



FEFO 09-12
August 5, 2009

ACRE WILL LIKELY PAY MORE THAN THE TRADITIONAL ALTERNATIVE FOR RECEIVING FARM COMMODITY PAYMENTS

The 2008 Farm Bill gives farmers a choice in how they receive farm commodity program payments. Payments can either be received in the “traditional” manner as under the 2002 Farm Bill or through an Average Crop Revenue Election (ACRE) alternative. To enroll in ACRE, a farmer must give up 20% of their direct payments. On most Illinois farms, direct payments average between \$20 and \$25 per acre. Hence, enrolling in ACRE means that between \$4 (20% of \$20 per acre) and \$5 (20% of \$25 per acre) of direct payments must be forfeited. In exchange for foregoing 20% of direct payments, the ACRE alternative gives a much higher chance of ACRE payments. ACRE payments averaged across several years – including those years in which ACRE payments equal zero – likely will exceed the 20% of direct payments that must be given up to enroll in ACRE. For an average farm in Illinois, an analysis using historical prices and yields suggests that yearly ACRE payments will average \$18 per planted acre for corn, \$7 for soybeans, and \$15 for wheat.

Commodity Programs under the Traditional and ACRE Alternatives

Both the traditional and ACRE alternatives have three types of commodity program payments: direct payments, marketing loan payments, and price (revenue) payments (see Figure 1). Direct payments are fixed payments that are received each year of the 2008 Farm Bill (2008 through 2012). Full direct payments are available under the traditional alternative while 80% of the direct payments are available under ACRE. Given that direct payments usually are between \$20 and \$25 per acre, enrolling in ACRE will reduce direct payments by between \$4 and \$5 per acre.

Figure 1. Comparison of Programs under Traditional and ACRE Alternatives in the 2009 Farm Bill.

	Traditional	ACRE
Direct Payments	Full Payments	80% of Full
Loan Programs	Full Loan Rates	70% of Loan Rate
Loan deficiency payments or marketing loans gains	Corn - \$1.95 Soybeans - \$5.00 Wheat - \$2.94	Corn - \$1.365 Soybeans - \$3.50 Wheat - \$2.058
Price (Revenue) Program	Counter-Cyclical Program Pays when national <i>season average price</i> is below Corn - \$2.35 Soybeans - \$5.36 Wheat - \$3.40	ACRE Program Pays when <i>state revenue</i> is below a <i>guarantee</i> . <i>Guarantee</i> depends on: 5 previous state yields 2 season average prices

Under the 2002 Farm Bill, most farmers received marketing loan program payments in some years through loan deficiency payments (LDPs). A farmer is eligible for a LDP when the posted county prices – usually close to cash market prices – fall below county loan rates. County loan rates are usually within \$.10 of national loan rates as county loan rates are adjusted from national loan rates. Under the 2008 Farm Bill, national loan rates equal \$1.95 for corn, \$5.00 for soybeans, and \$2.94 for wheat. Under the traditional alternative, full loan rates are used in calculating LDPs. Under the ACRE alternative, 70% of the loan rates will be used in calculating LDPs. Seventy percent of full loan rates equal \$1.37 for corn, \$3.50 for soybean, and \$2.06 for wheat. Market prices likely will not fall below loan

rates between now and the end of the 2008 Farm Bill in 2012. Hence, LDPs likely will equal zero under either the traditional or ACRE alternatives. (Note, however, that some farmers use the marketing loan program to receive loans at low interest rates. Under ACRE, loans will be 30% less than under the traditional program.)

Price (revenue) programs differ dramatically under the traditional and ACRE alternatives. Under the traditional alternative, counter-cyclical payments will be received when season average prices fall below trigger prices. Season average prices are based on cash sales for grain based on national surveys conducted by the U.S. Department of Agriculture. Season average prices for corn and soybeans are based on a marketing year that begins in September and ends in the following August. The season average price for wheat is based on a marketing year that begins in June and ends in the following May. Trigger prices are \$2.35 for corn, \$5.36 for soybeans, and \$2.40 for wheat. Season average prices are not expected to fall below these trigger prices between now and 2012. Hence, expected counter-cyclical payments are zero.

On the other hand, ACRE is a revenue program that depends on both national prices and state yields. Details on ACRE program payments are provided in "The ACRE Program Decision and Some Illustrative Examples", a paper available in the policy section of *farmdoc*. ACRE payments are received when state revenue falls below a state guarantee. The state guarantee is based on 1) the last five years of state yields for a crop and 2) the last two years of season average prices for a crop. Currently the last two season average prices for corn, soybeans, and wheat exceed trigger prices used for the counter-cyclical program. For 2009, the last two season average prices (2007 and 2008) will average close to \$4.13 for corn, \$10.05 for soybeans, and \$6.63 for wheat. Because these benchmark prices are higher than counter-cyclical trigger prices, ACRE has a much higher chance of making payments than does the counter-cyclical program.

To summarize, it is reasonable to expect only direct payments and ACRE payments during the life of the 2008 Farm Bill. Hence, the choice between the traditional and ACRE alternatives comes down to a tradeoff. The traditional program will have full direct payments but likely no other payments. The ACRE program will have a higher chance of ACRE payments but 20 percent less direct payments than the traditional alternative.

Historical Evaluation of ACRE Payments

To gauge the frequency and size of ACRE payments, a historical analysis of ACRE payments was conducted for Illinois during the years between 1977 through 2007 (see "Historical Analysis of ACRE" available in the policy section of *farmdoc*). Payments were calculated for a farm having historical yields equal to state historical yields.

Table 1. Farm-Level ACRE Payments for Illinois Given Historical Data from 1977 through 2007.¹

	Percent of Years State Trigger is Met	ACRE Payment in Years the State Trigger is Met ^{2,3}	ACRE Payment Averaged Across All Years ^{2,4}
		\$ per acre	\$ per acre
Corn	32%	\$57	\$18
Soybeans	16%	\$41	\$7
Wheat	26%	\$58	\$15

¹Taken from an analysis of ACRE payments had ACRE existed in Illinois from 1977 through 2007. Results are reported in "Historical Analysis of ACRE", Department of Agricultural and Consumer Economics, University of Illinois, July 2009, Fof0 09-11 in management section of *farmdoc* (www.farmdoc.uiuc.edu)

²Based on a farm having the same average yield as the state.

³Average payment given that an ACRE payment is occurring. For corn, the average is for the 32% of years in which ACRE payments occur.

⁴Average payment over all years, include those years in which ACRE does not make a payment.

Table 2. Average 2009 ACRE Payments in Illinois for a Typical Illinois Farm Given Different State Yields and Season Average Prices.¹

Panel A. Corn²

State Corn	2009 Season Average Price				
	\$3.35	\$3.55	\$3.75	\$3.95	\$4.15
Yield	\$ per acre				
150	113	88	63	38	13
155	99	74	48	22	0
160	85	59	32	5	0
165	71	44	16	0	0
170	58	29	1	0	0
175	44	14	0	0	0
180	30	0	0	0	0
185	16	0	0	0	0

Panel B. Soybeans³

State Soybean	2009 Season Average Price				
	\$8.30	\$8.80	\$9.30	\$9.80	\$10.30
Yield	\$ per acre				
38	89	76	60	44	0
40	78	61	44	28	0
42	64	46	29	11	0
44	50	32	13	0	0
46	36	17	0	0	0
48	22	2	0	0	0
50	8	0	0	0	0
52	0	0	0	0	0

Panel C. Wheat⁴

State Wheat	2009 Season Average Price				
	\$4.80	\$5.05	\$5.30	\$5.55	\$5.80
Yield	\$ per acre				
50	75	75	75	67	57
52	75	75	69	58	47
54	75	71	60	49	37
56	74	63	51	40	28
58	66	54	42	30	18
60	58	46	33	21	8
62	50	37	25	12	0

¹ Calculated using the ACRE Comparison FAST spreadsheet available for download from the FAST section of *farmdoc* (www.farmdoc.uiuc.edu). Payments assume historical farm yields equal historical state yields.

² Calculated using a benchmark yield of 172 bushels and benchmark price of \$4.13.

³ Calculated using a benchmark yield of 47 bushels and benchmark price of \$10.05.

⁴ Calculated using a benchmark yield of 60 bushels and benchmark price of \$6.63.

For corn, the state trigger is met in 32% of the years (see Table 2). This indicates that ACRE will make payments in about one-third of the years for corn. In the one-third of the years in which ACRE payments occur, the average payment for an “average” Illinois farm equals \$57 per planted acre. This is an average payment size; in some years ACRE will

make payments that exceed the \$57 average and could be over \$100 per planted acre. The average of ACRE payments including the two-thirds of years in which ACRE payments equal zero is \$18 per planted acre.

ACRE payments averaged over all years equal \$18 per planted acre for corn, \$7 per planted acre for soybeans, and \$15 per planted acre for wheat (see last column of Table 1). These expected payments exceed the \$4 to \$5 in direct payments that must be foregone in order to enroll in ACRE. Therefore, expected payments from ACRE exceed those from the traditional alternative. However, in any given year, the traditional program may have higher total payments as ACRE payments will not occur every year.

2009 Outlook

There is a higher chance of ACRE payments in 2009, as current projections of market prices are below benchmark prices used to calculate ACRE state guarantees for corn, soybeans, and wheat. Table 2 shows expected ACRE payments for an average farm in Illinois given differing season average prices and state yields. The range of prices shown in Table 2 are taken from the World Agricultural Supply and Demand Estimates (WASDE) report from the U.S. Department of Agriculture in July 2009. The low and high prices give the range of prices suggested by WASDE as the range where the 2009 season average price is likely to fall.

The state corn yield for 2009 in Illinois is currently projected to be between 165 and 170 bushels per acre, while the midpoint of the marketing year average price range projected by WASDE is \$3.75 per bu. At these price and yield levels the average ACRE payment on corn acres in Illinois would be \$16 per acre for 2009. Average ACRE payments on corn acres in Illinois could easily be greater than \$60 per acre at the low end of the projected price range or if state-average corn yields fall below current projections. Given the current yield and price projections, the probability of receiving an ACRE payment on Illinois corn acres in 2009 is roughly 60% while the expected payment level is greater than \$30 per acre.

The 2009 state soybean yield for Illinois is currently projected to be approximately 45 bushels per acre, while the midpoint of the range of expected soybean prices from WASDE is \$9.30 per bu. At these price and yield levels the ACRE payment for soybeans in Illinois would be around \$13 per acre. The average ACRE payment for soybeans could potentially exceed \$45 per acre if prices or yields fall below these expected levels, and could approach \$90 per acre at the low end of the price and yield ranges reported in Panel B of Table 2. Given the current yield and price projections for soybeans, the probability of receiving an ACRE payment on Illinois soybean acres is just under 60% with an expected payment level of about \$17 per acre.

The Illinois wheat yield for 2009 is currently projected to be around 56 bushels per acre while the midpoint of the most current WASDE price range is \$5.30 per bu. Average ACRE program payments would be \$51 per acre at these price and yield levels. ACRE payments on wheat acres in 2009 could approach the \$75/acre payment limit if yields are below current expectations or wheat prices fall in the lower portion of the projected range. Given current yield and price projections the probability of receiving an ACRE program payment on wheat acres in Illinois in 2009 is greater than 75% with an expected payment of just over \$40 per acre.

Summary

The 2008 Farm Bill gives producers the option of choosing commodity program support under traditional programs or the new ACRE program. The ACRE option will require producers to give up about \$5 per acre in direct payments to be eligible for ACRE program payments. Moreover, given current price levels, the price-based programs in the traditional option (marketing loan and counter-cyclical programs) are not expected to trigger payments between 2009 and 2012.

Based on historical experience for corn, soybean, and wheat acres in Illinois, the ACRE program is expected to generate payments that exceed the direct payments given up to enroll in the program over time. The chance of ACRE payments being triggered for corn, soybeans, and wheat in 2009 is projected to be higher than average. This is due the ACRE program price guarantees being above expected price levels for 2009 for all three crops, as well as expected yield levels projected to be below ACRE program benchmark yields due to wet planting conditions and less than optimal growing conditions thus far in 2009 in Illinois.

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