

Average Crop Revenue Election (ACRE) Program for 2011

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The deadline to enroll in the ACRE program for the 2011/2012 marketing year is June 1. We are about to complete the second year with the ACRE program in Kentucky. ACRE payments were made for the 2009 wheat crop of about \$95 per acre. The wheat payment was driven by lower state yields and a lower national average price. No other crops received an ACRE payment in 2009. For 2010 it is unlikely that ACRE payments will be paid for corn, soybeans, and wheat, due to the fact that prices have increased substantially for all three crops. However, with the current volatility in the market, unknown state yields, there exists a chance that ACRE payments could be made in 2011. The purpose of this article is to show expected price guarantees, where prices need to drop to trigger a payment, relationship between ACRE and the Counter-Cyclical program and probability of payments given current prices and unknown yields for the 2011/2012 marketing year.

ACRE is a revenue program (price multiplied by yield) where both prices and yields are updated yearly. When no payments are made the guarantee for the following year either stays about the same (cannot decrease by more than 10% or a payment is made) or increases. With a significant increase in national average price levels for corn of \$3.55 in 2010 to an estimated \$5.25 in 2011 the ACRE price guarantee will increase by +\$0.38 per bushel or 10%, table 1. The same result can be found for soybeans; an increase in the revenue guarantee. The wheat price guarantee drops because the national average price in 2009/10 dropped to \$4.87. For corn, the level of price protection was limited by the 10% increase in revenue guarantee rule. The opposite was true for wheat; the revenue guarantee can't drop by more than 10%.

	Corn	Soybeans	Wheat
2010*	\$3.81	\$9.78	\$5.83
2011*	\$4.19	\$10.50	\$5.26
Change from 2010 to 2011	+\$0.38	+\$0.72	-\$0.57
Percent Change from 2010 to 2011	+10%	+7%	-10%
*Indicates price guarantee before the 10% deductible			

Producers choosing to enroll into the ACRE program forgo 20% of their direct payments, loan rate drops by 30% and 100% of counter-cyclical payments. In return they are eligible for ACRE payments. For corn, ACRE payments begin when national average price drops below \$3.77, holding yields constant. In the counter-cyclical program the national average price has to drop and additional \$1.42 to \$2.34 to trigger a one penny payment. ACRE payments will begin well before any counter-cyclical payments, table 2. If the national average price were to drop to \$2.34 to trigger a one penny counter-cyclical payment the ACRE payment would be maxed out at 25% of program guarantee or

around \$130.00 per acre. As the national average price continues to increase the level of price protection in ACRE also increases where in the counter-cyclical program the level of price protection stays constant.

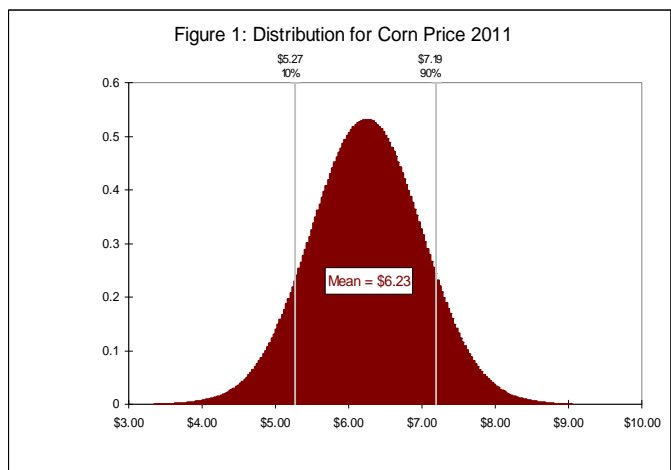
2011 Target Prices for the Counter-cyclical and Estimated 90% ACRE Program Guarantee Price			
	Corn	Soybeans	Wheat
Counter-Cyclical Program	\$2.35	\$5.36	\$3.40
ACRE Program*	\$3.77	\$9.45	\$4.73

*Calculated by taking 90% of the Final FSA Guaranteed Price. Target price assumes average state yields. The price floor will be higher with lower average state yields and lower with higher average state yields.

To help determine if ACRE is the best program for Kentucky producers we ran simulations using current market information. In this process we had to come up with reasonable expectations for a range of prices and yields, accounting for correlation between these variables in the process. The mean price estimates for corn in 2011 is \$6.23 and \$5.50 in 2012, table 3. However, each price has a range built around this mean price. For example, the 2011 corn price has a 10% chance of falling below \$5.27/bu and has a 10% chance of rising above \$7.19/bu in the distribution used. The distributions around both prices and yields are important in determining expected payments. As the distribution expands outward (greater change the price will fall below a certain level), the more beneficial the ACRE program will be. The distribution in Figure 1 was estimated to be reasonably representative of an expected price range for 2011/12. However, if you believe there is a greater than 10% chance that the price could fall below \$5.27 then the ACRE program will be more attractive then the results shown and vice versa.

Table 3: Mean Price Estimates for Simulation		
	2011	2012
Corn	\$6.23	\$5.50
Soybeans	\$12.75	\$12.50

Note: Prices based on CME fall contract futures for the week of 5/17/11 and adjusted for $-\$.30$ to $-\$.50$ per bu basis.



The base scenario evaluated was for a 1000 acre farm (collection of farm numbers) that is in a 50-50 rotation of corn and soybeans. This base scenario resulted in a $-\$1.25$ /acre per year net benefit for the

ACRE program in 2011-2012. This means that on average, the loss in direct payments was greater than the ACRE payment by \$1.25/acre per year. For 2011 only, the net benefit to ACRE fell to -\$3.50. This means that 2011 looks to be a very unlikely year for an ACRE payment. A major collapse in prices or yields would have to occur to trigger an ACRE payment.

Farm size will have an impact on the expected ACRE payout. As farm size increases, the likelihood of reaching the yearly payment limitation increases. The practical implication of this is that as you go above 1000 acres, the expected ACRE payments will decrease. With a 2500 acre farm, the net benefit to ACRE decreased by about \$1/acre, to -\$2.25 /acre per year net benefit for the ACRE program in 2011-2012.

Two points to consider with the ACRE decision:

- 1) You do not have to enroll all of your farms in ACRE and thus you could put roughly 1000 acres in the program.

- 2) The net benefits noted above do not account for the risk management benefit of ACRE (it is providing a type of insurance). Thus it may still make sense to enroll in the program even if the net projected net benefit is slightly negative.