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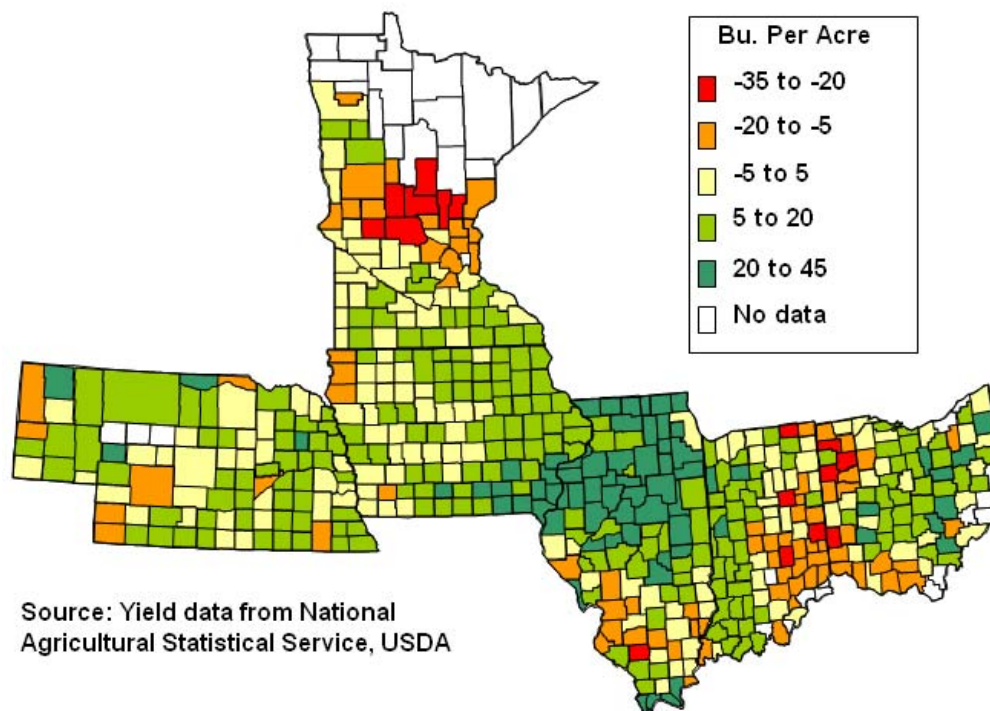
2007 Corn Yields in Perspective

Recently, the National Agricultural Statistical Service (NASS) released 2007 estimated county yields. In addition, 2007 corn yields from farms enrolled in Illinois Farm Business Farm Management (FBFM) have become available. Yields from both sources are summarized to place 2007 corn yields in perspective.

County Corn Yields in 2007

Figure 1 shows 2007 deviations from trend yields for counties in the Corn Belt. A county's deviation equals the 2007 actual yield minus a trend yield. The trend yield was calculated by statistically fitting a straight line through that county's yields from 1972 through 2006. The trend yield represents a good estimate of "average" or "expected" yield for 2007. A positive deviation indicates that actual yield was above expected while a negative deviation indicates actual yield was below expected.

Figure 1. Deviations from Trend Yields, NASS County Corn Yields, 2007.



In 2007, northern and central Illinois experienced exceptional yields with most counties having yields at least 20 bushels above trend (see Figure 1). Forty-four of the 102 counties in Illinois had their highest yields ever in 2007. Woodford County yield of 204 bushels per acre was the highest of all Illinois counties. Seven counties had yields above 195 bushels per acre: DeKalb (197 bushels), Logan (197 bushels), McLean (196 bushels), Menard (199 bushels), Sangamon (199 bushels), Warren (198 bushels) and Woodford (204 bushels).

Yields were below average in southern Illinois. The county with the lowest yield was Perry County which had a 79 bushel yield, 23 bushels below its trend yield. Fourteen other counties had yields five bushels or more below trend yield: Bond (116 bushels), Edwards (113 bushels), Hamilton (110 bushels), Hardin (112 bushels), Jefferson (95 bushels), Macoupin (157 bushels), Madison (127 bushels), Monroe (128 bushels), Perry (79 bushels), Pike (156 bushels), Richland (110 bushels), St. Clair (123 bushels), Wabash (130 bushels), and Washington (105 bushels).

Overall, Illinois' state average yield in 2007 was 175 bushels. The 2007 state yield was 16 bushels above the 2007 trend yield but five bushels below the 180 bushel record-setting yield occurring in 2004. Exceptional yields in northern and central Illinois were offset by low yields in southern Illinois, causing a record not to be set. For a state to have a record-setting yield, almost all counties must have above average yields. When the record was set in 2004, 86 out of 102 Illinois counties had yields 20 above their trend yields in 2004 (see Appendix Figure x to see 2004 trend yields).

Yields in other Corn Belt states were:

Indiana: Indiana's 2007 yield was 155 bushels per acre, 2 bushels higher than its 2007 trend yield. Above average yields in western Indiana were offset by below average yields in eastern Indiana.

Iowa: Iowa's 2007 yield was 171 bushels per acre, 7 bushels higher than its 2007 trend yield. Eastern Iowa counties had yields above trend while western Iowa counties had yields at or below trend.

Minnesota: Minnesota's 2007 state yield was 146 bushels per acre, 12 bushels below its 2007 trend yield. Counties in central Minnesota had poor corn yields.

Nebraska. Nebraska's 2007 state yield was 160 bushels, 5 bushels higher than its trend yield. Geographic patterns to Nebraska's yields are difficult to discern. Overall, no county had exceptional high yields or exceptionally low yields.

Ohio: Ohio's 2007 state yield was 150 bushels, 3 bushels above its trend yield. The western-most tier of counties tended to have yields below trend while the remainder of the state had yields near or above trend.

Within the Corn Belt, three geographical areas had low yields: southern Illinois, central Minnesota, and a tier of counties along the Indiana-Ohio border. In almost every year, regions of low yields have occurred, as illustrated by figures in the Appendix showing deviations from trend yields for 2002 through 2006.

FBFM Corn Yields

County yields mask variability of farm yields within counties. To gauge this variability, corn yields from Illinois FBFM were summarized. To be included in the summary, a farm had to have all yields available from 2003 through 2008, thereby providing a five-year history of yields. Table 1 shows the percent of farms having 2007 yields within yield categories for farms in northern, central, and southern Illinois.

In Northern Illinois, most farms had yields above 160 bushels per acre (see Table 1). There were only 10 percent of the farms with yields less than 160 bushels: 2 percent between 121 and 140 bushels per acre and 8 percent between 141 and 160 bushel per acre. Twenty-one percent of the farms had yields between 161 and 180 bushel per acre and 38 percent had yields between 181 and 200 bushels per acre. A sizable proportion of farms had yields above 200 bushel per acres: 26 percent had yields between 210 and 220 bushels per acre and 3 percent had yields exceed 220 bushels per acre.

Central Illinois had higher yields than northern Illinois (see Table 1). Only 6 percent of farms in central Illinois had yields below 160 bushels per acre, with 1 percent of the farms having yields below 140 bushels per acre. Fifteen percent of the farms had yields between 161 and 180 bushels and 40 percent between 181 and 200 bushels. Thirty-eight percent of the farms had yields over 200 bushels, with 5 percent over 220 bushels per acre.

Generally, Southern Illinois had lower yields than northern and central Illinois. However, farm yields were extremely variable in southern Illinois. Some farms had extremely low yields. One percent of the farms had yields below 80 bushels and 4 percent between 81 and 100 bushels, giving a total of 5 percent of farms with yields below 100 bushels. There also were farms with yields over 200 bushel corn yields. Sixteen percent of the farms had yields between 200 and 220 bushels per acre and 2 percent had yields over 220 bushels.

Table 2 reports yields averaged over the past five years. In northern Illinois, most farms had five-year average yields above 161 bushels per acre: 46 percent of farms had five-year average yields between 161 and 180 bushels per acre, 29 percent between 181 and 200 bushels per acre, and 3 percent over 200 bushels per acre.

In central Illinois, more farms had five-year average yields above 161 bushels than farms in northern Illinois. In central Illinois, 46 percent of farms had yields between 161 and 180 bushels per acre, 38 percent between 181 and 200 bushels per acre, and 3 percent had yields over 200 bushels per acre.

Five-year average yields in southern Illinois were more variable than in other parts of the state. One percent of the farms had five-year average yields below 80 bushels per acre while one percent had yields above 200 bushels per acre.

Table 1. Percent of Illinois Farm Business Farm Management Farms (FBFM) Having 2007 Corn Yields Within Ranges.

Range of Yields	Region of Illinois		
	Northern	Central	Southern
	Percent of Farms		
Less than 80 bushels	0%	0%	1%
81 to 100 bushels	0%	0%	4%
101 to 120 bushels	0%	0%	13%
121 to 140 bushels	2%	1%	16%
141 to 160 bushels	8%	5%	14%
161 to 180 bushels	21%	15%	18%
181 to 200 bushels	38%	40%	16%
201 to 220 bushels	26%	33%	16%
Greater than 220 bu.	3%	5%	2%

Table 2. Percent of Illinois Farm Business Farm Management Farms (FBFM) Having Five-Year Average Corn Yields Within Ranges, 2003 - 2007.

Range of Yields	Region of Illinois		
	Northern	Central	Southern
	Percent of Farms		
Less than 80 bushels	0%	0%	0%
81 to 100 bushels	0%	0%	1%
101 to 120 bushels	0%	0%	11%
121 to 140 bushels	5%	2%	20%
141 to 160 bushels	16%	11%	22%
161 to 180 bushels	46%	46%	29%
181 to 200 bushels	29%	38%	16%
Greater than 200 bu.	3%	3%	1%

Summary

Overall, 2007 was a good yielding year for corn in northern and central Illinois. Farms with corn yields averaging over 200 bushels per acre were common in 2007. Yields were more variable in southern Illinois.

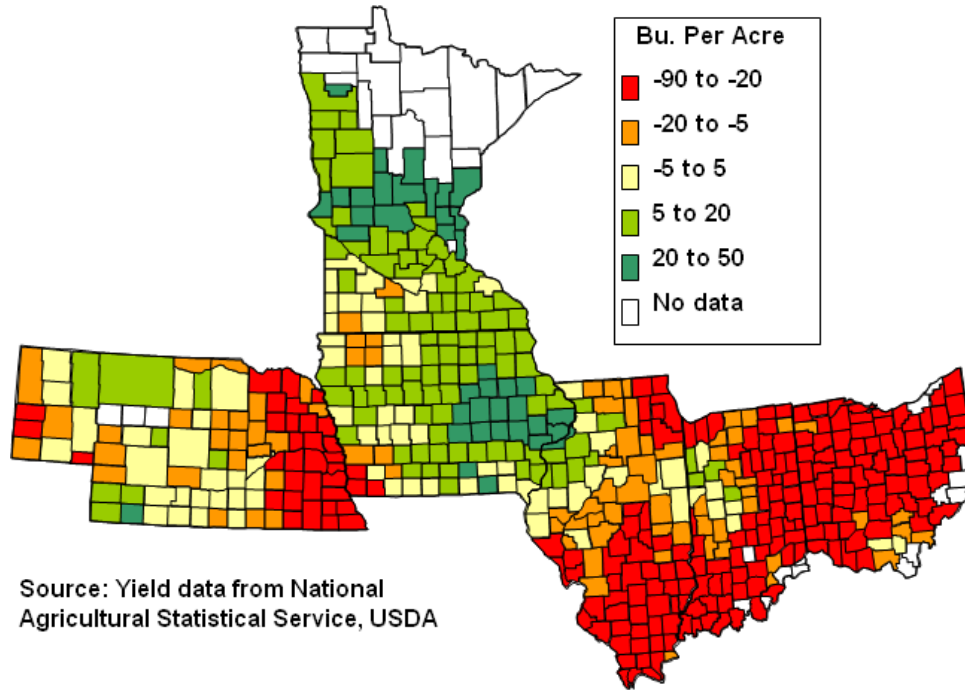
While 2007 was a good production year on average, there were areas of the Corn Belt that experienced below trend yields. Each year areas of low yields tend to exist. If a state is to have a record setting high yield, few areas in a state can experience low yields. Similarly, few areas in the Corn Belt can be below average if the national average yields are to set a record high yield.

Acknowledgments

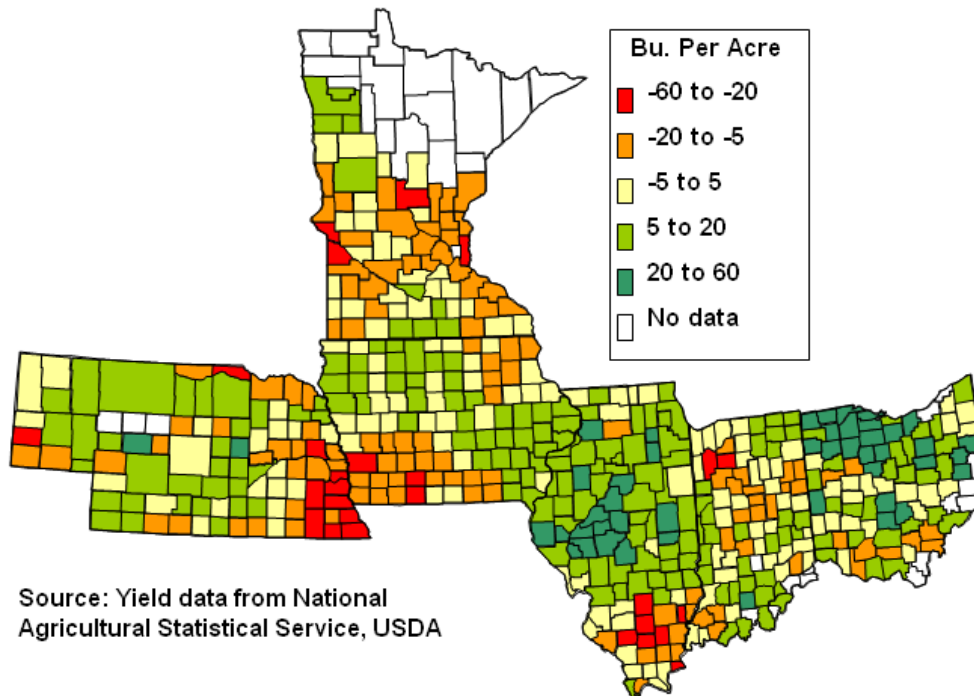
Data used in this study comes from the local Farm Business Farm Management (FBFM) Associations across the State of Illinois. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 6,000 plus farmers and 60 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.

Issued by: Gary Schnitkey, Department of Agricultural and Consumer Economics

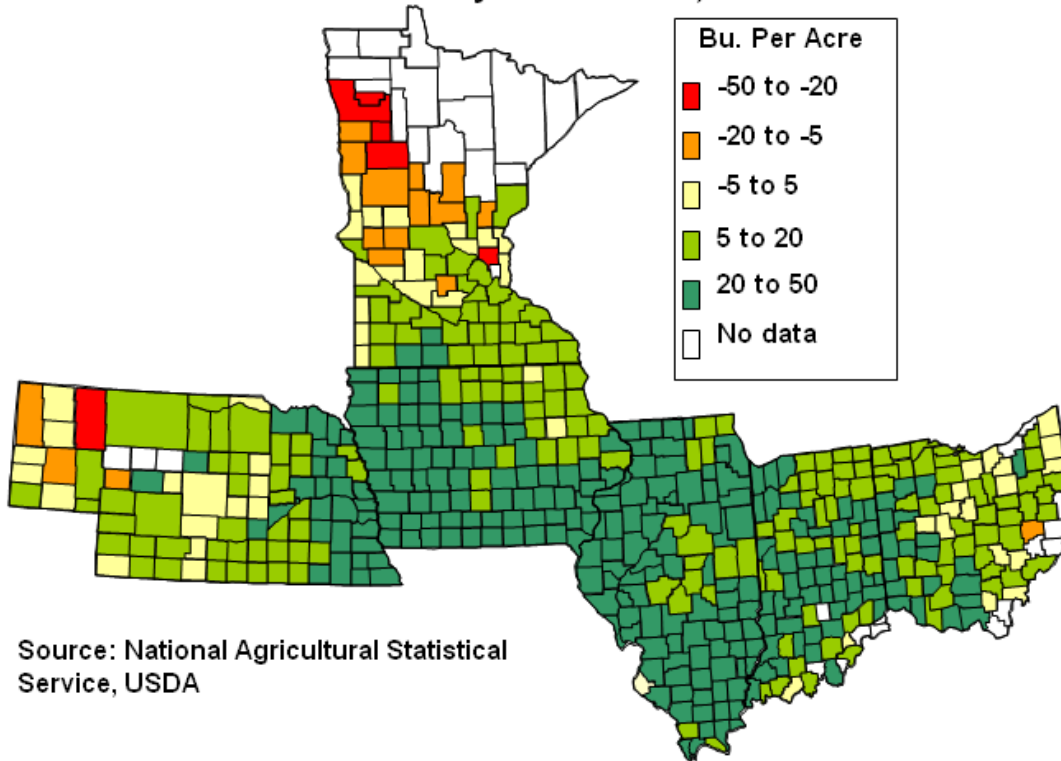
**Appendix Figure 1. Deviations from Trend Yields,
NASS County Corn Yields, 2002.**



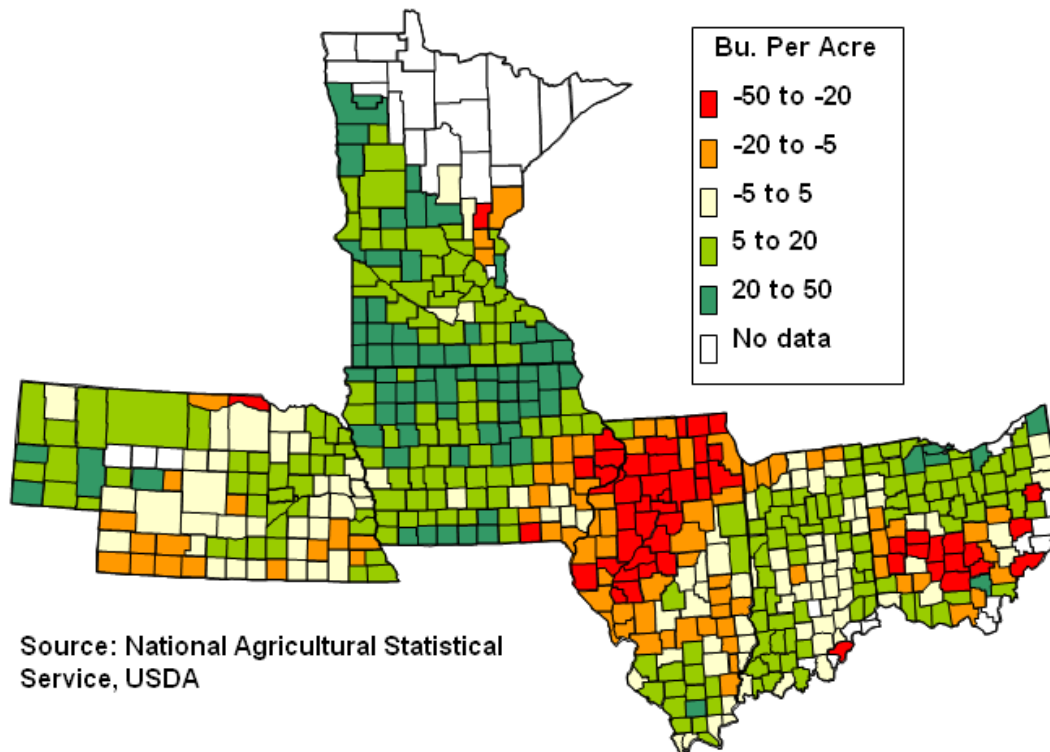
**Appendix Figure 2. Deviations from Trend Yields,
NASS County Corn Yields, 2003.**



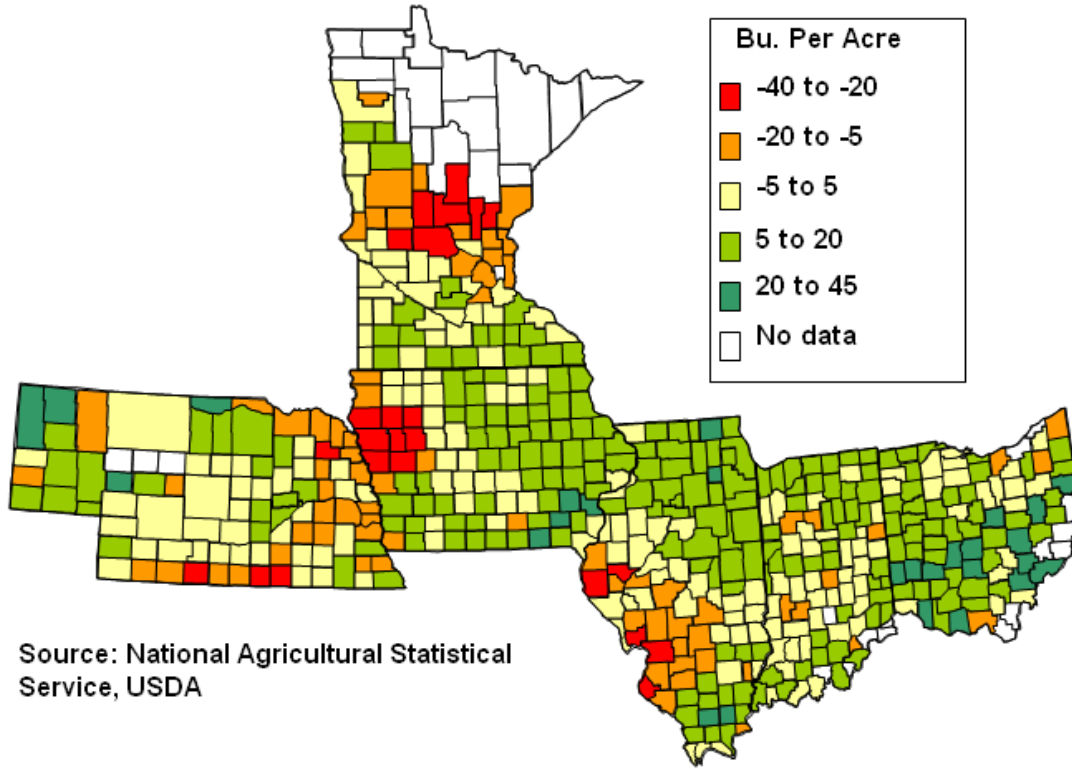
**Appendix Figure 3. Deviations from Trend Yields,
NASS County Corn Yields, 2004.**



**Appendix Figure 4. Deviations from Trend Yields,
NASS County Corn Yields, 2005.**



Appendix Figure 5. Deviations from Trend Yields, NASS County Corn Yields, 2006.



Source: National Agricultural Statistical Service, USDA