

April 11, 2002**FEFO 02-07****AVERAGE PRICES RECEIVED FOR CORN AND SOYBEANS, 1995 THROUGH 2001**

Average prices received for corn and soybeans by farmers enrolled in Illinois Farm Business Farm Management (FBFM) are reported in this paper. Also reported are average Loan Deficiency Payments (LDPs) and Market Loan gains received in Illinois. Farmers can use this information to evaluate their marketing programs.

Average Prices for Corn Between 1995 to 2001

Table 1 shows average corn prices computed from records of farmers enrolled in Illinois FBFM who received the majority of their gross revenue from grain operations. Prices are gross, not including actual or imputed deductions for storage, drying, or interest costs. Gains or losses from hedging transactions (futures and options) are included in the gross price. Prices are reported for three regions of the state: northern (roughly above Interstate 80), central (between Interstates 80 and 70), and southern Illinois (below Interstate 70). Average prices for the state also are reported.

Prices are stated for a crop year and are divided into “new crop” and “old crop” prices. To be classified as new crop grain, payments for the grain had to occur in the year of production. Payments for old crop grain occurred in the year after production. For example, farmers in northern Illinois averaged \$2.68 per bu. for new crop grain in 1995. In Table 1, this price is reported as the new crop price for 1995. Northern Illinois farmers received \$3.43 per bu. for 1995 old crop grain (i.e., grain produced in 1995 on which payment was received in 1996). This price is reported in Table 1 as the old crop price for 1995. Also reported is an average price for the crop year. In northern Illinois, the average price for the 1995 crop year was \$3.20 per bu.

Several items of note for corn prices shown in Table 1:

- Corn prices declined dramatically between 1995 and 1999. Average price for Illinois was \$3.24, \$2.82, \$2.50, \$2.10, and \$1.97 in 1995 through 1999, respectively (see Table 1).
- Corn prices stabilized at a low level. The average Illinois price was \$1.97 in both 1999 and 2000 (see table 1). New crop prices for 2001 suggest that average prices for 2001 will be within \$.10 per bu. of 1999 and 2000 prices.
- Prices are higher in southern regions of the state. Average prices between 1995 and 2000 were \$2.41, \$2.43, and \$2.50 for northern, central, and southern Illinois, respectively. Regional differences vary across years. The largest difference between northern and southern Illinois occurred in 1996 (\$.18 per bu.) and the smallest occurred in 1998 (\$.03 per bu.).



Table 1. Average Corn Prices Received by Grain Farms Enrolled in Illinois Farm Business Farm Management by Region of the State, 1995 through 2001.

Crop Year	Northern			Central			Southern			Illinois
	New Crop ¹	Old Crop ²	Avg. ³	New Crop ¹	Old Crop ²	Avg. ³	New Crop ¹	Old Crop ²	Avg. ³	Avg. ³
1995	\$2.68	\$3.43	\$3.20	\$2.78	\$3.35	\$3.23	\$2.82	\$3.51	\$3.37	\$3.24
1996	2.82	2.75	2.76	2.97	2.79	2.82	3.12	2.86	2.94	2.82
1997	2.59	2.46	2.49	2.62	2.47	2.50	2.66	2.48	2.52	2.50
1998	2.17	2.08	2.09	2.19	2.09	2.10	2.11	2.12	2.12	2.10
1999	1.87	1.97	1.95	1.92	1.97	1.96	2.01	2.04	2.04	1.97
2000	1.96	1.97	1.97	1.90	1.98	1.97	1.90	2.05	2.01	1.97
2001	1.95			1.97			1.98			
Avg. ⁴	\$2.35	\$2.44	\$2.41	\$2.40	\$2.44	\$2.43	\$2.44	\$2.51	\$2.50	\$2.43

¹ Grain for which receipts received during the calendar year of production.

² Grain for which receipts received in the calendar year after production.

³ Average is weighted by bushels sold.

⁴ Simple average for 1995 through 2000.

Source: Illinois Farm Business Farm Management Association.

- Regions reported in Table 1 are large and pricing patterns can vary within each region. Hence, pricing across the state may be more complex than depicted in Table 1.
- New and old crop prices are similar. In northern Illinois, new crop prices averaged \$2.35 between 1995 and 2000 while old crop prices averaged \$.09 higher at \$2.44. New crop prices averaged \$.04 below old crop prices in central Illinois (\$2.40 for new crop versus \$2.44 for old crop). In southern Illinois, new crop prices averaged \$.06 below old crop prices (\$2.44 for new crop compared to \$2.51 for old crop). These gains in price from holding grain into the following year must more than offset storage and interest costs of holding grain into the next calendar year for holding grain to be profitable. In many cases, holding costs exceed the gain. Therefore, a strategy of routinely holding unpriced grain into the following year is not warranted given the above prices.

Average Prices for Soybeans between 1995 and 2001

Table 2 shows prices for soybeans. Soybean averages are calculated in a similar manner as those for corn.

Notable points from Table 2 are:

- Soybean prices declined dramatically between 1996 and 2000. Average Illinois price was \$7.55, \$6.55, \$5.05, \$4.83, and \$4.69 in 1996 through 2000, respectively (see Table 2).

Table 2. Average Soybean Prices Received by Grain Farms Enrolled in Illinois Farm Business Farm Management by Region of the State, 1995 through 2001.

Crop Year	Northern			Central			Southern			Illinois
	New Crop ¹	Old Crop ²	Avg. ³	New Crop ¹	Old Crop ²	Avg. ³	New Crop ¹	Old Crop ²	Avg. ³	Avg. ³
1995	\$6.14	\$7.29	\$7.00	\$6.18	\$7.16	\$7.01	\$6.46	\$7.28	\$7.12	\$7.03
1996	7.06	7.65	7.54	7.20	7.62	7.56	7.22	7.65	7.54	7.55
1997	6.65	6.44	6.48	6.76	6.53	6.57	6.81	6.50	6.57	6.55
1998	5.48	4.85	4.96	5.62	4.99	5.08	5.62	5.00	5.09	5.05
1999	4.63	4.86	4.82	4.67	4.85	4.83	4.66	4.93	4.87	4.83
2000	4.73	4.65	4.67	4.73	4.67	4.68	4.73	4.76	4.75	4.69
2001	4.23			4.31			4.49			
Avg. ⁴	\$5.78	\$5.96	\$5.91	\$5.86	\$5.97	\$5.96	\$5.92	\$6.02	\$5.99	\$5.95

¹ Grain for which receipts received during the calendar year of production.

² Grain for which receipts received in the calendar year after production.

³ Average is weighted by bushels sold.

⁴ Simple average for 1995 through 2000.

Source: Illinois Farm Business Farm Management Association.

- Unlike corn, soybeans prices do not show any signs of stabilizing in 2001. New crop soybean prices in 2001 are lower than 2000 new crop prices. Northern Illinois' 2001 new crop price is \$.50 less than the 2000 price (\$4.73 for 2000 compared to \$4.23 in 2001 (see Table 2)), central Illinois' 2001 new crop price is \$.42 less than the 2000 price, and southern Illinois' new crop price is \$.24 less than the 2000 price. Significant increases in price could occur in 2002; however, 2001 new crop prices do not suggest that average 2001 prices will be above 2000 prices.
- Averages of old and new crop prices for 1995 through 2000 across all regions are within \$.20 of one another. In northern Illinois, new crop prices averaged \$5.78 and old crop prices averaged \$.18 higher at \$5.96. New crop prices averaged \$.11 above old crop prices in central Illinois (\$5.86 for new crop versus \$5.97 for old crop). In southern Illinois, new crop prices averaged \$.10 below old crop prices (\$5.92 for new crop compared to \$6.02 for old crop). Similar to corn, storage and interest costs of holding grain into the following calendar year will often exceed gains in prices, suggesting that holding storage strategies are not profitable.
- Prices are higher for southern regions of Illinois. Average prices between 1995 and 2000 were \$5.91, \$5.96, and \$5.99 for northern, central, and southern Illinois, respectively. Regional differences varied from year to year. The largest difference between northern and southern Illinois occurred in 1998 (\$.13 per bu.) and the smallest occurred in 1996 (\$.00 per bu.).
- Regions reported in Table 1 are large and pricing patterns can vary within each region. Hence, pricing across the state may be more complex than depicted in Table 2.

Proportion of New Crop and Old Crop

Average prices for crop years are much closer to old crop prices than to new crop prices. For example, the average soybean price in northern Illinois for 2000 was \$4.67 (see Table 2). This price is \$.02 different than the old crop price of \$4.65 while it is \$.06 different than the new crop price of \$4.73. The average price for a crop year is weighted by bushels in the new crop and old crop categories. In the 2000 crop year, 21 percent of soybean receipts occurred in 2000 while 79 percent occurred in 2001. Hence, the new crop price receives 21 percent of the weight and the old crop receives 79 percent of the weight when calculating the crop year average: The \$4.67 crop year average equals 21 percent of the \$4.73 new crop price and 79 percent of the \$4.65 old crop price.

Table 3 shows new crop as a percent of total production. In 1995, 31 percent of corn production in northern Illinois fell into the new crop category. This means that 69 percent (100 percent minus the 31 percent was new crop) of the receipts for 1995 production occurred in 1996 and, therefore, was classified as old crop.

In all years, new crop makes up between 13 percent (soybeans in central Illinois in 1999) and 33 percent (corn in southern Illinois in 1996). Overall, new crop makes up a smaller proportion of total production in central Illinois as compared to northern and southern Illinois. Between 1995 through 2000, central Illinois averaged 17 percent of its corn production as new crop compared to 21 and 23 percent, respectively for northern and southern Illinois (see Table 3).

The most striking feature of the percentages in Table 3 is how low they are. In all years, farmers delayed sales of grain into the next year for the majority of their crop. There could have been tax considerations that caused the delay to be preferable. However, prices shown in Tables 1 and 2 do not suggest that delaying sales was an advantageous strategy given that storage and interest cost were incurred by delaying sales.

Table 3. Percent of Crop Sold in Year of Production (i.e., New Crop), Illinois Farm Business Farm Management, 1995-2000.

Year	Corn			Soybean		
	Northern	Central	Southern	Northern	Central	Southern
	----- Percent -----			----- Percent -----		
1995	31	21	20	25	16	20
1996	22	19	33	19	14	25
1997	21	18	20	22	18	21
1998	15	15	15	18	15	16
1999	18	15	23	20	13	22
2000	20	16	29	21	14	25
Average	21	17	23	21	15	22

Source: Illinois Farm Business Farm Management Association.



Table 4. Loan Deficiency Payments, Market Loan Gains, and Effective Rates in Illinois, 1998 - 2001.

Year	Loan Deficiency Payments		Market Loan Gains		Total Production	Effective LDP Rate ¹	Average Price Plus Effective Rate ²
	Amount Receiving Payment	Average Payment	Amount Receiving Gain	Average Market Gain			
Panel A. Corn.							
	(1,000 bu.)	(\$/bu.)	(1,000 bu.)	(\$/bu.)	(1,000 bu.)	(\$/bu.)	(\$/bu.)
1998	678,694	\$0.18	156,217	\$0.28	1,473,450	\$0.11	\$2.21
1999	1,188,406	\$0.26	132,864	\$0.32	1,491,000	\$0.23	\$2.20
2000	1,419,271	\$0.29	130,867	\$0.17	1,668,550	\$0.26	\$2.23
2001P ³	1,314,508	\$0.16	52,120	\$0.13	1,612,500	\$0.14	
Panel B. Soybeans.							
	(1,000 bu.)	(\$/bu.)	(1,000 bu.)	(\$/bu.)	(1,000 bu.)	(\$/bu.)	(\$/bu.)
1998	380,699	\$0.44	41,351	\$1.09	464,200	\$0.46	\$5.51
1999	404,547	\$0.90	31,339	\$0.83	443,100	\$0.88	\$5.71
2000	423,813	\$0.94	33,109	\$0.96	459,800	\$0.94	\$5.63
2001P ³	433,804	\$1.25	16,890	\$1.28	481,800	\$1.17	

¹ Equals all LDPs and Market Loan gains divided by total production in Illinois.

² Average prices for corn are from Table 1 and for soybeans are from Table 2.

³ Represents receipts through March 2002. Effective LDP rates likely will increase as more LDPs and Marketing Loan gains are claimed.

Source: LDPs and Market Gains from Farm Service Agency, U.S. Department of Agriculture and total Illinois Production from Illinois Agricultural Statistics Service.

LDPs and Market Gains

LDPs and Market Loan gains have been important sources of revenue for Illinois grain farms. Table 4 reports average receipts from LDPs and Market Loan gains. As reported in the first row of Table 1, LDPs were received on 679 million bushels of corn in 1998 and the average LDP was \$.18 per bu. The average market gain was \$.28 per bu. on 156 million bushels.

Also shown in Table 4 are effective rates. Effective LDP rates represent the average increase in per bushel revenue accounted for by LDP and Market Loan programs. Effective LDP rates equal total payments from the LDP and Marketing Loan programs divided by total production in Illinois. In 1998, the effective rate was \$.11 per bu. (see Table 4). This rate, plus the Illinois average price of \$2.10, yielded \$2.21 revenue from grain sales, LDPs, and Marketing Loan programs.

The average Illinois price plus the effective LDP rate for corn was \$2.21, \$2.20, and \$2.23 in 1998, 1999, and 2000, respectively. All of these prices were above the state average loan rate of \$1.95, indicating that on average farmers received more revenue than the loan rate during the last three years. Similarly, per bushel soybean revenue exceeded the state average loan rate of \$5.45. The average Illinois price plus the effective rate is \$5.51, \$5.71, and \$5.63 for 1998, 1999, and 2000, respectively (see Table 4).



Total revenue above loan rates occurred because most farmers took LDPs relatively soon after harvest and priced grain later in the marketing year. During the 2001 marketing year, for example, LDPs and Market Loan receipts were taken on 76 percent of Illinois corn production and 90 percent of soybean production by the end of January. (In the 2000 marketing year, LDPs or market loans were taken on 93 percent of corn production and 99 percent of soybean production). For the last three years, prices increased after harvest, resulting in market prices that averaged higher than prices used to determine LDPs.

This strategy of taking LDPs and holding grain was profitable in the last two years. However, the strategy does have risks. If prices decline after harvest, farmers can receive market prices below prices used to set LDPs. Hence, it is possible that total revenue could average below loan rates.

Summary

The above information provides benchmarks useful for comparing a farm's pricing performance to average performance. For farmers enrolled in Illinois FBFM, prices comparable to those shown in this paper can be found on the second page of the Economic Management Analysis (EMA) report.

Overall, farmers receive revenue on a majority of their crop in the year following production. Prices reported in this paper do not justify this practice. There are factors that cause holding grain into the next year a wise practice. Delaying revenue recognition for income tax is one such factor. Another factor is that spreading sales over a marketing year will reduce risk. The spreading sales for risk factor generally results on about 50 percent of the receipts occurring in the year of production. On average, receipts in the new crop year are much lower than 50 percent. Farmers should evaluate whether holding grain has been profitable on their individual farms.

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