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## Selling Covered Put Options<sup>1</sup>

*Dear Art,*

*We had a crop insurance meeting last night with farmers and another one this morning so we missed your webinar. Also wished I could come to your Wyoming RAMII meeting. Is there any way I could purchase that presentation? I am amazed at some of the ideas you come up with in your presentations. I learn amazing things to say to my producers.*

*Let me know if anything is available for purchase.*

*Thanks*

*Southern Crop Insurance Agent*

Dear Agent,

Thanks for your note. I knew this was a bad schedule time for insurance agents but I had a request for a Webinar on selling covered CME puts with crop

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insurance. After doing a quick survey, we found a number of people were interested in participating in a webinar.

The RAMII workshop would not work in a Webinar format and I think a video would not work well either. The real learning from a RAMII workshop is it allows participants to make real time decisions as close to the real thing without risking real money. Perhaps we could do an abbreviated RAMII at the 4State crop insurance workshop in the fall. I normally have requests to do RAMII workshops in other states that are either sponsored or they depend on registration fees for funding. I do have a few restrictions on accepting sponsorship. I too wish you could come to the Wyoming RAMII workshop but next year I will have at least two workshops in Kansas and probably a few workshops out of state.

A recording of the Webinar is available for the same \$25 fee as the live Webinar. A recorded copy of the Webinar was included in the Webinar registration fee. The link to obtain a recorded copy of the Webinar and “handout” materials is listed below.

Many people are probably still trying to get their arms around the idea that one can use insurance deductible bushels to cover selling out of the money CME puts. There once was a meat processor who claimed they “processed every part of the hog but the squeal”. Selling CME out of the money puts covered with production exceeding the APH or Revenue Protection (RP) payments is way to use the deductible bushels in the RP coverage. If one multiplies the corn RP strike price (price election) of \$6.01 times 75% coverage level the “effective” strike price is \$4.51 and \$10.12 for soybeans ( $\$13.49 \times 75\%$ ) with production equal to the APH. Selecting 85% coverage will increase the “effective” strike price for corn to \$5.11 ( $85\% \times \$6.01$ ) and \$11.47 for soybeans ( $85\% \times \$13.49$ ). If the harvest price is equal to or less than the “effective” strike price, then the deductible disappears and a claim does not require an insurable yield loss (loss of guaranteed bushels).

A 75% insured corn farmer’s deductible will disappear if the harvest price falls below \$4.51. If this farmer were to forward contract (HTA, futures) all of the guaranteed bushels (few farmers would be willing to forward price all guaranteed bushels), and sells 1/3 of their Yield Adjusted Asian (YAA) puts on the Board at a \$4.80 strike price for 29 cents, then the contracted bushels and CME sold puts are covered with either insurance or bushels. Note that the 29 cent CME put premium would fund the first dollar of margin loss on the sold \$4.80 put. Then if production is equal to or less than the APH yield and a harvest price is below \$4.51 that will trigger crop insurance payments. If production exceeds the APH then there are additional bushels to cover the net marginal losses on the put. However, as the harvest price falls below \$4.81 it will require even more bushels above the APH not to trigger crop insurance payments. For example at \$4 the crop production will need to be more than 112% times the APH yield in order to avoid an insurance claim.

If the harvest price is greater than \$6.01 then either farmers will produce enough bushels to fill the forward contracts (HTA or futures) or the insurance will pay the production loss at the higher harvest price (in most states the harvest price for corn will equal the October average closing price of the December CME corn futures). In addition the sold CME puts will expire worthless and farmers would retain the put premium as additional profit. There is a small open coverage window on corn because in most states the RP YAA puts expire on November 1, while CME December corn options expire on about November 26. Revenue Protection YAA options and CME November Soybean options expire in the same month of October in most states.

Farmers with 75% RP coverage who produce an average crop (yield equals APH yield) and the harvest price falls below \$6.01 but the harvest price is greater than \$4.80, then the bushels that were contracted were sold at a price higher than the harvest price and farmers would retain put premiums from the sold CME put options that expired worthless as additional profits.

For farmers with option trading experience, this is an effective way to sell out of the money CME puts and be covered with either insurance or yields greater than their APH. Some farmers who plan to sell out of the money CME puts are considering increasing their RP coverage because that will also increase their "effective" strike price in RP. Selling puts does not limit any forward contract sales because those sales would have been sold at a higher price than the harvest price otherwise there would be no net margin losses on the sold puts. Out of money options trade in a "very thin" market, so one should only submit limit orders and never submit market orders.

Selling puts are covered but if one were to sell calls they are not covered if all of the guaranteed bushels have been forward contracted. Also CME calls have unlimited liability while the YAA calls in RP have a price limit equal to two times the base price, \$12.02 for corn. If the price were to fall and cause net margin losses on the sold puts, then it is also more likely that ACRE and SURE payments from USDA may also be triggered.

The YAA put equals an at the money CME put if and only if the farmer's production equals the guaranteed bushels ( $75\% \times \text{APH}$ ) while the YAA call equals the at the money CME call if and only if production equals zero. Otherwise, the RP YAA options will have less value at expiration than CME options at expiration.

Farmers who have no experience trading option should not considered selling covered puts. They have some "homework" to do first. First there are self study material provided by the CME and a number of text books have been written on options. Many University Extension Services and Community Colleges offer classes on options. We offer an all day RAMII workshop that allows workshop

participants to make these crop insurance and option decisions in a simulated case farm study. Finally the best way to learn anything is to do it. So sell one option and track all of the results. One can learn just as much selling one put option as they will selling 10 options. Farmers with no option trading experience should not bet the farm that they understand all of the risks of selling covered puts.

**Summary.** The crop insurance example used in this paper was 75% RP. Farmers can increase their RP coverage level and increase their effective strike price in RP. That will allow farmers to sell covered CME puts at a higher strike price that will sell for a higher premium. Also price risk covers all production so the enterprise unit will have the same price losses as an optional unit. Because an enterprise unit has a larger share of the crop insurance premium paid by the Risk Management Agency combined with an additional enterprise unit premium discount, farmers can often increase their coverage level and pay less premium than they do for a lower coverage level with optional units. However, with an enterprise unit farmers reduce their deductible and increase their effective RP strike price. Often farmers will add additional private hail coverage when they purchase an enterprise unit. There are cases where the enterprise unit is not an effective alternative and is an insurance issue farmers should discuss with their agent.

A recording of crop insurance webinar on Yield Adjusted Asian Options is available. One will receive the webinar recording and the associated analysis, handouts and materials. To purchase a recording of the webinar and associated materials for \$25: <http://commerce.cashnet.com/ksuagecon>

The KSU Ag Econ web page is located at: <http://www.AgManager.info>

If you have any problems with the website then Dr. Rich Llewelyn can probably help you. His email is [rwl@ksu.edu](mailto:rwl@ksu.edu) or phone 785.532.1504.

If you have other comments, please email me at: [abarnaby@agecon.ksu.edu](mailto:abarnaby@agecon.ksu.edu)

Thanks

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Note: Please email me to have your email address added, deleted or changed.