FARM ECONOMICS: *Facts & Opinions*
FARM BUSINESS MANAGEMENT
Department of Agricultural and Consumer Economics
University of Illinois at Urbana-Champaign

FEFO 09-05
March 9, 2009

GRIP PROVIDES SUPERIOR PRICE PROTECTION TO CRC OR RA

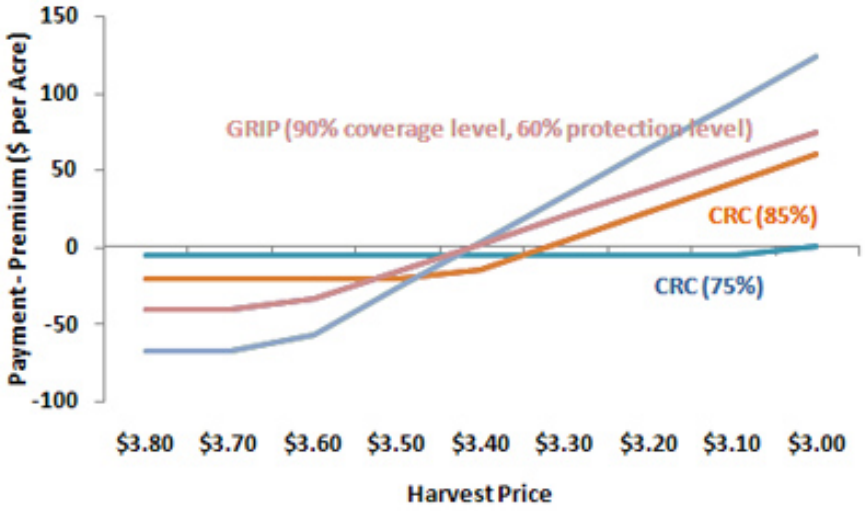
Many farmers are concerned with the possibilities of low prices and want to pick a crop insurance policy with the possibility of low prices in mind. "Low price" concerns likely result from price declines during the past six months and because of general pessimism concerning the U.S. economy.

If lower prices are a primary concern, Group Risk Income Plan (GRIP) at a 90% coverage level will provide superior protection compared to Crop Revenue Coverage (CRC) or Revenue Assurance (RA). Given "average" yields, GRIP will begin to make payments at higher harvest prices than CRC or RA. Moreover, GRIP will make larger payments than CRC or RA at the same harvest price.

Comparison of Payments

Net insurance payments for GRIP and CRC are shown in Figure 1 for corn in Christian County. GRIP payments are shown at a 90% coverage level for two protection levels: 100% and 60%. The 100% protection level policy provides the maximum payments and has a farmer-paid premium of $67.49 per acre. The 60% protection level policy is the lowest available level. Its payments and premiums will be 60% of the 100% protection level policy. The 60% coverage level policy has a premium of $40.50 per acre.

Figure 1. Net Insurance Payments Given Different Harvest Prices, Christian County, Corn, 2009. *



*** For GRIP, county yield is at the expected yield of 180.3 bushels. For CRC, actual yield is at the APH yield of 185 bushels.**

Figure 1 shows payments for CRC policies with 85% and 75% coverage levels. RA policies are not shown as they will have the same payments as the CRC policies. In keeping with the emphasis on lower prices, CRC premiums are for enterprise units. Optional and basic units provide the same price protection as enterprise units but have higher premium costs because smaller acreages are being insured. CRC enterprise unit premiums will vary with acres

insured. Premiums in Figure 1 reflect 500 acres insured. The Actual Production History (APH) yield used in quoting premiums is 185 bushels per acre. The 85% coverage level has a $20.43 premium while the 75% coverage level has a $5.67 premium.

Net payments are shown in Figure 1, meaning that insurance premiums are subtracted from the payments. Negative numbers indicate that insurance premiums exceed insurance payments.
The expected yield of 180.3 is used as the actual county yield when calculating GRIP payments. The APH yield of 185 bushels is used as the farm yield for calculating CRC payments. These assumptions are meant to mimic as situation in which "average" yields are obtained.

For GRIP, insurance payments occur for harvest prices below $3.64 and insurance payments exceed premiums at prices below $3.41 (see Figure 1). For CRC at 85% coverage level, payments occur for prices below $3.32, with payments exceeding premium at $3.30. For CRC at 75% coverage level, insurance payments occur at prices below $3.03 and payments will exceed premiums at $2.99 per bushel.

Two points are evident from Figure 1: GRIP at 90% coverage levels makes larger payments than CRC policies at harvest prices below $3.40. At a 100% protection level, differences between GRIP and CRC payments become larger for lower harvest prices.
A high coverage level on a CRC policy must be used to receive much price protection given "average" yields. A 75% coverage level policy will not provide any payments until prices are below $3.03 per bushel.
In some respects, the analysis in Figure 1 is skewed in favor of CRC. Because APH yields are based on historical yields, the APH yield lags behind a farm's expected yield. Given a 2 bushel yield increase per year, the APH yield will lag expected yields by about 10 bushels given that 10 years are used to calculate the APH yield. Hence, an "average" year will result in a farm yield exceeding the APH yield. This will lower payments from those shown in Figure 1. GRIP's expected yields are based on trend-line yields and hence should not have as much of a lagging problem as the APH yield.

Obviously, Figure 1 only presents one yield scenario. Difference in yields will cause payment differences. In particular, yield above those used in this analysis result in lower insurance payments

Summary

If price declines are a concern, GRIP should be considered. Given the same price decline, GRIP will tend to pay more than CRC or RA. Payments under the products can be examined using the *2009 Crop Insurance Decision Tool.* This is a Microsoft Excel spreadsheet available for download from the *FAST* or crop insurance section of *farmdoc* (www.farmdoc.uiuc.edu).

Submitted by: Gary Schnitkey, Department of Agricultural and Consumer Economics, University of Illinois.