Ag Policy Update:
Supplemental Coverage Option (SCO)

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Background

The Supplemental Coverage Option (SCO) program is a new crop insurance program that was created by the 2014 Farm Bill. Unlike many of the commodity programs in the 2014 Farm Bill that are administered by the Farm Service Agency (FSA), since the SCO is a crop insurance program it is administered by the USDA's Risk Management Agency (RMA). The SCO is expected to be available for selected crops for the 2015 crop year. The SCO is designed to provide coverage for a portion of a producer's underlying crop insurance policy deductible. For example, if a producer purchases revenue protection insurance at the 70% coverage level, then that producer is protecting roughly 70% of his expected crop value or revenue. The remaining 30% is left unprotected and is considered the deductible associated with the crop policy. What SCO does is allow the producer to purchase coverage for a portion of that 30% of expected crop value that is unprotected by the crop insurance policy.

Since the SCO provides coverage of a portion of the deductible or unprotected portion of expected crop value associated with a crop insurance policy, if follows that SCO must be purchased in combination with an existing crop insurance policy. SCO must be purchased as what RMA terms as an endorsement to either Yield Protection, Revenue Protection, or Revenue Protection with Harvest Price Exclusion policies. In other words, a producer will NOT be able to purchase SCO coverage without first purchasing one of the Yield or Revenue Protection policies available in his area.

To purchase SCO coverage, a producer will work through his crop insurance agent just as he would to purchase one of the existing crop insurance policies. The producer will purchase SCO as an endorsement to an underlying insurance policy. The decision to purchase SCO must be made by the sales closing date of the underlying policy and must be purchased with the same insurance company. SCO is not available to be purchased for those commodities on those farms in which the producer chooses to participate in the Agricultural Risk Coverage (ARC) program made available in the 2014 Farm Bill. It can, however, be purchased for those commodities which the producers chooses to participate in the Price Loss Coverage (PLC) program.

Since there will definitely be a conflict between the time a producer must choose to purchase SCO coverage for the 2015 winter wheat crop (must be purchased by the sales closing date of September 30, 2014) and the time a producer will be able to choose between the ARC and PLC programs (USDA will not likely begin signup for these programs until the end of 2014), the USDA has said that producers who apply for SCO coverage for the 2015 winter wheat crop may elect to withdraw their coverage on any farm where they decided to or intend to elect ARC for winter wheat. To withdraw their coverage, producers will have to notify their crop insurance agent of their intended election of ARC by the earlier of their winter wheat reporting date or December 15, 2014. If this notification is made by the deadline, the producer will be able to drop their SCO coverage without having to pay the premium and without penalty. **Beyond the 2015 winter wheat crop, however, if a producer chooses SCO coverage for a crop on a farm in which the producer has chosen to participate**

in the ARC program, then the producer would not only not have SCO coverage but would also have to pay 20 percent of the SCO premium as a penalty to cover administrative expenses.

How Much Will SCO Cost?

While the exact premium levels are not known at this time, it is known that the Federal Government will supplement premiums at 65%. What this means is that the government will pay 65% of the premium cost and the producer will be responsible for the remaining 35%. What is also known is that premiums will depend on the parish in which the producer operates, the crop being covered, coverage level chosen for the underlying insurance policy, and the insurance policy chosen. It is believed that given the high subsidy level associated with the SCO that premium costs will be at discounted levels to those of the underlying policies.

How Does SCO Work?

The SCO is an area (parish) level insurance policy that provides coverage based on area level yields and revenues. An indemnity is triggered when there is a parish level loss in yield or revenue. Whether SCO is triggered by yield or revenue losses is dependent on the underlying crop insurance policy chosen by the producer. If the producer purchased a yield protection insurance policy, then SCO would be triggered by parish level yield losses. Conversely, if the producer purchased a revenue protection insurance policy, then SCO would be triggered by parish level revenue losses. Since SCO is triggered by parish level yield or revenue losses and the underlying insurance policy is triggered by the producer's individual yield or revenue losses, it is entirely possible that a producer could receive a SCO indemnity payment without having an indemnity payment from his underlying insurance policy and vice versa.

The level at which SCO coverage is triggered was set at a maximum level of 86% in the 2014 Farm Bill. This maximum level is referred to as the area loss trigger (i.e. SCO begins to pay when either the parish yield or revenue falls below 86% of a guaranteed level). SCO coverage begins at 86% and has a coverage range that is equal to the difference between this area loss trigger (86%) and the coverage level of the underlying crop insurance policy. For example, if a producer purchased a revenue protection insurance policy at the 70% coverage level, the SCO's coverage range would be the difference between 86% and 70% or 16%. SCO coverage would begin once losses fell below 86% and would continue to until losses reached 70%. At the point in which losses fell below 70%, the underlying crop insurance policy would be expected to cover those losses.

Once the coverage range for SCO is determined, the maximum indemnity payment can be determined by multiplying this coverage range by the expected crop value. The calculation of the expected crop value can vary slightly depending on the type of the underlying crop insurance policy. For both yield protection insurance policies and revenue protection policies with a harvest price exclusion, the expected crop value is simply the producer's actual production history (APH) yield times the price projection. This price projection is determined by RMA and is usually set at the average of new crop futures prices during the month of February. However, for revenue protection policies, the expected crop value will be the producer's APH yield times the higher of the projected price or the harvest price. The harvest price is also calculated by RMA and is usually set at the average of new crop futures prices for the commodity during a designated month. For example, the harvest price for corn is set at the average of the December corn futures contract price during the month of October while the harvest price for soybeans is the average of the November soybean futures contract price during October.

So, for example, assume a producer has an APH yield for corn on his farm of 165 bushels and has chosen to purchase a crop insurance policy at the 65% coverage level as well as SCO coverage. Also assume that RMA has set the projected price for corn at $4.00 per bushel. The maximum indemnity that would be available with his SCO coverage would be:

*SCO Maximum Indemnity = Coverage Range * Expected Crop Value*

If the underlying crop insurance policy is a yield protection policy or a revenue protection policy with harvest price exclusion, then the expected crop value would be the producer's APH yield times the projected price. In the example, the expected crop value would be $660 (165 bu * $4.00 per bu = $660). Also, given that the coverage level of the underlying insurance policy is 65%, the coverage range would be 21% (Area Trigger Loss – Policy Coverage Level = 86% - 65% = 21%). So the SCO maximum indemnity with a yield protection or a revenue protection policy with a harvest price exclusion would be:

*SCO Maximum Indemnity = 21% * $660 = $138.60*

On the other hand, if this same producer had purchased a revenue protection policy at the 65% coverage level, then the expected crop value would be determined by multiplying the producer's APH yield times the higher of the projected price or the harvest price. However, when purchasing the policy, the harvest price will not be known. As such, the expected crop value would have a minimum value equal to the APH yield times the projected price or the same level as the expected crop value with a yield protection policy or a revenue policy with a harvest price exclusion. If, however, the harvest price is released by RMA later and is higher than the projected price, then expected crop value would increase. Assume that for this example, the harvest price is set at $4.20 per bushel. Since it is higher than the projected price of $4.00 per bushel, the expected crop value would be the producer's APH yield times the harvest price or $693 (165 bu * $4.20 per bu = $693). So, since the harvest price turned out to be higher than the projected price, the expected crop value with the revenue protection policy is higher than it would be with a yield protection policy or a revenue protection policy with a harvest price exclusion. The SCO maximum indemnity with the revenue protection policy with a 65% coverage level would then be:

*SCO Maximum Indemnity = 21% * $693 = $145.53*

The SCO Maximum Indemnity provides the highest level of indemnity that a producer could receive under the SCO coverage. The portion of that maximum level that the producer actually receives is determined by what RMA terms as a payment factor. While the SCO Maximum Indemnity was based on the producer's expected crop value (i.e. the producer's APH times price), the payment factor is dependent on how far actual parish yields or revenues fall below the expected parish level. And, just as with determining the expected crop value, the calculation of the payment fact can differ depending on the underlying crop insurance policy chosen. The payment factor for SCO coverage with a yield protection (YP) policy as the underlying policy is determined by how far actual parish yield falls from its expected level. The actual or final parish yield and expected parish yield are both determined and set by RMA. The SCO payment factor associated with a yield protection policy is calculated as:

$$\text{SCO Payment Factor (YP)} = \frac{\text{(Area Loss Trigger – (Final Parish Yield/ Expected Parish Yield))}}{\text{Coverage Range}}$$

The payment factor for SCO coverage with a revenue protection (RP) policy as the underlying policy is determined by how far actual or final parish revenue falls from its expected value. The final parish revenue is simply the final parish yield times the harvest price. The expected parish revenue is the expected parish yield times the higher of the projected price or the harvest price. The SCO payment factor associated with a revenue protection policy is calculated as:

$$\text{SCO Payment Factor (RP)} = \frac{\text{(Area Loss Trigger – (Final Parish Revenue/Expected Parish Revenue))}}{\text{Coverage Range}}$$

The payment factor for SCO coverage with a revenue protection with a harvest price exclusion (RPhpe) policy as the underlying policy is also determined by how far actual or final parish revenue falls from its expected

value. As with the revenue protection policy, the final parish revenue for the revenue protection with a harvest price exclusion policy is simply the final parish yield times the harvest price. However, rather than using the higher or the projected price or harvest price, the revenue protection with a harvest price exclusion policy simply uses the projected price times the expected parish yield to determine the expected parish revenue. The SCO payment factor associated with a revenue protection with a harvest price exclusion policy is calculated as:

$$\text{SCO Payment Factor (RPhpe)} = \frac{\text{(Area Loss Trigger – (Final Parish Revenue/Expected Parish Revenue))}}{\text{Coverage Range}}$$

Regardless of which underlying policy is associated with SCO, the payment factor is limited to have values between 0 and 1. Keeping with our example producer that purchased an underlying insurance policy at the 65% coverage level and had an projected price for corn of $4.00 per bushel, assume that RMA set the expected parish yield at 150 bushels, the final parish yield at 102 bushels, and the harvest price at $4.20 per bushel. With the area loss trigger fixed at 85%, the SCO payment factor for each of the three underlying policy types would be:

$$\text{SCO Payment Factor (YP)} = \frac{\text{(86\% - (102 / 150)}}{\text{21\%}} = .8571$$

$$\text{SCO Payment Factor (RP)} = \frac{\text{(86\% - ((102 * \$4.20) / (150 * \$4.20)))}}{\text{21\%}} = .8571$$

$$\text{SCO Payment Factor (RPhpe)} = \frac{\text{(86\% - ((102 * \$4.20) / (150 * \$4.00)))}}{\text{21\%}} = .6952$$

With the payment factor calculated and the maximum indemnity calculated, the amount of indemnity that the producer would receive under the SCO policy is then calculated by simply multiplying the payment factor by the maximum indemnity level. Again, keeping with our example, the producer would receive an indemnity for each of the types of underlying insurance policies as follows:

*Indemnity (YP) = SCO Maximum Indemnity * Payment Factor (YP) = $138.60 * 0.8571 = $118.80*

*Indemnity (RP) = SCO Maximum Indemnity * Payment Factor (RP) = $145.53 * 0.8571 = $124.74*

*Indemnity (RPhpe) = SCO Maximum Indemnity * Payment Factor (RPhpe) = $138.60 * 0.6952 = $96.36*

So, the producer in our example would receive an indemnity from $96.36 to $124.74 per acre depending on which one of the underlying insurance policy he chose. This SCO indemnity would be in addition to any indemnity that the producer would receive from the underlying policy.

The appendix of this report provides a couple of additional examples of how the SCO coverage would operate. In addition to detailing the mechanics of the SCO coverage, the examples also provide details of how the underlying policy would operate.

Final Comments

As mentioned earlier, the SCO will be available for a selected number of crops in a selected number of areas in the United States for the 2015 cropping year. According to RMA, SCO will be available in select counties (parishes) for spring barley, corn, soybeans, wheat, sorghum, cotton, and rice. Also, as mentioned earlier, SCO is not currently scheduled to be available for the 2015 winter wheat crop in Louisiana. Information regarding the availability in particular parishes for the other crops not yet been released by RMA. That information is expected to be released later this year. If available in Louisiana, producers would have to decide

whether or not to purchase SCO by the closing date of the underlying crop insurance policies which is February 28, 2015 for most spring planted crops.

Producers interested in learning more about the SCO program are encouraged to contact their crop insurance agent or RMA. The RMA website has a crop insurance decision tool that allows producers look at the different crop insurance and SCO combinations. That decision tool can be accessed at the following website:

http://prodwebnlb.rma.usda.gov/apps/CIDT/

APPENDIX

Example 1

SCO Coverage with a Revenue Protection Policy

Assume a producer wants to purchase crop insurance and SCO coverage for his soybean crop on a particular farm. After examining the options available to him, the producer is able to develop the following information:

Producer's APH Yield:	42
Expected Parish Yield:	38
Projected Price:	$12.00
Area Loss Trigger	86%
Underlying Crop Insurance Policy:	Revenue Protection
Crop Policy Coverage Level Chosen:	65%

At the end of the cropping year, the producer was able to obtain the following decision.

Final Producer Yield:	29
Final Parish Yield;	29
Harvest Price:	$10.90

Given the producer's selection of a Revenue Protection policy at the 65% coverage level and the purchase of SCO coverage, the producer would be eligible for the following:

SCO Coverage with a Revenue Protection Policy

Revenue Protection Coverage	
Guaranteed Revenue Level (APH * Higher of Projected Price and Harvest Price * Policy Coverage Level)	$327.60
Actual Revenue (Final Producer Yield * Harvest Price)	$316.10
Revenue Protection Indemnity (Guaranteed Revenue Level - Actual Revenue)	$11.50
SCO Coverage	
Coverage Range (Area Loss Trigger - Underlying Policy Coverage Level)	21.00%
Maximum Indemnity (APH * Higher of Projected Price or Harvest Price * Coverage Range)	$105.84
Payment Factor (Area Loss Trigger-(Final Parish Revenue / Expected Parish Revenue)) / Coverage Range	0.7943
SCO Indemnity (Maximum Indemnity * Payment Factor)	$84.07
Total Idemnity (Revenue Protection Indemnity + SCO Idemnity)	$95.57

For this example, the producer would receive an indemnity payment from the Revenue Protection policy of $11.50 per acre as both his yield and harvest price fell from their expected or projected levels. The producer would also receive a SCO indemnity of $84.07 per acre as both the final parish yield and harvest price fell from their expected levels. This would provide the producer a total indemnity of $95.57 per acre.

Example 2

SCO Coverage with a Yield Protection Policy

Assume a producer wants to purchase crop insurance and SCO coverage for his rice crop on a particular farm. After examining the options available to him, the producer is able to develop the following information:

Producer's APH Yield:	7,290
Expected Parish Yield:	6,156
Projected Price:	$14.00
Area Loss Trigger	86%
Underlying Crop Insurance Policy:	Yield Protection
Crop Policy Coverage Level Chosen:	70%

At the end of the cropping year, the producer was able to obtain the following decision.

Final Producer Yield:	6,480
Final Parish Yield;	4,925
Harvest Price:	$12.00

Given the producer's selection of a Yield Protection policy at the 70% coverage level and the purchase of SCO coverage, the producer would be eligible for the following:

SCO Coverage with a Yield Protection Policy

Yield Protection Coverage	
Guaranteed Yield (APH * Policy Coverage Level)	5,103
Actual Yield (Final Producer Yield)	6,480
Yield Protection Indemnity ((Guaranteed Yield - Actual Yield)* Projected Price)	$0.00
SCO Coverage	
Coverage Range (Area Loss Trigger - Underlying Policy Coverage Level)	16.00%
Maximum Indemnity (APH * Projected Price * Coverage Range)	$163.30
Payment Factor (Area Loss Trigger-(Final Parish Yield / Expected Parish Yield)) / Coverage Range	0.3748
SCO Indemnity (Maximum Indemnity * Payment Factor)	$61.20
Total Idemnity (Revenue Protection Indemnity + SCO Idemnity)	$61.20

For this example, the producer would not receive any indemnity from the Yield Protection policy as his final yield was not low enough to result in an indemnity payment. The producer would, however, receive a SCO indemnity of $61.20 per acre as the final parish yield fell significantly from its expected level. So, this example shows a scenario where an indemnity would be available from the SCO coverage but not from the Yield Protection policy.