: 308-632-1247 E-mail: jgroskopf2@unl.edu

While the price of corn, soybeans and winter wheat varies from year to year, historical price patterns can be mapped for each commodity. A historical price pattern indicates seasonal trends due to historical price behavior. This article will discuss price patterns for corn, soybeans and winter wheat and how they can assist farmers in establishing price increase expectations and sell by dates when marketing grain.

A price index is created by setting the 20 year average price on a selected date equal to 100. This beginning price this is called the baseline price, and varies by commodity. The price index will allow changes in prices to be viewed more clearly, as a percent change from the baseline price. For example, a value of 102 in the charts below indicate the price is 2 percent above the baseline price.

Two price indices will be presented for each commodity, a new crop contract pattern and a nearby contract pattern. A new crop contract price index will illustrate the price pattern of a single futures market contract, establishing potential target dates to pre-harvest market grain. The nearby contract price index will look at the futures contract closest to expiration, identifying favorable dates for post-harvest marketing. The baseline price date will vary depending on the commodity and the price index being illustrated.

Pre-Harvest

Pre-harvest marketing plans are used for farmers looking to sell grain before it is harvested from the field.

When developing pre-harvest marketing plan, price targets should be set based on the new crop contract. The new crop contract is the futures contract with the closest expiration date to harvest (i.e. the futures price the elevator will be using to determine the cash price at harvest). For corn the new crop contract is December, for soybeans it is November, and for winter wheat is the Kansas City July contract. A price index for pre-harvest marketing is created using closing futures prices of the new crop contract. Pre-Harvest charts start on Jan. 1st for corn and soybeans and Aug. 1st for winter wheat. These dates also represent the baseline price for each pre-harvest price index.

New crop corn price index is displayed in Figure 1. This price index shows a spring rally in the December corn contract occurring in April/May, followed by a decline in prices beginning in late June and early July. The price for the December corn contract is highest in April, May and June, during the period of greatest uncertainty of actual production. As more information becomes available about the potential supply of corn and the price of corn declines. The contract reaches its low during harvest in October when the largest supply of domestic corn is available and actual production is realized.

April, May and June provide the best potential for pre-harvest marketing corn December corn contract. Prices drop below the Jan. 1st baseline in early July.

Figure 1, New crop closing price index for corn, 1996-2015

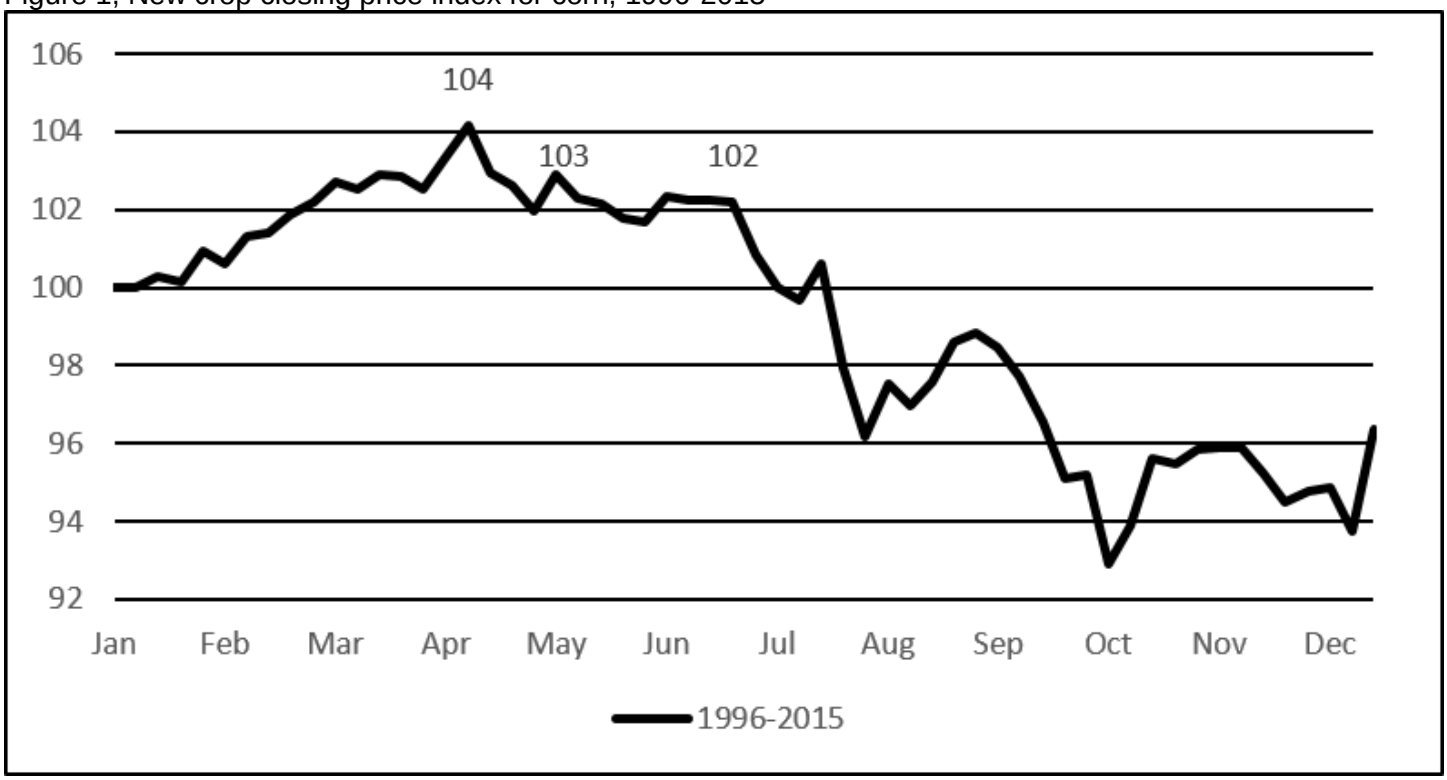


Figure 2 displays new crop soybean price index. There are several notable differences between corn and soybean production. Unlike corn, almost half of soybeans produced in the U.S. are exported. U.S. soybeans face competition from foreign production in Argentina and Brazil. As a result, the November soybean contract price is greatly influenced by global supply and demand. The price pattern has a moderate incline from January until mid-summer. The spring rally that was evident in corn is stifled by southern hemisphere harvest in March, April and May. The price index for November soybeans is highest in June, July and September during the development of the U.S. crop and the dormant period for Argentina and Brazil. Planting conditions in the Brazil and Argentina in November and December could be the cause of the improvement as the contract approaches expiration.

June and July provide the best potential for pre-harvest marketing soybeans at peak prices of the November soybean contract. Potential also exists later in the year once yields are realized, however, this potential is not as high as the June/July peak.

Figure 2, New crop closing price index for soybeans, 1996-2015

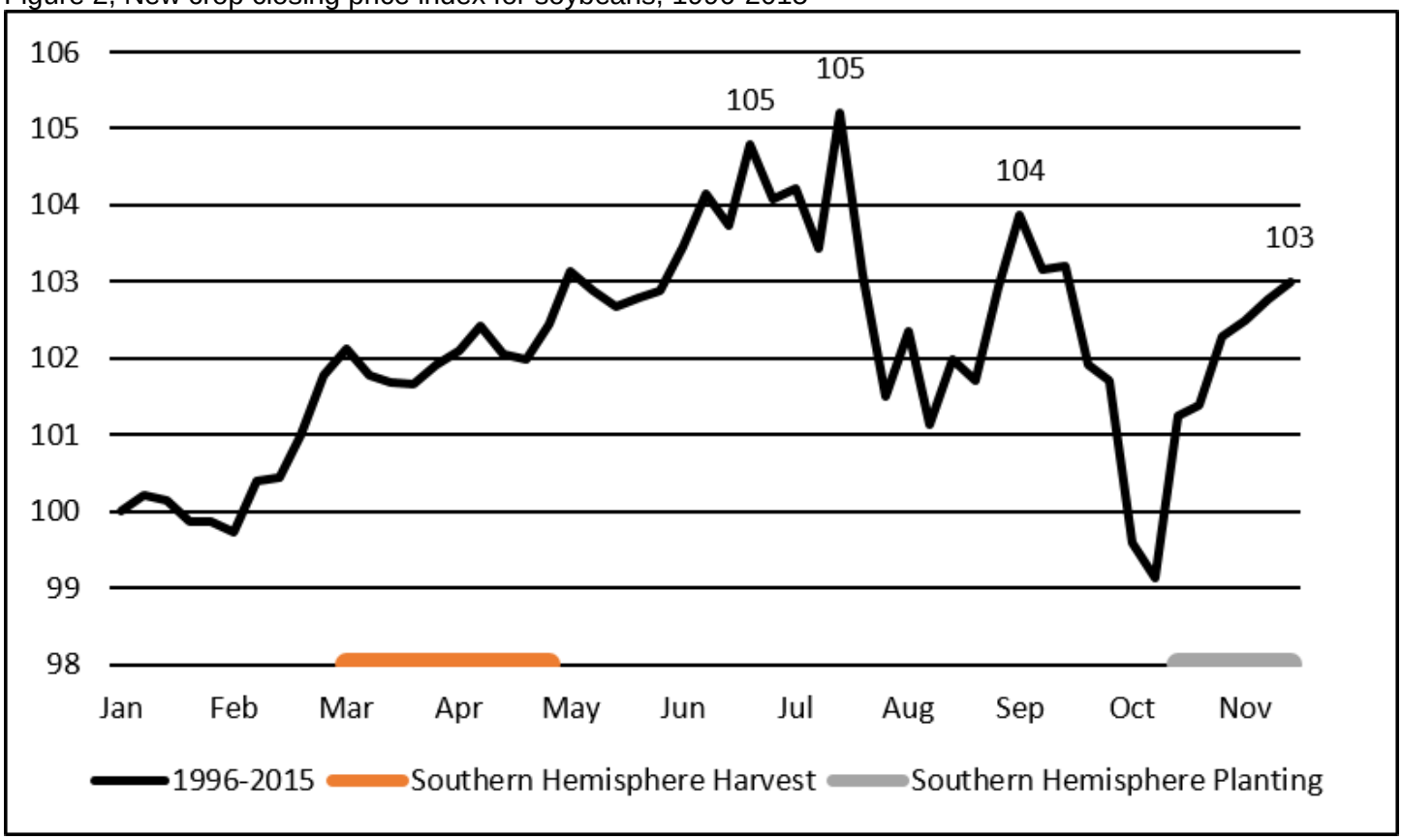
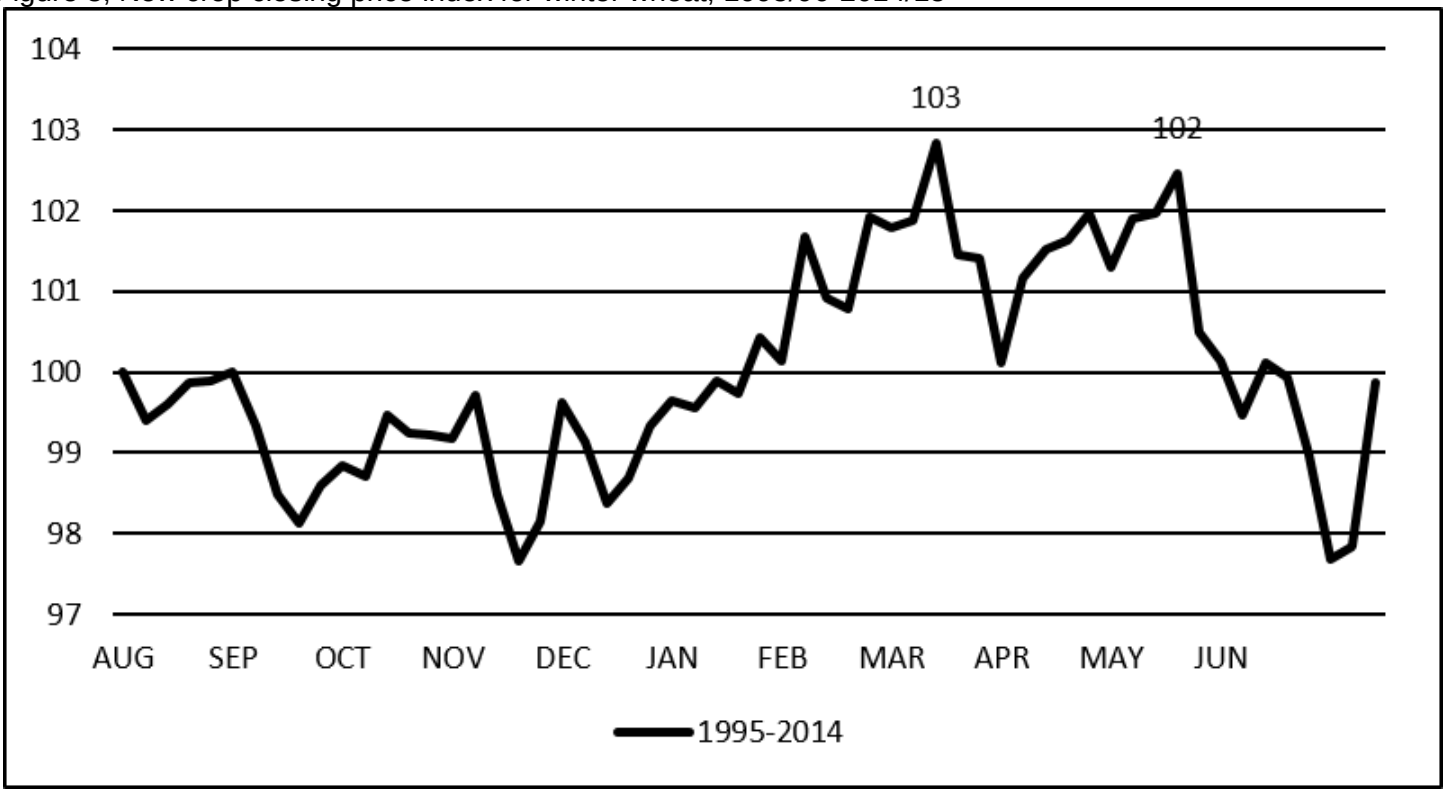


Figure 3 illustrates the new crop winter wheat price index. Winter wheat presents a unique pattern. The new crop winter wheat contract remains relatively low from August until the end of January, during the planting and dormant season for the crop. The July new contract slowly increases from Jan. until it peaks in March as the bulk of moisture is provided to the crop through late winter and early spring precipitation. There is some volatility in the price pattern during the heading stage of the crop with a rapid drop in April and recovery in May. After May, the price gradually decreases as the July contract approaches expiration.

March and May provide the best probability for pre-harvest marketing winter wheat at peak prices of the July Kansas City contract.

Figure 3, New crop closing price index for winter wheat, 1995/96-2014/15



Post-Harvest

Post-harvest marketing plans are used for farmers looking to sell grain after it is placed in storage.

Daily cash prices are set by local grain buyers using the nearby futures contract. The nearby contract is the futures contract with the closest expiration (at the time which grain is delivered to the elevator). Corn and winter wheat have five contracts; March, May, July, September and December. Soybean has seven contracts; March, May, July, August, September, November and January. The contracts close on the day before the 15th day of the month. In the charts below, changes in the contract are noted by a change in color of the line.

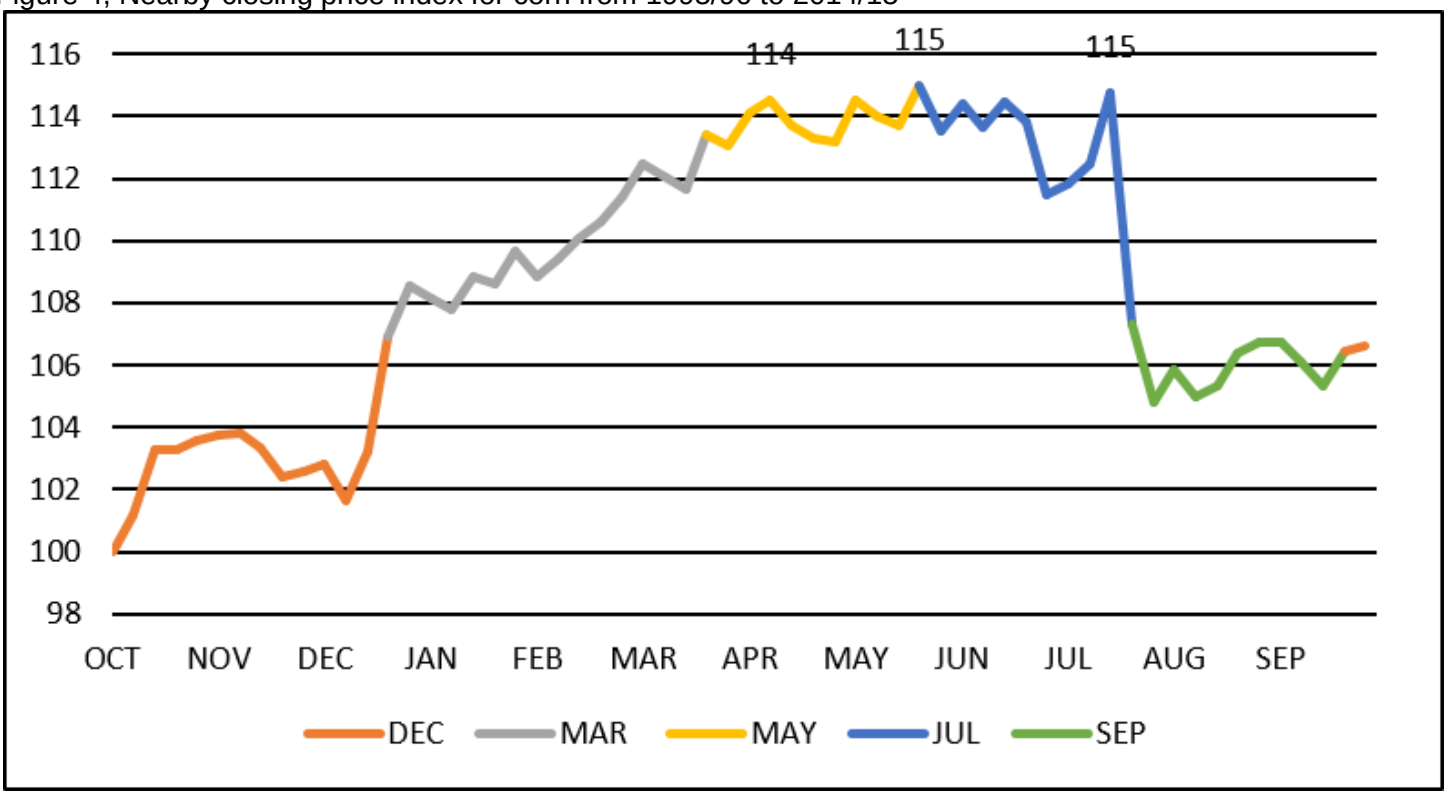
A price index for post-harvest marketing is created using closing futures price of the nearby contract. These charts start at harvest, Oct. 1st for corn and soybeans and Jul. 1st for winter wheat.

Figure 4 shows the historical nearby price pattern for corn. This price index shows that corn prices are the lowest during harvest, the December futures contract, when supplies of corn are abundant. Prices then increase through late December or early January. The highest prices of the season are usually when May and July are the nearby contracts (Mar. 15th through Jul. 14th). Some farmers may wait for the late July price spike. However, these later season price increases must be large enough to cover the accrued storage expense and any potential adverse changes in basis[1]. An earlier season price rally, like the one in April, may offer a higher cash return.

Based on seasonal price patterns, corn placed in the bin after harvest should be sold before early July. Unless adverse weather conditions such as drought are occurring, corn should not be held into the following marketing year.

[1] Basis is the difference between the cash price and the futures price.

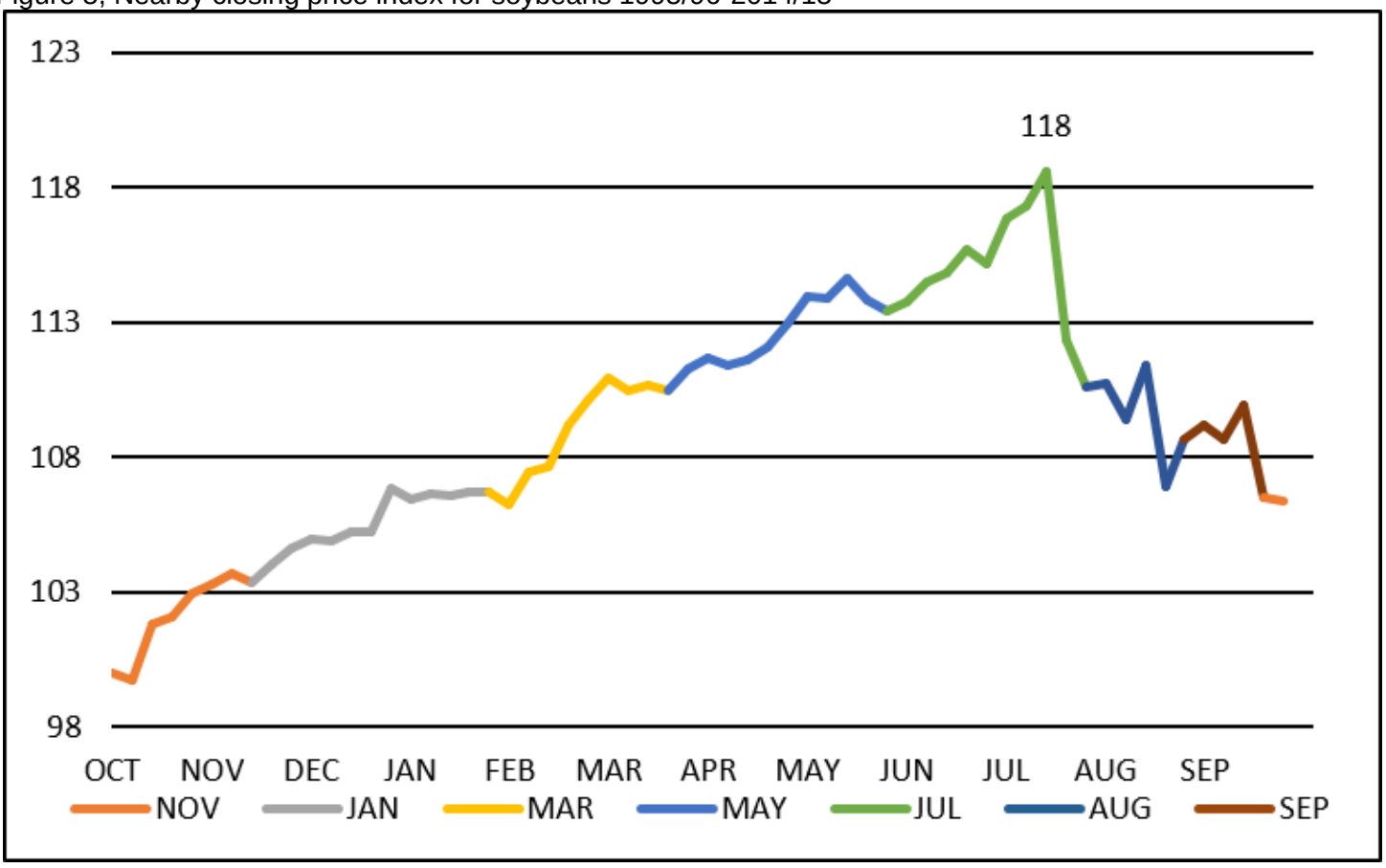
Figure 4, Nearby closing price index for corn from 1995/96 to 2014/15



The nearby historical soybean price index is displayed in Figure 5. Soybean prices are traditionally lowest during harvest, when domestic supplies are large. Soybean prices gradually increase from harvest until July. This more moderate incline in price could be attributed to the competitive export market for soybeans from Argentina and Brazil which harvest their crop from March to May. Once global supplies are realized in May, prices reach their peak during the July soybean contract.

Soybeans in the bin should be priced before early July. Unless adverse weather conditions such as drought are occurring, soybeans should not be held into the following year.

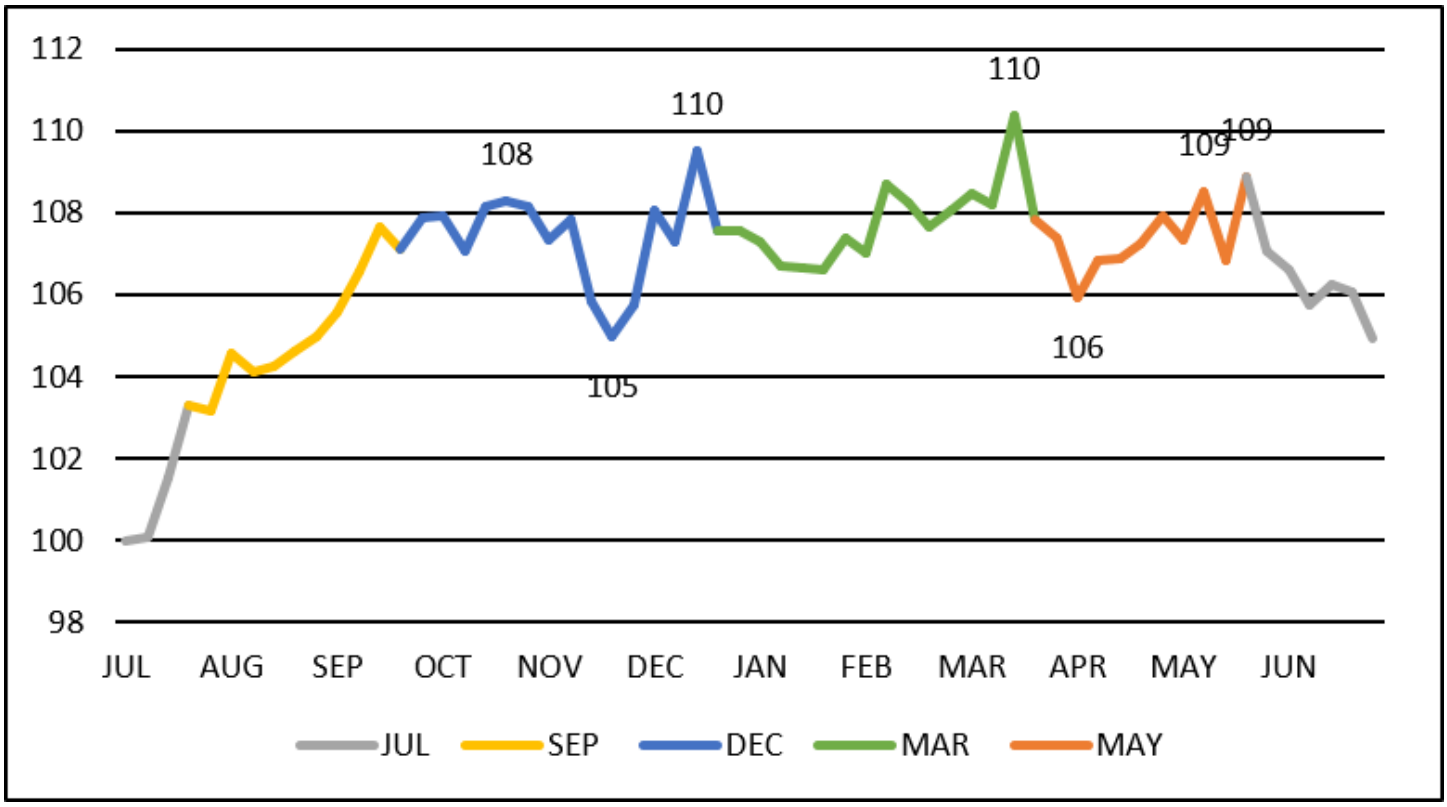
Figure 5, Nearby closing price index for soybeans 1995/96-2014/15



The nearby price pattern for winter wheat is shown in Figure 6. This index demonstrates how prices for this class of wheat rapidly increase following harvest until September. Prices remain above the harvest price from September through the remainder of the year. Winter wheat prices peek in late January, and again in March, May and June. However, there are noted declines in November and April.

Unlike corn and soybeans, there is no defined decline in prices for winter wheat. There are several opportunities to sell winter wheat in the bin.

Figure 6, Nearby Kansas City winter wheat closing price index 1995/96-2014/15



Price patterns vary slightly every year depending on current stocks, use, and growing conditions. The dates provided in this discussion are simply guidelines to aid in the development of marketing plans. These indexes are based on futures closing prices, local price patterns may vary depending on local basis expectations. Target dates for marketing plans should be to maximize income considering the futures price, expected basis and storage expenses.