



More Corn...More Profit???

Bradley L. Zwilling and Dwight D. Raab

Illinois FBFM Association Department of Agricultural and Consumer Economics
University of Illinois

April 19, 2013

farmdoc daily (3):74

Recommended citation format: Zwilling, B. and D. Raab. "More Corn...More Profit???" *farmdoc daily* (3):74, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 19, 2013.

Permalink: <http://farmdocdaily.illinois.edu/2013/04/more-corn-more-profit.html>

Crop rotations change from year to year for a number of reasons. Economics, dealing with weed and disease pressures, the installation of drainage tile, having a place to apply manure...all are reasons that a producer might vary the number of acres devoted to any single crop enterprise in any single year. Geographic's can also have an impact on crop rotations. Large areas of southern Illinois can easily fit double crop soybeans into a rotation while that feat would be very difficult in most of northern Illinois.

Today's post will review some of this data and review 2011 in particular. This group of 782 farms are from better soils in central Illinois with negligible contributions from a livestock enterprise. Minimum farm size was 180 acres of row crop production.

When abundant detailed enterprise analysis information is not available there are other means to gain insight into this data. For this work, groups were established based on the percentage of land devoted to the production of corn. Those five groups are:

- Group A – less than 46% corn acres
- Group B – 46% to 55% corn acres
- Group C – 56% to 65% corn acres
- Group D – 66% to 75% corn acres
- Group E – greater than 75% corn acres.

Refer to Table 1 as we review some of the characteristics of this group of farms. Group A with the least percentage of corn acres contained only 9.2% of the farms. This group is a bit more diverse in its crop enterprise mix with 8% of acres devoted to crops other than corn or soybeans. The other four groups were nearly exclusively made up of only corn and soybean enterprises. Group E contained just under 5% of the farms. Group B alone contained just over half of the farms and just over 75% of the farms were in Groups B and C.

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](#).

Crop returns per acre did vary but had a mostly upward trend as the percentage of corn acres increased with a \$921 per acre crop return for Group A and ranging to \$1,040 for Group E. Interestingly, corn yields had no discernible trend as the percentage of corn acres increased while soybean yields appear to increase as the percentage of corn acres increased.

A review of some of the expenses show that soil fertility shows an increase in cost as the percentage of corn acres increases as does seed expense, drying expense, and crop insurance as one might expect. Machinery depreciation increased, but only slightly, and cash rent varied considerably but was the highest for Group E. In the end, management returns show a range of only \$27 per acre with Group E the highest at \$268 and Group A and C following closely at \$266 and \$265. This data represents only a single year, but management returns for 2011 provide little evidence that higher management returns are due to higher percentages of corn acres in crop rotations.

Table 1. 2011 Central Illinois Farms - Sorted by Percent of Acres In Corn

	A	B	C	D	E
	<46%	46%-55%	56%-65%	66%-75%	>75%
Number of Farms	72	397	206	70	37
Tillable Acres	1035	1030	1222	1349	1493
% Corn	38%	51%	59%	70%	84%
% Soybeans	54%	48%	40%	29%	16%
Corn Yield*	168	177	172	174	174
Soybean Yield*	56	56	57	61	61
Crop Returns[^]	\$921	\$908	\$945	\$1,001	\$1,040
Soil Fertility[^]	\$98	\$103	\$120	\$131	\$163
Pesticides[^]	\$45	\$40	\$44	\$42	\$49
Seed[^]	\$64	\$77	\$82	\$84	\$105
Drying[^]	\$7	\$10	\$11	\$14	\$18
Machinery Depr[^]	\$45	\$44	\$46	\$49	\$51
Crop Insurance[^]	\$21	\$22	\$28	\$37	\$46
Cash Rent[^]	\$246	\$232	\$259	\$238	\$274
Mgmt Return[^]	\$266	\$241	\$265	\$244	\$268

* - bushels per acre
[^] - dollars per operator acre

The authors would like to acknowledge that data used in this study 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 5,700 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM staff provide counsel along with 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.