



## Weekly Farm Economics Break-Even Soybean Prices: History and Projections

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For farmland that is cash rented near average rent levels, break-even soybean prices have increased from near \$5.00 per bushel in 2004 to around \$10.70 per bushel in 2013 and 2014. Break-even prices near \$10.70 will cause losses when soybean prices are below \$10.70. Prices being below break-even prices are possible over the next several years.

### Calculation of Break-Even Prices

Break-even prices for soybeans were calculated using methods similar to that for corn reported in a post last week (available [here](#)). Break-even prices were calculated using summary data from Illinois Farm Business Farm Management (FBFM) as reported in "Revenue and Costs for Corn, Soybeans, Wheat, and Double-Crop Soybeans" (available [here](#)). Break-even prices are reported for northern, central, and southern Illinois, with the central region divided into categories for high-productivity and low-productivity farmland.

Break-even prices were calculated by adding per acre non-land costs and cash rent together, and then subtracting government payments and crop insurance proceeds. This per acre break-even value gives the amount of crop revenue necessary to break-even. For northern Illinois in 2014, non-land costs are projected at \$326 per acre, average cash rent at \$264 per acre, and there are no government payments or crop insurance proceeds projected for 2014. This gives \$590 of crop revenue (\$326 non-land costs + \$264 cash rent) that must be obtained to break-even in 2014. Given a 56 bushel per acre expected yield, the break-even price is \$10.54 per bushel ( $\$590 \text{ crop revenue} / 56 \text{ bushel yield}$ ).

Inclusion of government payments and crop insurance proceeds lowers break-even prices. In recent years, government program payments only include direct payments, which average \$21 per acre in northern Illinois. A direct payment is not projected for 2014. Similarly, break-even prices are lowered by crop insurance proceeds. In particular, break-even prices in the drought year of 2012 would have been much higher had crop insurance proceeds not been included in break-even calculations.

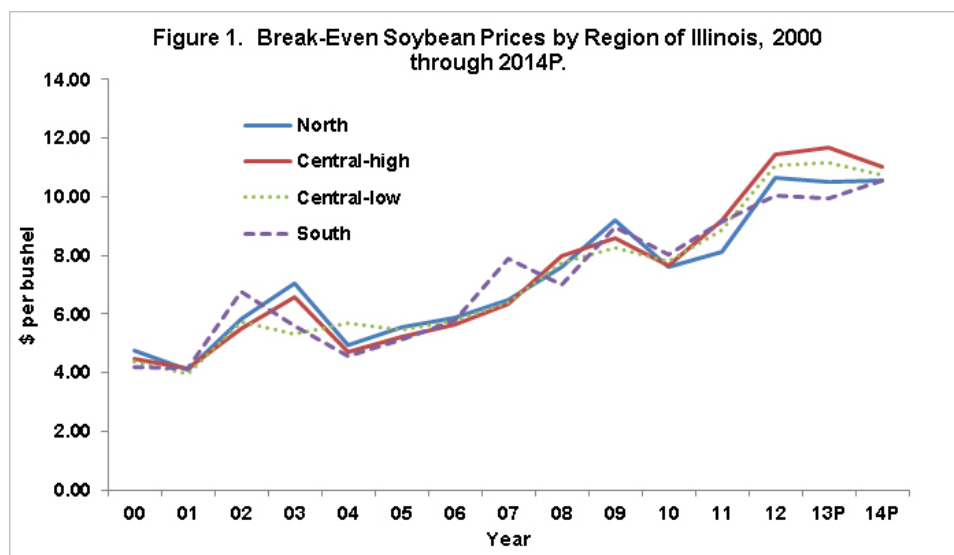
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Break-even prices were calculated given a cash rent situation with cash rent levels near averages. Farms with above average cash rent levels will have higher break-even levels, and vice versa. Break-even prices will differ for owned and share rent farmland.

## Break-Even Prices

Over time, break-even prices in the northern, central-high (high productivity farmland), central-low (low productivity farmland) and southern regions have tracked each other closely (see Figure 1). While yields vary across the regions, offsetting differences in cash rents tend to even out break-even prices across the regions. Because regional break-even prices track each other closely in most years, the averages of break-even price across regions are reported in the remainder of this post.



In 2004, break-even prices averaged \$4.97 per bushel. Between 2004 and 2013, break-even prices increased in most years: \$5.34 in 2005, \$5.78 in 2006, \$6.78 in 2007, \$7.59 in 2008, \$8.75 in 2009, \$7.77 in 2010, \$8.84 in 2012, \$10.81 in 2012, and \$10.82 in 2013. Increases in both non-land costs and cash rents led to the increase in break-even prices. The projected 2014 break-even of \$10.70 per bushel is projected slightly below 2013 levels.

## Summary and Commentary

Currently, cash grain bids for 2014 fall delivery are near \$11.30 per bushel, \$.48 above the break-even level of \$10.82 per bushel. It is conceivable that fall prices next year could be below break-even levels near \$10.70 per bushel. USDA benchmark prices place soybean prices a \$10.60 over the next several years, slightly below the \$10.70 break even for 2014.

There are possibilities that break-even prices may decline over time. Non-land costs could decrease; however, this process will be slow and there are limits to likely non-land cost decreases. Further decreases in break-even prices are possible with cash rent decreases. However, cash rents tend to be “sticky”. This suggests a protracted period of losses would have to occur before cash rents decline.

Break-even prices will vary across farms, depending on costs, yield levels, and land control situations. Farms with lower break-even prices will be able to handle low commodity prices better than farms with higher break-even prices.