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Office of Inspector General
Great Plains Region

Audit Report

Risk Management Agency Established Maximum Price Elections for Agricultural Crops for 2001 and 2002 Crop Years

Report No. 05099-17-KC
March 2004



UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF INSPECTOR GENERAL

Washington, D.C. 20250



DATE: March 31, 2004

REPLY TO
ATTN OF: 05099-17-KC

SUBJECT: Risk Management Agency's Established Maximum Price Elections for
Agricultural Crops for Crop Years 2001 and 2002

TO: Ross J. Davidson, Jr.
Administrator
Risk Management Agency

ATTN: Michael Hand
Deputy Administrator
Risk Compliance

SUMMARY:

We have completed an audit survey of the Risk Management Agency's (RMA) management controls over the formulation, calculation, and implementation of its maximum price elections for insured agricultural crops. We evaluated these established controls for the 2001 and 2002 crop years. Our objective was to assess the reasonableness and supportability of RMA's methodologies and management controls used in establishing and implementing crop price elections. Overall, we determined that RMA's procedures and controls resulted in reasonable and supportable crop price elections for the 2001 and 2002 crop years. In addition, we determined that RMA's 2001 and 2002 crop year price elections were implemented as intended, and that RMA's crop price elections were generally administered, in accordance with program requirements. Nothing came to our attention to cause us to believe that RMA's system of management controls over these activities was not effective and operating as intended. Accordingly, we discontinued the review and will not be initiating any further audit work.

BACKGROUND:

The Federal Crop Insurance Corporation, an agency of the United States Department of Agriculture (USDA), is a Government-owned corporation, created on February 16, 1938, to promote the national welfare by improving the economic stability of agriculture through a sound system of crop insurance. An appointed Board of Directors provides overall guidance to the Federal Crop Insurance Corporation. The Federal Agriculture

Improvement and Reform Act of 1996 (Act), dated April 4, 1996, amended the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994 (Public Law 103-354) by creating an independent office called the RMA. RMA is responsible for the supervision of the Federal Crop Insurance Corporation and the administration and oversight of programs authorized under the Act. These programs include multi-peril crop insurance (MPCI) and revenue insurance policies.

RMA provides policies for more than 100 crops, and producers may select from various types of policies. For example, MPCI policies are available for most insured crops. These policies insure producers against yield losses due to natural causes, such as drought, excessive moisture, hail, wind, frost, insects, and disease. The producers select the amount of average yield that they want to insure, from 50 to 75 percent (in some areas up to 85 percent). The producers also select the percent of the predicted price they want to insure, between 55 and 100 percent of RMA's annually established crop price. If the harvest is less than the yield insured, the insured is paid an indemnity based on the difference. Indemnities are calculated by multiplying this difference by the insured percentage of the established price selected when crop insurance was purchased.

In addition to MPCI, an insured has the option to select other policy types, if available, for his/her agricultural crops. Examples of these other policy types include: Group Risk, Dollar, Group Risk Income Protection, Adjusted Gross Revenue, Crop Revenue Coverage, Income Protection, and Revenue Assurance Plans. Each policy type varies in coverage levels ranging from 50 percent to 85 percent and price selections ranging from 55 to 100 percent. For the 2000, 2001, and 2002 crop years, the Federal crop insurance program premiums totaled approximately \$2.5 billion, \$3.0 billion, and \$2.9 billion, respectively, with indemnities totaling \$2.6 billion, \$3 billion, and \$4.1 billion, respectively.

Price elections are very important to both RMA and the insured producers because they directly affect the amount of premium a producer pays and the amount of indemnity RMA pays. In addition, price elections also affect the private reinsured companies selling crop insurance and the Government subsidies supporting the programs. The companies' administrative and operating reimbursement is a fixed percentage of premiums collected from the insureds, and the Government's premium subsidy costs are also based upon total premiums (total premiums include the Government subsidy and producer-paid premiums). Producer premiums are also contingent upon crop liability. Therefore, the higher the price selection selected by the producer, which increases crop liability, the higher the total premium for the policy.

If RMA underestimates crop price elections, then premium payments from producers will be lower and administrative and operating reimbursements paid to the reinsured companies will be reduced. Also, the level of price elections offered by RMA may affect total producer participation in the crop insurance programs. If producers perceive the

price elections as too low, participation may be reduced. Producers may perceive that they have not been adequately compensated by the program when they suffer losses and receive indemnity payments that are lower than actual prices.

The RMA Rates and Prices Section of its Actuarial Division, located in Kansas City, Missouri, analyzes the agricultural crop information and/or data obtained, formulates and determines applicable price forecasts, and prepares agricultural crop price memorandums for approval by the Administrator. The staff performs its activities based on discussions with, and input from, other USDA analysts and non-government sources. The commodity-specific decision memorandums include the following items: (1) the issue being addressed, such as determining at what level the crop year established price elections for the commodity should be set; (2) a detailed description of the commodity's background, which includes past, current, and future crop prices, crop supplies on hand, and crop usage data; (3) a series of at least three different pricing options developed from the different sources with supporting conclusions and recommendations; and (4) the option actually selected by RMA, including the justification for its selection. The approved price memorandums are forwarded to the Office of Management and Budget (OMB) for its review and concurrence.

Once OMB concurs with RMA price memorandums, the price elections are disseminated to the companies using a reporting organization bulletin for each price election.¹ The price election data is then entered into both RMA's and the reinsured companies' applicable computer systems for administering the various crop insurance programs. The insured's policy information, including price election data, is reported by the reinsured companies to RMA and this data is validated for acceptance by RMA's computer system. If price election data for each policy is not in agreement with corresponding data in RMA's computer system, the reinsured companies have a specified time to correct the data or they are subject to a reduction in their administration and operating fees for not reconciling the data in a timely manner.

The General Accounting Office (GAO) issued a report² pertaining to the price election determination processes being used by RMA at that time and recommended that RMA:

- Use, to the extent possible, the available World Agricultural Outlook Board (WAOB) crop forecasts;
- Determine the feasibility of using or making forecasts prepared later in the year, closer to the insurance closing date;
- Use price differentials for any crop, where available;
- Implement a strong forecast management process; and

¹ During our review, it was noted that reinsured companies do not provide any price information to RMA that directly influences what agricultural crop price is actually approved by RMA and/or OMB or each price memorandum.

² Audit No. GAO/PEMD-92-4 (Crop Insurance—Inaccurate FCIC Price Forecasts Increase Program Costs), dated December 1991.

- Develop a more effective method for deducting harvest costs for participants who have total losses yet do not harvest a crop.

RMA agreed to explore, research, and implement procedures to address the recommendations, except for the last recommendation concerning deduction of harvest costs when there are total losses. RMA did not adopt this recommendation because it believed this proposal did not follow the intent of the crop insurance changes initiated in 1980. RMA stated that a 1980 amendment to the Crop Insurance Act had deleted any references to cost of production and provided that insurance should be made available at various levels to all producers. In addition, RMA stated that the amendment made no mention of reducing indemnity payments by deducting harvesting costs not incurred in connection with unharvested acreage.

However, it has been RMA's policy since the early 1990s to select the higher of (1) national marketing loan rate established for the particular agricultural crop year or (2) the newly calculated price election for the reinsurance crop year. Senior USDA management mandated this price election policy. According to RMA officials, this was done so that RMA's insurance price elections, for crops with price support programs, would be no lower than the loan rates used by the Farm Service Agency (FSA). We are not taking exception to this policy even though it does create the possibility for price elections in the insurance program to exceed the market price for a commodity. This policy does assure that producers of crops covered by price support programs receive insurance benefits on failed crops based on the same prices as harvested crops. However, it could create the potential for producer moral hazard and affords producers insuring crops covered by price support with an advantage not available to producers of crops not covered by price support programs.

SURVEY OBJECTIVES:

Our survey objectives were to determine (1) the methodologies used and management controls exercised over the process of establishing price elections for agricultural crops covered by MPCI and revenue guarantee policies and (2) whether such controls were sufficient to ensure that such price determinations were properly formulated and implemented for designated insurance policies.

SCOPE AND METHODOLOGY OF THE SURVEY:

Our review was performed at the RMA headquarters office in Washington, D.C., and the RMA Research and Development Actuarial Division located in Kansas City, Missouri. We also interviewed representatives of the USDA Economic Research Service (ERS); WAOB; Cooperative State Research, Education, and Extension Service; National Agricultural Statistics Service; Foreign Agricultural Service; FSA; and Agricultural Marketing Service located in Washington, D.C. The USDA agencies were selected to ascertain their role in RMA's establishment of price elections for insured crops. In

addition, we conducted work at one reinsured company. The reinsured company was selected based on the amount of crop insurance sold (i.e., the second-largest reinsured company in sales of crop insurance policies). To accomplish our objectives, we gained a general understanding of the RMA processes for establishing insurance price elections, reviewed regulations, policies, procedures, and instructions, as applicable, for RMA's insurance programs. In addition, we identified, assessed, and documented the applicable management controls RMA had established over its price election formulation, methodologies, and calculation processes. We conducted our review through interviews, observations, review of RMA and USDA agency and selected reinsured company records, including analyses of applicable pricing memorandums and supporting documentation.

At the RMA headquarters office and its Research and Development Actuarial Division, we reviewed and discussed RMA's price election determination processes on all agricultural crops that were insured through reinsured companies for 2001 and 2002 crop years. We analyzed methodologies and the calculations that RMA used to support the conclusions presented within individual price election memorandums. We reviewed the sufficiency of the pricing methodologies and analyzed the written narratives that RMA had established for 15 separate agricultural crops.³ We reviewed individual supporting documentation and specific calculations generated for each of the price election memorandums. We also documented and assessed these processes, as well as the processes to monitor the price elections established, to ensure they were properly applied. In addition, we reviewed and discussed the management and supervisory controls that were in place over the establishment and maintenance of price elections for MPC1 and revenue guarantee policies. These management controls included the supervisory oversight by appropriate RMA officials over pertinent price information gathering processes, price election calculation procedures, individual crop pricing methodologies, the price election approval processes, and the appropriate data input entry.

At the seven agencies and boards⁴, we discussed their roles and responsibilities in assembling agricultural crop data and arriving at pertinent price information used by RMA to establish price elections for its crop insurance policies. We also discussed how this price information from the various agencies was provided to the Interagency Commodity Estimates Committees and their role in assisting RMA in establishing the final price elections for the various crop insurance policies and price reports published by WAOB and by ERS. At OMB, we ascertained the role it plays in RMA's establishment of price elections for crop insurance policies and reviewed supporting

³ Wheat, rye, corn, grain sorghum, barley, oats, soybeans, rice, cotton, macadamia nuts, stonefruit (i.e., peaches, apricots, and nectarines), watermelons, raisins, tomatoes, and green peppers.

⁴ Economic Research Service; WAOB; Cooperative State Research, Education, and Extensive Service; National Agricultural Statistics Service; FSA; Foreign Agricultural Service; and Agricultural Marketing Service.

documentation related to its review of price election memorandums submitted by RMA for concurrence, including any differences for each agricultural crop type.

At the reinsured company, we reviewed and discussed pertinent information with officials concerning the processes used to implement final price elections for its crop insurance policies. We also reviewed and discussed management controls in place to ensure that the appropriate price elections established by RMA were correctly disseminated to the reinsured company, and it applied them in accordance with the procedures established by RMA. We selected a judgmental sample of 20 crop insurance policies obtained from the RMA policy database and compared this information to data in the reinsured company automated databases and supporting records to verify the accuracy of the crop insurance policy price election data forwarded to RMA. We performed tests, with cooperation from the reinsured company, of the computer system edit checks to verify that the accuracy of price election data were operating as intended.

We also compared the available 2002 reinsurance year crop price elections to the 15 selected agricultural crops that were established for the 2001 reinsurance year data for comparative purposes.

Our audit survey fieldwork was performed from April 2002 through January 2003. We conducted the audit survey in accordance with Government Auditing Standards.

AUDIT RESULTS:

We concluded that RMA had developed and implemented reasonable methodologies, procedures, and management controls in establishing the crop insurance program price elections on specific agricultural crops for the 2001 and 2002 crop years. We also concluded that the agricultural crop price and production data were obtained from required sources and the methodologies and procedures used by RMA to complete the calculations were applicable and adequately supported with appropriate documentation. In addition, we noted that RMA established price elections for a variety of agricultural crops covered under revenue products, such as Crop Revenue Coverage and Revenue Assurance, were in accordance with revenue product policy provisions approved by the Federal Crop Insurance Board of Directors. Even though RMA exercised several levels of management and supervision in establishing these rates, we noted an absence of written procedures for conducting the process and supporting documentation for these reviews; e.g., supervisory initials and/or tick marks evidencing the reviews. However, nothing came to our attention to cause us to believe that the system of management controls for establishment of price elections was not effective and operating as intended. In regard to the judgmental sample of 20 crop insurance policies obtained from the RMA data sources and traced to the reinsured company data sources, we noted no discrepancies. In addition, our tests of the reinsured company's computer system edit checks, concerning price election verifications, disclosed that the reinsured

company's computer system caught the incorrect price election errors submitted as part of this review and listed them on error reports, as intended.

We compared the available 2002 reinsurance year crop price elections to the 15 selected agricultural crops that were reviewed for the 2001 reinsurance year data for comparative purposes, and we found no significant discrepancies and/or disparities between the two sets of data.

In regard to the four recommendations in the GAO report on which RMA had agreed to implement corrective actions,⁵ pertaining to the price election determination processes, RMA had not implemented corrective action on the recommendation that RMA use county price differentials for crops where available. RMA officials stated that they reviewed this recommendation with the Office of the General Counsel, WAOB, and FSA, and they deemed this recommendation impractical to implement for a multitude of reasons, including that FSA does not update its county price differentials on a regular basis. We did not take exception to RMA's response to this GAO recommendation because the scope of our review did not include an evaluation of the accuracy of RMA's price forecasting. However, RMA should revisit its position on the use of FSA's individual State and/or county agricultural crop price differentials to determine if these individual price differentials now would be a useful tool in measuring regional or local variations in market prices. Since GAO's review, FSA (1) has taken actions to identify and address variations in price differentials among contiguous counties and States, (2) makes weekly analyses of differentials, and (3) adjusts them for consistency and parity among markets. The county price differentials may now be a better indicator of the actual county market conditions. For example, if RMA's national price election differs significantly from FSA's established county price, it may have an adverse effect on program costs or on producer participation.

We observed one potential shortcoming in RMA's process. This potential shortcoming is the elapsed time between when price elections are established and the sales closing date. Producers do not have to commit to a crop insurance policy prior to the sales closing date. For most agricultural crops under the MPCl program, the crop price election determination process is completed approximately 3 to 4 months before the first sales closing dates. However, the price election process for some crops, such as upland cotton, can extend for 3 to 8 months. The longer the time period between price elections and the sales closing date, the more vulnerable these determinations are to forecasting errors. There is a tendency for price forecast errors or differences to increase as the time increases between the establishment of price elections and the time the policy is sold. The forecast process could be improved if RMA established its price elections closer to the sales closing date. This could result in a better reflection of the current seasonal market conditions for each agricultural crop. However, we did not

⁵ Audit No. GAO/PEMD-92-4 (Crop Insurance—Inaccurate FCIC Price Forecasts Increase Program Costs), dated December 1991.

take exception to this situation. RMA's establishment of individual sales closing dates could be the subject of a future review.

For example, the upland cotton 2002 crop year pricing process began in August 2001. The final approval of the cotton price election was to be completed by the end of November 2001. The sales closing dates were January 31, 2002,⁶ February 28, 2002,⁷ and March 15, 2002.⁸ In this case, the cotton price election process covered the period August 1, 2001, through March 15, 2002, or about 7 ½ months, the time RMA started the price election process to the final cotton sales closing date. For the period August 2001 through March 2002, the weighted average market price received by producers ranged from \$.435 per pound to \$.284 per pound.⁹

Our review did not disclose any reportable conditions and we have terminated the review and are making no recommendations to management. No further reply to this report is necessary.

We appreciate the assistance you and your staff provided to us during our review.

/s/

ROBERT W. YOUNG
Assistant Inspector General
for Audit

⁶ Southern Texas.

⁷ California, Arizona, Central Texas, Arkansas, Louisiana, Mississippi, Alabama, Florida, Georgia, North Carolina, and South Carolina.

⁸ New Mexico, Northern Texas, Oklahoma, Kansas, Missouri, Tennessee, and Maryland.

⁹ National Agricultural Statistics Service's monthly market price releases for the period August 2001 through March 2002. These monthly releases are posted and published by the National Agricultural Statistics Service and provided to all third parties, including RMA, for information purposes about market prices received by agricultural producers of upland cotton for a given month.

ABBREVIATIONS

Act	-	Federal Agriculture Improvement and Reform Act of 1996
ERS		Economic Research Service
FSA	-	Farm Service Agency
GAO	-	General Accounting Office
MPCI	-	Multi-Peril Crop Insurance
OMB		Office of Management and Budget
RMA		Risk Management Agency
USDA	-	United States Department of Agriculture
WAOB		World Agricultural Outlook Board