

Purdue Center for Commercial Agriculture Crop Basis Tool

User Guide

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The Purdue Center for Commercial Agriculture Crop Basis Tool is a web-based tool that provides access to weekly historical and contemporaneous corn and soybean basis data for local market regions in the eastern corn belt. The tool can be accessed at either:

- The [Purdue Center for Commercial Agriculture homepage](#) or
- The [Managing Farm Risk website](#) which is a collaboration between the Purdue Center for Commercial Agriculture, the Indiana Soybean Alliance, and the Indiana Corn Marketing Council. The purpose of the Managing Farm Risk website is to provide information and tools to help producers better understand the risks they face and develop an integrated approach to managing it.

Data

The Purdue Center for Commercial Agriculture's Crop Basis Tool can be used to examine weekly nearby and deferred basis for corn and soybeans in Illinois, Indiana, Michigan, and Ohio. Daily cash price data from individual grain elevators and processors are averaged within each [crop reporting district](#) to create a regional average cash price series. The regional average cash price data is used to compute weekly basis (cash price minus futures price) for corn and soybeans, using Wednesday cash and futures prices to generate weekly basis data for each crop and crop reporting region. The number of buyers vary by crop reporting district and by week, depending on how many buyers choose to report their cash prices. Cash price data are provided by [DTN](#) and represent approximately 2,000 buyers across the four states.

To facilitate comparisons across years in the Crop Basis Tool, a crop year is defined as having 48 weeks with four weeks per month. When a month has five Wednesdays, prices from the fourth and fifth Wednesdays are averaged and reported as the fourth week. As a result, Week = 1 is the first week of September (beginning of the crop year), Week = 5 is the first week of October, and so on. To examine historical basis:

How the Tool Works

Once arriving at the site, users select input information for the data they would like to see.

Selections include:

1. State: Indiana, Illinois, Michigan, or Ohio
2. Region: by selecting a county of interest you are automatically directed to regional average basis data for the corresponding [USDA crop reporting district](#). That is, reported data does not represent a particular location or county. Instead, data are aggregated across all available buyers by averaging weekly cash price data to create a regional average cash price series that is then used to create regional average basis (basis = cash price – futures price).
3. Crop: corn or soybeans
4. Futures contract: users have the option of viewing basis data relative to either the nearby or a selected deferred futures contract month.

- i. Nearby basis is calculated by subtracting the nearby futures price (Wednesday settlement price) from the regional average cash price (Wednesday close), where nearby is defined as the futures contract closest to expiration, without going into the futures contract's delivery month. Shading is provided on the nearby charts to identify the relevant futures contract month that the cash price is being compared to for each week.
 - ii. Deferred basis is calculated by subtracting the futures price (Wednesday settlement price) for a selected contract month from the regional average cash price (Wednesday close).
5. Crop Year(s): historical data from the 2004-2005 crop year to present (updated weekly) are available to be viewed in the tool. You have the option of viewing individual year data or averages across multiple years.
- i. A single crop year of interest can be viewed by selecting that crop year from the Crop Year(s) drop down menu.
 - ii. An average of multiple crop years can be viewed by selecting the series of years to average across. For example, if you wish to view the historical average basis for your region for the last two years you would select the 2016-2017 and 2015-2016 crop years. NOTE: The selection of multiple crop years does not require that these years be consecutive. For example, if a five year historical average of basis is desired, but you want to omit the 2012-2013 crop marketing due to exceptional basis patterns as a result of the 2012 drought, then you would select the 2016-2017, 2015-2016, 2014-2015, 2013-2014, and 2011-2012 crop years.

Interpreting the Output

Once the input selections described above have been made, a chart of the data is produced by clicking the Submit button. An example chart is provided in Figure 1. Notice, two different lines appear on the chart. The blue line is the historical basis data selected, and the black line (which is automatically included on all charts) is the corresponding basis for the current crop year. Hovering over the chart provides a detailed data label for each week.

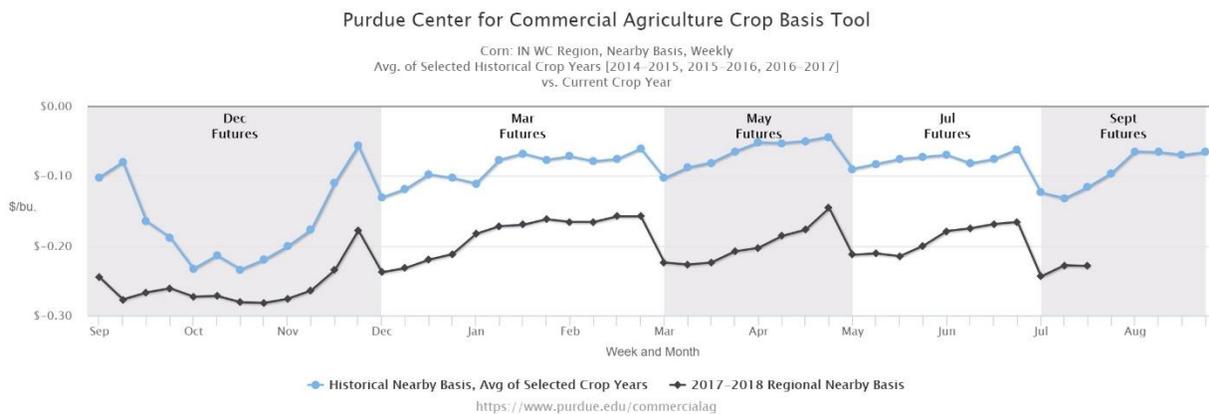


Figure 1. Example chart: three year average (2016-2017, 2015-2016, and 2014-2015) nearby corn basis for West Central Indiana.

If a user wants to view the chart with only either the selected historical basis data (blue line) or current basis data (black line), the lines can be removed and added back by clicking on the legend labels below the chart. In addition, charts can be exported in a number of formats using the context menu (three horizontal lines) in the upper right-hand corner of the chart.

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