



FEFO 10-18
November 2, 2010

2011 RETURN PROJECTIONS SUGGEST CORN WILL BE MORE PROFITABLE THAN SOYBEANS

Recent commodity price increases have triggered interest in how many acres of corn and soybeans will be planted in 2011. Farmers' acreage decisions will be influenced, in part, by the relative projected profitability of alternative crops. Herein projected corn returns are compared to projected soybean returns for four regions in Illinois using a measure called "corn-minus-soybean returns". Corn-minus-soybean returns equal corn returns minus soybean returns, with positive values indicating that corn is more profitable than soybeans. Projected 2011 corn-minus-soybean returns currently are projected to be much higher than averages for 2004 through 2010, indicating that corn may be more profitable than soybeans.

Corn-Minus-Soybean Return Projections for 2011

Corn-minus-soybean returns were projected using revised 2011 crop budgets available on *farmdoc* (in the management section, see the "Historic Corn, soybeans, Wheat, and Soybeans (PDF)" link in the *Illinois Farm Management Handbook*). Budgets were revised from an earlier August release to account for increases in expected corn and soybean prices and increases in fertilizer costs.

Projected corn-minus-soybean returns are \$132 per acre for the central Illinois region containing high-productivity farmland (see "Central-High" column in Table 1). The \$132 per acre projection is based on corn yields at trend levels (195 bushels for corn and 56 bushels for soybean), commodity prices projected based on Chicago Mercantile Exchange futures prices (\$4.80 for corn and \$11.00 per bushel for soybean), and non-land costs of \$482 per acre for corn and \$294 per acre for soybeans.

Projections for 2011 Compared to Historical Averages

For all regions, the 2011 projections are considerably higher than historical averages:

In northern Illinois, projected 2011 corn-minus-soybean return of \$157 per acre is \$99 higher than the 2004-2010 average of \$58 per acre.

In central Illinois on high-productivity farmland, projected 2011 corn-minus-soybean returns of \$132 per acre is \$83 higher than the 2004-2010 average corn-minus-soybean return of \$49 per acre.

In central Illinois on low-productivity farmland, projected 2011 corn-minus-soybean returns of \$124 per acre is \$83 higher than the 2004-2010 average of \$41 per acre.

In southern Illinois, projected 2011 corn-minus-soybean returns are projected of \$97 per acre is \$55 higher than the 2004-2010 average of \$42 per acre.

All 2011 projected returns exceed most of the yearly corn-minus-soybean returns for the previous decade. For example, the central-Illinois region with high-productivity farmland has a 2011 projected return that is higher than all returns from 2000 through 2010 (see Figure 1). For central Illinois – high productivity farmland, the next highest corn-minus-soybean return was \$118 per acre and occurred in 2008. The only region where the 2011 return is not above all previous returns is the northern region. In northern Illinois, the 2011 projected return of \$157 is \$2 lower than the 2010 return of \$159 per acre.

Table 1. Projected 2011 Corn-Minus-Soybean Returns by Region of Illinois.

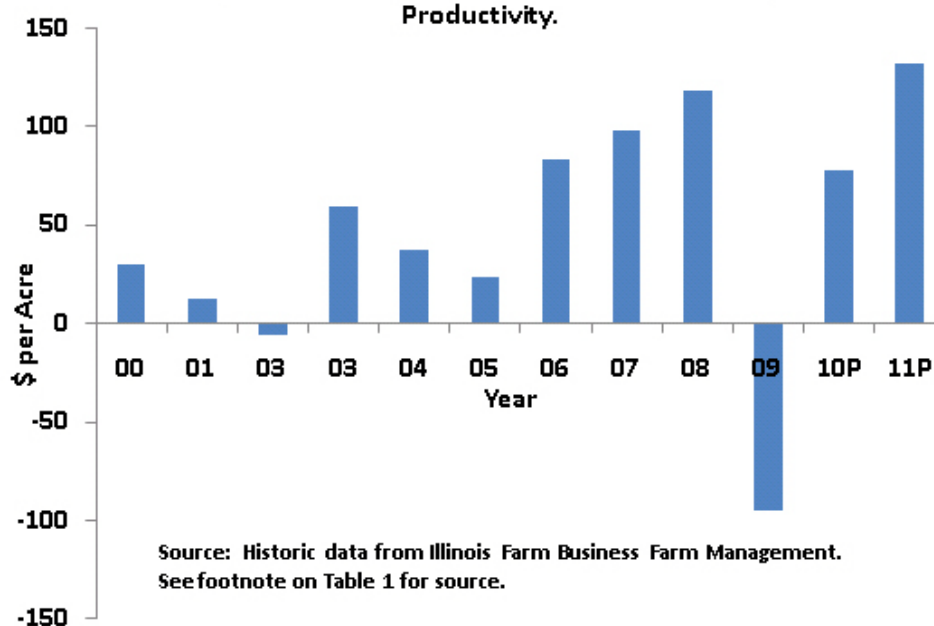
		Illinois Region ¹			
		North	Central-High	Central-Low	South
Corn Yield	Bushels per acre	193	195	185	160
Soybean Yield	Bushels per acre	54	56	53	47
Corn Price	\$ per bushel	\$4.80	\$4.80	\$4.80	\$4.80
Soybean Price	\$ per bushel	\$11.00	\$11.00	\$11.00	\$11.00
Corn Non-land Costs	\$ per acre	\$488	\$482	\$465	\$468
Soybeans Non-land Costs	\$ per acre	\$313	\$294	\$284	\$314
Corn-Minus-Soybean Returns²	\$ per acre	\$157	\$132	\$124	\$97
Average Corn-Minus-Soybean Return from 2004 through 2010	\$ per acre	\$58	\$49	\$41	\$42

Source: Taken from *Revenue and Costs for Corn, Soybeans, Wheat, and Double-Crop Soybeans*. Department of Agricultural and Consumer Economics, University of Illinois, available in Farm Management Handbook in Management Section of *farmdoc* (www.farmdoc.illinois.edu)

¹ Central-high and central-low are distinguished by soil productivity.

² Equals corn yield x corn price - corn non-land cost - soybean yield x soybean price + soybean non-land costs.

Figure 1. Corn-Minus-Soybean Returns, Projected 2011 Compared to Historical Returns, Central Illinois-High Productivity.



Break-even Soybean Prices

Projected corn and soybean prices likely will change between now and planting, thereby changing projected returns. Table 2 shows break-even soybean prices for different corn prices. In northern Illinois, the break-even soybean price is \$13.56 per bushel for a corn price of \$5.00 per bushel. The \$13.56 soybean price will cause corn-minus-soybean return to equal the 2004-2010 average of \$58 per acre. The 2004-2010 average was included so as to result in a more "normal" relationship between corn and soybean returns. Not including the 2002-2010 average corn-minus-soybean return would cause the corn-minus-soybean return to equal zero, a situation that occurs infrequently.

Summary

Currently, 2011 projected corn returns are considerably higher than projected soybean returns, suggesting that shifting acres to more corn away from soybeans will increase profits. For example, shifting 100 acres from soybeans to corn is projected to increase profits by \$13,200 (\$132 per acre corn-minus-soybean return for central Illinois with high-productivity farmland times 100 acres).

Table 2. Break-even 2011 Soybean Prices for Different Corn Prices¹.

Corn Price	Illinois Region			
	North	Central-High	Central-Low	South
	Break-even Soybean Price (\$ per bushel)			
3.00	6.41	6.21	6.28	6.04
3.25	7.30	7.08	7.16	6.89
3.50	8.19	7.96	8.03	7.74
3.75	9.09	8.83	8.90	8.60
4.00	9.98	9.70	9.77	9.45
4.25	10.88	10.57	10.65	10.30
4.50	11.77	11.44	11.52	11.15
4.75	12.66	12.31	12.39	12.00
5.00	13.56	13.18	13.26	12.85
5.25	14.45	14.05	14.14	13.70
5.50	15.34	14.92	15.01	14.55
5.75	16.24	15.79	15.88	15.40
6.00	17.13	16.66	16.75	16.26

¹ Breakeven soybean prices are calculated for regions using yield and costs contained in Table 1. These break-even soybean prices result in corn-minus-soybean returns equal to 2004-2010 averages.

This suggests that Illinois farmers will increase corn acres relative to soybean acres. However, these are not normal times, which may lead to a muted acreage change. Recent market volatility has caused wide swings in profits, suggesting that similar swings are possible in the future. Even though 2011 corn-minus-soybean returns are projected at record high levels, farmers may be skeptical that the conditions necessary for corn to be this much more profitable than soybeans may not persist until the 2011 harvest, thus leading to muted acreage changes.

Acknowledgments

Much of the data used in these budgets 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. FBFM, 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 field staff provides on-farm counsel with computerized recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the State 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

Submitted by: Gary Schnitkey, Department of Agricultural and Consumer Economics, University of Illinois