## Organic Corn, Soybeans and Cotton Pricing Methodology

Actuarial and Product Design Division
Risk Management Agency
United States Department of Agriculture

## **Organic Commodities**

The Risk Management Agency (RMA) completed research and development required by the 2008 Farm Bill into whether or not sufficient data exists upon which RMA can determine a separate price for organic crops, and if such data exists, to develop a pricing methodology using that data. Beginning with crop year 2011, as a result of this research, RMA began issuing an organic price for three commodities priced under the authority of the Commodity Exchange Price Provisions (CEPP)--corn, cotton and soybeans.

Crops grown under the organic farming practice are not traded on any commodities exchange in the United States or Canada; however, in many instances their conventional counterpart is traded. For traded commodities a methodology to derive a price for use by all applicable plans of insurance (Yield Protection; Revenue Protection; and Revenue Protection with Harvest Price Exclusion) is described in the CEPP. These provisions also provide the authority to derive a factor "as determined by RMA" to establish the organic prices, as applicable. This paper is to inform stakeholders regarding the methodology used to derive these factors.

## **Organic Corn and Soybeans**

The methodology is determined by statistical analysis and guidance from industry sources. Data used to derive the organic factor is gathered from the Agricultural Marketing Service (AMS) and the Chicago Board of Trade (CBOT). The three plans of insurance (Yield Protection, Revenue Protection and Revenue Protection with HPE) associated with the Basic Provisions use the same factor and is applied to both the projected price and harvest price as applicable.

National organic corn and soybean prices are published bi-weekly by AMS in the "National Organic Grain and Feedstuffs" (NOGF) report. This report contains a range of organic prices including a "weighted average" price; however, the "weighted average" price is not production weighted. Therefore, as a conservative approach, RMA uses the "low" price category and converts that bi-weekly posted price into a simple average monthly price.

These monthly organic prices are compared with the CBOT average monthly futures prices for conventional corn and soybeans. To compute the corn factor, the monthly organic corn prices are divided by the corresponding monthly average price of the December corn futures contract. To compute the soybeans factor, the monthly organic soybean prices are divided by the corresponding monthly average of the November soybeans futures contract. A simple average of these factors over the most recent three years (36 monthly factors) provides the basis for each respective factor.

A single corn factor and a single soybean factor are applied respectively to the discovered CBOT conventional prices as described in the CEPP.

## **Organic Cotton**

The methodology is determined by statistical analysis and guidance from industry sources. Data used to derive the organic factor is gathered from industry and InterContinentalExchange (ICE). The three plans of insurance (Yield Protection, Revenue Protection and Revenue Protection with HPE) associated with the Basic Provisions use the same factor and is applied to both the projected price and harvest price as applicable.

National Agricultural Statistics Service (NASS) does not publish annual organic price information for cotton. Instead, NASS published the "2008 Organic Survey," however with only a single year of data, establishing any sort of trend is not advisable. Organic cotton price data is also published by AMS in the "Annual Organic Cotton Market Summary." This report, established in 2010, also does not contain sufficient data to determine an organic cotton price.

Proprietary industry data is available and represents a majority of the United States organic cotton market. For each year, the season average organic market prices are compared to the RMA conventional cotton harvest prices. This comparison yields a marginal price premium amount which is averaged over the most recent period of years. A structural shift was identified in the data eight years ago; therefore, these most recent eight years are the basis for the 2012 crop year calculation. Moving forward an additional year of data will be considered each year unless another structural movement is identified. The amount resulting from this calculation will be <u>added</u> to the discovered ICE cotton #2 futures prices as described in the CEPP.

Due to the proprietary nature of these data, the factor cannot be calculated independently, its value will be released publicly at <a href="www.rma.usda.gov">www.rma.usda.gov</a> prior to the contract change date.