CORNHUSKER ECONOMICS

University of Nebraska–Lincoln Extension

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Institute of Agriculture & Natural Resources
Department of Agricultural Economics
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Revisiting ACRE for 2012 and 2013

Market Report	Yr Ago	4 Wks Ago	4/5/13
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight	$121.99	$128.00	$129.00
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	178.64	162.57	168.66
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	152.14	142.09	144.38
Choice Boxed Beef, 600-750 lb. Carcass.	180.79	195.02	191.29
Western Corn Belt Base Hog Price Carcass, Negotiated.	81.49	71.95	80.29
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean.	78.73	79.04	77.30
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct.	147.50	105.00	100.00
National Carcass Lamb Cutout, FOB.	376.90	289.23	290.65
Crops, Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	5.80	6.87	6.76
Corn, No. 2, Yellow Nebraska City, bu.	6.55	7.39	6.41
Soybeans, No. 1, Yellow Nebraska City, bu.	13.95	14.96	13.90
Grain Sorghum, No. 2, Yellow Dorchester, cwt.	11.13	12.25	10.79
Oats, No. 2, Heavy Minneapolis, MN , bu.	3.58	4.28	3.91
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	225.00	*	245.00
Alfalfa, Large Rounds, Good Platte Valley, ton.	145.00	227.50	227.50
Grass Hay, Large Rounds, Good Nebraska, ton.	97.50	212.50	217.50
Dried Distillers Grains, 10% Moisture, Nebraska Average.	216.50	268.00	246.50
Wet Distillers Grains, 65-70% Moisture, Nebraska Average.	77.50	103.50	89.50

*No Market

When Congress passed fiscal cliff legislation on New Year's Day to address expiring tax legislation and pending budget sequestration, they also extended expired farm programs from the 2008 Farm Bill for one more year. That immediately affected dairy support programs, which were due to revert on January 1 to permanent legislation and support levels authorized in the last "permanent" Farm Bill of 1949. But, it also affected crop support programs for the 2013 crop, and extended authority for the current commodity supports known as the Average Crop Revenue Election (ACRE) Program, the Counter-Cyclical Payment (CCP) Program, the Direct Payment (DP) Program and the Non-Recourse Marketing Assistance Loan (ML) Program.

Producers now face a program participation decision for the 2013 crop year and a choice between ACRE and DCP (the Direct and Counter-Cyclical Program) that revisits the ACRE v. DCP decision first considered in 2009. Regardless of the choice producers made in previous years, they again have a choice in 2013 between ACRE and DCP that is effective for the 2013 crop year. A quick review of the mechanics and features of each program provides a general overview:

ACRE

- Average revenue-based safety net tied to benchmark based on average yields and average prices.
- Protection from revenue losses when state and farm revenue both fall below respective benchmarks.
- Protection tied to planted acres of program commodities on a farm, up to the farm's total base acreage.
- DPs available on base acres and program yields at 80 percent of the full DP rate for ACRE participants.
- MLs available on actual production at 70 percent of the full ML rate for ACRE participants.

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DCP

- Price-based safety net tied to set-in-legislation target prices.
- CCP protection from price losses when national marketing year average price falls below CCP trigger price (target price minus DP rate).
- Protection tied to base acres and program yields of program commodities on a farm.
- DPs and MLs available at full rates for DCP participants.

In 2009, approximately 20 percent of Nebraska producers signed up approximately 25 percent of Nebraska farm program acreage to the ACRE program. While this was a small share of total crop acreage enrolled in the farm program, it was actually the highest percentage enrollment amongst major crop producing states. The decision for Nebraska producers in 2009, as it will be again in 2013, was essentially the optimal tradeoff between a DCP program that provided very little price protection but full DPs, and an ACRE program that provided substantial revenue protection, but with DPs at 80 percent of the full rate. An examination of crop prices, crop revenue and ACRE and DCP protection helps explain the tradeoff.

DCP Protection

The DCP program provides price-based income support through the CCP and ML programs, along with the fixed, guaranteed DP. The CCP program makes payments to producers when the marketing year average price of a commodity in their program base acreage falls below a trigger level. But, with trigger levels of $2.35/bushel for corn, $5.56/bushel for soybeans, $3.65/bushel for wheat and $2.39/bushel for grain sorghum, the protection from the CCP program is far below current price levels. The ML program provides income support when commodity prices fall below the loan rate. But those rates are even lower, with national average loan rates of $1.95/bushel for corn and grain sorghum, $5.00/bushel for soybeans and $2.80/bushel for wheat.

Figures 1 through 4 show the legislated ML rates, CCP trigger prices and CCP target prices plotted with national marketing year average prices for corn, soybeans, wheat and grain sorghum. The current estimated price for the 2012 crop marketing year, and a projected price for the 2013 crop based on new-crop futures contract quotes is also included. With the commodity price increases of the past several years, the price-based safety net of CCPs and MLs has become less and less relevant to producers. As long as market price expectations remain far above the CCP trigger price, there is very little probability of triggering any CCP payments, let alone ML benefits.

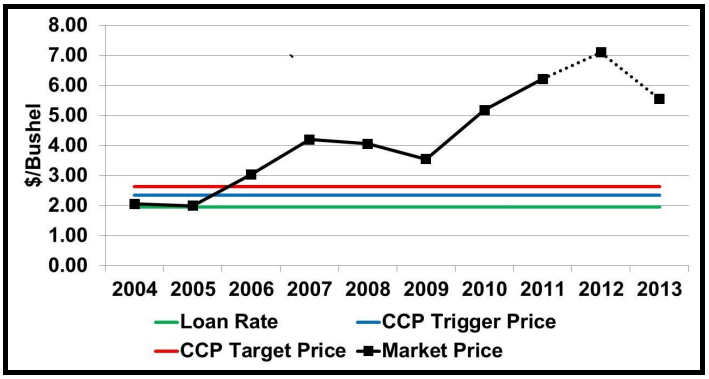

Figure 1. Corn Prices and the CCP/ML Safety Net*

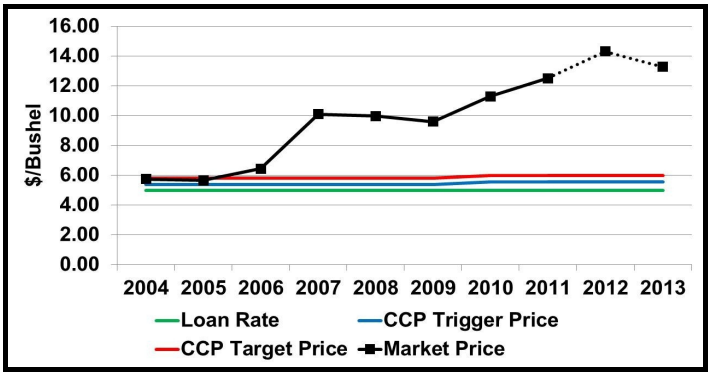

Figure 2. Soybean Prices and the CCP/ML Safety Net*

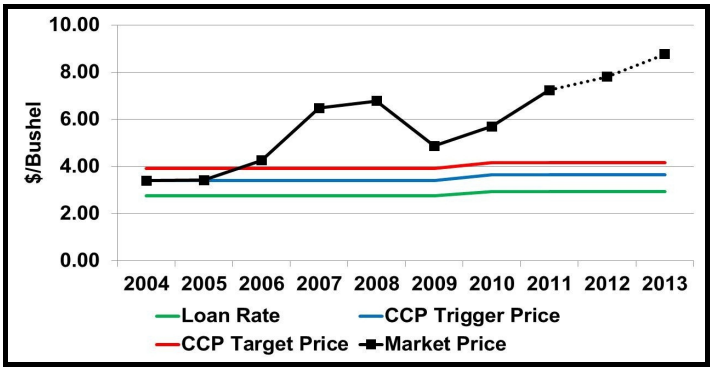

Figure 3. Wheat Prices and the CCP/ML Safety Net*

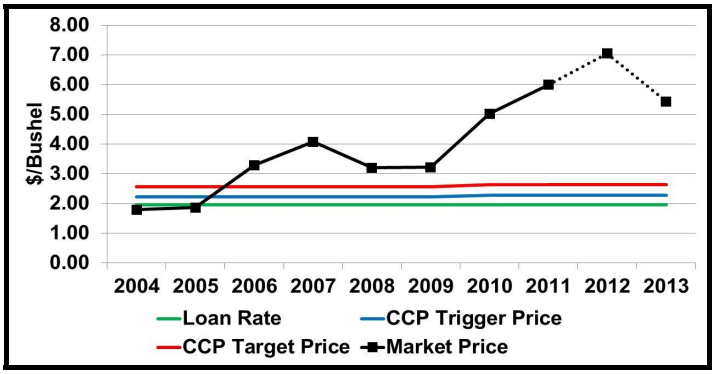

Figure 4. Grain Sorghum Prices and the CCP/ML Safety Net*

* Source Figures 1 - 4: USDA-FSA, USDA-NASS and USDA-WAOB. Estimated national marketing year average price for 2012, projected from USDA-WAOB as of March 8, 2013. Projected price for 2013, estimated from insurance base price adjusted for historical average national basis (and estimated corn-grain sorghum price ratio for grain sorghum).

As a result, there is virtually no price protection at present from the CCP and ML programs. This was true in 2009 when the ACRE v. DCP decision was first considered, and it is even more the case today. Thus, the only expected benefit to producers from the DCP program is the fixed, guaranteed DP, which can average between $10 and $30 per base acre, based on the historical crop acreage and productivity reflected in the farm's base acres and program yields.

ACRE Protection

The ACRE program was introduced in the 2008 Farm Bill and first offered as a choice for the 2009 crop year. It substantially changed how the commodity support program worked by providing support based on average revenue levels instead of set-in-legislation price levels. The state ACRE guarantee is calculated as 90 percent of the 5-year Olympic average yield (2004-2008 for the 2009 guarantee), multiplied by the 2-year simple-average price (2007-2008 and 2008-2009 marketing years for the 2009 guarantee). The farm-level guarantee is equal to the average yield, multiplied by the average price, plus the farmer-paid crop insurance premium. Both revenue guarantees must be triggered for the farm to receive an ACRE payment.

The ACRE guarantees move every year based on updated yield and prices, so they reflect current revenue expectations and provide protection from revenue losses much better than does the DCP program. However, the farm bill legislation also restricted the state ACRE guarantee to move no more than ten percent per year. While the guarantee was particularly strong in 2009 compared to revenue expectations, it has been limited by the ten percent cap since, and has resulted in guarantees far below expected revenue levels, reducing the effective protection.

Figures 5 through 8 show the actual revenue against the ACRE guarantees for corn, soybeans, wheat and grain sorghum, with irrigated and non-irrigated practices protected separately for corn and soybeans. As the graphs show, from 2009-2011 the actual crop revenue far exceeded the ACRE guarantees for all crops and years, except wheat in 2009. In 2012, the ACRE guarantee was even further below revenue expectations going into the season. And even with substantial drought losses, ACRE appeared to offer little protection for producers, because estimated yield losses were smaller than the resulting price increases, generating little to no revenue losses. Thus, ACRE looked to be ineffective even in the face of large yield losses, and the choice between ACRE or DCP in 2013 seemed obvious.

However, in late February the United States Department of Agriculture's (USDA) National Agricultural Statistics Service published detailed yield estimates that assigned almost all of the yield losses to non-

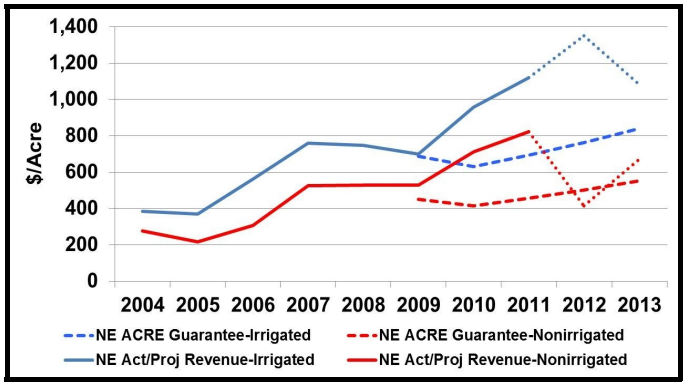

Figure 5. Corn Revenue and the ACRE Safety Net*

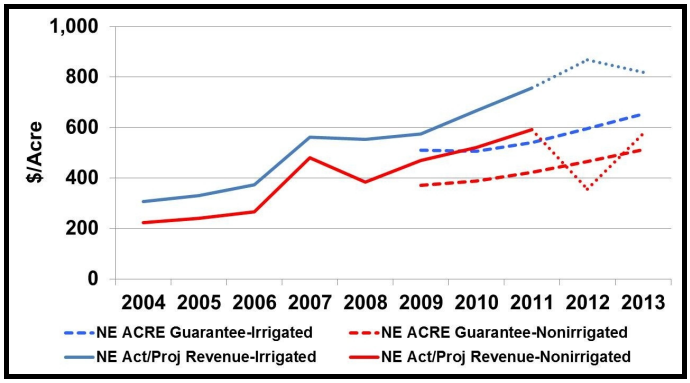

Figure 6. Soybean Revenue and the ACRE Safety Net*

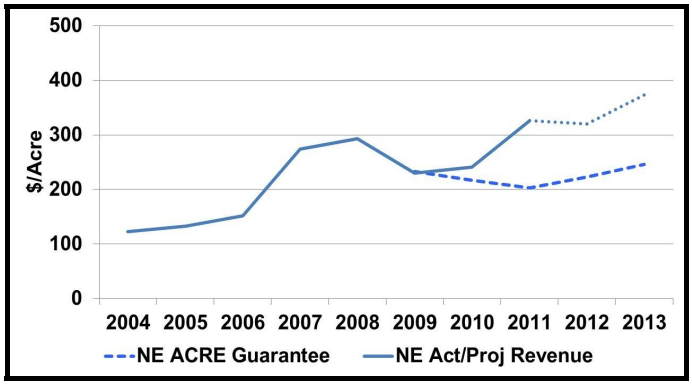

Figure 7. Wheat Revenue and the ACRE Safety Net*

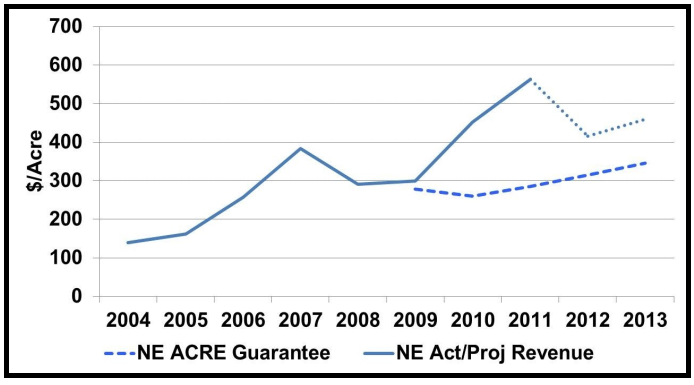

Figure 8. Grain Sorghum Revenue and the ACRE Safety Net*

Source Figures 5 - 8: USDA-FSA, USDA-NASS and USDA-WAOB. Estimated crop revenue for 2012, projected from USDA-WAOB prices and USDA-NASS yields as of March 8, 2013. Projected revenue for 2013, based on trend yields and insurance base price adjusted for historical average national basis (and estimated corn-grain sorghum price ratio for grain sorghum).

irrigated production. While irrigated production looked to be at average to above-average yields, non-irrigated corn and soybeans suffered losses in excess of 40 to 50 percent in yields per harvested acre. Using these yield estimates, we can re-examine the ACRE program for 2012 and now project substantial payments for non-irrigated corn and soybeans in Nebraska. Figures 5 - 8 illustrate these projected payments for 2012, and Table 1 (below) provides specific projections, which in fact could still grow as final estimates of yields per planted acre are determined by the USDA Farm Service Agency.

Farm-level ACRE payments cannot be calculated directly from the results in Table 1. The projected state ACRE payment rates for non-irrigated corn and soybeans must be multiplied by a farm-to-state productivity factor to determine the farm payment rate, and are only paid on 85 percent of the planted acres on a farm where the farm trigger was also met. In addition, the final payment rate will be determined by final marketing year price estimates yet to be established, and by yields per planted acre yet to be adjusted from the reported yields per harvested acre. But, the size of the projected state payment rates indicates ACRE will provide substantial revenue support for crop losses in non-irrigated corn and soybean production in 2012.

Decisions for 2013

With the results of 2012 and uncertain expectations ahead for 2013, the decision between ACRE and DCP could be a difficult one for producers. Table 2 (below) provides 2013 ACRE guarantee levels and expected revenue levels using trend yield projections and base price calculations. Figures 5 - 8 show these projections as well for 2013. Both Table 2 and Figures 5 - 8 demonstrate that the ACRE guarantees in 2013 will again be far below revenue expectations.

Based on ACRE guarantees and revenue expectations for 2013, the state would need to suffer revenue losses of about 25 percent on corn, 20 percent on soybeans, more than 35 percent on wheat and more than 25 percent on grain sorghum, in order to trigger any ACRE payments on the 2013 crop. Although losses of that scope did occur for non-irrigated corn and soybeans in 2012, it is difficult to predict such big losses in the coming year. In the farm income and risk management research underway here at the University of Nebraska-Lincoln with current Nebraska Corn Board support, we can simulate a range of possible yield and price scenarios for 2013. However, the results show only a very limited number of times that ACRE would trigger, resulting in average ACRE payments between $0 and $2 per acre. At

Table 1. State ACRE Guarantees, Projected Revenue and Projected Payments Rates

	Corn Irrigated	Corn Non-irrigated	Soybeans Irrigated	Soybeans Non-irrigated	Wheat	Grain Sorghum
2012 State ACRE Guarantee	$763.43	$502.04	$594.87	$465.55	$223.10	$314.61
Estimated Yield (NASS Harvested Yield)*	190.1	58.5	60.7	24.9	41	59
Projected MYA Price**	$7.10	$7.10	$14.30	$14.30	$7.80	$7.05
2012 Calculated State Revenue	$1,349.71	$415.35	$868.01	$356.07	$319.80	$415.95
2012 Projected State ACRE Payment	$0.00	$86.69	$0.00	$109.48	$0.00	$0.00

* Estimated yield using yield per harvested acre published by USDA-NASS in February 2013. USDA-FSA calculates ACRE payments using yield per planted acre, accounting for failed (planted, not harvested) acres.
** Estimated national marketing year average (MYA) price for 2012 projected from USDA-WAOB as of March 8, 2013.

Table 2. State ACRE Guarantees and Projections

	Corn Irrigated	Corn Non-irrigated	Soybeans Irrigated	Soybeans Non-irrigated	Wheat	Grain Sorghum
2012 State ACRE Guarantee	$763.43	$502.04	$594.87	$465.55	$223.10	$314.61
5-Year Olympic Average State Yield*	185	132	60	44	42.8	91
2-Year National MYA Price	$6.66	$6.66	$13.40	$13.40	$7.52	$6.52
2013 Calculated State ACRE Guarantee	$1,108.89	$791.21	$723.60	$530.64	$289.67	$533.99
2013 Adjusted State ACRE Guarantee**	$839.77	$552.24	$654.36	$512.11	$245.41	$346.07
Expected 2013 State Yield***	202.8	131.5	62.6	47.2	43.6	89.9
Expected 2013-2014 National MYA Price****	$5.55	$5.55	$13.27	$13.27	$8.76	$5.27
Expected 2013 State Revenue	$1,125.54	$729.83	$830.70	$626.34	$381.94	$473.77
Revenue Loss to Trigger ACRE Payment	25%	24%	21%	18%	36%	27%

* Preliminary yields published by USDA-FSA.
** Adjusted guarantee based on 10% limit on changes in 2013 guarantee from 2012 guarantee.
*** Expected 2013 yields projected from farm income and risk management research model (and similar trend analysis for grain sorghum).
**** Expected 2013-2014 prices based on insurance base prices adjusted for historical average national basis (and corn-grain sorghum ratio for grain sorghum).

those rates, ACRE would not make up for the foregone DPs, and producers might be expected to overwhelmingly sign up for DCP in 2013.

However, those projections from trend yield and base price levels may also be overly optimistic. As of early April, on-going drought concerns and limited subsoil moisture may make trend yield projections for 2013 too optimistic. At the same time, commodity prices have fallen five percent or more from the February base levels. If both yield and prices expectations start out the production year at less than the projected levels in Table 2, then the protection offered by ACRE is actually greater than advertised, and revenue losses would not need to be so severe to trigger ACRE payments for 2013.

In the end, producers will have to decide whether to sign up for ACRE or DCP in the farm program for 2013. If choosing ACRE, the sign-up must be completed by June 3, effectively providing producers until late May to decide and still get all paperwork and signatures submitted to the USDA Farm Service Agency office on time. If choosing DCP, the sign-up deadline is actually later in the summer, but still must be done.

If this analysis had been published in early February, it would have appeared that ACRE offered little protection for producers and the ACRE vs. DCP decision in 2013 was relatively simple. But, as the non-irrigated yields were published in late February, the results showed that ACRE can actually make substantial payments to producers to offset widespread yield and revenue losses. Coupled with uncertainty about 2013 yields and prices, the ACRE guarantees, although still far below revenue projections, could be very valuable to producers and well worth the 20 percent of DPs given up to sign up for ACRE.

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