FARM BUSINESS MANAGEMENT

FARM ECONOMICS Facts & Opinions

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Corn Acre Changes Likely Will Vary by Region and Farm Size

In this paper, historical corn acre changes are examined to provide evidence on how Illinois farmers may change acres as a result of higher relative corn prices projected for 2007. If recent historical relationships continue, corn acres will increase more in northern Illinois than in central Illinois. Crop response in southern Illinois likely will be weather driven but increases are not likely to be as large as in northern Illinois. Furthermore, larger farms will increase corn acres more than smaller farms. While corn acres may increase in total, a significant portion of farms will decrease corn acres in 2007.

Data for this evaluation were obtained from Illinois Farm Business Farm Management (FBFM). To be included in this study, a farm had to average over 500 tillable acres. Acres planted to alternative crops were obtained from 1996 (the first year a Federal Farm Bill did not restrict acreage decisions) up to 2005 (the last year data were available). For each year, percent of tillable acres in corn – hereafter referred to as the corn planting percentage (CPP) – was calculated for each farm in each year. A CPP of 55 means that 55% of tillable acres were planted to corn.

Since CPPs vary by region, results are presented for northern, central, and southern Illinois. Regional CPPs were compared to acreages reported by the National Agricultural Statistical Service (NASS). FBFM CPPs are roughly the same as CPPs calculated using NASS data. Hence, results presented here are generally reflective of all Illinois farms. As of this writing, FBFM data have not been compiled for 2006. NASS data suggest that 2006 CPPs likely will be 1 to 2 points below 2005 CPPs.

Table 1. Corn, Soybean, and Wheat Acres as a Percent of Tillable Acres on Farms Enrolled in Illinois Farm Business Farm Management with over 500 Acres.

Year	North			Central			South		
	Corn	Beans	Wheat	Corn	Beans	Wheat	Corn	Beans	Wheat
	Percent of Acres			Percent of Acres			Percent of Acres		
1996	55	35	1	48	44	1	40	50	10
1997	55	36	1	49	46	1	41	49	12
1998	54	38	1	49	46	1	36	51	13
1999	53	39	1	49	47	1	41	50	10
2000	53	40	1	49	47	1	42	49	9
2001	52	41	1	49	48	1	42	51	7
2002	54	39	1	50	46	1	40	52	7
2003	54	38	1	50	45	1	38	51	10
2004	58	35	2	52	44	1	42	51	10
2005	61	33	1	54	42	1	44	49	7

Change by Region

In all three regions, average CPPs increased (see Table 1). In northern Illinois, average CPPs began increasing after 2001. The CPP increased from 52 in 2001 up to 61 in 2005, an increase of 9 percentage points. In central Illinois, CPP increased from 48 in 1996 up to 54 in 2005. In southern Illinois, CPP increased from 38 in 2003 up to 44 in 2005.

Recent year-to-year changes were larger for northern Illinois than for central Illinois. Between 2003 and 2005, northern Illinois had an average, yearly CPP increase of 3.5 points (4 points between 2003 and 2004 and 3 points between 2004 and 2005) compared to a 2 point increase for central Illinois. If history holds, northern Illinois farms will increases CPPs more in 2007 than central Illinois farms.

CPPs in southern Illinois exhibit considerable year-to-year variability. This variability likely was due to weather conditions that determined whether corn or soybeans were planted. Weather conditions likely will again determine CPPs in 2007. While southern Illlinois farms may increasd corn acres, budgeting exercises suggest that CPPs in southern Illinois will increase less than in northern and central Illinois (see FEFO 06-18 "2007 Crop Budgets Indicate Higher Returns for Corn and Wheat").

Change by Farm Size

Farms with more tillable acres have increased corn acres more than smaller farms. Table 2 shows yearly CPPs for alternative farm size classes. In northern Illinois, 1996 CPPs vary by only 2 points across the farm size classes: farm size classes with less than 3,000 acres had CPPs of 55 while the over 3000 acres class had a CPP of 53 (see Panel A). By 2005 CPPs across farm sizes had a 10 point difference. The CPP in 2005 for farms with 500 to 1,000 acre class was 58 while farms with over 3,000 acres had a CPP of 68. Similarly, larger farms increased corn acres more than smaller farms in central Illinois (Panel B) and southern Illinois (Panel C).

Table 2. Corn Planting Percentages (CCPs) by Region and Farm Size, Illinois FBFM Farms, 1996 - 2005.

	Average Acres in Farm			
Year	500 to 1,000	1,001 to 2,000	2,001 to 3,000	> 3,000
Panel A. Northern Illinois				
1996	55	55	55	53
1997	55	54	57	58
1998	54	53	58	58
1999	54	53	56	60
2000	54	52	52	57
2001	52	52	52	61
2002	53	54	53	63
2003	54	54	52	64
2004	56	57	60	66
2005	58	61	63	68
Panel B. Central Illinois.				
1996	50	50	50	48
1997	48	49	48	50
1998	49	49	48	49
1999	48	49	50	51
2000	49	49	50	49
2001	48	49	49	50
2002	49	50	51	49
2003	50	51	54	55
2004	51	52	55	59
2005	52	54	57	62
Panel C. Southern Illinois				
1996	40	39	42	43
1997	40	41	41	47
1998	37	37	39	41
1999	40	42	41	55
2000	41	43	45	48
2001	41	43	45	48
2002	40	40	41	43
2003	37	39	41	44
2004	42	43	43	44
2005	44	45	47	48

Variability across Farms

Averages presented in Tables 1 and 2 mask variability that exists across individual farms. For example, between 2004 and 2005, the average CPP in northern Illinois increased from 58 to 61, an increase of 3

percentage points. While the average is a 3 point increase, 41% of the farms decreased CPPs and 29% of the farms increased CPPs by more than 5 points (see Table 3). If this variability continues into 2007, a considerable number of Illinois farms will decrease CPPs even if the average CCP increases. Given this variability, it will be difficult to gain a feel of acreage response by speaking to only a few farmers.

Summary

If historical trends continue into 2007, farms in northern Illinois will increase corn acres more than central Illinois. Southern Illinois responses likely will be weather driven, but budgeting would suggest that corn acre increases will not be as large as in northern and central Illinois Furthermore, farms with more tillable acres likely will increase corn acres by a higher percentage than farms with less acres.

Acreage responses, however, will vary across farms. While it is likely that overall acres will increase, many farmers will decrease corn acres in 2007. Reasons for individual farm declines are likely farm specific. While current projected prices favor corn production, individual farmers will consider their individual farm situations when making decisions.

Acknowledgements

Data used in this study comes from 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 6,000 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provides on-farm counsel with computerized 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.

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Table 3. Change in Corn Planting Percentage (CCP) Between 2004 and 2005 on Farms Enrolled in Illinois Farm Business Farm Management with Over 500 Acres.

CCP class[1]	Region of State		
	North	Central	South
	Percent of Farms		
Less than -25	1%	1%	1%
-25 to -15	2%	2%	1%
-15 to -5	14%	13%	16%
-5 to 0	24%	26%	23%
0 to 5	30%	28%	31%
5 to 15	23%	23%	22%
15 to 25	5%	4%	5%
Greater than 25	2%	1%	1%

[1] The 1% for the north region for the "less than -25" class means that 1% of there farms reduced there CCP by more than 25 points.