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2014 Crop Safety Net Decision: Key Considerations

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Overview

This article builds upon the recent articles (*farmdoc daily* January 30, 2014; February 6, 2014). The focus is considerations in choosing among the three crop safety net options: (1) Price Loss Coverage (PLC) - a target price program; (2) county Agricultural Risk Coverage (ARC) - a county revenue program, and (3) individual ARC - an individual farm revenue program. A reference table at the end of this article contains a brief, comparative list of key program parameters for each option.

Considerations

- The decision, to be made in 2014, covers 5 crop years, 2014-18. It is not a one year decision.
- Payments are made on historical base acres, not current planted acres.
- Operators can keep the current distribution of base acres among program crops or update the distribution to reflect the distribution of acres planted to program crops over 2008-12. The distribution closer to the distribution of expected 2014-18 planted acres will reduce the chance a crop's revenue will be less than the cost of production due to potential government payments.
- Table 1 presents key prices for the crop safety net decision, including the U.S. loan rate, PLC reference target price, and current estimate of the U.S. 2013 crop year price,. An estimate of the implied ARC price also is provided for the 2014-2018 crop years. The estimate assumes the current expected price for the 2013 crop year continues through the 2018 crop year. The 2013 price is the midpoint of the price range reported in the February 2014 *World Agricultural Supply and Demand Estimates* (WASADE) (see here). The ARC implied price is 86% (ARC's coverage level) times the Olympic average (removes high and low price) for the five preceding crop years.
- Note, ARC is a revenue program. Thus, ARC's implied price is only a rough, simple indicator of potential payments. Above normal yields reduce the chance of ARC payments, hence ARC's implied price. Below normal yields increase the chance of payments, hence ARC's implied price.

- In Table 1, the relationship between the PLC reference price and the estimated ARC implied price for 2014-18 differs notably by program crop. This difference suggests payment entities may choose different programs for different crops, a feature allowed in PLC and county ARC but not in individual ARC. Thus, operators may want to consider diversification of program choice as a risk management strategy.

Table 1. Price Parameters for U.S. Crop Program Options, 2014-2018 Crop Year

Crop	WASDE 2013 Crop Year Price	U.S. Loan Rate	PLC Reference Price	---------- Estimated ARC Implied Price ---------- [2014-18 price is assumed to be 2013 price] 2014	2015	2016	2017	2018
Barley	$6.05	$1.95	$4.95	$4.60	$5.00	$5.20	$5.20	$5.20
Corn	$4.50	$1.95	$3.70	$4.56	$4.56	$4.36	$3.87	$3.87
Oats	$3.70	$1.39	$2.40	$2.78	$3.12	$3.18	$3.18	$3.18
Peanuts	$0.27	$0.18	$0.27	$0.23	$0.24	$0.24	$0.23	$0.23
Rice	$16.00	$6.50	$14.00	$12.56	$13.01	$13.44	$13.76	$13.76
Sorghum	$4.25	$1.95	$3.95	$4.37	$4.37	$4.15	$3.66	$3.66
Soybeans	$12.70	$5.00	$8.40	$10.46	$10.86	$10.92	$10.92	$10.92
Wheat	$6.80	$2.94	$5.50	$5.66	$5.97	$5.97	$5.85	$5.85

Footnote: units are $/bushel for all crops except peanuts ($/pound) and rice ($/100 pounds)

- Expectations about prices over the 2014-18 crop years will likely be an important consideration. Expectation that market price will stay above the PLC reference price in most years will likely lead to an initial look at ARC. In contrast, expectation that market price will be below the PLC reference price in most years will likely lead to an initial look at PLC.
- Because 2009 was a low price year and an Olympic average discards the high and low prices, ARC's implied price will not change much in 2015 compared with 2014. Moreover, ARC's implied price in 2016 does not change by much and often increases if the 2013 crop year price continues during the 2014 and 2015 crop years (see Table 1). Thus, ARC may provide more risk protection than expected. However, if market prices decline notably in 2014 and 2015 from current levels, ARC's implied price will decline notably by 2017 and 2018. This discussion underscores the importance of expectations about the path of prices through 2018.
- PLC's reference price provides a potential floor on a crop's per unit revenue because PLC makes price deficiency payments if market price is between the reference price and loan rate.
- The last three bullet points suggest that a key decision factor may become the prices for the 2014 crops during the last week of program sign-up.
- A second key decision factor may become the known yield of a 2014 crop harvested before the sign-up deadline as well as expected yields of 2014 crops yet to be harvested.
- Payment limits could be a bigger issue than in the past because risk management programs can make large payments when a risk occurs. Moreover, these years are never known in advance and these payments may be needed due to the low revenue resulting from the occurrence of a risk. It is worth underscoring that peanuts has a separate payment limit but all other program crops have a combined, single limit of $125,000 per payment entity.
- The Supplemental Insurance Coverage Option (SCO) is available only to crops in PLC. The county-based SCO could be an important consideration is this decision, but individual farm

insurance is more specific to an individual farm's risk than is county insurance. Moreover, SCO's subsidy rate of 65% exceeds the subsidy rate for the commonly-chosen enterprise insurance only at the 85% coverage level (53% subsidy). When combined, these considerations suggest that the use of SCO could be limited to the 80% to 86% range of insurance coverage.

- Individual ARC is in essence a whole program crop farm safety net for all FSA farms that an individual payment entity elects into individual ARC. Because of this feature and because payment will be made on only 65% of base acres, it seems reasonable to speculate that individual ARC may be most attractive for relatively small farms with contiguous acres in a microclimate and soil profile not representative of the county and in areas with variable yields.

Summary

The 2014 farm bill encourages farmers to think strategically about their farms through at least 2018. An important strategic risk management question is the ability of a farm to withstand multiple years of low farm prices and revenue. Managing multiple-year risk involves a set of interrelated considerations, including the expected path of prices and revenue until 2018. The multiple year nature of this assessment points to the value of consulting decision calculators.

References

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This publication is also available at http://aede.osu.edu/publications.

Comparative Reference Table: Key Parameters by Crop Program Option, 2014 U.S. Farm Bill

Item	PLC (Price Loss Coverage)	County ARC (Ag Risk Coverage)	Individual ARC (Ag Risk Coverage)
Decision Framework	*Same For All 3 Options:* (1) 1 option elected for 5 years covering 2014 -18 crop years; (2) election made in 2014; (3) all FSA farm payment entities must make same choice or lose payment for 2014 crop and forced into PLC in 2015		
Decision Unit	individual program crop on individual FSA farm	individual program crop on individual FSA farm	all program crops on an individual FSA farm
Payment Acres (generic base is former cotton base)	85% of program crop base acres on a FSA farm plus generic base acres planted to program crop	85% of program crop base acres on a FSA farm plus generic base acres planted to program crop	65% of all program crop base acres on all FSA farms the payment entity elected for individual ARC plus generic base acres planted to any program crop
Base Acres	*Same For All 3 Options:* current base acres OR total current base acres allocated according to program crop's share of FSA farm's total acres planted to program crops over 2009-12 crop years		
Payment Made When	for a program crop, U.S. market year average price is less than reference price	for a program crop, actual revenue is less than ARC revenue guarantee	for whole program crop farm of payment entity, actual revenue is less than all farm ARC revenue guarantee
Payment Yield	FSA farm current counter-cyclical yield OR 90% of FSA farm average plant yield for 2008-12 crops	XXXXXX	XXXXXX
Reference Price	(see table 1)	XXXXXX	XXXXXX
Revenue Guarantee	XXXXXX	86% of program crop revenue benchmark [equals prior 5 year Olympic average (remove high and low) of county yield times prior 5 year Olympic average US crop year price]	86% of whole program crop farm revenue benchmark [equals sum of revenue benchmark for each program crop on all FSA farms of operator weighted by crop's share of total program acres]
Payment Range	reference price minus loan rate	10% of program crop revenue benchmark	10% of whole program crop farm revenue benchmark
Loan Rate	Same for all 3 Options: current rates (see Table 1)		
Supplemental Insurance Coverage Option	SCO available SCO is option to buy county insurance to cover yield or revenue loss between 86% and coverage of individual policy; 65% subsidy	SCO not available	SCO not available
Payment Limit	*Same For All 3 Options:* $125,000 per legal entity; $250,000 for person and spouse; limit excludes gains from forfeiting nonrecourse loans; separate limit for peanuts		
AGI Limit	*Same For All 3 Options:* benefits denied to payment entities with an AGI (adjusted gross income from farm and nonfarm sources) over $900,000		