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Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

2018 Acreage Decisions: Steady as She Goes in Rough Waters

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

April 10, 2018

***farmdoc daily* (8):63**

Recommended citation format: Schnitkey, G. "2018 Acreage Decisions: Steady as She Goes in Rough Waters." *farmdoc daily* (8):63, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 10, 2018.

Permalink: http://farmdocdaily.illinois.edu/2018/04/2018-acreage-decisions-steady-in-rough-waters.html

The recent release of the *Prospective Planting* report and the threat of a 25% tariff on U.S. soybean imports to China has resulted in swings in corn and soybean futures prices. Recent prices have not switched relative profitability between corn and soybeans. Soybeans are projected more profitable than corn, but the difference between the profitability of the crops have narrowed. Risks of significant price declines have increased, particularly for soybeans. Hedging a large percentage of 2018 expected soybean production seems prudent.

Recent Market News

Two recent events corresponded to large market moves. On March 29th, the U.S. Department of Agriculture released the 2018 *Prospective Planting* report, projecting that 88 million acres would be planted in 2018, down by 2 million acres from 90 million planted acres in 2017. Projected 2018 soybean plantings are 89 million acres, down by one million acres from the 2017 level of 90 million acres. The 2018 corn and soybean prospected plantings were below expectations and both corn and soybean prices increased after the report. For example, the settlement price of the November 2018 Chicago Mercantile Exchange (CME) soybean contract on the day before the release was $10.16 per bushel. The settlement price on the day of the *Prospective Planting* report (March 29th) was $10.47 per bushel, $.31 higher than the settlement price on the day before. Soybean prices varied during the next several days, but maintained most of the March 29th gain, having a settlement price of $10.42 per bushel on April 3rd.

On April 4th, the Chinese government announced its intention to place a 25% tariff on the value of soybeans imported from the United States. The enactment of a 25% soybean tariff would have a significant, negative impact on U.S. soybean prices. However, the enactment of tariffs is not a foregone conclusion, and negotiations between the U.S. and Chinese governments likely will continue over the next several months. Still, the prospect of the tariff caused soybean futures prices to move sharply lower. The settlement price of the November 2018 CME soybean contract was $10.19 per bushel, $.23 bushels less than April 3rd close of $10.42.

CME soybean futures prices rebounded through the remainder of the week. The settlement price of the November 2018 contract was $10.33 on Friday, April 6th. The $10.33 price was above the $10.16 price before the release of the *2018 Prospective Planting* report. Still, there appears to be much more downside risk now in the soybean market, as illustrated by an increase in the soybean volatility index. Soybean volatilities have been above .20 in recent days, well above the .14 to .16 level experience through much of late February and early March. The higher volatility indicates that traders of soybean options contracts believe there is more price variability in the market now than during the winter.

2018 Budgets

Current prices are higher than earlier in the winter. The settlement price of the December 2018 CME contract was $4.12 per bushel on April 6th. The projected price for corn insurance products – which is based on the average of February settlement prices of the December contract – was $3.96 per bushel, $.16 lower than the April 6th settlement price. The settlement price of the November 2018 CME contract was $10.33 per bushel. The projected price for soybean insurance produced – based on the average settlement prices of the November contract during February – was $10.21, $.12 lower than the April 6th settlement price.

Table 1. 2018 Crop Budgets with April 2018 Fall Delivery Prices

	Corn-After-Soybeans	Corn-After-Corn-	Soybeans-After-Corn	Soybeans-After-Soybeans
Panel A. Central Illinois (High-Productivity Farmland)				
Yield	208	198	63	60
Price	$3.80	$3.80	$10.00	$10.00
	$/acre	$/acre	$/acre	$/acre
Crop Revenue	$790	$752	$630	$600
Other Revenue	0	0	0	0
Gross Revenue	**$790**	**$752**	**$630**	**$600**
Direct Costs	353	368	171	176
Power Costs	114	114	102	102
Overhead Costs	67	67	62	62
Total Costs	**$534**	**$549**	**$335**	**$340**
Operator and Land Return	**$256**	**$203**	**$295**	**$260**
Panel B. Southern Illinois				
Yield	167	157	50	47
Price	$3.80	$3.80	$10.00	$10.00
	$/acre	$/acre	$/acre	$/acre
Crop Revenue	$635	$597	$500	$470
Other Revenue	0	0	0	0
Gross Revenue	**$635**	**$597**	**$500**	**$470**
Direct Costs	323	339	160	170
Power Costs	129	129	122	122
Overhead Costs	99	99	77	77
Total Costs	**$551**	**$567**	**$359**	**$369**
Operator and Land Return	**$84**	**$30**	**$141**	**$101**

Source: University of Illinois, *2018 Crop Budgets* , Management section of farmdoc.

On April 6th, central Illinois farmers could obtain fall delivery bids of $3.80 per bushel for corn and $10.00 per bushel for soybeans. Budgets based on these fall delivery bids are shown in Table 1. Panel A shows budget for high productivity farmland in central Illinois. The operator and land return for corn is $256 per acre for corn-after-soybeans and $295 per acre for soybeans-after-corn, indicating that soybeans are projected to be $39 per acre more profitable than corn. Corn-after-soybeans is projected to be roughly the same profitability as soybean-after-soybeans ($256 per acre for corn-after-soybeans and $260 per acre for soybeans-after-soybeans). In central Illinois, budgets would suggest planting a corn-soybean rotation. While relative profitability has narrowed between corn and soybeans, the corn-soybean rotation suggestion is roughly consistent with earlier 2018 budgets using a $3.60 corn price and $9.60 soybean price (see February 2018 version of the *2018 Crop Budgets*).

In lower productive areas, soybeans dominate corn. In southern Illinois, corn-after-soybeans has an $84 per acre return at a $3.80 price compared to $141 per acre for soybeans-after-corn at a $10.00 per bushel price (see Panel B of Table 1). Soybeans-after-soybeans has a $101 per acre return, higher than the $84 per acre returns for corn-after-soybeans. These returns comparisons suggest having more soybeans than corn in southern Illinois. In recent years, southern Illinois farmers have been planting more soybean than corn. Recent price moves increased the profitability of corn relative to soybeans, but not enough for a budget to suggest switching to more corn.

Risks Moving Forward

Price changes have increased corn profitability relative to soybean profitability, but have not suggested shifts in acres. Overall, price changes suggest a slightly more profitability 2018 than earlier in the winter. Still, there are concerns about overall price levels and much can change between now and harvest.

If anything, downside risks are larger now than prior to the threat of tariffs, particularly for soybeans. Higher risks suggest that forward pricing more of 2018 expected soybean production will be a prudent risk management strategy, particularly given that most farmers should be profitable at soybean prices above $10.00 per bushel given that yields are near or above trend levels. Pricing more production introduces the possibility of hedging losses if prices increase. If farmers have purchased an insurance product with a guarantee increase such as Revenue Protection (RP), offsetting payments will be received in cases when prices rise and yields are below guarantee levels.

Farmers who purchased revenue crop insurance policies will have downside price production. Given the $10.21 project price and yields at guarantee levels, the harvest price must fall below the following levels for different coverage levels to trigger payments on revenue policies (e.g., Revenue Protection (RP) and RP with harvest price exclusion):

$8.67 at an 85% coverage level ($10.21 x .85),

$8.17 at an 80% coverage level ($10.21 x .80), and

$7.65 at a 75% coverage level ($10.21 x .75).

While these revenue products will offer downside risk protection, most farmers will face loss situations if prices fall enough to trigger insurance payments.

Low prices could also result in commodity title payments under Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC). ARC is a revenue program that makes payments based on county yields and market year average prices. Given yields near guarantee levels, ARC at the county level would begin to make payments around $8.70 per bushel for the 2018 production year. PLC has a reference price of $8.40. As a result, PLC will not make payments until MYA prices fall below $8.40 per bushel. The 2018 payments under ARC and PLC would both be made in the fall of 2019, a considerable distance into the future.

It is important to remember that ARC and PLC are based on base acres and not planted acres. As a result, planting decisions in 2018 will not impact ARC and PLC payments. Therefore, the size of ARC/PLC payments should not influence planting decisions.

Both crop insurance and ARC/PLC offer downside price protection if prices fall dramatically as the result of some event such as enactment of soybean tariff. Still, hedging a high percentage of production seems prudent, particularly given that a late planting season appears more likely now. The current cold and wet conditions could lead to later planting, and perhaps shifts to soybean acres. This switch could lead to further downward price pressures.

Summary

Recent market events have not fundamentally impacted acreage decisions. Soybeans still appear more profitable than corn but the relative profitability of corn has increased. Downside risks associated with soybean production appear to have increased, suggesting that hedging more of 2018 soybean production may be prudent. Hedging more production does carry risks, and will result in losses if prices increase.

Those farmers with Revenue Protection (RP) have protection built into the policy for increasing prices and low yield situations.

References

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