Margin Protection: Crop Insurance Premiums and Credits

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A recent article here on AgManager.info discussed the basic operations of Margin Protection, a new form of crop insurance coverage coming to Kansas for the 2018 corn and soybean crops. This article takes a brief look at expected premium costs for Margin Protection, including the credits allowed for also purchasing a traditional Revenue Protection (RP) or Yield Protection (YP) policy.

To review, Margin Protection, or MP, protects against an unexpected decline in "margin," defined here as crop revenue minus operating costs. So MP not only protects against a decline in crop price or yield (as does the traditional RP coverage), but it also protects producers from an unexpected increase in certain operating costs.

MP coverage does not use individual farm yields or producers' own records of input costs. Instead, it is an area-based plan which uses county-level estimates of yields and inputs used to calculate crop revenue, operating costs, and the resulting margin. While it intends to reflect the general experience of most producers in a county, it may not exactly match the results of any particular individual. Producers should remember that they could experience a loss on their own farm and yet receive no indemnity from MPR coverage.

MP coverage for 2018 corn and soybeans in Kansas actually begins in the fall of 2017. The Projected Price discovery period for both crops and inputs runs from August 15 to September 14. The final or Harvest Price discovery for the inputs diesel, urea, and diammonium phosphate then occurs in April 2018, and Harvest Prices for the crops and interest costs are determined over October 2018.

The Risk Management Agency has provided a wide range of resources on its website to explain MP coverage. Links to fact sheets, policy documents, and other supporting information are available at https://www.rma.usda.gov/policies/mp/.

In addition, growers can find more information at www.MarginProtection.com, including premium quotes. Here, they can enter their location (county), insured crop, and other details to obtain the latest premium estimates. After the end of the Projected Price discovery period on September 14, the website quotes will be actual premium amounts, not just estimates.

Margin Protection can be combined with the traditional RP or YP coverage used by most corn and soybean growers in Kansas. The RP or YP policy bought next spring is referred to as the "base policy" in this arrangement. Purchase of a base policy will result in a premium credit for MP coverage, to reflect the situation that an indemnity from the base policy will offset a portion of the indemnity from the MP policy. The amount of premium credit is based on the expected reduction in MP indemnities that instead will be paid under the base policy, which will be determined when all information needed to establish liability under the base policy is known. The website www.MarginProtection.com also provides estimates of the MP premium credits. The grower may only receive the greater of the MP and RP/YP indemnity after final calculations are complete.

Margin Protection coverage includes a deductible that may be set as low as 5% of the expected margin. These low deductibles may appeal to some producers. Overall, deductibles range from 5% to 30% of the expected margin. However, a low deductible also tends to result in a more costly premium.

Two examples of MP premium costs are provided below for 2018 corn production in Kansas: dryland corn for Nemaha County (northeast Kansas) and irrigated corn for Finney County (southwest Kansas). The example assumes a Projected Price for corn of $3.95 per bushel (versus the 2017 price of $3.92/bu), along with projected prices for inputs as determined by MarginProtection.com at the time.

Table 1 shows premiums and premium credits for Nemaha County. The top section shows the MP premium for the various coverage levels, which range from 95% of the expected margin (= 5% deductible) to 70% of the expected margin (=30% deductible). The columns on the left show projected premiums for RP coverage at various guarantee levels, and the "Premium credits" section on the lower right shows the savings in premiums for the various combinations of MP and RP coverage. Table 2 shows similar results for irrigated corn in Finney County.

Combined cost of MP and RP coverage is calculated by adding MP and RP premiums, then subtracting the premium credit. For example, for non-irrigated corn in Nemaha County (table 1), the combination of 75% RP coverage and 85% MP coverage would cost $20.37 + $38.84 - $13.08 = $46.13 per acre. The same 75% RP + 85% MP coverage for irrigated corn in Finney County (table 2) would cost $15.83 + $19.73 - $2.39 = $33.17 per acre.

These estimates suggest that the premiums for the highest MP coverage levels will be relatively expensive. The premium credits for RP/MP combinations provide some reduction, but for the 95%, 90%, and 85% MP levels, the credit is less than half the total MP premium. A related question is evaluating the potential mix of RP and MP coverage. In the examples mentioned above, the 75% RP + 85% MP combination is roughly the same cost as the 85% RP coverage. Many producers may prefer spending any additional premium dollars on a higher RP guarantee rather than shifting some to the area-based MP coverage.

It should also be noted that the amount of premium credit will depend on one's own farm yield history, and how it tracks relative to the county average. The examples in Tables 1 and 2 used farm yields that matched area averages; credits may differ as farm yields diverge from area averages. Producers are encouraged to use their APH histories when getting estimates for premiums and credits on the website.

The Sales Closing Date for Margin Protection is September 30.

Table 1: Estimates of MP premiums, RP premiums, and premium credits for non-irrigated corn in Nemaha County, KS, for 2018

		Guarantee level					
		95%	90%	85%	80%	75%	70%
MP premiums, $/a		$62.09	$51.80	$38.84	$27.93	$22.76	$16.80
RP premiums, $/a		Premium credits, $/a					
85%	$ 40.61	$21.46	$21.46	$19.55	$17.25	$17.15	$14.03
80%	$ 27.84	$17.61	$17.61	$16.04	$14.15	$14.15	$12.78
75%	$ 20.37	$14.36	$14.36	$13.08	$11.54	$11.54	$10.51
70%	$ 15.52	$11.39	$11.38	$10.36	$9.14	$9.14	$8.33
65%	$ 12.75	$8.58	$8.58	$7.82	$6.90	$6.90	$6.29

Notes: Expected County Yield for 2018 non-irrigated corn in Nemaha County is 143.2 bu/a, according to MarginProtection.com. Farm yield in this example used a 10-year yield history matching Nemaha County average non-irrigated corn yields, taken from National Agricultural Statistics Service, USDA. Example used Projected Price of $3.95; 2018 RP premium estimates were 2017 amounts adjusted for a price change from $3.92/bu. Estimates downloaded on 8/30/2017.

Table 2: Estimates of MP premiums, RP premiums, and premium credits for irrigated corn in Finney County, KS, for 2018, in dollars per acre

		Guarantee level					
		95%	90%	85%	80%	75%	70%
MP premiums, $/a		$40.60	$29.75	$19.73	$12.29	$8.26	$4.87
RP premiums, $/a		Premium credits, $/a					
85%	$ 34.53	$9.46	$8.83	$7.00	$5.05	$3.93	$2.71
80%	$ 23.19	$5.35	$5.22	$4.42	$3.37	$2.73	$1.93
75%	$ 15.83	$2.69	$2.69	$2.39	$1.96	$1.69	$1.24
70%	$ 10.90	$1.14	$1.14	$1.04	$0.90	$0.84	$0.66
65%	$ 7.99	$0.42	$0.42	$0.38	$0.34	$0.33	$0.28

Notes: Expected County Yield for 2018 irrigated corn in Finney County is 160.5 bu/a, according to MarginProtection.com. Farm yield in this example used a 10-year yield history matching Southwest Kansas Crop Reporting District average irrigated corn yields, taken from National Agricultural Statistics Service, USDA. Example used Projected Price of $3.95; 2018 RP premium estimates were 2017 amounts adjusted for a price change from $3.92/bu. Estimates downloaded on 8/30/2017.