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Office of Inspector General
Great Plains Region

Audit Report

Use of National Agricultural Statistics Service County Average Yields for the Group Risk Protection Plans of Insurance

Report No. 05601-4-KC
March 2009

UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF INSPECTOR GENERAL

Washington, D.C. 20250

DATE: March 4, 2009

REPLY TO
ATTN OF: 05601-4-KC

TO: William Murphy
Acting Administrator
Risk Management Agency

ATTN: Michael Hand
Deputy Administrator for Compliance

FROM: Robert W. Young /s/
Assistant Inspector General
for Audit

SUBJECT: Use of National Agricultural Statistics Service County Average Yields for the Group Risk Protection Plans of Insurance

Summary

We have been conducting a review to evaluate the National Agricultural Statistics Service's (NASS) establishment of average yields and the use of such yields by Department of Agriculture (USDA) agencies to administer programs and determine program benefits. In conducting our audit, we identified problems in counties where the Risk Management Agency (RMA) offered Group Risk Protection (GRP) and Group Risk Income Protection[1] (GRIP) insurance plans that do not specify irrigated or non-irrigated practices.[2] RMA uses historical NASS countywide average production data to set the expected county yield[3] and uses the current crop year's NASS countywide production data to set the final county yield for GRP/GRIP coverage; indemnity payments to insureds are based on these actual countywide average yields. For some county crop programs, RMA offered GRP/GRIP insurance plans based on a blended yield[4] because it believed it did not have sufficient NASS production and acreage data to establish the insurance coverage by practice. This program design could result in insureds receiving an indemnity

[1] This is a revenue-based insurance product that is only offered where GRP insurance plans already exist and both GRP and GRIP use the same expected and final county yields.

[2] A method of producing a crop by which RMA has established separate coverage and published the terms of the separate coverage in the actuarial documents for the crop.

[3] The expected county yield is the yield contained in the actuarial documents on which coverage for the crop year is based. This yield is determined using historical NASS county average yields, as adjusted by RMA.

[4] A blended yield includes production from both irrigated and non-irrigated practices published by NASS and is referred to by NASS as "Total for Crop."

payment even though a normal crop is produced. In one county alone, we determined that GRIP insureds of irrigated and non-irrigated corn acres could receive indemnities for as much as $35 million for the 2008 crop year. This occurred because the blended yield was impacted by a wide disparity between the irrigated and non-irrigated yield (138 bushels per acre), as well as a sizeable change in irrigated to non-irrigated acreage. In addition, we noted that four insureds broke out, or sodbusted,[5] about 6,800 acres of highly erodible land to participate in the program, as designed. We identified 513 additional GRP/GRIP county crop programs offered in 15 States and 376 counties that are potentially at risk of producers taking advantage of disparities between irrigated and non-irrigated yields.

In its January 12, 2009, written response (see exhibit B) to the official draft report, RMA concurred with all of the recommendations. The RMA response along with the Office of Inspector General (OIG) position is incorporated into the relevant sections of the report. Based on the information provided in RMA's written response, we accepted management decisions on all recommendations.

Background

RMA began the GRP plan of insurance as a pilot program in 1993 to test market acceptance of a crop insurance product that establishes coverage using NASS county average yields rather than individual yields. It was designed to reduce administrative burdens and provide greater coverage for the insured's premium dollar. GRP offers producers a risk management tool to insure against widespread loss of production of the insured crop in a county. It is primarily intended for producers whose farm yields tend to follow the average county yield. In crop year 1999, RMA introduced the GRIP plan of insurance as a risk management tool to insure against widespread loss of revenue by adding price protection similar to Revenue Assurance and Crop Revenue Coverage plans of insurance.

By crop year 2008, RMA offered 3,243 GRP/GRIP county crop programs covering corn, cotton, grain sorghum, soybeans, and wheat in 1,517 counties throughout 41 States. Of the 3,243 GRP/GRIP county crop programs offered, 2,730 had no practice specified, 276 specified irrigated practices, and 237 specified non-irrigated practices. Unlike the Actual Production History, Crop Revenue Coverage and Revenue Assurance plans of insurance for which RMA sets transitional yields for both irrigated and non-irrigated practices, GRP/GRIP insurance plans use historical county production data published by NASS to establish the expected county yield each crop year and the prevailing NASS production data at crop year end to set the final county yield.[6] However, NASS does not publish acreage and production data separately for irrigated and non-irrigated practices in some counties because sufficient data meeting NASS' confidentiality requirements is not available. Therefore, NASS combines production and acreage data for all

[5] The Sodbuster provisions of the Food Security Act of 1985 requires producers to apply a soil conservation system that meets the required level of protection and allows for no substantial increase in soil erosion on land converted from native vegetation if the land was not cropped before December 23, 1985, and is, or was, determined by USDA to be highly erodible land. We determined that the four insureds each had conservation plans, but because the scope of the audit was limited to crop yields, we did not analyze the plans to determine whether or not they were in violation of the Sodbuster provisions.

[6] RMA determines the final county yield based on production and acreage data published by NASS for the covered crop year.

practices and publishes a total for the affected crops in these counties. In other cases, NASS publishes separate production and acreage data for both irrigated and non-irrigated practices, but the number of years of published data and number of acres planted to the crop do not meet RMA requirements for offering the crop policy by practice.

Through preliminary analysis performed in May 2008, we became concerned about the potential impact of the use of blended yields in [redacted], and the possibility that, because of the discrepancy between the actual non-irrigated corn yield and the expected county yield for the crop, producers in the county could purchase GRIP coverage and be guaranteed up to five times the value of the crop they produced. We concluded that if producers took advantage of the opportunity to receive such an indemnity payment by increasing their non-irrigated corn acres, this would, in turn, significantly reduce NASS' published production estimate for the county. Because RMA did not specify its offer of coverage according to irrigated and non-irrigated practices, and there was a 138 bushel per acre disparity between irrigated and non-irrigated average corn yields that RMA had established previously for the county,[7] the situation merited review. Moreover, the information available to us indicated that the producers of non-irrigated corn had no possibility of producing the expected county yield set for the 2008 crop year (135.9 bushels per acre) from their intended plantings of non-irrigated corn. Our analysis showed that even if corn acres and production remained at crop year 2007 levels or above in [redacted], GRIP insureds in 2008 were assured of receiving indemnity payments. In addition, we concluded that increased non-irrigated corn plantings by these insureds would materially reduce NASS final production estimates for the 2008 crop year.

Objectives

Our overall objective was to assess whether RMA's use of blended yields in [redacted], would result in producers receiving excessive insurance indemnities. As part of our objective, we also assessed whether the non-irrigated corn plantings by these producers would materially impact NASS production estimates in the county and whether similar conditions existed in other counties.

Scope and Methodology

We performed field work between July 2008 and November 2008 of GRIP insureds in [redacted], for crop year 2008. As part of the field work, we spoke with officials from RMA's Deputy Administrator for Product Development and with officials from the Central Regional Compliance Office, which are both located in Kansas City, Missouri, and with the Director of RMA's regional service office in Topeka, Kansas. We interviewed Farm Service Agency (FSA) [redacted] office personnel, Natural Resources Conservation Service (NRCS) field office personnel, insureds and crop insurance agents. We also reviewed applicable RMA policies and procedures, examined pertinent documentation from insureds and crop insurance agents, and reviewed FSA and NRCS records.

[7] The transitional yield for irrigated corn is 173.0 bushels per acre and the non-irrigated transitional yield is 35.0 bushels per acre.

We performed analysis on NASS county average yield data and on RMA crop insurance data to determine whether RMA yields and resulting production guarantees established for GRP/GRIP reflected the amount of corn insureds could reasonably produce for the practices being carried out.

In [redacted], there were 39 GRIP corn insureds covering 48,190 acres with liabilities over $52.7 million and premiums over $7.2 million. At the time we initiated our review, we judgmentally selected 8 of the largest GRIP insureds because these policies covered over 70 percent of the total insured acreage, liability, and premium in the county. For the eight insureds selected for review, we examined their insurance history, cropping history, farming practices, and possible reasons for increasing the number of acres planted to corn, and purchase GRIP coverage. In addition, we performed field inspections to verify that the eight insureds actually planted corn, assess the condition of the corn crop, and determine the farming practices being carried out by these insureds.

In addition, we performed an analysis of GRP/GRIP county crop programs nationwide offered under potentially similar circumstances. We analyzed where no practice had been specified but the expected county yield was based, in part, on irrigated production data to identify GRP/GRIP county crop programs (corn, cotton, grain sorghum, soybeans, and wheat) where the potential exists for producers to shift from irrigated to non-irrigated acres.

We conducted this audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Details

RMA's current methodology for determining whether GRP/GRIP should be offered in a county is based on an index formula.[8] RMA's criteria also includes a minimum of the 30 most recent consecutive years of NASS published data with a minimum 5,000 acres planted to the crop in the county for each of the last 10 years.

However, RMA's minimum eligibility criteria does not take into account counties where material differences exist between irrigated and non-irrigated yields, nor does it define any requirements for specifying the insurable practice where these differences exist. When RMA introduced GRP/GRIP coverage for corn in [redacted], in crop year 2006, NASS' production and yield data did not meet RMA's criteria which would necessitate that it specify coverage between irrigated and/or non-irrigated practices. Therefore, RMA offered this coverage as "no-practice specified," meaning that the crop was insurable regardless of whether the insured

[8] GRP and GRIP expansion includes receiving a score of 1,000 or less using the Herfindahl-Hirschman Index, (HHI) (HHI= (market share A) ^{2} + (market share B) ^{2} + . . .) a measure of industry concentration based on market share. This index uses data published every 5 years from the Census of Agriculture to estimate concentration of acreage among producers.

carried out irrigated or non-irrigated farming practices. RMA set the initial expected county yield at 161.3 bushels per acre based on NASS' published county average yield data. To calculate the expected county yield, RMA used NASS' combined production and acreage data for irrigated and non-irrigated practices. However, the NASS yield data was heavily weighted towards irrigated farming practices for corn. For the 10-year period of 1995 through 2004, NASS estimated 260,900 acres of irrigated corn with a weighted average yield of 164.6 bushels per acre were planted. In contrast, NASS estimated 35,800 acres of non-irrigated corn with a weighted average yield of 41.6 bushels per acre were planted for the same time period. The combined weighted average yield for both irrigated and non-irrigated practices for the same 10-year period was 149.7 bushels per acre.

RMA significantly over-insured non-irrigated producers and, to a lesser extent, under-insured irrigated producers. This occurred because the minimum eligibility criteria RMA established for GRP/GRIP did not take into account counties where material differences existed between irrigated and non-irrigated yields. RMA staff did not believe insureds would significantly change their farming operations in response to yield differences to adversely influence the program. However, we found RMA's premise not to be the case. According to NASS' county acreage and production estimates for [redacted], the non-irrigated corn acres increased from 5,300 acres planted in crop year 2004 to 25,000 acres in 2005, but decreased to 14,000 acres in crop year 2006. In crop year 2007, non-irrigated corn acres increased to 33,400 acres. In contrast, for the 2004 through 2007 crop years, irrigated corn acres remained relatively constant, ranging from a low of 30,800 acres to a high of 34,500 acres. These increased corn acreages in crop years 2006 and 2007 caused the expected county yield to drop from 161.3 bushels per acre in crop year 2006 to 135.9 bushels per acre in crop year 2008.

The table below shows the history of GRP/GRIP participation during the time these policies have been offered for corn in [redacted]:

Year	No. of GRP/GRIP Policies	No. of GRP/GRIP Acres	Total Insured Acres in County (All Plans)	GRP/GRIP Liability	GRP/GRIP Indemnities	GRP/GRIP % of Liability All Insured Acres
2006	18[9]	8,120	43,662	$5.0M	$1.1M	35.0%
2007	9	5,487	68,706	$4.9M	$1.7M	21.0%
2008	39	48,190	111,927	$52.7M	$35M est.	70.0%

Of the 48,190 acres covered by GRIP policies in 2008, over 40,000 acres are covered by 10 GRIP policies. Of those 10 GRIP policies, 2 cover nearly 20,000 acres.

We judgmentally selected 8 of the 10 largest insureds in [redacted], covered under the GRIP plan of insurance in crop year 2008 for review to determine their insurance history, cropping history, farming practices, and what may have motivated producers to dramatically increase the number of acres planted to corn, and purchase of GRIP coverage. We also performed field visits

[9] There was only one GRP policy for the 2006 crop year and no GRP policies for the 2007 and 2008 crop years. Therefore, our references will be directed toward the GRIP program.

to verify that corn was actually planted, to assess the general condition of the corn crop, and to determine whether producers followed good farming practices. Based on our field visits, we concluded that because of extreme drought conditions, there would be minimal production from non-irrigated corn acres; production from irrigated corn acres had also been negatively impacted. We were unable to make a determination as to whether good farming practices were actually being carried out due to the extreme drought conditions in the county. We also interviewed seven of the eight insureds[10] selected for review, as well as their crop insurance agents.

The seven insureds consistently stated that they had learned about GRIP either on their own through internet research, or through neighbors and relatives. According to these insureds, their insurance agents did not promote the GRIP plan of insurance over another plan of insurance. Some agents even discouraged the purchase of GRIP because the policy cannot be used as collateral for an operating loan and any potential payments under the GRIP policy would not be received until April of the following crop year. However, these insureds claimed that they reviewed the GRIP policy provisions and determined that GRIP was the best coverage for their farming operations.

We also interviewed the insureds' crop insurance agents and learned that none of these four agents claimed to have promoted the GRIP plan of insurance over other plans of insurance. In fact, these agents cited several reasons why GRIP did not provide adequate coverage for insureds in [redacted]. According to the agents, GRIP does not provide an absolute guarantee per acre like other crop insurance policies and does not make indemnity payments on the same harvest schedule as other policies. GRIP also has higher premiums than other policies. Further, GRIP policies are not tailored to individual producers' yield histories or to the amount of crop they are capable of producing. Finally, most lenders do not accept GRIP coverage as collateral for operating loans. One agent stated to us that the GRIP plan of insurance is "no good." However, after our interview, we learned this agent had a GRIP policy in crop year 2008 covering 2,512 acres of corn and had received GRIP payments for corn in crop years 2006 and 2007 totaling over $260,000. At the time of our interview, the agent's acreage report had neither cleared RMA's reporting system nor been submitted to the FSA.

We found that the eight GRIP insureds in our sample dramatically increased their planted corn acreages for the 2008 crop year. Three of the insureds had no history of planting corn in the county for at least the prior 6 crop years (2002-2007), and three of the insureds had only planted a combined 506 acres to corn during the period. However, in crop year 2008, these six insureds planted a combined 32,525 acres to corn. The remaining two insureds had a history of planting corn, but their corn acres for 2008 increased over 200 percent from their prior 6-year average. In total, the eight insureds represented 36,931 acres of 48,190 acres planted to corn, or over 75 percent of the GRIP corn acres in 2008, and over 32 percent of the 111,927 corn acres insured in the county under all plans of insurance, including GRIP. We noted that only 2,488 of the 36,931 acres planted by the insureds were irrigated. We also noted that four insureds in our

[10] At the time of our fieldwork, one insured in our sample was unavailable for interview.

sample obtained part of their planted acreage by sodbusting about 4,200 acres of native rangeland to plant GRIP corn.

The following table provides current and historical information on each of the insureds' farming operations in our sample and shows how they changed their farming operations to take advantage of policy provisions that allowed them to plant corn on non-irrigated acres and receive a guarantee based on a blended yield that heavily reflected irrigated corn yields.

Sample	Corn Acres[11] 2002-2007	2008 GRIP Corn Acres	2008 Irrigated Acres[11]	2008 Non-Irrigated Acres[11]	FSA Corn Base Acres[11]	Sodbusted Acres[12]
A	0	10,840	1,505	9,335	5,112	3,460
B	98	8,520	0	8,512	0	523
C	125	4,200	121	4,074	36	1,104
D	0	4,134	0	4,135	249	0
E	283	3,495	498	3,011	344	1,750
F	5,500	3,095	364	2,731	259	0
G	3,396	1,311	0	1,311	247	0
H	0	1,336	0	1,332	145	0
Totals	9,402	36,931	2,488	34,441	6,392	6,837

Among those in the sample that benefitted from the policy provisions was a group of out-of-State investors from [redacted] who purchased GRIP corn policies in [redacted]. Through multiple entities, the out-of-State investors agreed to purchase or purchased and/or leased over 11,000 acres, of which 10,840 acres (9,335 acres non-irrigated and 1,505 acres irrigated) were planted to corn and were covered under a GRIP policy with a liability over $11.9 million. We also noted that the investors sodbusted over 3,400 acres of fragile, highly erodible land that they planted to corn. Based on our preliminary assessment of crop conditions in the county, we estimate that the group of out-of-State investors could receive over $8.0 million in indemnity payments.

Similarly, an [redacted] planted 8,520 acres of non-irrigated corn with a liability of over $9.3 million. The [redacted] planted over 5,700 of these acres on newly cash leased land for the 2008 crop year. According to FSA records, the leased land does not have any established corn base acres and no corn was planted on the land for at least the prior 6 crop years. For the remaining 2,800 acres the [redacted] planted to corn, FSA records showed there were no corn base acres established for the land and 520 acres had been planted on sodbusted native rangeland and cropland previously seeded to grass under the Soil Bank Program in the 1940s. The only time corn was shown as previously planted on these acres was crop year 2007, when 98 acres were planted. Based on preliminary assessments of the crop conditions in [redacted], we estimate that the [redacted] could receive over $6.0 million in indemnity payments.

[11] Acreage information obtained from FSA records.
[12] Sodbusted acres based on information obtained from the NRCS. We did not determine whether or not the four insureds were in violation of the Sodbuster provisions.

In contrast, under the Actual Production History, Revenue Assurance, and Crop Revenue Coverage plans of insurance offered by RMA, the [redacted] and the group of out-of-State investors would have been required to be considered as new producers for the crop and would have been assigned 100 percent of the transitional yield of 35 bushels per acre except for the nearly 4,000 sodbusted acres. In order to receive insurance coverage on these sodbusted acres, they would have been required to request a written agreement through RMA's regional office. The yield assigned through a written agreement would not have been more than the transitional yield of 35 bushels per acre. Therefore, if both of these producers had purchased the Revenue Assurance plan, the maximum coverage and liability would have been limited to about $2.69 million for the out-of-State investors and about $1.36 million for the [redacted]. The incentive to purchase GRIP is evident because producers could purchase insurance providing more than five times the actual value of the crop to be raised. Given the apparent trend among insureds to switch from irrigated to non-irrigated acres in the county and the consequent drop in actual yields, the out-of-State investors, the [redacted], and the other insureds that purchased GRIP plans of insurance in [redacted], were all but assured large indemnity payouts.

The acreage and production for these GRIP insureds will have a significant impact on NASS county estimates in 2008 because they represent such a large share of the total corn acreage in the county. Based on our field observations, we determined that the corn crop in [redacted], is significantly damaged and there is little prospect of any production on non-irrigated acres. For the irrigated corn acres observed, we believe production will also be well below average and, thus, the total production for the county will be negatively impacted, triggering exceptionally large indemnity payments. These payments could total between $700 and $800 per acre, or about $35.0 million combined.[13] Even if an average corn crop had been produced in the county, we estimate that GRIP insureds would have received about $446 per acre, or about $21.5 million in excessive indemnities.[14]

As part of our review, we also performed an analysis of GRP/GRIP county crop programs offered under potentially similar circumstances where no practice has been specified but the expected county yield is based, in part, on irrigated production data. We identified a total of 513 other GRP/GRIP county crop programs where the potential exists for producers to shift from irrigated to non-irrigated acres. From these, we identified 214 county crop programs that NASS has 10 consecutive years of irrigated and non-irrigated production data available, which would provide RMA with a basis to offer GRP/GRIP by practice. The remaining 299 GRP/GRIP county crop programs should be evaluated on a case-by-case basis to determine whether acreage and production is vulnerable to manipulation by insureds and whether the GRP/GRIP offer should be withdrawn completely or offered by specified practice only.

We also noted that although RMA established a final crop planting date for other insurance plans, it has not done so for crops insured under GRP/GRIP. Crops planted in a timely manner

[13] We based our payment estimate on 82,000 acres of non-irrigated corn at 5.0 bushels per acre and 31,000 acres of irrigated corn at 140.0 bushels per acre with combined average of 42.0 bushels per acre. We used the expected price of $5.40 per bushel for our estimate.

[14] We based our payment estimate on 82,000 acres of non-irrigated corn at 35.0 bushels per acre and 31,000 acres of irrigated corn at 170.0 bushels per acre with combined average of 72.0 bushels per acre. We used the expected price of $5.40 per bushel for our estimate.

(i.e., before an RMA-designated final planting date) are more likely to grow and result in higher yields. Planting in a timely manner is also an element of good farming practices. By RMA not establishing a final planting date and allowing producers to plant as late as the acreage reporting date, we believe that the chances of reduced crop yields increase. In turn, the reduced yields may adversely impact the NASS' county estimates, increasing the potential indemnity payments. RMA officials generally agreed to specify a planting date for GRP/GRIP plans.

We met with RMA's Deputy Administrator for Product Management and staff, and RMA's Director for the Central Regional Compliance Office and staff, on August 22 and October 1, 2008, to discuss our concerns with GRIP corn policies in [redacted], and the potential for similar conditions in other counties with unspecified practices. The Compliance Office had already instructed approved insurance providers to perform growing season inspections on all GRIP corn policyholders in [redacted]. The Compliance Office is also performing its own reviews on selected insureds in [redacted] to determine whether or not they complied with all provisions of the GRIP policy. The Product Management Office was also aware of this situation and had been contemplating taking various courses of corrective action to address the vulnerabilities and inequities created by not specifying the irrigated and/or non-irrigated practice for the crop in the policy. During our discussions with Product Management officials, they indicated a willingness to consider the following recommendations to address the immediate situation in [redacted] and to prevent recurrence of insureds taking advantage of similar conditions in the future.

Recommendation 1

Immediately discontinue GRP/GRIP coverage for corn with the practice code 997, "No Practice Specified," in [redacted], effective for the 2009 and succeeding crop years.

Agency Response.

RMA concurs with this recommendation. RMA has discontinued GRP/GRIP coverage for corn with the practice code 997, "No Practice Specified," in [redacted], effective for the 2009 and succeeding crop years.

OIG Position.

We accept RMA's management decision.

Recommendation 2

Evaluate the 513 other county crop programs that are currently offered with the practice code 997, "No Practice Specified," to determine whether or not sufficient NASS data is available to offer the coverage by specifying the practice.

Agency Response.

RMA concurs with this recommendation. Utilizing the methodology outlined in the response to Recommendation 3, RMA has completed a formal review of all county crop programs that are currently offered with practice code 997, "No Practice Specified," to determine whether there is sufficient NASS data to support practice-specified offers.

OIG Position.

We accept RMA's management decision.

Recommendation 3

Revise the minimum eligibility criteria for a county to qualify for the GRP/GRIP plans of insurance to take into account counties where a difference exists between irrigated and non-irrigated yields and define requirements for specifying the insurable practice.

Agency Response.

RMA concurs with this recommendation. RMA has made revisions to the eligibility criteria for a county to qualify for the GRP/GRIP plans of insurance effective for the 2009 crop year. These revisions provide increased scrutiny with respect to eligibility considerations of counties where a difference exists between irrigated and non-irrigated yields, and define requirements for specifying the insurance practice.

OIG Position.

We accept RMA's management decision.

Recommendation 4

Amend the GRP/GRIP Plans of Insurance Basic Provisions to include language that will require the insured to request a written agreement for any land that has not been planted to a crop in one out of the past 3 years.

Agency Response.

RMA concurs with this recommendation. RMA concurs with OIG that existing GRP/GRIP provisions do not address this recommendation. To address this matter requires a change to RMA's regulations requiring a proposed and final rule in the *Federal Register*. RMA plans to make the changes effective for the 2011 crop year.

OIG Position.

We accept RMA's management decision.

Recommendation 5

Specify a final planting date for all GRP/GRIP crops not to exceed the late planting date listed in the actuarial documents for the same actual production history crop.

Agency Response.

RMA concurs with this recommendation. The current existing GRP/GRIP policies do not contain any language regarding final planting dates. RMA cannot enforce such a requirement until the policy is changed via a proposed and final rule in the *Federal Register*. RMA plans to make this change effective for the 2011 crop year.

OIG Position.

We accept RMA's management decision.

General Comments

In its comments to the draft report, RMA provided additional clarification on Recommendations 2 and 3, and also requested editorial changes be made to this report (see exhibit B for RMA's complete response). Although we have accepted management decision on each of the recommendations, we have considered the comments offered and determined that the editorial changes to the final report RMA suggested were not warranted. We address RMA's comments as follows:

- In its response to Recommendation 3, RMA asserts that "This approach has been effective since the inception of the GRP and GRIP programs. It was also effective in [redacted], – until 2008. In 2008, unusually high corn prices made non-irrigated production much more economically attractive . . ."

  As demonstrated, the conditions discussed in this report invalidate RMA's central assumption that a single producer, or even a small number of producers, could not exert sufficient influence to affect the overall county yields and trigger indemnities under the GRP/GRIP plans of insurance. The facts and corrective actions taken by RMA also do not support the assertion that its approach has been entirely effective since the inception of GRP/GRIP, including the crop years it has been offered in [redacted].

  In regard to RMA's assertion that unusually high corn prices made non-irrigated production much more economically attractive than in previous years, [redacted] had the largest corn acreage increase in the United States—over 43,000 insured acres. This is

nearly 30,000 acres more than any other county in the United States. RMA's assertion about [redacted] contradicts what occurred throughout the rest of the United States where corn acres actually declined by about 7.5 percent in 2008 when compared to the 2007 crop year. Moreover, when compared to 2007 participation, GRIP corn participation in the United States declined by more than 45 percent in acres insured and policies earning premium in 2008.

- RMA commented that our use of the phrase "problem in counties" leads the reader to mistakenly conclude that multiple problems in several counties have been identified by OIG and contends this is not the case.

  While the focus of our review was one county, we also identified 513 additional GRP/GRIP county crop programs offered in 15 States and 376 counties that were potentially at risk of producers taking advantage of disparities between irrigated and non-irrigated yields. Based on its evaluation of the 513 county crop programs, RMA made substantive changes to about 160 county crop programs for crop year 2009, including elimination of offering GRP/GRIP as "No Practice Specified." This confirms our analysis that multiple GRP/GRIP crop policies in multiple counties had problems that needed to be addressed.

- RMA also contends that the $35 million amount cited creates an impression that the use of a blended yield is responsible for that full amount when, according to OIG's own analysis, bad weather accounts for a significant portion of the total.

  Our analysis showed that GRIP insureds would have received about $446 per acre, or about $21.5 million in excessive indemnities, if an average corn crop had been produced in the county. Under the best of growing conditions, the non-irrigated acreage would have only generated about $189 per acre in gross revenue. The adverse growing conditions cited only exacerbated the excessive losses to be paid in [redacted]. Therefore, based on a preponderance of facts, we concluded that the 43,000 acre increase in corn acres and estimated GRIP losses of $35.0 million were directly attributable to offering non-irrigated producers an excessive yield.

- In its response, RMA further asserts it would be appropriate to mention that when OIG contacted RMA about [redacted], RMA had already identified the situation and was taking steps to address it.

  RMA's assertion is misleading. In fact, agency officials were slow to acknowledge the flaw in the program and take action on the information OIG provided them. In early May 2008, we informed RMA of allegations that producers in [redacted] had allegedly purchased GRIP policies with the intention of dramatically increasing their non-irrigated corn plantings to adversely influence the NASS county average yield and trigger indemnity payments.

Later, in June 2008, OIG met with RMA officials to discuss the use of blended yields to administer GRP/GRIP. At both discussions OIG was provided assurance by RMA officials that there were no issues or problems with RMA's method for establishing yields under the GRP/GRIP program. Based on information obtained from acreage reports RMA was receiving, we initiated our review of the situation in [redacted]. At the time we informed RMA of our intentions to begin audit work, we learned that RMA had recognized that problems existed with the GRP/GRIP program in the county and had initiated its own review to determine whether these insureds were following good farming practices under their insurance contracts. Throughout our review, we coordinated with RMA's compliance office to avoid duplication of effort.

We appreciate the courtesies and cooperation extended to us by members of your staff during this audit.

Exhibit A – Summary of Monetary Results

Recommendation Number	Description	Amount	Category
1	Discontinue GRP/GRIP coverage for corn in [redacted], with the practice code 997, "No Practice Specified."	$35,000,000	FTBPTBU[15] - Management or Operating Improvements/Savings

[15] FTBPTBU = Funds To Be Put To Better Use

United States Department of Agriculture

Farm and Foreign Agricultural Services
Risk Management Agency

January 12, 2009

TO: Robert W. Young
Assistant Inspector General for Audit
Office of Inspector General

FROM: for Michael Hand Cynthia Simpson
Audit Liaison Official

SUBJECT: Office of Inspector General Audit 05601-4-KC Official Draft Report, Use of NASS County Average Yields for Group Risk Protection Plans of Insurance

This memorandum is in response to the subject report and outlines the actions taken and planned by the Risk Management Agency (RMA) to respond to the findings and recommendations contained within this report.

RECOMMENDATION NO. 1:

Immediately discontinue GRP/GRIP coverage for corn with the practice code 997, "No Practice Specified," in [redacted] effective for the 2009 and succeeding crop years.

RMA Response:

We concur with this recommendation. RMA has discontinued GRP/GRIP coverage for corn with the practice code 997, "No Practice Specified", in [redacted] effective for the 2009 and succeeding crop years.

RMA requests management decision for this recommendation.

Deputy Administrator for Compliance
1400 Independence Ave., SW • STOP 0806 • Washington, DC 20250-0806

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All Programs Authorized Under the Federal Crop Insurance Corporation

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RECOMMENDATION NO. 2:

Evaluate the 513 other county crop programs that are currently offered with the practice code 997, "No Practice Specified," to determine whether or not sufficient NASS data is available to offer the coverage by specifying the practice.

RMA Response:

We concur with this recommendation. Utilizing the methodology outlined in the response to recommendation number 3, RMA has completed a formal review of all county crop programs that are currently offered with practice code 997, "No Practice Specified," to determine whether there is sufficient NASS data to support practice-specific offers.

RMA requests management decision for this recommendation.

RECOMMENDATION NO. 3:

Revise the minimum eligibility criteria for a county to qualify for the GRP/GRIP plans of insurance to take into account counties where a difference exists between irrigated and non-irrigated yields and define requirements for specifying the insurable practice.

RMA Response:

We concur with this recommendation. RMA has made the following revisions to the eligibility criteria for a county to qualify for the GRP/GRIP plans of insurance, effective for the 2009 crop year. These revisions provide increased scrutiny with respect to eligibility considerations of counties where a difference exists between irrigated and non-irrigated yields, and define requirements for specifying the insurable practice.

The GRP and GRIP products have been very successful additions to the set of risk management tools offered by the Federal crop insurance program. These products have increased participation in the crop insurance program and, at the same time, have enjoyed favorable actuarial performance since their inception.

A central assumption of the GRP and GRIP programs is that a single producer, or even a small group of producers, are not able to exert sufficient influence to affect the overall county average yield and trigger an indemnity. In this setting, each individual producer has an incentive to produce a successful crop. The eligibility criteria RMA used to determine where GRP/GRIP may be offered (partially described in the draft interim report) was designed to limit availability to only those county/crops where production is not overly concentrated to a few producers.

This approach has been effective since the inception of the GRP and GRIP programs. It was also effective in [redacted] – until 2008. In 2008, unusually high corn prices made non-irrigated production much more economically attractive than in previous years.

Consequently, the number of non-irrigated acres of corn in [redacted] appears to have increased significantly for 2008.

The sudden increase in the proportion of corn being planted to the less-productive non-irrigated practice reduces the overall expected average yield for the county. A lower expected yield increases the likelihood of growers receiving indemnity payments from GRP/GRIP relative to the other forms of crop insurance coverage offered in [redacted] – which is the focus of the draft interim report.

In assessing the situation, the draft interim report singles out the difference between irrigated and non-irrigated yields. While this is important, it ignores another equally important factor – the proportion of a county's production that is irrigated. For example, if fifteen percent or less of a county's production is irrigated, then growers cannot trigger an indemnity by increasing the proportion of non-irrigated production (as occurred in [redacted]) for any realistic difference between irrigated and non-irrigated yields. Accordingly, RMA has revised its criteria for making practice-specific offers to consider both the difference in irrigated/non-irrigated yields and also the proportion of production that is irrigated.

The relationship between the irrigated/non-irrigated yield difference and the proportion of production that is irrigated is shown in the attached graph. Each red circle represents a particular crop/county. In general, there is a positive correlation between these two variables. This makes intuitive sense – irrigation will tend to predominate in those county/crops where the yield advantage from irrigation is greatest.

The solid red line in the graph shows the critical point where a decrease in the proportion of irrigated production (or, conversely, increase in the proportion of non-irrigated production) has the potential to trigger a GRP/GRIP indemnity – assuming a 90 percent level of coverage. The convex shape of the line reflects the tradeoff between the irrigated/non-irrigated yield difference and the proportion of irrigated production. The lower the irrigated proportion of production in a given crop/county, the less important is the irrigated/non-irrigated yield difference, and vice-versa.

To put it another way, county/crops that are above the red line are potentially vulnerable to a sudden shift away from irrigated production causing a GRP/GRIP indemnity and those county/crops that are below the red line generally do not have this vulnerability.

The vertical dashed black lines in the graphs divide the county/crops into three groups according to the proportion of total production that is irrigated. At one end of the spectrum are the county/crops where irrigated production plays a minor role, accounting for 15 percent or less of total production. Most counties fall into this group. All of the counties in this group are below the red line, indicating that a sudden decline in the already-low proportion of irrigated production cannot predictably trigger a GRP/GRIP indemnity.

At the other end of the spectrum are the crop/counties where irrigated production plays a major role, accounting for more than 50 percent of total production. Nearly all of the crop/counties in

this category are above the red line, indicating that a sudden decline in the proportion of irrigated production has the potential to trigger a GRP/GRIP indemnity – even for relatively small differences in irrigated/non-irrigated yields. The limited few below the minimum yield ratio reflect wheat in California where irrigated production is used as silage (thus acreage not harvested for grain) for dairy operations. [redacted] is in this group and accounted for nearly all of the GRP/GRIP insured acres for all counties in the group in 2008.
The third group is in the middle, with irrigated proportions ranging from 15 to 50 percent. Unlike the other two groups, the county/crops in this group cannot be categorically described as being potentially vulnerable to a decrease in irrigated production or not. Some county/crops are above the red line and have the potential for a sudden decrease in the proportion of irrigated production to trigger an indemnity and other crop/counties are not.

The sequence of criteria for determining the form of the GRP/GRIP offers are based on the three groups identified in the graph.

Irrigated Production Percent	<15%	15% to 50%	>50%
Criteria Sequence	1. Check NASS irrigated and non-irrigated data. If sufficient data exists, make irrigated and non-irrigated offers based on each practice's NASS data. 2. (If No.1 fails) Check NASS non-irrigated data. If sufficient data exists, make irrigated and non-irrigated offers, both of which are based on the non-irrigated NASS data. 3. (If No. 2 fails) Make irrigated and non-irrigated offers, both of which are based on the total for crop NASS data.	1. Check NASS irrigated and non-irrigated data. If sufficient data exists, make irrigated and non-irrigated offers based on each practice's NASS data. 2. (If No.1 fails) Check NASS non-irrigated data. If sufficient data exists, make irrigated and non-irrigated offers, both of which are based on the non-irrigated NASS data. 3. (If No. 2 fails) Check NASS irrigated data. If sufficient irrigated data exists, make irrigated and non-irrigated offers, both of which are based on the irrigated NASS data. 4. (If No. 3 fails) Make an irrigated-only offer based on total for crop NASS data.	1. Check NASS irrigated and non-irrigated data. If sufficient data exists, make irrigated and non-irrigated offers based on each practice's NASS data. 2. (If No.1 fails) Check NASS irrigated data. If sufficient data exists, make irrigated-only offer based on the irrigated NASS data. 3. (If No. 2 fails) Make an irrigated-only offer based on total for crop NASS data.

For all three county/crop groups, the first step in the sequence of criteria is to check for whether sufficient NASS data exists[1] to support **both** irrigated and non-irrigated offers, with each offer

[1] Based on the results of a external review of the trending and rating methodology for GRP/GRIP, RMA determined that a minimum of twenty years of NASS yield data are required to support an insurance offer.

based on practice-specific data. If sufficient NASS data exists, then an irrigated offer is made based only on irrigated NASS data and a non-irrigated offer is made based only on NASS non-irrigated data.

This option is most preferred as it eliminates the risk to the GRP/GRIP program from a sudden shift away from irrigated production but still provides insurance offers that are more likely to match growers' risk management needs. Unfortunately, there is not sufficient practice-specific data from NASS to support this option in most cases, requiring that subsequent steps in the sequence of criteria be applied.

The next step in the sequence of criteria varies according to which group the county/crop fall into. If the irrigated production percentage for a county/crop is less than 15 percent, then the next step is to check if sufficient NASS non-irrigated data exists to support an insurance offer. If so, then non-irrigated and irrigated insurance offers are made based on the NASS non-irrigated data. Basing an offer on practice-specific NASS data eliminates the risk to the GRP/GRIP program from a sudden shift away from irrigated production.

If there is not sufficient NASS non-irrigated data in a county/crop with less than 15 percent irrigated production, then non-irrigated and irrigated offers are made based on NASS total for county data. Because the proportion of irrigated production is already very low in these county crops, the potential effect of a further decrease in irrigated production is limited and presents minimal risk to the GRP/GRIP program.

For those county/crops with an irrigated production proportion between 15 and 50 percent, the criteria sequence is slightly different to account for the increased risk. If there is not sufficient non-irrigated data to support an insurance offer, then the sufficiency of the NASS irrigated data is checked. Once again, basing an offer on practice-specific data eliminates the risk of a change in irrigated production triggering an indemnity.

If there is not enough practice-specific NASS data (either irrigated or non-irrigated) to support an offer, then total for crop data is used. However, GRP/GRIP coverage is restricted to only the irrigated practice. By restricting the offer to the irrigated practice, any potential incentive for growers to attempt to trigger a GRP/GRIP indemnity by increasing the proportion on non-irrigated production (as appears to be happening in [redacted]) is eliminated. Producers that pursue non-irrigated production are automatically excluded from GRP/GRIP coverage and cannot benefit from the effect their production decisions might have had on the overall county average yield.

For those county/crops with an irrigated production proportion greater than 50 percent, a similarly restrictive sequence of criteria is applied. If there is not enough irrigated NASS data – non-irrigated data generally does not exist in these county/crops – then GRP/GRIP coverage is restricted to only the irrigated practice.

For all county/crops where GRP/GRIP is offered, the practice code 997, "No Practice Specified", has been eliminated. All growers purchasing GRP/GRIP policies will need to specify their

production practice. This will help RMA better track the production decisions made by producers in the GRP/GRIP program.

RECOMMENDATION NO. 4:

Amend the GRP/GRIP Plans of Insurance Basic Provisions to include language that will require the insured to request a written agreement for any land that has not been planted to a crop in one of the past 3 years.

RMA Response:

We concur with this recommendation. The GRP/GRIP plans of insurance were developed by RMA to provide growers a new risk management tool that was also easy to administer. Unlike other plans of insurance administered by the RMA, the GRP/GRIP plans require no individual loss adjustment or producer's actual production history. RMA concurs with OIG that existing GRP/GRIP provisions do not address this recommendation. To address this matter requires a change to RMA's regulations requiring a proposed and final rule in the Federal Register. RMA is currently working to combine the existing GRP/GRIP/GRIP Harvest Revenue Option (HRO) plans of insurance into one area risk protection insurance policy effective for the 2011 crop year. The current draft of the policy contains language, consistent with RMA's existing Actual Production History (APH) based plans of insurance, which addresses OIG's recommendation by only providing insurance coverage on acreage where a crop was planted and harvested in one of the last three years. This language will require the insured to request a written agreement for any land that has not been planted to a crop in one of the past 3 years to be eligible for insurance coverage if approved by the RMA Regional Office.

RMA requests management decision for this recommendation.

RECOMMENDATION NO. 5:

Specify a final planting date for all GRP/GRIP crops not to exceed the late planting date listed in the actuarial documents for the same actual production history crop.

RMA Response:

We concur with this recommendation. The current existing GRP/GRIP policies do not contain any language regarding final planting dates. Therefore, RMA cannot enforce such a requirement until the policy is changed via a proposed and final rule in the Federal Register. RMA plans to incorporate a final planting date requirement into a new area risk protection plan insurance policy. A final planting date will be established in the actuarial documents for the insured crop that will generally be the last day of the late planting period of the same crop as insurable under APH based plans of insurance. RMA plans to combine the current GRP/GRIP/GRIP-HRO plans of insurance into one area risk protection insurance policy containing this change effective for the 2011 crop year.

RMA requests management decision for this recommendation.

Additional Comments:

- Regarding a sentence in the first paragraph of the report: "In conducting our audit, we identified problems in counties where the Risk Management Agency (RMA) offered Group Risk Protection (GRP) and Group Risk Income Protection (GRIP) insurance plans that do not specify irrigated or non-irrigated practices."
    - The phrase 'problems in counties' leads the reader to mistakenly conclude that multiple problems in a multitude of counties have been identified by OIG. This is not the case. As the rest of the report explains, only one problem in one county has been identified.
    - A more transparent beginning to the sentence would be, "In conducting our audit, we identified a problem in one county where the Risk Management Agency . . . "

- Regarding another sentence in the first paragraph of the report: "In one county alone, we determined that GRIP insureds of irrigated and non-irrigated corn acres could receive indemnities for as much as $35 million for the 2008 crop year."
    - The phrase 'in one county alone' suggests to the reader that a number of counties have had losses related to the blended yield issue, which is not the case.
    - Also, the $35 million number creates an impression that the use of a blended yield is responsible for that full amount when, according to OIG's own analysis, bad weather accounts for a significant portion of the total.
    - A more transparent wording might be, "We have found one county crop where the use of a blended yield is likely to result in insureds receiving an indemnity payment even if a normal crop should be produced. If a normal crop were produced, insureds could expect to receive as much as $21.5 million in indemnities. However, the total indemnity is expected to be as much as $35 million, reflecting losses from a significant drought."

- Regarding another sentence later in the first paragraph: "We identified 513 additional GRP/GRIP county crop programs offered in 15 States and 376 counties that are potentially at risk of producers taking advantage of disparities between irrigated and non-irrigated yields."
    - According to column K of the spreadsheet provided by OIG to RMA, a number of the 513 counties have only minor differences in irrigated/non-irrigated yields (20 percent or less). In some of the identified counties, the non-irrigated yields were actually greater than the irrigated yields. How can producers 'take advantage' of disparities in irrigated/non-irrigated yields in such counties?

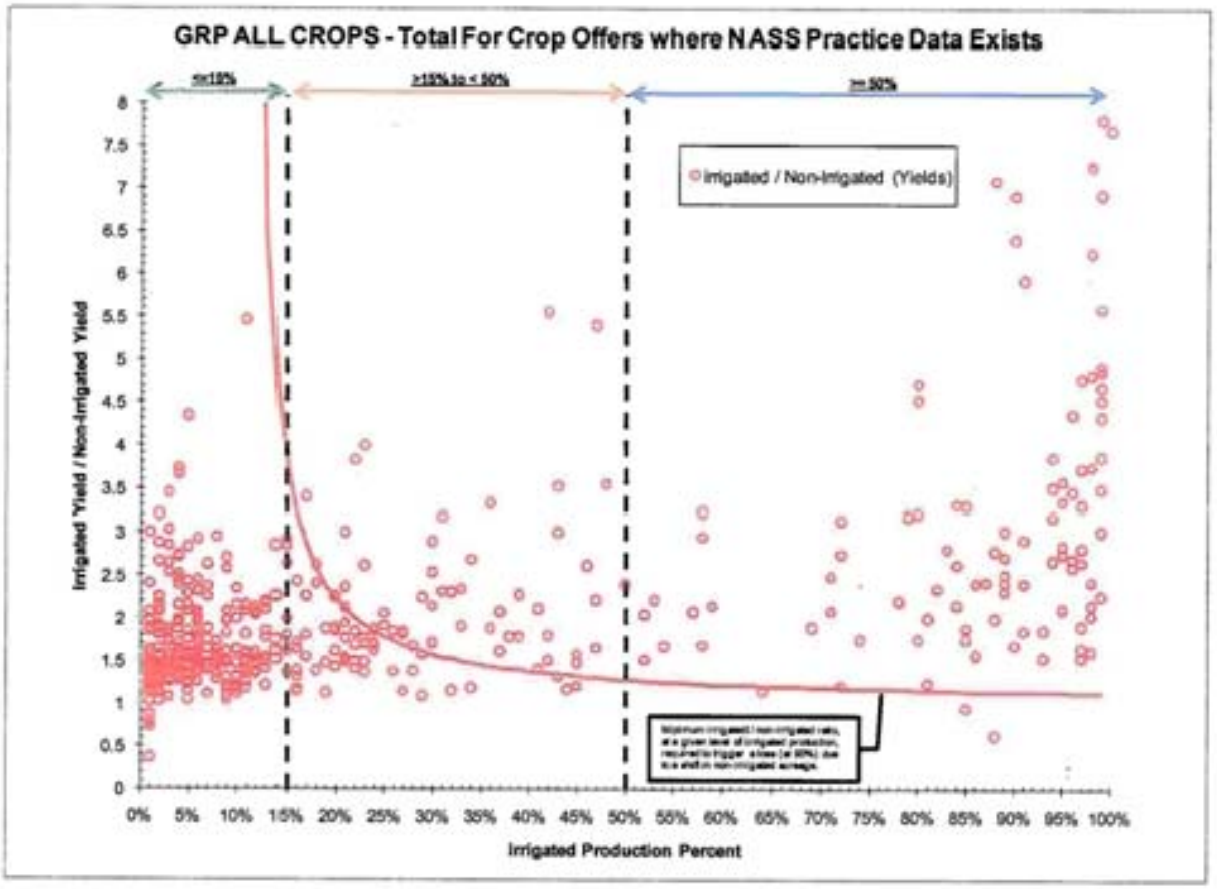
- A more accurate wording of the sentence might be, "We identified 513 additional GRP/GRIP county crop programs where NASS irrigated data is available to allow an analysis of whether there is a risk of producers taking advantage of disparities between irrigated and non-irrigated yields."

- The paragraph that begins on page 2 of the report describes how OIG's analysis led it to look at [redacted]. In this paragraph, it would be appropriate to mention that when OIG contacted RMA about [redacted], RMA had already identified the situation and was taking steps to address it.

- The description of RMA's methodology for determining whether GRP/GRIP should be offered in a county is incomplete.
  - A suggested wording is: "RMA uses four criteria to determine whether GRP/GRIP should be offered in a county. One criterion is based on an index formula that measures the degree to which production in a county crop is concentrated among a few producers. The other criteria include a minimum of 50 farms, a minimum of 30 years of published NASS yield data, and a minimum of 5,000 planted acres in each of the last 10 years."

- Regarding a sentence in the third paragraph of page 8 of the report: "From these, we identified 214 county crop programs that NASS has 10 consecutive years of irrigated and non-irrigated production data available, which would provide RMA with a basis to offer GRP/GRIP by practice."
  - This sentence leads the reader to believe that 10 years of data is enough to establish a GRP/GRIP offer. The report presents no analysis or support for this assertion.
  - According to a recent RMA-contracted expert review of the GRP/GRIP program, at least 20 years of data is needed to establish reliable expected yields and premium rates.
  - Unless there is analysis to support that 10 years of data is sufficient to establish GRP/GRIP offer, this sentence should be deleted.

Should you have any questions or require additional information, please contact Alan Sneeringer at (202) 720-8813.

Attachment

OIG Audit 05601-04-KC **Attachment**