



Coverage Levels on Crop Insurance and the SCO Alternative

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April 29, 2014

farmdoc daily (4):78

Recommended citation format: Schnitkey, G., and B. Sherrick. "[Coverage Levels on Crop Insurance and the SCO Alternative](#)." *farmdoc daily* (4):78, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 29, 2014.

Permalink: <http://farmdocdaily.illinois.edu/2014/04/coverage-levels-on-crop-insurance-and-sco.html>

Over time, crop insurance coverage levels chosen by farmers have increased, and there are regional patterns in coverage elections. Coverage level choices tend to be highest for corn and soybeans in the heart of the Corn Belt. These regional distributions will impact the economic attractiveness of the Supplemental Coverage Option (SCO), a new crop insurance product specified in the 2014 Farm Bill (*farmdoc daily* [February 27, 2014](#)). Because SCO will be more attractive where lower coverage levels predominate, SCO use likely will be more attractive outside of the Corn Belt.

Coverage Level

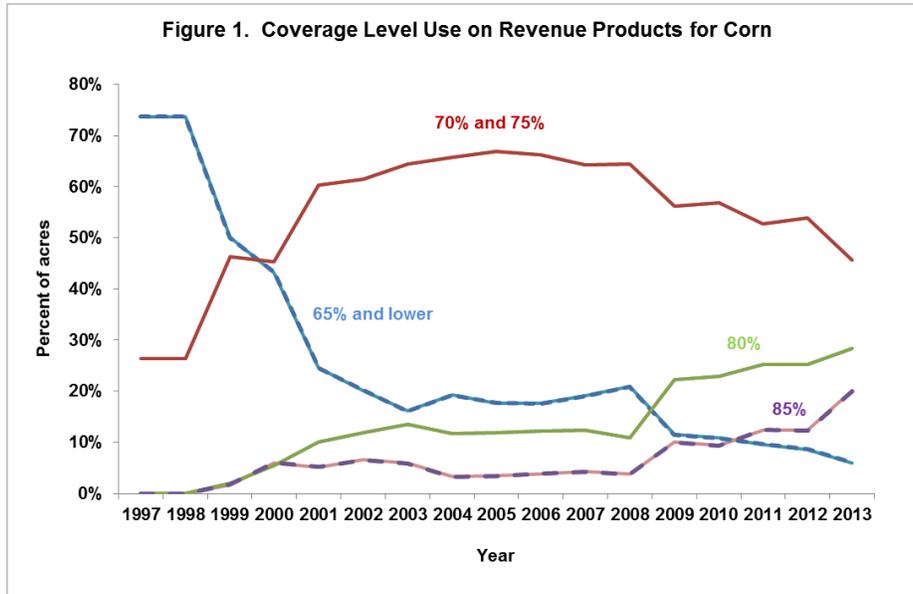
Over time, acres insured with higher coverage levels have increased. Figure 1 shows percentage of acres insured by coverage level for revenue products on corn in the United States. Prior to the introduction of the COMBO product in 2011, revenue products included Crop Revenue Coverage, Income Protection, and Revenue Assurance. From 2011 through 2013, COMBO plans are Revenue Protection (RP) and Revenue Protection with the Harvest Price Exclusion.

In 1997, the first year revenue products were introduced, a total of 10.2 million acres were insured using revenue products. Of this 10.2 million acre total, 74% were insured with policies having 65% and lower coverage levels and 26% were insured with 70 and 75% coverage levels (see Figure 1).

Over time, 65% and lower coverage levels decreased in use from 74% in 1997 to 6% in 2013. Use of 70 and 75% coverage levels first increased, reaching a high of 67% of acres in 2005. Since 2005, use of 70 and 75% coverage levels decreased to 46% of insured acres in 2013.

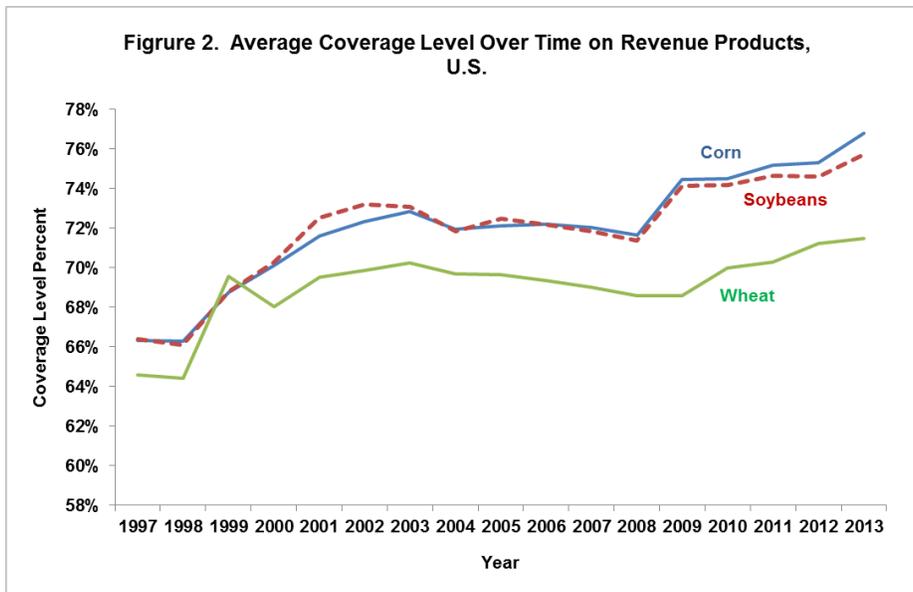
The 80 and 85% coverage levels were first introduced in 1999. In 1999, 2% of the acres were insured at a coverage level of 80%, and another 2% of acres insured at the 85% coverage level. From these levels, use of 80 and 85% coverage levels grew and reached a plateau. In 2008, 11% of the acres were insured with the 80% coverage level and 4% at the 85% coverage level. From 2008 onward, use of 80 and 85% coverage levels increased. In 2013, 28% of the acres were insured at 80% coverage level and 20% at the 85% coverage level.

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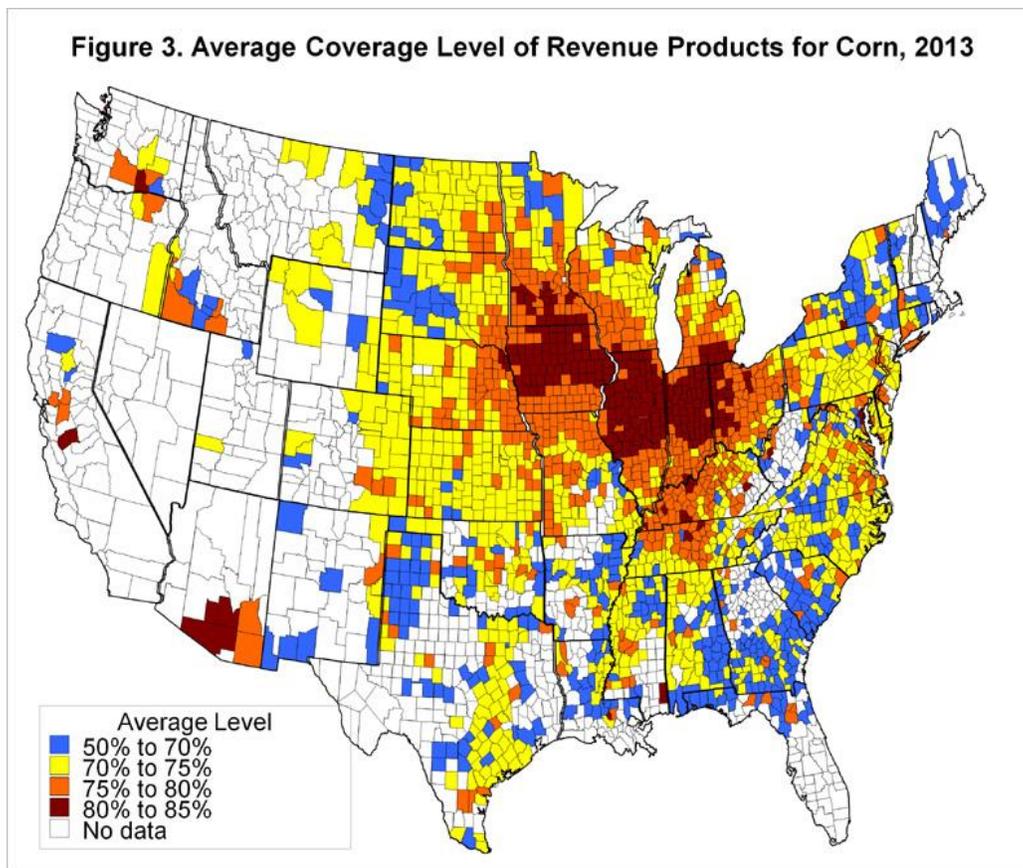
To further illustrate increases in coverage levels, an average coverage level was calculated and reported for each year (see Figure 2). The average coverage level weights each coverage level by the acres insured. In 1995, the average coverage levels for corn was 66% (see figure 2), which is the weighted average of 247,000 acres insured at a 50% coverage level, 43,000 acres at a 55% level, 139,000 at a 60% coverage level, 7,119,000 at a 65% coverage level, 1,697,000 at a 70% coverage level, and 997,000 acres at a 75% coverage level. From the 66% level in 1997, the average coverage level for corn increased to 77% in 2013.

Also shown in Figure 2 are average coverage levels for soybeans and wheat. Similar to the corn trend, soybeans averages increased from 66% in 1997 to 76% in 2013. Wheat's average coverage level increased, but less than corn and soybeans. In 2013, corn and soybeans had average coverage levels of 77% and 76%, respectively, while wheat had a lower level of 71%.



Geographic Distribution of Average Coverage Levels

Average coverage levels are not evenly distributed across the United States. Figure 3 shows the average coverage level for corn revenue products in 2013. The center of the Corn Belt had much higher average coverage levels than the remainder of the United States. The majority of counties in northern and central Iowa, northern and central Illinois, and northern and central Indiana had average coverage levels that exceed 80%. For example, the average coverage level in McLean County Illinois was 82%, with 55% of acres insured using an 85% coverage level and 33% using an 80% coverage level. Most of the remaining Corn Belt counties had coverage levels that exceeded 75%. Many counties in the Great Plains and the east seaboard had average levels between 70 and 75%. Counties in western Dakotas, Texas, and the south had average coverage levels between 50% and 70%.



Soybeans had a similar geographical distribution. Counties within the heart of the Corn Belt had average coverage levels above 80%, with the remaining Corn Belt counties averaged between 75% and 80%. Lower coverage levels predominated in the Great Plains and the South.

The highest average coverage levels for wheat occurred in the Northwest United States (Washington, Oregon, and Idaho), California and Arizona, and in Indiana, Ohio, and Michigan (see Figure 5). Counties in the Great Plains tended to have lower coverage levels. Many counties with below 70% coverage levels occurred in Montana, South Dakota, Texas, Alabama, Georgia, South Carolina, and North Carolina.

Figure 4. Average Coverage Level of Revenue Products for Soybeans, 2013

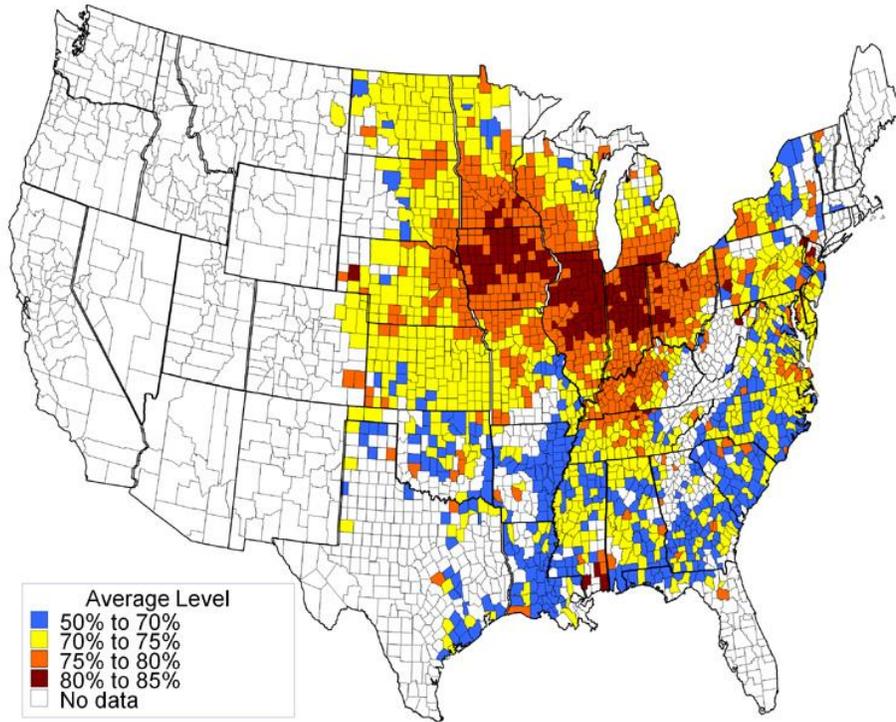
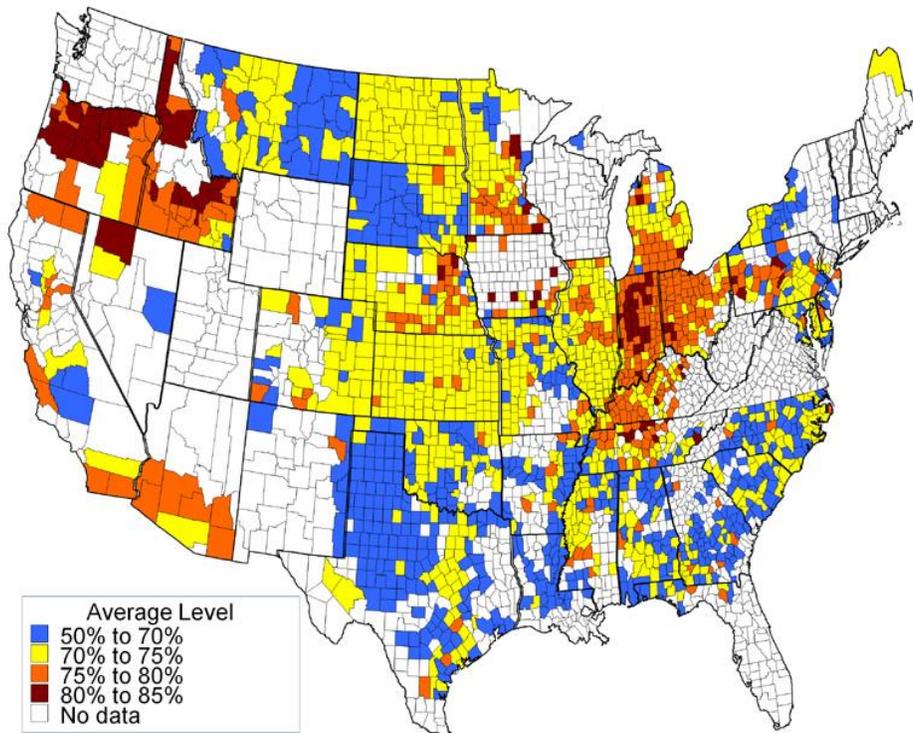


Figure 5. Average Coverage Level of Revenue Products for Wheat, 2013



Implications for SCO Choice

SCO will provide crop insurance at a county-level from an 86% coverage level down to the coverage level of the farm-level policy (*farmdoc daily* [February 27, 2014](#)). All else equal, SCO will be a more attractive insurance option to those taking lower coverage levels on the COMBO product.

To illustrate, consider a Midwest farmer using Revenue Protection at an 85% coverage level. Buying an SCO product from 86% down to 85% provides little coverage, and extremely small risk mitigation benefits. There may be an incentive to reduce the coverage level on the RP policy, say to 80%. Then, SCO could be purchased from 86% down to 80%, potentially offering modest savings in premiums because SCO has a higher subsidy than the COMBO product at high coverage levels. However this strategy introduces additional basis risk in that a farm could suffer a yield loss while the county does not have a loss, leading to non-payments from 86% to the farm-level coverage (*farmdoc daily* [April 24, 2014](#)). Reducing the COMBO product coverage level and using SCO usually will result in less risk management benefits than simply purchasing RP at an 85% coverage level. Therefore, use of SCO is questionable where high coverage levels are used.

Those situations with lower COMBO products may find SCO relatively more beneficial. However, whether SCO is attractive will depend on the premium costs of SCO relative to the higher coverage level on the COMBO product. It may be that the higher coverage level on the COMBO product is not being purchased because of cost. SCO likely will have high premiums where increasing coverage levels on COMBO products have high premiums. In these cases, producers may find SCO's premium costs high and not purchase SCO.

In some regions, COMBO products are not offered at 80% and 85% coverage levels. SCO may be an attractive alternative in these cases. However, the 80% and 85% coverage levels often are not offered in these regions because there has been little demand for those coverage levels. Often, little demand is due to high costs. It is thus likely that SCO will have high costs in those regions as well.

Key to the above observations are the rates associated with SCO. After the Risk Management Agency releases SCO rates, further judgments on SCO's use can be made.

In any case, SCO likely will be more attractive where coverage levels are lower. In the main, this will occur outside the Corn Belt. More use may be possible in areas where coverage levels are lower, typically in the Great Plains and the South.

Summary and Commentary

Coverage levels on revenue products have increased over time and the highest average coverage levels occur in the Corn Belt. Those areas where higher COMBO product coverage levels likely will find SCO less economically attractive. This suggests that SCO will have less use in the Corn Belt on corn and soybean farms than in other regions of the country.

Where 85% coverage levels are used extensively, it is difficult to see how SCO provides meaningful risk management benefits. SCO may have a place where lower coverage levels are used. Even in these cases, the use of SCO is questionable and will depend on final premiums. If higher coverage levels are not chosen because of higher premiums, it is not certain that SCO will be attractive, as SCO could have high premium costs as well. The extent to which this is true will depend on premiums associated with SCO. Further judgments can be made after the Risk Management Agency releases rates for SCO.

Limited risk benefits and questions on the level of SCO use leads to a question of why introduce SCO at all. A better approach likely would have been to more directly address why lower coverage levels occur in certain geographical regions. Making 85% coverage levels available in all areas is one response. Making the higher subsidy SCO subsidy available on COMBO products would have been another.

Another question is why tie availability of SCO to the choice of the Price Loss Coverage commodity title alternative. SCO is not available under the Average Crop Revenue election. Making SCO available under only one Farm Bill alternatives complicates Farm Bill commodity program decision-making, and forces

producers to learn about an SCO program that in all likelihood has limited risk mitigating potential. This will be particularly problematic if SCO rates are not known when insurance decisions are made. Moreover, linking the decision complicates crop insurance delivery, as commodity program choice will now have to be determined prior to offering SCO.

References

Paulson, N., and J. Coppess. "[Further Discussion of the Supplemental Coverage Option.](#)" *farmdoc daily* (4):75, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 24, 2014.

Paulson, N., and J. Coppess. "[2014 Farm Bill: The Supplemental Coverage Option.](#)" *farmdoc daily* (4):37, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 27, 2014.

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