Risk Management Agency

Premium Rate Study Update

Questions & Answers

November 2012

Q1 Why is RMA examining premium rates and the process for determining them?

A1 Section 508(i) of the Federal Crop Insurance Act (Act) requires the Risk Management Agency (RMA) to conduct a comprehensive review of its premium rates and premium rating methodology on a periodic basis. The Act also requires that RMA adopt "as soon as practicable, rates and coverage's that will improve the actuarial soundness" of the crop insurance program. The last such evaluation had been conducted in 2000. Section 508(i) also stated "If the Corporation makes a determination that premium rates are excessive for an agricultural commodity in an area relative to the requirements of subsection (d)(2) for that area, then, for the 2002 crop year (and as necessary thereafter), the Corporation shall make appropriate adjustments in the premium rates for that area for that agricultural commodity."

Such reviews help ensure that RMA is in compliance with its statutory mandate regarding actuarial soundness and that the Federal crop insurance program does not place an unnecessary financial burden on growers or on the American taxpayer through inaccurate premium rates. This is more important than ever with the current fiscal constraints facing the Federal government and is in line with the Obama Administration's charge to operate the Federal crop insurance program as effectively and efficiently as possible.

In March of 2009, RMA awarded a contract to a team of respected actuaries and economists to undertake such an evaluation, following a public solicitation. The review was completed in April of 2010, following a period of public comment and suggested that RMA's loss cost rate methodology was sound but that the underlying data needed to be reweighted. The evaluation did not have sufficient information to implement the recommended reweighting so RMA awarded a second contract to evaluate the recommendations. That evaluation was completed in July 2011 and was peer reviewed. The comments were evaluated and the process was completed in November 2011.

Q2 Why are premium rates being revised for Corn, Soybeans and other commodities?

A2 Based on the results of the review and a follow-up actuarial rate study in November of 2011, RMA announced initial adjustments to the premium rates for corn and soybeans, the first two crops to undergo evaluation according to the recommendations of the actuarial study. RMA was still evaluating some recommendations and was concerned about the effect on the program if the rate decreases were too dramatic so RMA elected to phase in the rate adjustments. A partial rate adjustment was implemented for the 2012 crop year. At that time, RMA noted the assessment of premium rates for corn and soybeans was continuing and that further rate adjustments would likely be forthcoming in subsequent years. In addition, RMA also noted that other commodities would undergo rate examinations and if warranted, also would be subject to premium rate adjustments.

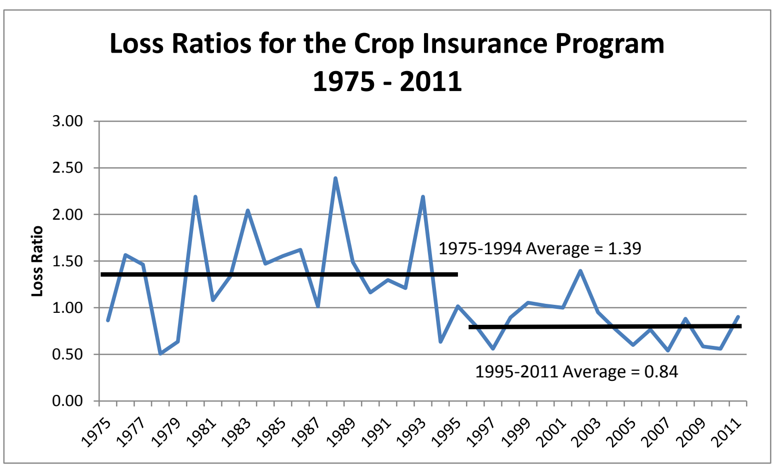
Adjustments to premium rates are being made to corn, soybeans, cotton, rice, grain sorghum and spring wheat for the 2013 crop year.

The premium rate changes are being driven by the recommendations of the rate study. One key recommendation is that RMA give more weight to loss experience from more recent years, as they are more representative of the risks that growers currently face. Another key recommendation is that RMA consider long-term weather data in establishing premium rates.

Premium rate changes are also being driven by updates to other rating components that are separate from the rate study. Generally, these rating components are being updated to reflect recently-accumulated loss data.

Q3 How has the loss ratio changed since the beginning of the current program in the 1990s?

A3 The program's actuarial performance has steadily improved since the 1994 crop year. From years 1975 to 1994, the loss ratio averaged 1.39 as the program struggled with a number of factors ranging from low participation to a large number of catastrophic events. However, from 1995 to present, the program's loss ratio has fallen to 0.84.



This improved actuarial performance is the result of many factors, including improved program underwriting, more and better data to establish premium rates, refinements to actuarial methodologies, increased participation of major crops, a broader range of crops covered, and more stringent enforcement of program integrity and compliance provisions. Even including one of the worst modern-day production years on record, 2011, does not materially change the dramatic improvement in the program's actuarial performance. The ability of RMA to craft actuarially sound programs that provide American producers with a strong safety-net is significantly better today than in the period prior to 1995.

Q4 What rate factors have been updated?

A4 Beyond the overall adjustment to base premium rates based on the rate study, various rate factors that "individualize" the base rates to a specific grower's situation will also be updated. For example, RMA will update the coverage level differentials that determine how much additional premium is charged for growers selecting higher/lower levels of coverage. RMA will also update factors that account for differences in risk across individual growers as indicated by their own average yield compared to the county average yield. To the extent that a grower's average yield is above the midpoint yield (or "reference yield") for the county, his or her premium rate is reduced and vice-versa. These updates are based upon loss data accumulated over the last several years.

Q5 What were the major concerns expressed about rate the study?

A5 RMA submitted a draft of the rate study for external review by six independent experts as well as making it available to the public for comment. Subsequently, the authors of the study were then given the opportunity to respond to the external reviews. This process was complete in November of 2011. RMA has since evaluated the expert reviews of the rate study, the responses to the reviews by the study's authors, as well as performed additional analysis. As a result, several recommendations of the rate study have been modified or revised. The major concerns and corresponding revisions are discussed below.

Weather Adjustment: The rate study recommended using historical weather data to determine if weather in recent years has been better or worse than usual, and then adjust rates accordingly. While the reviewers agreed with the intent of weather adjustment, some expressed concern about the reliability of the adjustment. RMA has since made several changes to improve not only the reliability of the weather adjustment, but also increased the minimum statistical/performance criteria required for the adjustment to be applied.

Pre-1995 Adjustment: The rate study noted a significant change in losses before 1995 versus after. The primary factors behind these changes are an expanding participant pool, evolving production systems, the advent of biotechnology, and changing program underwriting rules. Consequently, the study recommended that RMA should use adjustments to remove the effect of these changes from its loss cost history when using such data to determine premium rates. The reviewers agreed with the adjustment, but questioned using 1995 as the break-point and suggested that other years be considered, in particular 1999. However, RMA and the study's authors evaluated other years and found 1995 to perform best statistically, although 1999 was a very close second in this regard.

Potential for double-counting: The rate study recommended an adjustment to account for the significant change in actuarial performance noted for years before 1995 and for years subsequent to 1995 (the "pre-1995 adjustment"). The study also recommended that loss experience be adjusted to reflect the changes in participation that have occurred as the program has grown (known as the "acre-weighting process"). Some concern was expressed regarding that these two adjustments overlap, essentially double-counting the same effect and creating a larger adjustment to premium rates than is warranted.

After further evaluation, it was determined that the impacts of the pre-1995 adjustment and of acre-weighting only partially overlap. In particular, the pre-1995 adjustment accounts for the overall change in the riskiness of crop insurance between the pre- and post-1995 periods. The acre-weighting process accounts for the greater relevance of years with large amounts of participation/acreage in the assessment of risk as compared to years with low participation/acreage. However, limits were introduced on the acre-weighting process to reduce potential overlap.

Q6 What is the impact of rate changes on my crop insurance costs?

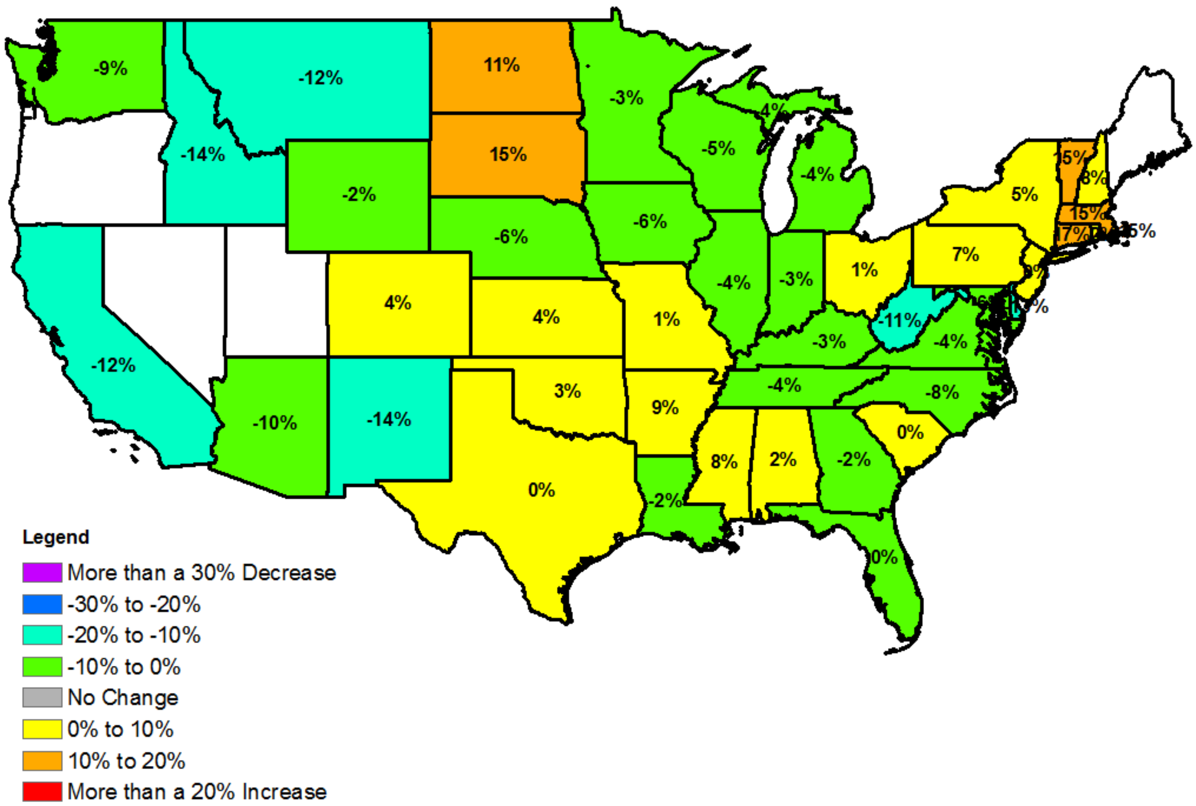
A6 The estimated impacts for 2013, based on the 2012 book of business, are shown in the graphs below. For corn, grain sorghum, and cotton, increases in premium rates in some areas generally offset the decreases in others for little net change at the national level. For rice and soybeans, there is an overall decrease of 8 percent and 6 percent, respectively. For spring wheat, there is an overall increase of 4 percent. These premium impact estimates are based on the 2012 book of business. In general, premium is more likely to decrease in core growing areas and increase elsewhere. The nearby maps show the estimated premium impacts.

These estimated premium impacts do not consider potential changes in purchasing patterns in reponse to the premium rate changes. Other factors in 2013, such as changes in commodity prices, price volatilities, and expansion of the trend-adjusted APH can have a significant impact on premium volume as well.

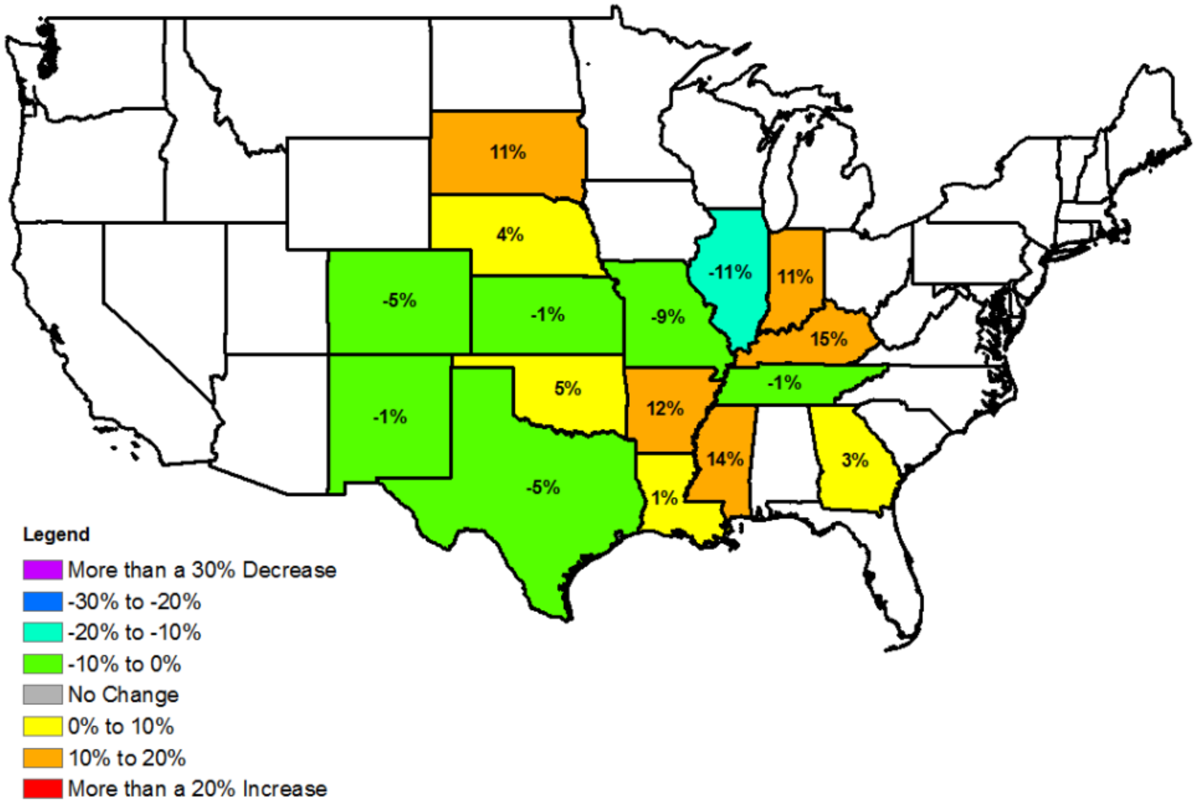
Estimated Premium Impact for 2013

Corn (0041)

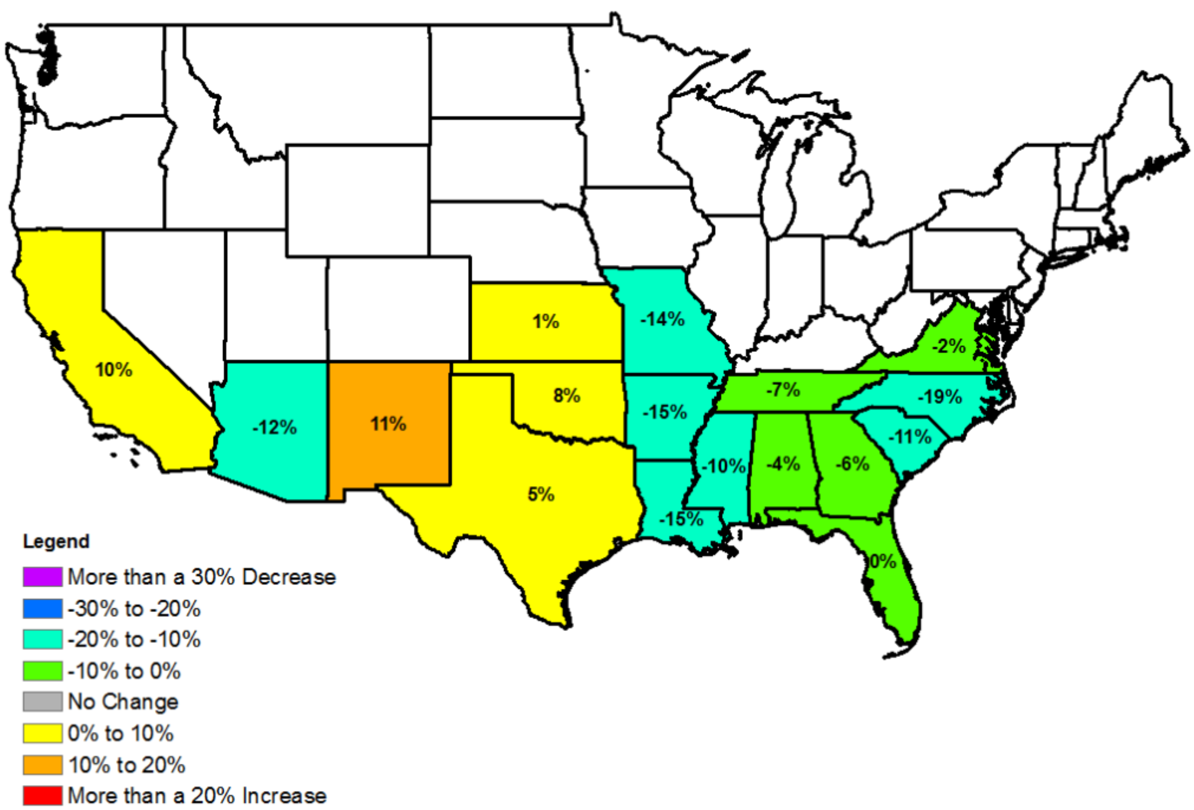
Estimated Premium Impact for 2013



Grain Sorghum (0051)
Estimated Premium Impact for 2013

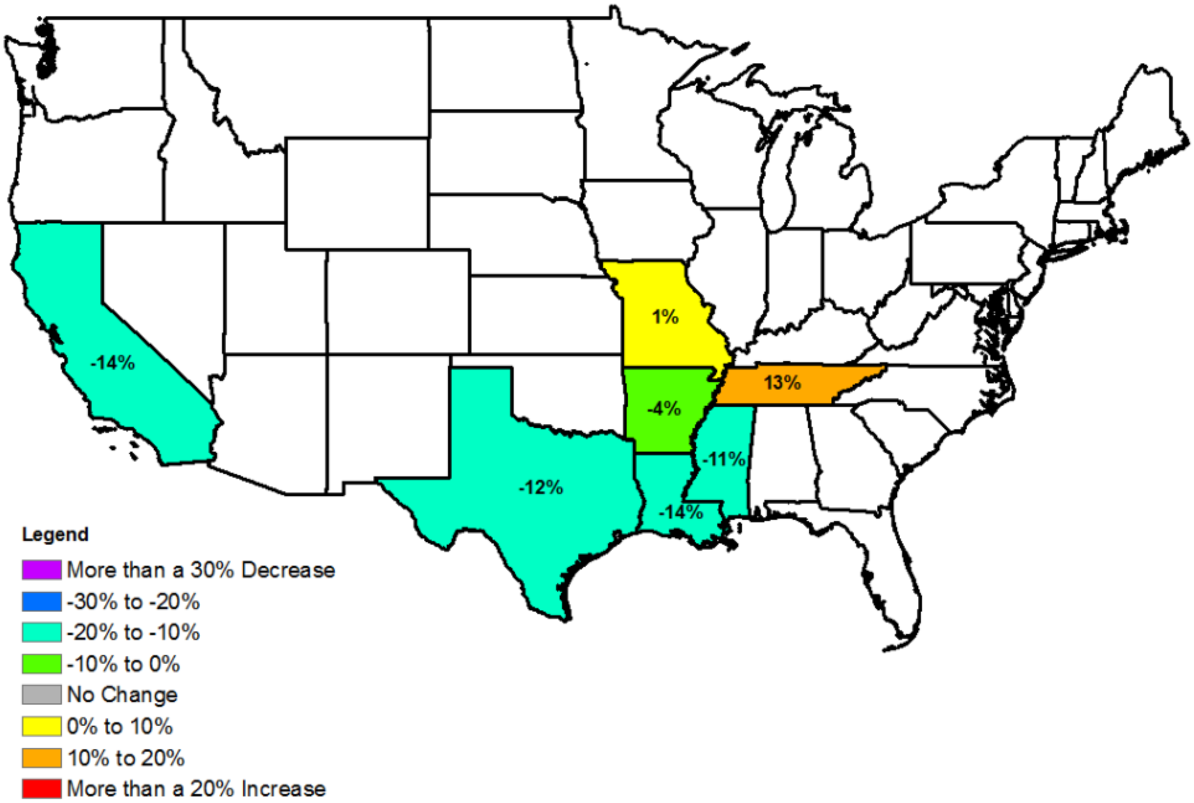


Cotton (0021)
Estimated Premium Impact for 2013



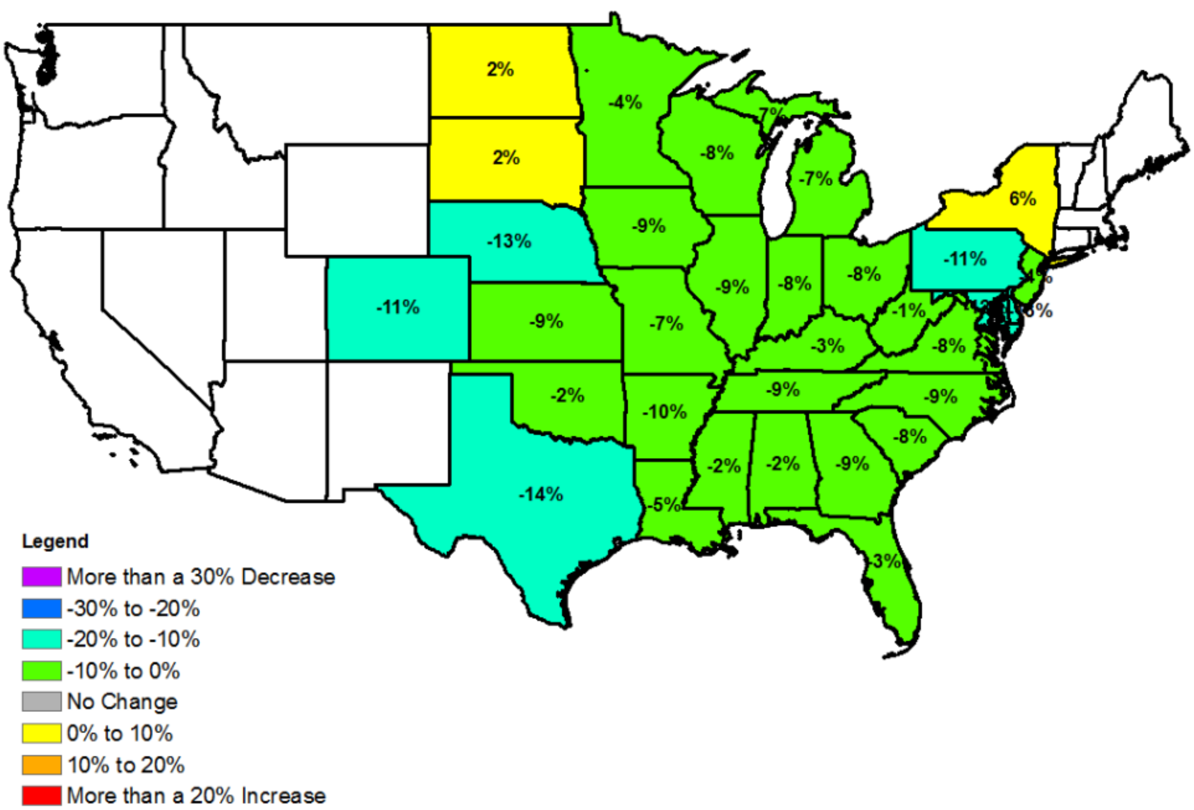
Rice (0018)

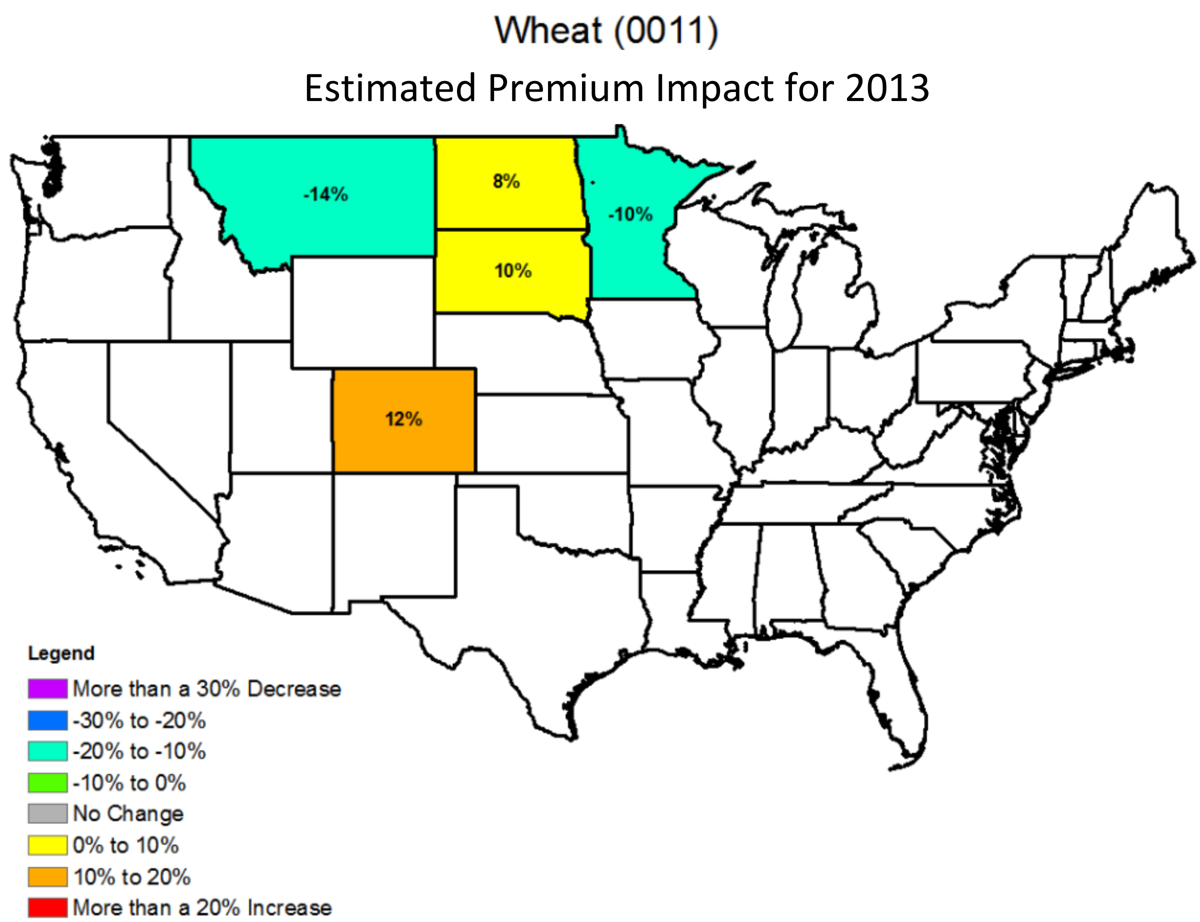
Estimated Premium Impact for 2013



Soybeans (0081)

Estimated Premium Impact for 2013





<u>Q7</u> What is the expected impact of the premium rate adjustments on Approved Insurance Providers (AIPs)?

<u>A7</u> The estimated impact on the overall book of business is small – around a 1 percent decrease in premium. The impact on AIP's is expected to be similarly small.

<u>Q8</u> What have been the companies' profits since the last (2005) SRA?

<u>A8</u> The AIPs have received over $10 billion since 2005. The table below shows the underwriting gains under the 2005 SRA and what those gains would have been if the 2011 SRA had been in effect. If the 2011 SRA had been in effect in 2005, underwriting gains for insurance companies would have dropped from $10.5 billion to $9.6 billion – a decrease of around 8 percent.

The remaining columns show how the underwriting gain is shared between insurance companies and the government. Based on total premium, the government earned an underwriting gain for most years – but does not account for the 60 percent of premium subsidy paid by the government. When government underwriting gains are recalculated based on producer-paid premiums, they indicate a significant loss for all years.

Distribution of Crop Insurance Underwriting Gains between Companies and Government
(2005 SRA Versus 2011 SRA, All Values in $ Millions)

		Company Gain (Loss)		Government Gain (Loss) Based on Total Premium (Producer-Paid Premium Plus Premium Subsidy)		Government Gain (Loss) Based on Producer-Paid Premium Only	
Year	Loss Ratio	2005 SRA	2011 SRA	2005 SRA	2011 SRA	2005 SRA	2011 SRA
2005	0.59	915.0	881.5	689.4	722.9	(1,645.2)	(1,611.7)
2006	0.75	823.0	721.6	344.5	445.9	(2,434.5)	(2,333.1)
2007	0.53	1,572.0	1,446.0	1,510.3	1,636.3	(2,302.0)	(2,176.0)
2008	0.89	1,101.0	1,089.8	14.1	25.4	(5,664.5)	(5,653.2)
2009	0.58	2,296.3	2,037.7	1,433.5	1,692.1	(3,991.2)	(3,732.6)
2010	0.56	1,917.1	1,744.4	1,425.6	1,598.3	(3,284.3)	(3,111.6)
2011	0.90	1,904.8	1699.0*	(705.5)	(499.7)	(8,158.3)	(7,952.5)
Total	**0.69**	**10,529.1**	**9,619.9**	**4,711.9**	**5,621.1**	**(27,480.0)**	**(26,570.8)**

* Includes estimated distribution of a portion of government underwriting gain to companies in underserved states

Q10 Is it true that AIPs shift high risk policies to the Federal government and why?

A10 Because the government requires that all requests for crop insurance must be granted, the AIPs have a choice of placing some policies in a high risk fund. Otherwise, some producers' rates would be exceedingly high or they may not receive insurance policies at all. The crop insurance program requires that every customer seeking coverage be served. Whereas the private sector may turn away customers who may show higher risk, that is not a choice in this insurance program.

Q11 What is the expected impact on crop insurance agents?

A11 To the extent that premium volume for AIP's is reduce, compensation to agents may also decrease. However, this should be balanced against the potential increased sales and opportunity for agents to tailor coverage best suited to the true risks faced by today's producers. RMA's statutory mandate is to establish actuarially approprate premium rates for the Federal crop insurance program that lead to each producer being charged the best and most appropriate rate for the risks they wish to insure. Agents can sell knowing their premium quotes are based on the most current information available, and using premium rate methodology that is recognized and consistent with sound actuarial principles. To the extent that premium rates decrease, it will be an opportunity for agents and their growers to consider higher levels of coverage as they become more affordable, or consider options like the trend-adjusted yield coverage if available.

<u>Q12</u> As a producer, does this affect when my premium is due?

<u>A12</u> No. Premium due dates are not affected by the premium rate adjustments. However, the premium billing date was changed by Congress in the Food, Conservation and Energy Act of 2008 (2008 Farm Bill), which set August 15 as the billing date for crop insurance premiums, beginning with the 2012 reinsurance year.

Under the previous Farm Bill, premiums, offset by indemnities, were billed and paid at harvest time. In moving the billing date to August 15, the 2008 Farm Bill created a uniform billing date for crop insurance premiums. In achieving this uniformity most crops now have a billing date that is earlier in the year which also moves the premium due date earlier in the year.

Insurance premiums will be billed by companies on August 31 instead of on September 30 and payments will be due by the end of September.

<u>Q13</u> When did the negotiation of the Standard Reinsurance Agreement (SRA) begin and when was it concluded?

<u>A13</u> Negotiations began in earnest in late 2009 and concluded with all AIPs signing the new SRA before it took effect at the beginning of July 2010.

<u>Q14</u> When did the rate study begin and when was it concluded?

<u>A14</u> During the negotiations of the 2008 Farm Bill, concerns were raised about premium rates, especially for corn. There were numerous articles and studies published that suggested that the risk of loss had been reduced and that premium rates failed to reflect the reduced risk. In March of 2009, RMA retained a distinguished group of economists and actuaries to perform a comprehensive review of RMA's premium rating methodology. This action is consistent with the Federal Crop Insurance Act, which directs RMA to perform such reviews of its premium rating methodology on a periodic basis. The previous rate methodology review was completed in 2000.

A rough draft of the comprehensive review was made available for public comment in November of 2009, with a final draft published in April of 2010. The review agreed that RMA's loss cost rating methodology was appropriate but had several suggestions for improving the rates. 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.

In following up to that recommendation, RMA commissioned a study to address the question of how to better use its loss experience data. After a public solicitation process, the study began in August of 2010 and was completed in July of 2011. RMA submitted the study for external reviews by six experts as well as made it available to the public for comment. Subsequently, the authors of the study were then given the opportunity to respond to the external reviews. This process was complete in November of 2011.

Since then, RMA has fully evaluated the study, reviews, and the authors' responses to the reviews and revised the premium rating methodology accordingly. The study, reviews, and responses to reviews are available on RMA's website at http://www.rma.usda.gov/news/currentissues/rerating/index.html.

Q15 What lead to RMA's recent revisions of its premium rates?

A15 Section 508(i) of the Federal Crop Insurance Act (Act) has several requirements for the Risk Management Agency regarding its premium rates and premium rating methodology. First, it requires that RMA "periodically review the methodologies employed for rating plans of insurance." It also requires that RMA "analyze the rating and loss history of approved policies." Finally it requires that RMA adopt "as soon as practicable, rates and coverage's that will improve the actuarial soundness" of the crop insurance program. Lastly, section 508(i) also required RMA to make appropriate adjustments in the premium rates if it determines that premium rates are excessive for an agricultural commodity in an area.

In short, RMA is required to find ways to improve premium rates and then to implement those improvements in a timely manner.

As directed by legislation, RMA has made a number of improvements to premium rates over the last ten years. For example, one of the more significant improvements was in regard to the coverage factors that determine how much more premium is charged for higher levels of coverage. Historically, the same factors were applied to all crops and areas. RMA found that this one-size-fits-all approach was not appropriate and implemented factors that varied according to crop and county, better reflecting the varied risks that growers face. These changes were implemented beginning in 2003 and resulted in some significant changes to the amount of premium charged to growers.

Another example is the revision of how RMA establishes premium rates for revenue coverage. Historically, RMA had several products that provided similar coverage for revenue (as opposed to yield) losses, but each product had a different rating methodology that could produce very different premium rates. In order to simplify the program, RMA combined the various redundant revenue policies into a single policy. This required RMA to reconcile several different rating methodologies into a single one. RMA took the best elements from the several previous revenue rating methodologies and combined them with some additional improvements, resulting in a final revenue rating methodology that better accounts for the revenue risks growers face.

These changes put the recent rate study in perspective – that it is simply another improvement out of a long sequence of improvements to RMA's premium rates.

Q16 Please explain why rate adjustments are not an open process for public comment.

A16 Section 508(d) of the Act tasks RMA, on behalf of the Federal Crop Insurance Corporation, to establablish actuatially sound premium rates. To accomplish this task, premium rates are based on analysis by professional economists and actuaries according to established actuarial priciples. This highly structured process does not lend itself to public debate or to a comment process such as that used for Federal regulations. Premium rates are not negotiated, thus there is no fear or concern that one party might enjoy an advantage or benefit at the expense of another party since there are often multiple parties (government, primary insurance companies and reinsurance companies, brokers and intermediaries, and agents who have profit share agreements with the insurance companies) sharing in the risk, while producer's pay premium out of their own pocket often backed by lending institutions. The Act clearly contemplated the financial interests of various parties in the program and made the establishment of premium rates solely an Agency function. However, RMA is (and has been) open to substantive input from the public on its methodology. The studies and analysis that provide the foundation for its premium rating methodology are available on RMA's website. Anyone is welcome to provide RMA with comments to consider as RMA evaluates future avenues for improving its premium rates.

Q17 If major changes to the methodology for setting premiums needed to be made does this mean that RMA has been setting rates improperly until now?

A17 No. RMA continues to use the same rating methodology – the loss cost methodology – but routinely reviews ways to refine rates to best reflect the risks for individual producers to best match future anticipated losses. While the accumulation of data, or improvements and revisions to the data may cause premium rates to change, that does not mean that past rates were not actuarially appropriate. Premium rates established in the past reflect the best methodology and data available at that time utilizing recognized methods and practices by the Casualty Actuarial Society.