Understanding and Quantifying Year-to-Year Changes in the Guarantee of the USDA ACRE Program

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The United States Department of Agriculture's Average Crop Revenue Election (ACRE) Program guarantees producers revenue at the state level, which is tied to state crop production and the National Average Market Price. Payments trigger when the current state revenue is less than the ACRE program guarantee. (For more information on ACRE see: http://www.fsa.usda.gov/FSA/webapp?area=home&subject=dccp&topic=landing)

The program is now approaching the end of its third year. It's now apparent that one rule in computing the yearly ACRE revenue guarantee could have more impact than previously thought. According to this rule, the ACRE revenue guarantee cannot change by more than 10% from crop year to crop year. (Crop years are June 1-May 31 for wheat and Sept. 1-Aug. 31 for corn and soybean.) Large swings in revenue for corn and wheat have occurred in the past two years, leading to a 10% change in the guarantee, both up (10% more) and down (10% less).

The publication's purpose is to educate producers about this ACRE program rule. It will provide information on the following:

- how the 10% rule can impact the actual ACRE revenue guarantee compared to an unrestricted gurantee
- how much the rule will impact the guarantee in the 2011/12 crop year

Table 1. Kentucky, 2010/11 and 2011/12 ACRE revenue guarantee.

Corn	2010/11 Revenue Guarantee	2011/12 Revenue Guarantee	% Change from 2010/11 to 2011/12	2011/12 Unrestricted Guarantee	Gain or Loss Because of the 10% rule
Wheat	$343.16	$308.84	-10.00	$306.13	$2.71
Corn	$473.20	$520.52	10.00	$538.82	-$18.30
Soybeans	$352.08	$352.69	0.65	$352.69	$0.00

Changes in the ACRE revenue guarantee come from changes in price and/or yield. The guarantee is based on state yield, national price, and the ACRE program deductible. State yield is determined by taking the previous five yields, ranking them from high to low and taking the average of the middle three. National price is the average for the previous two years. Program deductible is 10%, meaning that 10% is taken off the multiplication of the three-year average state yield and the two-year national average price.

See Table 1 for and explanation of how the ACRE revenue guarantee affected wheat, corn, and soybean revenue from the 2010/2011 crop year to the 2011/2012 crop year. The 10% rule between crop years was binding for both wheat (down) and corn (up). The revenue guarantees for 2010/11 and 2011/12 represent the ACRE program guarantee. The 2011/12 unrestricted guarantee represents the guarantee without imposing the 10% year-to-year change in the ACRE revenue guarantee rule.

For a corn ACRE payment in 2011/12 a producer would have to lose both the initial 10% deductible plus the $18.30 (2011/12 unrestricted

Table 2. 2010 and 2011 national price/ Kentucky yield guarantees.

	2010/11 ACRE Price Guarantee	2011/12 ACRE Price Guarantee	% Change from 2010/11 to 2011/12	2010/11 Kentucky ACRE Yield Guarantee	2011/12 Kentucky ACRE Yield Guarantee	% Change from 2010/11 to 2011/12
Wheat	$5.83	$5.29	-9.18	64.9	64.3	-0.92
Corn	$3.81	$4.37	14.70	138	137	-0.72
Soybeans	$9.78	$10.45	6.85	40	37.5	-6.25

guarantee minus 2011/12 revenue guarantee, or 3.4% (18.30/538.82), for a total deductible of 13.4%. No impact was found for soybeans because the 10% rule was not binding—the revenue guarantee changed less than 10% up or down. For a wheat ACRE payment in 2011/12, the producer would have to lose the 10% deductible less $2.71, or .88% (2.71/306.13), for a total deductible of 9.12%.

See Table 2 for a comparison of national price and Kentucky yield guarantees in 2010/2011 and 2011/12. Going from 2010/11 to 2011/12 crop years, prices changed more than yields, indicating that prices were the driving factor in making the 10% change in revenue guarantee binding. When the rule is binding upward, that is, a positive 10% change, the ACRE revenue guarantee is effectively held below its true unrestricted guarantee, resulting in an increased ACRE deductible over the initial 10% and a reduced chance of an ACRE payment. In years when the revenue guarantee decreases dramatically, outcomes are different because of the following:

- An ACRE payment was likely already made.
- The guarantee could be inflated over its true unrestricted value since the revenue guarantee cannot fall by more than 10% going into the following year. When the 10% rule is downward binding, chances of another ACRE payment increase.

Issued 2-2012