



## Consider Planting Less Corn and More Soybeans in 2017

Gary Schnitkey

Department of Agricultural and Consumer Economics  
University of Illinois

July 7, 2016

*farmdoc daily* (6):127

---

Recommended citation format: Schnitkey, G. "Consider Planting Less Corn and More Soybeans in 2017." *farmdoc daily* (6):127, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 7, 2016.

Permalink: <http://farmdocdaily.illinois.edu/2016/07/consider-planting-less-corn-more-soybeans-2017.html>

---

U.S. farmers increased corn planting in 2016 by 7% while soybean planting only rose 1%. These relative changes come after three years in which soybeans have been more profitable than corn in Illinois, suggesting soybean acres should have increased more than corn acres. In 2016, crop return projections made in February did not suggest a large shift to corn acres (see [farmdoc daily, February 16, 2016](#)). June projections of 2016 crop returns indicate that soybeans will be more profitable than corn in 2016. Given this history, farmers may wish to consider switching acres from corn to soybeans in 2017, particularly on acres where corn follows corn. Obviously, 2017 prices and cost projections will impact the advisability of this switch. As benchmarks, soybeans likely will have higher returns than corn in 2017 if 1) 2017 corn prices are below \$4.00 or 2) non-land costs for corn do not decrease substantially.

### Profitability of Corn and Soybeans

In a publication entitled [Revenues and Costs for Corn, Soybeans, Wheat, and Double-crop Soybeans](#), returns are computed for corn and soybeans grown in northern Illinois, central Illinois, and southern Illinois. Central Illinois is further divided into high productivity and low productivity farmland. These data are summaries of returns from farms enrolled in Illinois Farm Business Farm Management.

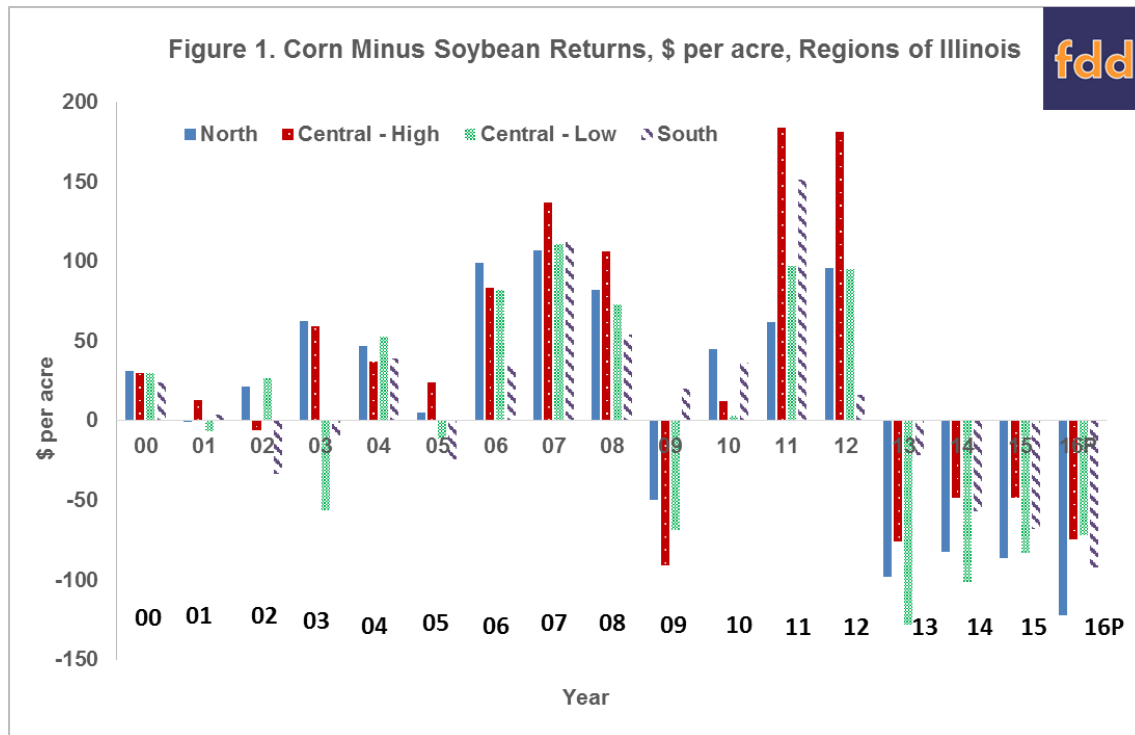
On average, soybeans were more profitable than corn in Illinois from 2013 to 2015, differing from 2000 to 2012 when corn typically had higher returns than soybeans (see Figure 1). For 2016, soybeans again is projected more profitable than corn using trend yields and prices of \$3.85 per bushel for corn and a \$10.60 per bushel for soybeans (see 2016 Illinois Crop Budgets).

Since 2013, soybeans have been more profitable than corn for two fundamental reasons: 1) non-land costs for corn increased more than soybean costs since 2006 and 2) commodity prices decreased in 2013. In central Illinois, non-land costs for corn increased \$288 per acre from 2006 to 2015. During this same period, soybean non-land cost increased by \$156 per acre. As a result, corn costs increased by \$132 per acre more than soybean costs. In and of itself, higher cost increases for corn reduce the relative profitability of corn versus soybeans.

---

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from *farmdoc daily*. Guidelines are available [here](#). The *farmdoc daily* website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies [here](#).

As long as prices were high, the relative cost increases did not cause corn returns to fall below soybean returns. Between 2010 and 2012, corn prices averaged \$6.08 and soybeans prices averaged \$13.06 per bushel. Prices declined in 2013. In 2014 and 2015, corn prices averaged below \$4.00 per bushel and soybeans prices averaged below \$10.70 per bushel. At lower prices, not only did revenue for both crops decrease, but corn revenue decreased more than soybean revenue. The relative higher revenue decrease for corn resulted in soybeans being more profitable than corn.



Several factors could again cause corn to be more profitable than soybeans in 2017. Two of the more likely are:

- **Commodity prices increase.** At corn prices above \$4.00 per bushel, corn returns likely will be higher than soybeans given that soybeans-to-corn prices remain near historical levels. Compared to historical soybean-to-corn ratios, soybeans prices are much higher than corn prices. The \$3.85 corn price and \$10.60 soybean price used in projections implies a soybean-to-corn price ratio of 2.75, well above the historical soybean-to-corn ratio average for cash prices of 2.55.
- **Costs for corn come down relative to soybean costs.** Using 2016 projections as a guide, non-land costs for corn need to be reduced by \$70 to \$100 per acre, depending on the region of Illinois (see Figure 1). If these relative decreases occur, they most likely have to come from decreases in seed costs or nitrogen fertilizer costs.

A combination of the above two items also could cause corn to be more profitable than soybean. As always, relative yields will play a role in profitability differences between the crops

### Current Interest in Relative Profitability

The relative profitability of corn versus soybeans comes into focus currently because of the increased acreages planted to corn in 2016. In its [June 2016 Acreage report](#), the National Agricultural Statistical Service (NASS) reported that 94.1 million acres of corn were planted in 2016, 7.0% higher than the 88.0 million planted in 2015. At the same time, soybean acres in the U.S. only increased 1.0% from 82.7 million acres in 2015 to 83.7 million acres in 2016. Given the relative profitability of the two crops in recent years and the projections of returns made earlier in the year, one would have expected more of an increase in soybean acres and less of an increase in corn acres.

## Suggestions for 2017

As 2017 planting decisions begin to be made this fall, farmers may wish to evaluate their relative corn and soybean plantings, perhaps shifting acres from corn to soybeans. In Illinois, acres planted in 2016 were 11.7 million acres of corn and 9.9 million acres of soybeans, suggesting that many Illinois farmers plant corn-after-corn on a portion of their acres. Switching these acres to soybeans may result in higher returns (see corn-after-soybeans and corn-after-corn budgets in [2016 Illinois Crop Budgets](#)).

Prices and costs will obviously impact these decisions. Soybeans likely will be more profitable than corn if projected corn prices are below \$4.00 per bushel, given that historical soybean-to-corn price relationships hold. Sizable reductions in corn seed prices and nitrogen prices also could impact planting decisions.

The large increase in corn acres in 2016 also may be influencing input prices. Seed and fertilizer costs are considerably higher for corn than for soybeans. Hence, the revenue to input manufacturers will be higher if acres switch to corn. Recent corn acreage increases reduce incentives to lower input prices as acreages are increasing without making substantial cuts in input prices.

Given recent price decreases and improving crop outlook for the Midwest, one cannot be very hopeful for commodity price relief to occur this autumn (*farmdoc daily*, July 5, 2016). All of this will come into clearer focus in the next several months as the level of 2016 yields becomes more certain. Given relatively good yields, prices below \$4.00 for corn could continue into 2017. If this is the case, the need for cost cutting will continue to be of great importance. Moreover, planting and cash rent decisions for 2017 will need to be made with great care.

## Acknowledgement

The author would like to acknowledge that data used in this study comes from the local Farm Business Farm Management (FBFM) Associations across the State of Illinois. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. The Illinois FBFM Association, which consists of 5,500 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM staff provide on-farm counsel coupled with recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the Illinois FBFM Office located at the University of Illinois Department of Agricultural and Consumer Economics at 217-333-5511 or visit the FBFM website at [www.fbfm.org](http://www.fbfm.org).

## References

Good, D. "Weekly Outlook: Corn Prices Face Strong Headwinds." *farmdoc daily* (6):125, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 5, 2016.

Schnitkey, G. "Corn versus Soybean Returns: 2016 Projections with Historical Comparisons." *farmdoc daily* (6):30, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 16, 2016.

Schnitkey, G. "Crop Budgets, Illinois, 2016." Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 2016. Released and accessed July 7, 2016.

Schnitkey, G. "Revenue and Costs for Corn, Soybeans, Wheat, and Double-Crop Soybeans, Actual for 2009 through 2015, Projected 2016." Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 2016.

USDA, National Agricultural Statistics Service. *Acreage* (June 2016).  
<http://usda.mannlib.cornell.edu/usda/nass/Acre/2010s/2016/Acre-06-30-2016.pdf>