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Will Crop Insurance Pay in 2016?

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With harvest approaching, questions on whether crop insurance will make payments this year are beginning to arise, particularly for corn where the prospects are for the harvest price to be below the projected price. In this article, we evaluate whether crop insurance will make payments for Midwest farms purchasing Revenue Protection (RP). Current futures prices are used to estimate harvest prices. For corn, payments could occur if actual yields are slightly below guarantee yields. However, actual yields likely will be above average on most farms, suggesting that RP will not make payments on many farms. Decreases in commodity prices leading to a lower harvest price could increase the likelihood of corn payments. For soybeans, payments are unlikely.

Corn

The 2016 projected price for insurance policies sold in the Midwest is $3.86 per bushel for corn. The harvest price will be the average of settlement prices of the December 2016 Chicago Mercantile Exchange (CME) contract during the month of October. At this point, it seems reasonable to expect a harvest price lower than $3.86 per bushel. Currently, the December contract is trading near $3.40 per bushel. A $3.40 harvest price would be 88% of the $3.86 projected price (.88 = $3.40 / $3.86). Even if RP at the 85% coverage level is purchased, actual yields must be below guarantee yields before payments occur given a $3.40 harvest price.

A multiplicative factor can be developed that states the break-even yield as a fraction of the guarantee yield. A payment occurs when actual yield is less than the guarantee yield times the multiplicative factor. The following formula calculates the multiplicative factor when harvest price is less than projected price:

Projected price x coverage level / estimated harvest price

Factor values for different coverage levels are:

85% coverage level: .965 factor = $3.86 projected price x .85 / 3.40 harvest price
80% coverage level: .908 factor = $3.86 projected price x .80 / 3.40 harvest price
75% coverage level: .581 factor = $3.86 projected price x .75 / 3.40 harvest price

70% coverage level: .795 factor = $3.86 projected price x .70 / 3.40 harvest price

Take a guarantee yield of 200 bushels per acre and an 85% coverage level. Actual yield must be below 193 bushels per acre (200 guarantee yield x .965 factor) before a payment occurs.

Most farms appear to be having above average yields. As a result, payments are unlikely except perhaps in the eastern corn-belt. Also, reductions in harvest prices from current levels could increase the likelihood of payment

Soybeans

The 2016 projected price for soybeans is $8.85 per bushel. The harvest price will be the average of settlement prices of the November 2016 CME soybean contract during the month of October. Currently, the November contract is trading at near $10.00 per bushel. A $10 harvest price is above the $8.85 projected price, meaning that the RP guarantee will be calculated using the higher harvest price. In these cases, multiplicative factors equal the coverage level:

85% coverage level: .85
80% coverage level: .80
75% coverage level: .75
70% coverage level: .70

Take a 50 bushel per acre guarantee yield and an 85% coverage level. Actual yields must be below 42.5 bushels per acre (50 bushels per acre .85) before an RP payment occurs.

Soybean yields are forecast above average causing payments to be unlikely for soybeans.

Summary

At this point, sizable crop insurance payments on many farms in the Midwest appear unlikely as 2016 yields are expected to be above average. Payments may be more likely in the eastern corn-belt where yields could be lower because of dry weather.

Those farms receiving crop insurance payments in 2016 likely are facing very low incomes. This year, projected prices started at low levels. Farms receiving crop insurance payments have low yields. The combination of low yields and low prices will result in low incomes. Crop insurance payments will provide relief, but incomes still likely will be low or negative on farms receiving crop insurance payments.