



Weekly Farm Economics: Crop Insurance Premiums and the 2013 Crop Insurance Decision Tool

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January 8, 2013

farmdoc daily (3):2

Recommended citation format: Schnitkey, G. "[Crop Insurance Premiums and the 2013 Crop Insurance Decision Tool](#)." *farmdoc daily* (3):2, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, January 8, 2013.

Permalink: <http://farmdocdaily.illinois.edu/2013/01/crop-insurance-premiums.html>

The 2013 version of the Crop Insurance Decision Tool is now available for download from the [FAST section](#) and [Crop Insurance section](#) of *farmdoc*. If projected prices and volatilities are the same as last year, most corn and soybean premiums in Illinois will be lower in 2013 as compared to 2012.

Corn and Soybean Premiums in 2013

Changes the Risk Management Agency (RMA) made to underlying rates will cause lower premiums over much of Illinois. Some of the rate changes occur because Illinois and many Midwestern states have had low insurance payments relative to total premiums paid for insurance products over time. To correct this, RMA lowered the rates of yield insurance in many Midwestern states.

Concerns have been expressed that 2013 insurance premiums would increase as a result of perceived high losses in 2012. Results from 2012 are not included in 2013 rates as information from the 2012 year was not available at the time 2013 premium rates were set. Information from 2012 will influence rates in 2014.

Examples of premium changes are shown for Revenue Protection (RP) policies in Sangamon County. Table 1 shows 2012 and estimated 2013 premiums for a 200 acre enterprise unit, a 177 bushel per acre Actual Production History (APH) and a 188 bushel per acre Trend-adjusted APH. In 2012, an 85% coverage level RP policy had a \$29.85 per acre premium (see Table 1). If the projected price and volatility in 2013 stay at the same level as 2012 — \$5.68 projected price and .22 volatility — the 2013 premium for an 85% coverage level would be \$27.77, a reduction of 7% from 2012.

Table 1. Revenue Protection Premium in 2012 and 2013 for Sangamon County.¹

Coverage Level	Projected Price Volatility	2012 Premium		2013 Premium			
		\$5.68	0.22	\$5.68	\$6.00	\$5.68	0.22
		\$ per acre					
50%		0.88		0.79	0.83	0.86	
55%		1.35		1.17	1.24	1.29	
60%		1.96		1.76	1.87	1.97	
65%		2.85		2.55	2.69	2.97	
70%		4.31		3.89	4.11	4.58	
75%		7.74		7.11	7.51	8.28	
80%		15.11		13.97	14.76	16.22	
85%		29.86		27.77	29.34	31.83	

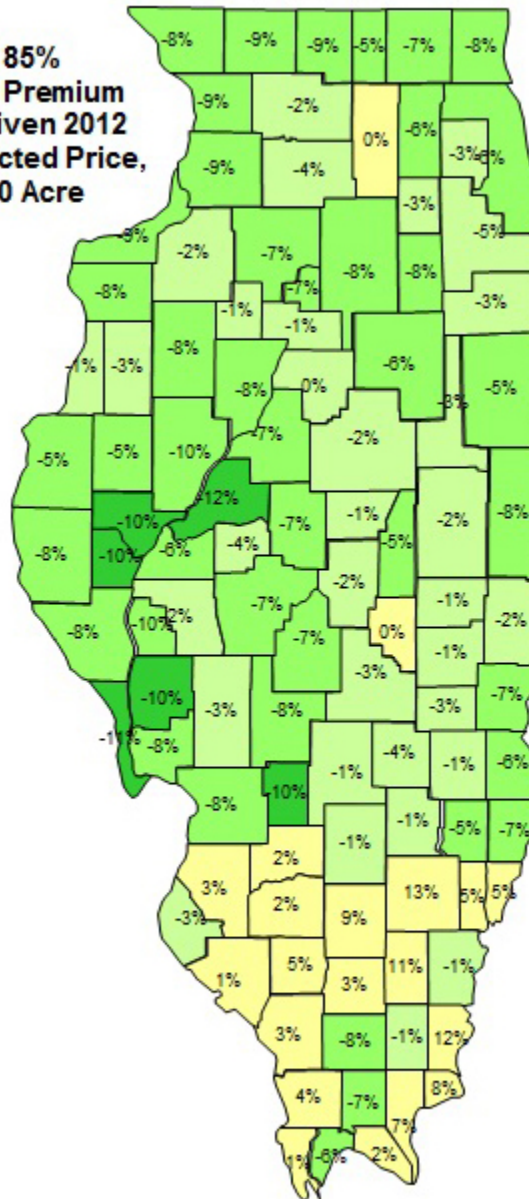
¹For an enterprise unit with 200 acres. The APH yield is 177 bushels and the trend adjusted APH yield is 188 bushel.

The 2013 crop insurance premiums could be higher if either the projected price or volatility is higher in 2013. For example, the 85% RP premium in Sangamon County would be \$28.34 if the projected price is \$6.00 (see Table 1). This \$29.34 premium would be almost the same as the 2012 premium of \$29.86. If the 2013 volatility is .25 rather than .22 (holding the projected price at \$5.68), the 2013 premium would be \$31.83, higher than the \$29.86 premium in 2012. Higher projected prices and volatilities are possible in 2013. The 2012 volatility was low compared to volatilities in other recent years.

Variations in Premium Changes

For an 85% RP policy at the enterprise level in Sangamon County, RP premiums in 2013 will be 7% less than in 2012, given the same projected price and volatility in 2013 as in 2012. Changes in premium will vary around Illinois, as illustrated in Figure 1. The largest reductions tend to occur in the central-western portion of the state. The counties with the largest reductions are Mason County (-12%) and Calhoun County (-11%). Six counties have 10% reductions: Bond, Brown, Fulton, Green, Schuyler, and Scott Counties. Several counties in southern Illinois have increases. The counties with the largest increase are Wayne (13%), Gallatin (12%), and Hamilton (11%) counties.


Figure 1. Change in 85% Revenue Protection Premium from 2012 to 2013 Given 2012 Factors (\$5.68 Projected Price, .22 Volatility) and 200 Acre Enterprise Unit.



Reductions also will vary across products. Yield Projection (YP) will have larger reductions compared to RP. For example, the YP policy comparable to the above described RP policy for Sangamon County (85% coverage level, 200 acre enterprise unit) has a projected 2013 premium that is 20 below the 2012 premium. This compares to a 7 percent reduction for the RP policy.

2013 Crop Insurance Decision Tool

Crop insurance premiums can be generated with the 2013 Crop Insurance Decision Tool, a Microsoft Excel spreadsheet available for download from the [FAST section](#) and [Crop Insurance section](#) of *farmdoc*. A screen shoot of the Premium Calculator tool is shown below. This spreadsheet will generate corn, soybean, wheat, and other crop premiums for most states in the eastern United States and in the Great Plains. The spreadsheet also has other tools, such as a what-if tool for evaluating crop insurance purchases.

State: Illinois		2013 IFARM Premium Calculator										
County: Sangamon		Date Printed: 1/6/2013										
Crop: Corn		<input type="button" value="Print"/> <input type="button" value="Help"/> <input type="button" value="TA APH"/> <input type="button" value="Menu"/>										
Individual Farm Level Policies												
Quote input -->		APH Yield: 177.0	Acres: 200	Type: Grain	Risk class: None selected							
		Use Trend Adjusted APH: Yes	TA Yield: 188.0	Practice: Non-Irrigated	Prevented planting: Standard							
Coverage Level	Revenue Protection			Revenue Protection with Harvest Price Exclusion			Yield Protection			Yield		
	Enterprise	Basic	Optional Guarantee	Enterprise	Basic	Optional Guarantee	Enterprise	Basic	Optional Guarantee			
	\$ per Acre		\$/acre	\$ per Acre		\$/acre	\$ per Acre		Bu./acre			
50%	0.79	1.31	2.01	534	0.61	1.01	1.47	534	0.59	0.97	1.54	94.0
55%	1.17	2.22	3.24	587	0.79	1.53	2.09	587	0.85	1.53	2.32	103.4
60%	1.76	3.62	4.86	641	0.94	2.13	2.83	641	1.27	2.30	3.29	112.8
65%	2.55	5.98	7.70	694	1.25	3.32	4.39	694	1.73	3.60	4.91	122.2
70%	3.89	9.10	11.10	747	1.97	5.14	6.26	747	2.35	5.01	6.55	131.6
75%	7.11	15.81	18.20	801	3.54	8.82	10.10	801	3.78	7.89	9.79	141.0
80%	13.97	25.95	28.70	854	7.01	14.62	16.08	854	6.85	12.19	14.51	150.4
85%	27.77	41.11	43.94	908	14.10	23.07	24.53	908	12.45	17.99	20.58	159.8
Parameters		Projected Price: \$5.68	Volatility (revenue): 0.22	Volatility (rev with exclusion): 0.22	Parameters							
County Level Products												
Quote input -->		Type: None Specified		Practice: Non-irrigated								
Coverage Level	Group Risk Income Plan (Harvest Revenue Option)			Group Risk Income Plan (No Harvest Revenue Option)			Group Risk Plan			Yield		
	Protection Level	65%	60% Guarantee	Protection Level	65%	60% Guarantee	Protection Level	65%	60% Guarantee			
	\$ per Acre		\$/acre	\$ per Acre		\$/acre	\$ per Acre		Bu./acre			
70%	5.58	3.63	3.35	721	5.19	3.37	3.11	721	3.98	2.59	2.39	127.0
75%	9.39	6.10	5.63	773	7.51	4.88	4.51	773	4.55	2.96	2.73	136.0
80%	16.28	10.58	9.77	824	12.59	8.18	7.55	824	6.79	4.41	4.07	145.1
85%	31.76	20.64	19.06	876	26.25	17.06	15.75	876	10.81	7.03	6.49	154.2
90%	58.86	38.26	35.32	927	49.42	32.12	29.65	927	19.47	12.66	11.68	163.3
Parameters		Exp. Yield: 181.4	Proj Price: \$5.68	Vol: 0.22	Max. Prot. Level (GRP): \$1,540	Max. Level (GRP): \$1,546	Parameters					

Summary

Overall, crop insurance premiums will be lower in many counties in Illinois if the projected prices and volatilities are at 2012 levels. This suggests that changes in premiums will have little influence on crop insurance choices in 2013.