Where Does a Crop Insurance Dollar Go?

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The Risk Management Agency establishes crop insurance premiums on a crop-by-crop and county-by-county basis with the intent to reflect actuarial or break-even costs of insurance over the long run. To make participation attractive, RMA subsidizes farmer paid premiums, and pays administrative and overhead (A&O) subsidies to insurance companies to insure that all products are offered on an equal basis to all eligible producers. To understand “where the dollars go”, it is important to understand premium subsidies, loss ratios, and market shares of products sold.

Premium Subsidies: The premium subsidization rates differ by coverage election and by whether the insurance product is a group- or farm-level product. The Agricultural Risk Protection Act of 2000 established subsidies by election level for group products that reflect a 64% subsidy for 70% and 75% coverage, 59% subsidy for 80% and 85% levels, and 55% subsidy for 90% elections. For farm products, subsidy rates (S) by coverage (C) are: (S)67%-(C)50%; (S)64%-(C)55-60%; (S)59%-(C)65-70%; (S)55%-(C)75%; (S)48%-(C) 80%; (S)38%-(C)85%. In addition to subsidizing the premium, RMA pays A&O of 18-24% to the company selling the product. To make the example concrete, suppose a farmer buys CRC 80% coverage with a total premium of $23.12 per acre. The farmer pays $12.02 (52% of total) and the RMA pays $11.10 (48% of the premium). The crop insurance company selling the policy receives A&O of 18.7% of $23.12, or $4.32.

Loss Ratios: Unlike other forms of insurance where the buyer hopes to not experience a claim, many farmers evaluate crop insurance in terms of the indemnity payments relative to premiums paid. The loss ratio summarizes this experience. The loss ratio equals insurance payments divided by total premiums including subsidies. Total loss ratios are intended to be near 1 prior to subsidization, so farmers should make money over the long run from buying subsidized insurance. Interestingly, between 1995 and 2005, corn and soybeans have had the lowest loss ratios of all major program crops. Over that period, corn (soybeans) had an aggregate loss ratio of .68 (.74) meaning that payments to producers were 68% (74%) of total (farmer plus government paid) premiums. By contrast, cotton experienced an aggregate loss ratio of 1.11, wheat of 1.14, sorghum of 1.38, and tobacco of 2.14. Corn and soybeans together represent over 50% of the total premiums under federal crop insurance programs. As a result, the Midwest has had lower loss ratios than other regions. After-subsidy payments follow a similar pattern with soybeans receiving $2.76 more than paid in farmer premiums per acre, while cotton acres have averaged $17.92 per acre over farmer premiums.
Market Shares: While over 70% of all corn and soybean acres in Illinois are covered under some form of federally sponsored crop insurance, there have been fairly sizeable recent shifts in market shares toward group products and particularly toward GRIP, perhaps reflecting the relatively higher loss ratios or payout rates over recent years for GRIP relative to other products. From 2005 to 2006, the market share of farm-level revenue products on corn fell from 65% to 51% while GRIP moved from 11% to 37% of insured acres, perhaps because of its higher expected payout rates compared to farm-level products under current conditions.

(more information about premiums and expected payouts by specific location can be found at the farmdoc website at: http://www.farmdoc.uiuc.edu/cropins/index.asp)