



AgEcon SEARCH

RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



Cost Cutting for 2016: Budgeting for \$4 Corn and \$9.25 Soybeans

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

August 4, 2015

farmdoc daily (5):141

Recommended citation format: Schnitkey, G. "Cost Cutting for 2016: Budgeting for \$4 Corn and \$9.25 Soybeans." *farmdoc daily* (5):141, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, August 4, 2015.

Permalink: <http://farmdocdaily.illinois.edu/2015/08/cost-cutting-for-2016-budgeting-for-corn-soybeans.html>

Net incomes are projected to be very low for 2015 (*farmdoc daily* July 28, 2015). For low incomes to not repeat in 2016, commodity prices must increase or costs must decrease. At this point, counting on price increases seems imprudent. As a result, substantial cost cuts will need to occur to have positive incomes in 2016. In this article, cost decreases of \$100 from costs contained in 2016 budgets are illustrated for cash rent farmland.

2016 Budgets and Projected Losses

The first two columns of Table 1 shows corn and soybean budgets for central Illinois farmland with lower productivity. Expected yields are 184 bushels per acre for corn and 53 bushels per acre for soybeans (see *2016 Illinois Budgets* for other yield levels).

Prices are \$4.00 per bushel for corn and \$9.25 per bushel for soybeans. These prices are relatively optimistic compared to 2016 fall delivery bids, which are near \$3.70 per bushel for corn and \$8.70 per bushel for soybeans. Note that very low prices are not needed to induce the need to cut costs. Moreover, current 2016 grain bids would result in substantial losses to grain farming.

Non-land costs are projected at \$585 per acre for corn and \$361 per acre for soybeans (see Table 1). Non-land costs are based on historically observed costs on grain farms enrolled in Illinois Farm Business Farm Management (FBFM), adjusted slightly downward due to changes in input prices (See *Revenue and Costs* publication for more detail). Cash rent is \$236 per acre, near the average for this productivity of farmland.

Given these revenues and costs, net farmer income is -\$66 per acre for corn and -\$97 per acre for soybeans (see Table 1). For a 50% corn and 50% soybeans rotation, net farmer income is -\$82 per acre.

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](#).

Table 1. 2016 Budgets for Central Illinois Farmland with Lower Productivity

	2016 Budgets¹		With \$100 of Cuts¹	
	Corn	Soybeans	Corn	Soybeans
Yield per acre	184	53	184	53
Price per bu	\$4.00	\$9.25	\$4.00	\$9.25
Crop revenue	\$736	\$490	\$736	\$490
ARC/PLC	20	10	20	10
Crop insurance proceeds	0	0	0	0
Gross revenue	\$756	\$500	\$756	\$500
Fertilizers	\$138	\$39	\$128	\$29
Pesticides	60	40	60	40
Seed	128	78	110	60
Drying	18	1	18	1
Storage	5	4	5	4
Crop insurance	26	18	26	18
Total direct costs	\$375	\$180	\$347	\$152
Machine hire/lease	\$13	\$9	\$13	\$9
Utilities	5	4	5	4
Machine repair	28	23	28	23
Fuel and oil	20	20	20	20
Light vehicle	2	1	2	1
Mach. depreciation	68	63	48	43
Total power costs	\$136	\$120	\$116	\$100
Hired labor	\$18	\$16	\$18	\$16
Building repair and rent	11	5	11	5
Building depreciation	13	11	13	11
Insurance	10	10	10	10
Misc	8	8	6	6
Interest (non-land)	15	11	15	11
Total overhead costs	\$75	\$61	\$73	\$59
Total non-land costs	\$586	\$361	\$536	\$311
Operator and land return	\$170	\$139	\$220	\$189
Cash rent	\$236	\$236	\$186	\$186
Net Farmer Income	-\$66	-\$97	\$34	\$3

¹ The first two columns are from the 2016 Crop Budgets. The final two columns include budgets with \$100 per acre of cost cuts.

Cost Cutting

Given revenues shown in these budgets, costs must be reduced to have positive returns. Cost cuts of \$100 per acre will be used at the target. Cuts of \$100 per acre would result in \$19 per acre of net farmer income, levels that are relatively low and do not provide much margin. A \$100 cost cut implies total cost reductions of 12% for corn and 17% for soybeans. These are very large cost reductions.

Cost cuts of \$100 can be achieved in a variety of ways. Reductions in the second two columns include:

- Cash rent was reduced by \$50 per acre from \$236 per acre to \$186 per acre (see Table 1). It was decided to split cost reductions between cash rent and non-land costs. Placing all cost cuts on non-land costs would result in a \$136 per acre cash rent, roughly the same level as from 2004 through 2006.
- Misc expenses were reduced by \$2 per acre from \$8 per acre to \$6 per acre, indicating a general emphasis on cost control.
- Machinery depreciation was reduced \$20 per acre. For corn, this resulted in a reduction from \$68 per acre down to \$48 per acre. Reducing depreciation requires that capital purchases are very low. The \$20 reduction assumes that capital expenditures are near \$0 per acre. Even given a \$0 target, it is not assured that machinery depreciation could be reduced by \$20 per acre; however, near \$0 in capital purchase would impact cash flows.
- Fertilizer costs were reduced by \$10 per acre. For corn, this results in fertilizer costs from \$138 per acre to \$128 per acre. These costs are reduced either through lower rates. Hopefully, some price reductions in fertilizer costs may occur.
- Seed costs were reduced by \$18 per acre. For corn, this would reduce seed costs from \$128 per acre to \$110 per acre. How this cost reduction occurs is not exactly certain. Seeding rates may need to be lowered, and hybrids with lower technology may need to be purchased. Perhaps some price relief will exist for 2016 hybrids and varieties.

Focus of Cost Cuts

In the above example, the majority of non-land cost cuts were made to fertilizers, seed, and machinery depreciation. These three costs accounted for 71% of cost increases between 2006 through 2013 (see *farmdoc daily* [September 16, 2014](#)). These three costs plus pesticide costs account for 67% of non-land costs for corn and 61% for soybeans. Cost cuts in these four areas must occur if sizable reductions in non-land costs are to occur.

Price Increases Achieving Same Result as \$100 Per Acre Cost Decrease

Higher commodity prices could have the same impact on net farm income as cost reductions. A corn price of \$4.65 for corn and \$10.75 for soybeans results in the same income as \$100 in cuts. The \$4.65 corn price and \$10.75 soybean price are close to projections of the long-run averages (*farmdoc daily* [February 27, 2013](#)). At these prices, income would be \$19 per acre, a relatively low level, suggesting that costs need to be reduced even if prices approach projected long-run averages.

What Would Net Income be at Current 2016 Fall Grain Bids?

Current cash bids for 2016 delivery are \$3.70 for corn and \$8.70 for soybeans. At those current bids, net farmer income would be -\$124 per acre without the \$100 of cost cuts, given a split of 50% corn and 50% soybeans. With the \$100 of cost cuts, net incomes would be -\$24 per acre. Even after \$100 of cost cuts, incomes would be negative given fall delivery bids, pointing to the risks that exist if costs are not cut.

Summary

At this point, relatively large cost cuts need to occur before positive incomes in 2016 budgets. Even with \$100 per acre of cost reductions, incomes would be negative at current 2016 fall delivery prices. Even likely long-run averages prices result in low incomes without substantial cuts in costs.

Where cost cuts occur are an open question. In this article, one division of cost reductions are presented. If non-land costs are to decrease by a significant amount, cost reductions must occur from fertilizer, seed, pesticides, and machinery depreciation.

Obviously, large cuts in costs will be difficult. However, profitability in 2016 likely depends on making these cost cuts.

References

Irwin, S., and D. Good. "[The New Era of Crop Prices --- A Five-Year Review.](#)" *farmdoc daily* (3):38, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 27, 2013.

Schnitkey, G. "[Choices Given Low Projected Grain Farm Net Income in 2015.](#)" *farmdoc daily* (5):137, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 28, 2015.

Schnitkey, G. "[Will Non-Land Costs Decrease in 2015?](#)" *farmdoc daily* (4):178, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, September 16, 2014.

Schnitkey, G. "[Crop Budgets, Illinois, 2016.](#)" Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 2015.

Schnitkey, G. "[Revenue and Costs for Corn, Soybeans, Wheat, and Double-Crop Soybeans, Actual for 2009 through 2014, Projected 2015 and 2016.](#)" Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 2015.