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farmdoc DAILY

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Crop Insurance Decisions in 2015

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March 10, 2015

***farmdoc daily* (5):44**

Recommended citation format: Schnitkey, G. "Crop Insurance Decisions in 2015." *farmdoc daily* (5):44, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, March 10, 2015.

Permalink http://farmdocdaily.illinois.edu/2015/03/crop-insurance-decisions-in-2015.html

In 2014, most individuals in Illinois used either 1) Revenue Protection (RP) at 75% or higher coverage levels or 2) Area Risk Plan (ARP) at a 90% coverage level. Staying with these same products and coverage levels seems prudent for 2015 even given recent additions to crop insurance products including Yield Exclusion (YE) and Supplemental Coverage Option (SCO). Taking YE will be beneficial if the exclusion is available and increases guarantee yields. In most cases, premiums will be slightly higher in 2015 for the same coverage level. For the same guarantee yield, coverage levels will be lower in 2015.

Insurance Use in 2014

In 2014, RP was used to insure 75.4% of planted acres of corn in Illinois (see Table 1). The three highest coverage levels received the highest use: 8.9% for RP at the 75% coverage level, 23.7% at the 80% coverage level, and 39.0% for the 85% coverage level. Overall, RP at 75% and higher coverage level were used to insure 71.6% of planted acres.

After RP, the product with the next highest use was Area Risk Protection (ARP), a county-level revenue product with a guarantee increase. In 2014, 6.5% of the acres were insured with ARP, with almost all acres insured at the 90% coverage level (see Table 1).

Overall, crop insurance use for corn in Illinois can be categorized into two categories:

1. RP at 75% and higher coverage levels, accounting for 71.6% of planted acres in 2014, and
2. ARP at 90% coverage level, accounting for 6.3% of acres in 2014.

The remainder of the products and coverage levels were used to insure only 9.1% of the planted acres, with 14.0% of planted acres not insured with any product.

If an individual used RP at a high coverage level or ARP at the 90% coverage level in 2014, there is little reason to switch products in 2015.

Projected Prices, Farmer-Paid Premiums, and Volatilities

The 2015 projected price for corn is $4.15 per bushel, down $.47 per bushel from the 2014 projected price of $4.62. The 2015 projected price for soybeans is $9.73 per bushel, down $1.63 per bushel from the 2014 projected price of $11.36 per bushel.

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Table 1. Percent of Acres Insured by Product and Coverage Level, Illinois, Corn, 2014

Coverage Level	Insurance Product[1]					
	RP	RPwHPE	YP	ARP	ARPwHPE	AYP
50	0.3%	0.0%	1.2%			
55	0.1%	0.0%	0.1%			
60	0.2%	0.0%	0.1%			
65	0.4%	0.0%	0.2%			0.0%
70	2.7%	0.1%	0.2%	0.0%	0.0%	0.0%
75	8.9%	0.2%	0.5%	0.0%	0.0%	0.0%
80	23.7%	0.4%	0.5%	0.0%	0.0%	0.0%
85	39.0%	0.5%	0.4%	0.1%	0.0%	0.0%
90				6.3%	0.2%	0.2%
Total	75.4%	1.4%	3.1%	6.5%	0.2%	0.2%

Source: Summary of Business, Risk Management Agency, USDA.

[1] RP is Revenue Protection, RPwHPE is RP with Harvest Price Exclusion, YP is Yield Protection, ARP is Area Revenue Protection, ARPwHPE is ARP with Harvest Price Exclusion,

Table 2 shows 2014 and 2015 RP premiums for a Champaign County example farm having a 184 bushel per acre Trend-Adjusted Actual Production History (TA-APH) yield. Premiums are for a 100 acre enterprise unit. The premium for an 85% coverage level increased from $15.02 per acre up to $16.20 per acre in 2015. Several factors influence rates: 1) changes in underlying rates (increased premium), 2) lower projected price (lowered premium), and 3) increase in volatility (increased premium). By far, the largest factor impact premium between 2014 and 2015 was the volatility increase. The volatility in 2014 was .19 while the 2015 volatility is .21. A .19 volatility in 2015 would have resulting in 2015 premiums being lower than 2014 for the example shown in Table 1.

Table 2. Farmer-Paid Premiums and Gurantees for RP Policies, 2014 and 2015.[1]

Coverage Level	Premiums		Per Acre Guarantees	
	2014	2015	2014	2015
	$ per acre		$ per acre	
0.6	0.94	1.03	510	458
0.65	1.32	1.45	554	496
0.7	1.92	2.16	595	535
0.75	3.62	3.99	638	573
0.8	7.33	7.96	680	611
0.85	15.02	16.20	723	649

[1] For a Champaign County, Illinois farm with 184 bushel per acre Trend Adjusted APH yield. Premiums are for a 100 acre enterprise unit.

Guarantees also will be lower in 2015 because of lower projected prices. For an 85% coverage level, the guarantee was $723 per acre in 2014 for the Champaign County farm example in Table 2. The 2015 guarantee will be $74 lower at $649 per acre.

Yield Exclusion

New this year is the Yield Exclusion. Yield Exclusion allows specific years to be dropped from the calculation of guarantee yields for crop insurance. For corn, 2012 can be excluded from APH calculation in many counties in central and southern Illinois, along with Jo Daviess, Stephenson, and Winnebago counties (See map in the *farmdoc daily* article of January 13, 2015).

In general, YE should be taken if taking YE increases the guarantee yield. For the same coverage level, guarantees will increase with use of YE, as will farmer-paid premiums. Sometimes farmers can take YE, lower the coverage level and have roughly the same guarantee as without YE at lower farmer-paid premium. Use of YE will not increase premium for the same per acre guarantee level.

Supplemental Coverage Level

Also new this year also is Supplemental Coverage Option (SCO). SCO will be available on farms that are not enrolled in Agricultural Risk Coverage (ARC). SCO is more fully described in the *farmdoc daily* article of April 24, 2014. Some farmers may find SCO useful in their insurance plans. However, Use of SCO as compared to RP at 85% will result in marginal changes in insurance protection. Lower the coverage level with use of SCO does not appear prudent. Use of 75% and higher coverage levels with RP will provide better risk protection than SCO with 70% and lower coverage levels. Use of SCO as compared to RP at 85% will result in marginal changes in insurance protection.

Product Recommendations

Product recommendations have not changed from previous years recommendations, except for the use of YE (see the *farmdoc daily* article of February 11, 2014 for last year's recommendation). In my opinion, the following basic product will be appropriate in most situations is:

- RP used at a 75% through 85% coverage level (most farms will find 80% and 85% coverage levels beneficial),
- Use of enterprise units,
- Use the Trend Adjustment Actual Production History (TA-APH) Yield Endorsement, and
- Use of YE if it is available and increases the guarantee yield.

This choice will provide cost effective protection based on farm yields. It has a harvest price increase provision, which provides useful protection to those farmers who hedge or price grain prior to harvest. The harvest price provision also is useful in widespread drought years, providing payments when yields are below guarantees at the higher harvest prices.

In certain cases, there will be deviations from this basic product.

When should the Area Risk Protection (ARP) be used? Using a county-level revenue product may be appropriate in the following situations:

- Farmers who are concerned more about price risk than yield risk. Because ARP has a 90% coverage level option, it will provide better price risk protection than RP.
- Farms that do not have an enterprise option available. ARP generally is more costly than RP at the enterprise unit level. However, basic units have higher costs than enterprise units, causing GRIP-HR to have close to the same costs as RP.
- Farms whose Actual Production History (APH) yields are low relative to their expected yields. In these cases, coverages offered by RP may be insufficient.

Generally, ARP should be taken at the highest coverage level of 90%. Premiums and payments can be varied by changing the protection factor. There are a number of features that farmers should be aware of if they take ARP:

- ARP does not have replant or prevented planting provisions. Planting must take place before ARP coverage begins. Planting must be accomplished by a final planting dates. For Illinois, final planting dates are in late June for corn and mid-July for soybeans.
- ARP payments will not be known until the National Agricultural Statistical Service (NASS) releases yields in February following harvest. NASS yield determination is final. NASS yields are determined following statistical procedures, but occasionally questions are raised about yield levels. In any case, NASS yields are final.

Who should take RP-HPE? RP-HPE provides a revenue guarantee that will not increase if the harvest price is above the projected price. RP-HPE may be appropriate in the following situations:

- Cost conscious crop insurance purchasers may find RP-HPE attractive as it has lower premiums than RP.
- Farmers who do not hedge much crop prior to harvest. RP-HPE does not have a guarantee increase. Therefore, pre-harvest hedging can reduce risk protection offered by RP-HPE.
- Farmers who are willing to take "drought" risk. RP-HPE will pay much less than RP during drought years like 2012. If a farmer is willing to have lower payments during drought years, RP-HPE may be appropriate.

Who should take basic or optional units? Most individuals who can take enterprise units will find it beneficial to take enterprise units. Basic and optional units may be useful in situations in which the quality of farmland varies greatly across a farming operation.

Who should not take the TA-APH Yield Endorsement? The TA-APH yield endorsement is beneficial in the vast majority of situations. It will provide the same dollar guarantees for the same or lower price. The only situations TA-APH is not beneficial is when yields are extremely low and the APH yield is based on floors and other limits.

Who should take SCO? Those individuals who take the COMBO product at lower coverage levels may find SCO beneficial. This could because of having high risk farmland or being in a county whose premiums increase greatly as coverage levels increase (e.g., Saline County, Illinois).

Summary

More details on 2015 crop insurance are available in the crop insurance section of *farmdoc*. There you will find access to online tools providing premiums and evaluations of crop insurance payouts. Also, a Microsoft Excel tool entitled the *2014 Crop Insurance Decision Tool* is available for download from the website.

References

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