

Relative Profitability of Corn and Soybean Production in Indiana

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From 2007 to 2013, corn production was relatively more profitable than soybean production on average productivity land in Indiana. Specifically, the budgeted earnings or profitability for rotation corn on average productivity land was on average \$38 per acre higher than the budgeted earnings for rotation soybeans on average productivity land. The difference in budgeted earnings between corn and soybeans from 2007 to 2013 ranged from a -\$21 per acre in 2008 to \$87 per acre in 2007.

Since 2014, soybeans on average productivity land have been relatively more profitable than rotation corn. The average difference in budgeted earnings for corn and soybeans from 2014 to 2017 is \$90 per acre. The difference in earnings during this period has ranged from \$51 per acre in 2015 to \$115 in 2016. As of early May 2018 budgeted earnings for soybeans were \$30 per acre higher than the budgeted earnings for rotation corn.

Using cost and yield differences, breakeven corn price levels required for corn and soybeans to have the same profitability can be computed. Table 1 examines breakeven price levels for corn on ground that was planted to corn in 2017 (i.e., a comparison of continuous corn and rotation soybeans). To create this table, the latest cost and yield estimates in the Purdue Crop Cost and Return Guide were utilized. With a soybean price of \$10 per bushel, corn prices in the fall of 2018 would need to be above \$4.61 per bushel on low productivity land, above \$4.50 per bushel on average productivity land and above \$4.34 per bushel on high productivity land for continuous corn to compare favorably to rotation soybeans. Using the information in table 1, current price forecasts favor rotation soybeans on ground that was planted to corn in 2018.

Breakeven price levels for corn on ground that was planted to soybeans in 2018 are reported in table 2. This table was created using cost and yield estimates in the Purdue Crop Cost and Return Guide and an assumption of no reduction in soybeans yields for second-year soybeans and provides a comparison of rotation corn and continuous soybeans. Corn is more competitive on ground that was planted to soybeans last year. With a soybean price of \$10 per bushel, the breakeven price levels for corn are \$4.21 per bushel on low productivity land, \$4.13 per bushel on average productivity land and \$3.99 per bushel on high productivity land. Corn prices would need to be above these levels to favor corn. Current price forecasts yield a relatively small difference in profits between continuous soybeans and rotation corn, in favor of corn, on higher productivity ground. For low and average productivity land, there is a small profit advantage for soybeans. It is important to note that soybeans were relatively more profitable before the

acreage report in late March. Also, corn appears to be much more competitive in 2018 compared to what it was from 2014 to 2017.

This article briefly discussed the difference in budgeted earnings or profitability between corn and soybeans since 2007. The article also presented the level of corn prices needed to compare favorably with soybeans on land that was in corn and soybeans in 2018. More information about cost items for corn, soybeans, and wheat can be found on the web site for the Center for Commercial Agriculture ([here](#)).

Table 1. Breakeven Price Levels for Corn to Achieve the Same Profitability between Continuous Corn and Rotation Soybeans.

Soybean Price	Soil Productivity Level		
	Low	Average	High
8.50	4.11	4.01	3.85
9.00	4.28	4.17	4.02
9.50	4.44	4.34	4.18
10.00	4.61	4.50	4.34
10.50	4.77	4.66	4.50
11.00	4.94	4.83	4.66

Table 2. Breakeven Price Levels for Corn to Achieve the Same Profitability between Rotation Corn and Continuous Soybeans.

Soybean Price	Soil Productivity Level		
	Low	Average	High
8.50	3.74	3.67	3.53
9.00	3.90	3.82	3.68
9.50	4.05	3.97	3.84
10.00	4.21	4.13	3.99
10.50	4.37	4.28	4.14
11.00	4.52	4.44	4.30