



PREMIUM RATE ADJUSTMENT

Background on Process

Section 508(i) of the Federal Crop Insurance Act (Act) requires the Risk Management Agency (RMA) to set premium rates and implement rate changes in a timely manner to cover expected losses and a reasonable reserve. To ensure rates are actuarially sound, the Act also requires RMA to conduct periodic reviews of premium rates and its methodology for establishing premium rates.

In March 2009, RMA retained a distinguished group of economists and actuaries to perform a comprehensive review of RMA's premium rating methodology. The previous review was completed in 2000. A final draft of the review was published in April 2010. It found that RMA's loss-cost rating methodology was appropriate. This method sets premium rates according to the average historical rate of loss (e.g., if, on average, policies pay out ten percent of their value, then charge a ten percent rate). However, the review provided several recommendations on the use of the historical loss experience to better refine the premium rates within that methodology.

A key recommendation from the review was that RMA should "evaluate alternative loss cost experience weighting methods", especially with a view toward placing more weight on loss experience from recent years that may be more representative of today's agricultural risks. A follow-up study addressing this recommendation was initiated in August 2010 with a final draft produced in July 2011.

RMA submitted the study for external review by six experts, as well as made it available to the public for comment. Subsequently, the authors of the study were given the opportunity to respond to the external professional reviews. This process was complete in November 2011.

On November 29, 2011, RMA announced it was implementing adjustments to premium rates in a "phased in" approach allowing for further adjustment pending additional analysis of peer review comments. On average, last year's changes reduced corn farmers' rates by 7 percent and soybean farmers' rates by 9 percent. The 7 percent rate decrease for corn included the effects of discontinuing a premium discount provided by the Biotech Endorsement program and rolling it into the base premium rate. The Biotech Endorsement provided a premium discount to growers who planted stacked-trait-hybrid corn seed.

Since November 2011, RMA has fully evaluated the study, reviews, and the authors' responses to the reviews and confirmed that premium rate changes are appropriate, although some refinements to the study were made in response to specific points and suggestions made by the reviewers. While the use of historical loss data has been revised, the underlying loss cost rating methodology remains the same.

Study Revisions to the County Base Premium Rate

Fundamentally, the current and revised methodologies are the same – both establish premium rates based on the average rate of county-level losses observed in RMA’s historical data. The difference is in the treatment of the historical loss data. The revised methodology gives more weight to recent years, rather than the current approach of giving equal weight to all years back to 1975.

These revisions, which are based on a recently completed actuarial study, include:

- Use of a moving 20-year period to establish county base premium rates
 - Current approach uses data back to 1975 (36 years).
 - Reason for change: Agriculture (and the crop insurance program) have changed significantly since the 1970’s and 80’s – data from recent years better represents the risks faced by today’s growers.

 - Note: The catastrophic load, added to the county base premium rate, is still based on the worst 10 percent of losses from all years back to 1975; consequently, the risk represented by the catastrophic droughts of 1983 and 1988 are never entirely omitted from the premium rates under the new approach. A catastrophic load is intended to account for infrequent, severe events that are not fully captured in the base premium rate.

- Adjustment of pre-1995 loss data down to reflect program/agronomic differences
 - This accounts for the impact that changes in the crop insurance program and in agriculture (e.g., biotechnology, precision agriculture) have had on the loss performance of the crop insurance program.
 - Current approach uses unadjusted data for all years.
 - Reason for change: Similar to reasons for using most recent 20 years.
 - This adjustment mainly affects the catastrophic load – the 20-year moving horizon for base premium rates is mostly post-1995 at this point.

- Use of weather data to adjust premium rates
 - Current approach does not consider weather data.
 - Reason for change: When using a shorter 20-year period to establish rates, there is a risk that it contains an unusually bad (or good) streak of weather, resulting in inappropriately high (or low) premium rates.
 - Revised approach compares weather data for the 20-year period to the last 116 years to determine if bad (or good) weather events are over-represented, and adjusts premium rates accordingly.
 - Weather data is also used to reduce the weight of infrequent weather events in the catastrophic load.

Other Premium Rate Changes

In addition to the adjustment to county base premium rates stemming from the rate study, various rate factors that ‘individualize’ the county base rate to a specific grower’s situation are also being updated as a normal course of business. Updates to other premium loads in the County Base

Rate not related to the Rate Study include prevented planting and replant loads, which have been revised to reflect accumulated loss data since 2007. Like the Rate Study, these rate factors can have a significant impact on producer premium. It is best to make all changes at once rather than spreading the changes over time, potentially driving rates in different directions from one year to the next.

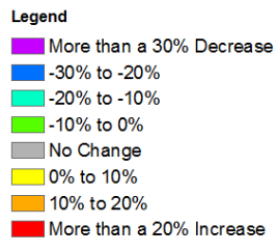
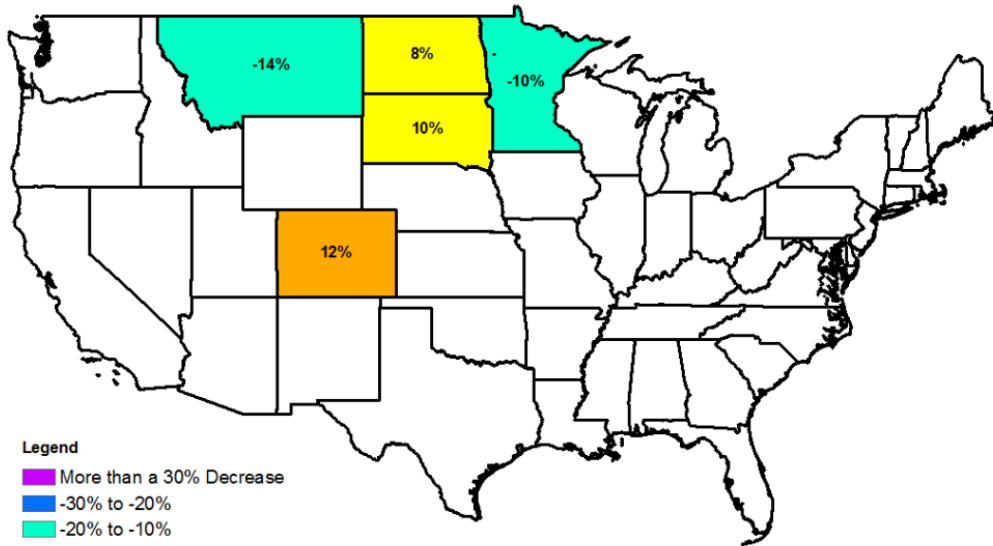
These factors include:

- **Coverage level factors** – Used to determine how much more/less premium is charged for growers selecting higher/lower levels of coverage are updated to reflect recently-accumulated loss data.
- **Rate adjustment factors** – Account for differences in risk across individual growers as indicated by their own average yield compared to the county average yield, are recalculated based on loss data, rather than stemming from yield-based modeling efforts in the past.
 - The county average yields are also updated to reflect yield data reported to RMA and trend increases in yields since the last update some years ago – this results in more growers being at, or below, the county average yield.
- **Prevented planting and replant loads** – Updated to reflect recently accumulated loss data.
 - These loads account for the losses stemming from the addition of prevented planting and replant coverage, losses which are not included in the experience used to determine the base premium rate.
- **Catastrophic load** – Originally calculated at the state level, now calculated at the crop district level and updated to include recently accumulated data.

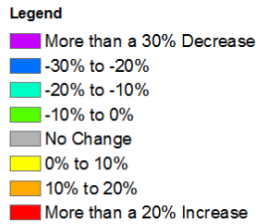
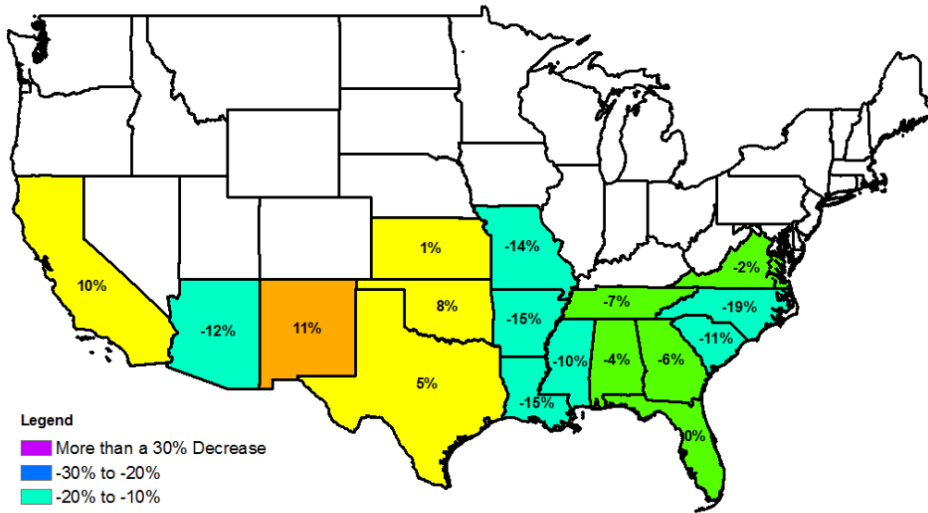
Implementation

- For corn, grain sorghum, and cotton, there is little net premium change at the national level because areas with premium rate increase will be generally offset by decreases in other areas. For rice and soybeans, there is an overall decrease of about 8 percent and 6 percent, respectively. For spring wheat, there is an overall increase of around 4 percent. In general, premium is more likely to decrease in core growing areas and increase elsewhere driven largely by loss experience in recent years. However, there will be varying impacts by crop and county driven largely by loss experience in more recent years.
- Consistent with the approach announced last year, RMA will continue to phase in the new rates limiting year-to-year premium changes to limit potential increases due to significant 2012 losses as a result of drought. This approach will help keep premiums stable and provide farmers predictable rates.
- For 2013 RMA will fully implement targets that result in 15 percent or less change (increase or decrease) in yield protection premium on average. Partially implement targets beyond 15 percent, not to exceed the maximum of 20 percent on average.

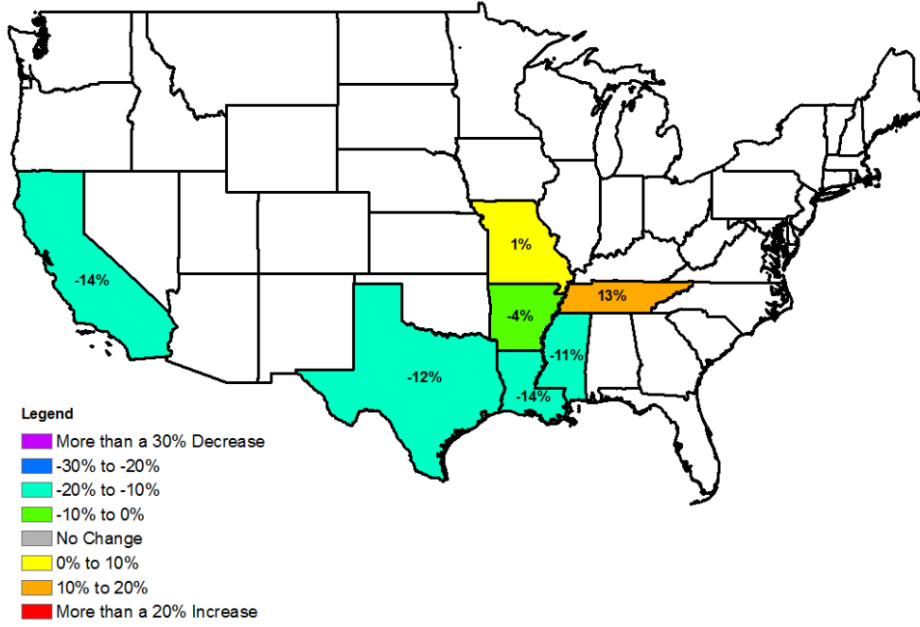
Wheat (0011)
Estimated Premium Impact 2012 to Proposed



Cotton (0021)
Estimated Premium Impact 2012 to Proposed



Rice (0018)
Estimated Premium Impact 2012 to Proposed



Corn (0041)
Estimated Premium Impact 2012 to Proposed

