

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

# **Revised 2015 Corn and Soybean Return Estimates**

**Gary Schnitkey** 

Department of Agricultural and Consumer Economics University of Illinois

September 15, 2015

farmdoc daily (5):169

Recommended citation format: Schnitkey, G. "Revised 2015 Corn and Soybean Return Estimates." *farmdoc daily* (5):169, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, September 15, 2015.

Permalink: http://farmdocdaily.illinois.edu/2015/09/revised-2015-corn-and-soybean-return-estimates.html

As harvest is beginning, more information is available to project 2015 revenues and returns. Revised returns are presented in this article for high-productivity farmland in central Illinois. Similar estimates for northern, southern, and low-productivity central Illinois farmland are available in the *2015 Crop Budgets*. Overall, returns for 2015 continue to be projected at low levels, with returns being below average cash rent levels.

## **Revised gross revenue**

Table 1 shows revised budgets for high-productivity farmland in central Illinois. Much of the emphasis during this revision related to updating gross revenue estimates included yields, prices, Agricultural Risk Coverage (ARC) payments, and crop insurance payments.

**Yields:** When originally released, *2015 Crop Budgets* contained yield estimates based on trend yields. At this point, the information available to update these yields estimates comes from the National Agricultural Statistical Service (NASS). NASS revised state yield estimates on September 11<sup>th</sup>. Obviously, yields will vary from expectations across Illinois. At this point, yield estimates for smaller areas are not available. As a result, estimated state yields are used to adjust 2015 budgeted yields.

The NASS state yield estimates for corn in Illinois is 173 bushels per acre. The 173 bushel yield estimate is one bushel higher than the 2015 trend estimate of 172 bushels per acre. As a result, corn yields in Table 1 are adjusted up by one bushel per acre from initial estimates.

NASS estimated the 2015 soybean yield at 54 bushels per acre. The 54 bushel yield is four bushels higher than the trend estimate of 50 bushels. As a result, soybean yields are adjusted up by four bushels per acre from their original estimates.

**Commodity prices**: Revised World Agricultural Supply and Demand Estimates (WASDE) were released on Friday (for a commentary see *farmdoc daily*, September 14, 2015). WASDE's range on corn price for the 2015-16 marketing year is from \$3.45 per bushel to \$4.05 per bushel, with a midpoint of \$3.75. Current forward cash bids in central Illinois range from \$3.85 per bushel for harvest-time delivery to \$3.95 for spring

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from farmdoc daily. Guidelines are available <u>here</u>. 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 <u>here</u>. delivery. A price of \$3.90 per bushel is used in Table 1, reflecting an expectation in the higher end of the WASDE range.

	Corn- after- Soybeans	Corn- after- Corn	Soybeans- after- Corn	Soybeans- after-Two Years-Corn
Yield per acre	200	190	61	67
Price per bu	\$3.90	\$3.90	\$8.90	\$8.90
Crop revenue	\$780	\$741	\$543	\$596
ARC/PLC	40	40	40	40
Crop insurance proceeds	20	20	20	20
Gross revenue	\$840	\$801	\$603	\$656
Fertilizers	\$148	\$158	\$49	\$49
Pesticides	60	66	40	40
Seed	124	124	78	78
Drying	23	22	1	1
Storage	5	5	4	4
Crop insurance	27	27	18	18
Total direct costs	\$387	\$402	\$190	\$190
Machine hire/lease	\$11	\$11	\$9	\$9
Utilities	5	5	4	4
Machine repair	25	25	22	22
Fuel and oil	24	24	21	21
Light vehicle	2	2	1	1
Mach. depreciation	69	69	63	63
Total power costs	\$136	\$136	\$120	\$120
Hired labor	\$18	\$18	\$16	\$16
Building repair and rent	8	8	5	5
Building depreciation	7	7	11	11
Insurance	10	10	10	10
Misc	8	8	8	8
Interest (non-land)	11	11	10	10
Total overhead costs	\$62	\$62	\$60	\$60
Total non-land costs	\$585	\$600	\$370	\$370
Operator and land return	\$255	\$201	\$233	\$286

Available in the management section of farmdoc (www.farmdoc.illinois.edu).

Revised: September 2015

WASDE's range on soybean price is from \$8.40 per bushel to \$9.90 per bushel, with an average of \$9.15 per bushel. Current central Illinois forward bids range from \$9.00 for harvest-time delivery to \$8.75 for spring delivery. A price of \$8.90 per bushel is used in Table1, slightly below the mid-point of the WASDE range, reflecting the lower forward bids.

**ARC payments:** Revenue includes \$35 per acre for ARC payments. This \$35 value is an average over corn and soybean base acres, with procedures used to estimate ARC payments provided in a previous article (*farmdoc daily*, August 18, 2015). Items to note about these ARC payments are:

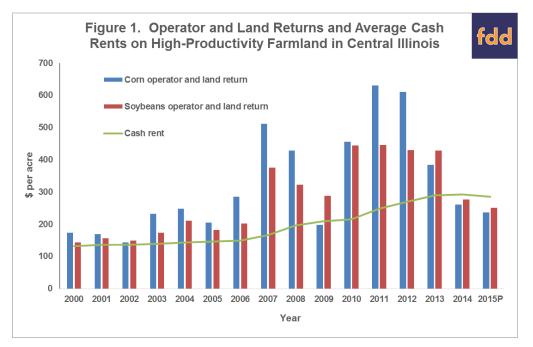
• ARC payments are paid on base acres, not planted acres. Therefore, a blended average of base acres are shown in Table 1. Since planted acres do not matter, the payment does not vary whether corn or soybeans are planted

- ARC is a county-level revenue program. Therefore, payments will vary across counties.
- Higher market year average prices will result in lower ARC payments and vice versa.
- The payments shown in Table 1 will be received in 2016. ARC payments made this autumn relate to 2014 production. Farms in northern Illinois will receive 2014 ARC payments this autumn of about \$35 per acre averaged across corn and soybean base acres. ARC payments for 2014 production will not be received in central and southern Illinois.

**Crop Insurance:** Projected prices for 2015 are \$4.15 per bushel for corn and \$9.74 per bushel for soybeans. The December 2015 corn contract currently is trading near \$3.95 per bushel. If \$3.95 is the harvest price, the harvest price would be 95% of the projected price, indicating that yields would need to be below guarantee yields before crop insurance payments would occur. The November soybean contract currently is trading near \$8.90, with \$8.90 being 91% of the projected price. Similar to corn, yields must be below guarantee yields before crop insurance payments occur.

There will be some areas where crop insurance payments occur, particularly in areas where large amounts of rain occurred this spring. To recognize these payments, budgets in Table 1 include \$20 per acre in crop insurance payments.

**Gross revenue**: Given these estimates, gross revenues are estimated at \$840 per acre for corn-after-soybeans, \$801 for corn-after-corn, \$603 for soybeans-after-corn and \$656 for soybeans-after-two-years-corn (see Table 1).



## Operator and land return

Cost remain unchanged from pervious budgets. Given the above gross revenues and previously estimated costs, operator and land return estimates are \$255 per acre for corn-after-soybeans, \$217 for corn-after-corn, \$233 for soybeans-after-corn, and \$286 for soybeans-after-two-years-corn. These are the returns shared between farmers and land owners.

The projected 2015 operator and land returns are below those of recent years (see Figure 1). The last time corn had a lower operator and land return than projected for 2015 was in 2008. Soybean returns in 2006 were lower than the 2015 projected soybean return.

Figure 1 also includes average cash rents for this quality of farmland. Both the 2015 corn and soybean operator and land return are projected to be below the 2015 average cash rent.

## Summary

Revised estimates of gross revenue for 2015 are presented in this article. Revised gross revenues point to low returns and low net incomes for 2015. Revisions to these estimates will be made as more accurate yield, price, and cost information is obtained.

#### References

Good, D. "Weekly Outlook: Smaller Corn Supplies Provide Opportunity for Price Rallies." *farmdoc daily* (5):168, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, September 14, 2015.

Schnitkey, G. "2016 ARC-CO Payment Estimates for 2016 Cash Rent Bids." *farmdoc daily* (5):150, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, August 18, 2015.

Schnitkey, G. "Crop Budgets, Illinois, 2015." Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, September 2015.

USDA, World Agricultural Outlook Board. *World Agricultural Supply and Demand Estimates*, WASDE-545, September 11, 2015. http://usda.mannlib.cornell.edu/usda/waob/wasde/2010s/2015/wasde-09-11-2015.pdf