Executive Summary

This report is the second NCIS review of the FCIC Cost of Production (COP) Insurance Plan for Cotton (FCIC Board of Directors Board Memorandum No. 706). In conducting its assessment of the current COP submission, NCIS reviewed the revised package relative to our first review. The format of this report is similar to the first review and many of the essential findings remain the same.

In its first review, NCIS did not recommend approval of COP. This assessment was based on two concerns: (1) lack of clear documentation and explanation of the program package; and (2) conceptual and design flaws of the COP policy. The second submission of the contractor did provide improved explanation and documentation of the program. However, our fundamental conclusion remains the same. NCIS does not recommend approval of COP. Moreover, NCIS does not recommend that the process go forward. Certain program flaws still persist and a myriad of implementation issues make COP operationally untenable.

Operationally, the current version of the COP program package does not adequately address the implementation process. This is not to imply that further submissions would satisfy this concern. Rather, the lack of specificity regarding implementation indicates the incompatibility of COP in relation to other RMA plans of insurance and the infeasibility of the COP design itself. Our review attempts to provide a partial inventory of the implementation issues confronting RMA and insurance providers.

Our primary concern is that COP does not provide a unique form of crop insurance coverage relative to existing RMA plans of insurance. As stated in our prior review, COP is essentially an APH-based revenue plan with extensive expense reporting requirements. It is not clear that the additional reporting requirements provide the insured with any tangible risk management protection relative to other plans of insurance. Introduction of the COP program requires the introduction of an alternative rating structure. The surcharge/discount component of the rating structure has no conceptually consistent foundation and in our opinion is operationally unwieldy. This will most likely result in a series of unforeseen and unintended program consequences.

Research Report

FCIC Cost of Production Insurance Plan for Cotton

Prepared by: National Crop Insurance Services

Objective:

Section 505(e) of the Federal Crop Insurance Act requires the FCIC Board of Directors to enter into contracts with persons experienced as actuaries and in underwriting for review of any policy or plan of insurance, or any related material or modification of a policy or plan of insurance proposed to be offered under the Act. The required procedures have been published in the "Interim Procedure For The Submission and Review of New and Revised Crop Insurance Policies."

In accordance with the intention of Congress and the FCIC Board of Directors to obtain independent reviews of policies and programs, National Crop Insurance Services (NCIS) has agreed to provide an independent review of the FCIC Cost of Production Insurance Plan for Cotton. The NCIS review consists of the Executive Summary and the accompanying Written Research Report of the findings. The objectives of NCIS in this response are the following:

1. To evaluate whether the documentation provided for the FCIC Cost of Production Insurance Plan for Cotton is sufficient to perform the reviews indicated in the Task Order Statement of Work. The Task Order designates a subset of the items categorized in the "Interim Procedure For The Submission and Review of New and Revised Crop Insurance Policies."

2. To perform an expert review of the items included in the Task Order,

3. To identify any significant concerns with program design or pricing which should be considered in the FCIC Board of Directors program review, and

4. To provide our recommendation whether the proposed program is in the best interest of the producers, the public, and the Crop Insurance Industry.

Methodology Used

NCIS utilized a team approach in conducting the review of the FCIC Cost of Production Insurance Plan for Cotton (COP). Team members were expected to read the submission, and based upon their respective areas of expertise, provide the key personnel (Project Director, Lead Underwriter, Lead Actuary) and Principal Investigator with written comments to the questions in section C.5, Description of Work, of the Task Order. Team members were expected to base their comments and answers to the questions in C.5 upon the material provided in the review package, and to focus their evaluation of the COP policy with respect to its clarity, internal consistency, and consistency with the language in the COP Underwriting Guides and COP Loss Adjustment Manuals.

The team followed an interactive, iterative process of working independently and then meeting as a group to discuss issues and clarify points of concern, in an effort to stimulate independent thought and ensure consistency. This pattern was repeated several times to ensure that the review was comprehensive.

Review Team members were:

Principal Investigator:	Thomas P. Zacharias, Ph.D., NCIS Executive Vice President
Sr. Agricultural Economist:	Laurence Crane, Ph.D., Director, Education & Training
Lead Actuary:	Frank Schnapp, ACAS, MAAA, Director, Actuarial Analysis & Research
Lead Underwriter:	Roger Hammer, CPCU, Senior Underwriter
Senior Statistician:	Rich Byrne, Director, Analytical Operations
Insurance Adjuster II:	David Hall, Director, Program Evaluation
Senior Computer Consultant:	Troy Brady, Director, Data Quality & Systems Design
Document Specialist:	Linda Kovelan, Actuarial & Statistical Executive Assistant

C.5. Description of Work

(1) Protection of producers' interests.

(A) *Does the policy provide meaningful coverage that is of use to producers, and provide it in a cost efficient manner?*

The proposed Cost of Production (COP) plan is similar to an APH-based revenue plan. COP retains all the administrative and reporting requirements of an APH program and introduces additional reporting requirements for the insured's anticipated expenses as well as loss verification requirements for the insured's actual expenses. The administration of these additional requirements will be costly and time consuming for both producers and insurers. The coverage provided under COP is reasonably consistent with the coverage provided under other plans of insurance. One difference is that coverage under COP can increase during the growing season. For APH-based plans of insurance, the amount of insurance is established at the beginning of the insurance period and remains constant thereafter. Since producers would be able to obtain more coverage under the existing plans, they may find these to be more attractive for their crop protection needs.

(B) (i) *Is the policy clearly written such that producers will be able to understand the coverage that they are being offered?*

The coverage will be difficult for most producers to understand accurately without an extensive study and review of all supporting documentation, including the underwriting guides, loss procedures and training units. These supplementary documents are not traditionally provided to insureds. Even after extensive analysis of all materials provided with this review package, we found areas lacking in clarity. The name, Cost of Production Insurance, in itself may lead to a misunderstanding of the coverage being provided. Due to the design of the policy, producers with large profit margins will be restricted on the amount of coverage they can purchase, while those insureds whose covered expenses have been "capped" via the many coverage restrictions imposed by the policy will never truly have their costs covered. The Cost of Production plan is not unique in providing coverage for the producer's costs since any policy that provides an indemnification for a covered loss provides some degree of cost recovery. The Cost of Production plan provides very few benefits to the producer beyond those available under existing plans of insurance.

One area of confusion for the policyholder arises from the grouping of the producer's expenses into three categories: fixed costs, land fees, and variable costs. The rules and guidelines that apply to the three expense categories may not be available to the insured. For instance, even though the insured is not required to provide documentation for fixed costs and land fee expenses, extensive documentation is required for the insured's variable costs. The procedural handbooks (General Underwriting Guide, Section 5.A.17.(f), p. 50) explain that in addition to providing receipts, etcetera, for variable costs, insureds must also maintain a "formal written record system." This formal written record system, although prudent and desirable, is not stipulated by the policy but is imposed through procedures that are not

directly provided to the insured. A second example is the limitations placed on the producer's expenses. Fixed cost and land fee expenses are not permitted to exceed 50 percent of the insured's expected revenue (County Actuarial Table, Special Provisions, p. 2, and Appendix J), while the total variable costs cannot exceed an amount stated in the Special Provisions of Insurance. According to the General Underwriting Guide (Exhibit 20.(18), p. 221) "*If the variable cost expense total exceeds the amount specified in the Special Provisions, the insured must reduce, in some manner, the expenses being estimated.*" This information is not provided to the policyholder. Additionally, under the basic policy language which stipulates the insured's duties in the event of damage or loss, it states the insured is required to revise their covered expense worksheet by lining out expected expenses and entering in actual expenses, then, dating and initialing each line. Leaving aside the concern that the covered expense worksheet example will be messy and difficult to read, this provides no guidance to the insured as to how the revisions are to be done, particularly if any expenses have been artificially reduced or limited (i.e., capped) at the onset.

Another example of confusing policy language is the basic policy definition for *Covered expenses worksheet*. The definition contains the following language: "*If during the crop year, you become aware of a cost increase in excess of 20 percent in a variable cost expense category, you must notify your agent. YOUR POLICY LIABILITY WILL NOT BE INCREASED. In the event of a claim, failure to revise your covered expenses worksheet will result in the cost category increase being limited to 120 percent of the expected cost*." Although the wording makes it clear that the insured is to report any variable cost increase, the reason for or the implication of this language is unclear. However, we were unable to find any explanation or example in the supporting documentation provided with this review package.

Another concern with the COP program is that the examples and illustrations provided are overly simplistic. The documentation does not address the types of complex situations that commonly arise in practice, where an example or illustration could prove helpful. One example of this is the proper application of the policyholder's insurable share. Throughout the documentation, the producer's share is always shown as 100 percent. In practice, the producer's share will often be less than 100 percent share, particularly since enterprise units are being insured.

The prevented planting language in the COP policy has the same difficulties as the language used in other insurance plans. Current prevented planting provisions are wrought with a myriad of complexities, issues and vulnerabilities for abuse. Experience with other crops has shown that most farmers do not understand this coverage. With exception for the method described by the policy to calculate the amount of any prevented planting indemnity, prevented planting in the COP policy simply mirrors the provisions contained in the MPCI Common Crop Insurance Policy. Difficulties may arise in administering COP in the case of substitute crops due to the crop-specific nature of COP payments. Section 18(g)(1) states that the prevented planting indemnity payment will be determined by totaling the approved expenses that have been expended or documented at the time of the loss inspection then multiplied by the insured's coverage level. However, certain costs such as weed control or

establishment of a cover crop that are paid after the loss is inspected could be argued as being necessary for the maintenance of prevented acreage. This maintenance could be required at various times through the course of the crop season. Based on a literal interpretation of the COP policy, if the adjuster arrives too early, any subsequent but necessary land maintenance costs would not be allowed.

The COP Increased Covered Expense Endorsement is also confusing. It is difficult to understand if this endorsement will prove to be of much value to insureds. Because other increased costs are not covered, the producer must anticipate certain unforeseen costs when establishing the covered expenses for determining premium. For example, increases in machinery and equipment repair, or increased cost for fuel or fertilizer, would not otherwise be covered. Once the endorsement is elected, it appears that the insured is charged for the additional premium whether an unforeseen pesticide application is needed or not. The insured may be better off simply by including unforeseen expenses in determining the initial premium. Another incentive to include this amount in the initial covered expenses would be to eliminate the producer's need to justify that an application was unforeseen, as well as to remove a potentially cumbersome requirement that the insured must first request and receive permission from the company. Additionally, some producers will not be able to utilize the endorsement due to the fact that covered expenses for determining premium can never exceed the expected gross income. The training package (p. 45) states that the insured must notify the insurance provider 10 days before the application of any pesticide associated with this endorsement. This requirement is not specified this way within the endorsement. The endorsement only states that the insured must notify prior to purchasing and applying the pesticide and then the insurance provider has 10 days to approve the increase in allowable expenses.

In order for a producer to understand his or her obligations under the agreement, these need to be explicitly stated in the insurance policy. This is especially important when they affect the coverage being provided. In certain cases, these obligations have been stated in documents not available to the producer. For example, the following paragraph from Exhibit 15 (p. 178) of the Underwriting Guide restricts the producer's share unless the producer provides the required information. This type of requirement should be provided in the policy instead.

> SBI information (including the spouse's SSN/EIN, when applicable) must be provided by the applicable sales closing date for new applications and by the acreage reporting date for carryover insureds. Failure to provide the required information for spousal entities will be reduced to the share presumed to belong to the spouse whose name and SSN/EIN is provided (presumed to be 50 percent of the spousal entity unless evidence is provided to show differently).

(B) (ii) Does the policy language permit actuaries to form a clear understanding of the payment contingencies for which they will set rates?

The general concept underlying the payment contingencies is reasonably clear. The details of how this concept applies to specific situations are not as clear. Due to the characteristics of the coverage, the risk exposure may differ from what the policy would seem to indicate.

Some of the uncertainty regarding payment contingencies is related to the use of producer expense information. For instance, producers may be able to shift expenses between crops or between years in a manner that would affect the indemnities being paid. The effect of these shifts cannot be anticipated in developing the rates for the program.

(B) (iii) Is it likely that an excessive number of disputes or legal actions will arise from misunderstandings over policy language?

It is unrealistic to estimate the number of disputes or legal actions that will take place during the pilot program period. As with existing insurance plans, legal action will result from disputes in indemnity calculations. Reasons for indemnity disputes will include reduction of allowable expenses that cannot be verified as "expended before time of loss," or improper categorization of cotton costs from other crops. Quantification of machinery depreciation, repair, preventative maintenance, leases and loans add a new layer of complexity, as some machinery serves multiple crops including cotton. The proportioning of such costs between cotton and the other crops easily could become the focus of dispute. Additionally, when determining allowable value to count for claim purposes, the procedure requires including any monies or product value received as compensation for chemical carry-over damage when such carry-over was due to adverse weather. This amount is to include values "pending," "offered" (even if not accepted), or that "might" be offered. Not only could this be interpreted as unfairly penalizing the insured for income he has no guarantee of receiving, it could also be considered unfair that the insurer would obtain the benefits from compensation paid to the producer for damage to his farm.

The Underwriting Guide is another potential source of litigation. For instance, section 5.A. of the Underwriting Guide, paragraph (20), "Request to exclude hail/fire" (p. 52), obligates the agent to review the optional coverage factor on behalf of the insured, make a judgment whether the hail/fire coverage is adequate, and advise the insured how this is counted as additional income under COP. It then obligates the agent to suggest that the policyholder complete a request to exclude hail and fire coverage under COP. The concern is that this requirement could create an errors and omissions exposure for the agent. If the hail/fire insurer becomes insolvent and is unable to pay claims, or if the insured purchases hail/fire coverage through a different insurance provider and discovers subsequent to the loss that his coverage differs from what he thought he purchased, the agent may be held liable for the loss.

(C) *Is the mechanism for determining liability (i.e., the amount of coverage) clearly stated and supported by an example?*

Section 8(d) (p. 9) of the Pilot Cost of Production Insurance Policy provides one example of the calculation of the producer's liability. This example is incomplete in that it does not

include an adjustment for the producer's share.

(D) *Is the mechanism for determining the amount of premium clearly stated and supported by an example?*

The premium calculation examples are inconsistent in their treatment of the insured share. No reference to the insured share is shown in the example included in the policy (section 8.(d), p. 9) or in the example in Appendices I and J. The example provided in the training package (section 8, pp. 19-20) correctly accounts for the insured share.

(E) *Are the mechanisms for calculating indemnities clearly stated and supported by an example?*

The mechanisms for calculating indemnities are not stated clearly enough in either the policy or supporting procedural documents to fully understand how to properly calculate an indemnity under many likely scenarios. In addition, the examples provided are overly simplified. Further guidance is required for the more complex situations that are likely to arise on a frequent basis. For example, the policy and procedures imply that revisions to an insured's summary of coverage should be minimal, mostly restricted to the Increased Covered Expense Endorsement or Increase in Covered Expenses Due to Replanting. In fact, there are a myriad of additional variables that would justify revisions after the insurance had attached. Many of these variables would be associated with over, under, or inadvertent reporting of information on the acreage report. By and large, procedural detail with respect to revisions is at best sorely lacking and in some instances, nonexistent. For example, neither the policy nor the procedure addresses how any cost category increase (allowed as per the definition for the Covered Expense Report) is to be addressed when calculating an indemnity. It is not clear how to account for unexpended expenses when the insured's expenses have been capped. Section 7(g)(1) of the basic provisions states that "*covered expenses*" (which are determined through the use of the Covered Expense Worksheet) "*will be reduced to an amount consistent with the reported information*." We were unable to find an example to show how this is to be done. Even with respect to the Increased Covered Expense Endorsement or the Increase in Covered Expenses Due to Replanting, we were unable to find clear examples that describe how these increased covered expenses were to be applied. For example, we were unable to determine whether the total policy liability is simply increased through a revised schedule of insurance or if the Covered Expense Worksheet must be revised as well.

Several terms included in the proposed changes to the LAM as well as the policy are unique to the COP Insurance program, and are unclear or left to open to interpretation. For instance, the definition of "*allowable income"* in the Crop Provisions (p. 1) states: "*allowable income will also include but is not limited to.*" This language is subjective and does not fully and specifically define what will or will not be included.

The COP policy and procedures lack instructions on how to allocate expenses. The program indicates that traditional procedures are to be used for allocating commingled production. However, no instructions are provided for allocating commingled expenses. Commingled

expenses can readily arise due to insurable and uninsurable acreage of the same crop, COP insured and non-COP insured acreage of different crops (AUP and ELS cotton), or different enterprise units of the same COP insured crop, etc.

Inconsistencies and errors were identified between the policy, training and procedural documents. For example, the training package states that COP does not allow for separate units, therefore the unreported unit procedure found in the Loss Adjustment Manual is not applicable. However, the COP Basic Provisions under section 7(f) contain unreported unit provisions. The COP Underwriting Guide, in item 4(b)(ii) on page 105, indicates that the unreported unit procedure can be used. The policy states that an insured must insure all acreage they have an insurable share in of the crop wherever located in the United States if COP insurance is available. An enterprise unit is on a county basis. It would stand to reason that an insured could have more than one unit if they had acreage in more than one county. We were unable to ascertain whether an insured with acreage in more than one county (or state) must have one policy or is allowed to have different counties on different policies.

On page 89 of the training package, under an example regarding prevented planting payments, it is stated that a prevented planting payment is subtracted from total policy liability. Since the payment differs from the liability for that acreage, the implication is that coverage for any remaining planted acreage is increased. Assuming that only a portion of the unit's acreage was prevented, it is unclear how the remaining liability would then be allocated back to any planted acreage in the same unit and whether any policy coverage limitations would still be applicable. Also, with respect to prevented planting payments under the cotton COP policy, it is stated that payments will be based on "net" acres for skip-row cotton. Under the current MPCI cotton policy, the indication is that prevented planting payments will be based on "gross" acres. For prevented acreage, there is no way to prove or disprove which skip-row pattern the insured intended to use. The insured may utilize whichever skip-row pattern that proves to be the most advantageous.

Another concern is that the Underwriting Guide does not provide an adequate discussion of cotton farming practices. Issues unique to this crop, such as harvesting and baling expenses, field storage and transportation time allotment limitations, and ginning processes have not been addressed. The Guide also does not provide examples of ginning receipts, processing contracts, and samples of farming records utilized to allocate cost expenses for this specific type of crop or crop year that insurance provider personnel and agents could use to obtain a clearer understanding of how the COP plan functions.

(F) *In the case of price or revenue policies, are the mechanisms for establishing price clearly stated?*

In general, the price mechanisms used in COP are relatively straightforward. NCIS is not in a position to critically evaluate the econometric model.

(G)(i) *Is adequate, credible, and reliable data available for establishing expected market prices for insured commodities?*

In general, the data for generating expected prices is available from USDA and is assumed to be adequate, credible, and reliable. However, there are no provisions in the program package that establish the contract price process, such as stipulations for contract terms or which crop grades. Without additional guidance the proposed system for publishing prices is incomplete.

(G)(ii) *Is it likely that the data will continue to be available?*

USDA price data on major field crops such as cotton should continue to be available.

(G)(iii) *Is the data vulnerable to tampering if the proposed policy is approved?*

It is highly unlikely that the introduction of the COP pilot program would result in vulnerabilities in the current cotton price reporting/collection process.

(G)(iv) *Is the data likely to be available when needed?*

Cotton price data from USDA should be routinely available when needed.

(G)(v) *Is the proposed system for publishing prices feasible?*

It is unclear from the submission whether the price publication process in terms of actuarial filing deadlines and specific procedural requirements has been clearly established.

(H) *Does the policy avoid providing coverage in excess of the expected value of the insured crop?*

For a prospective insured to become eligible, estimated allowable expenses cannot exceed the producer's estimated gross income (EGI). The policy also contains requirements to ensure that the indemnity does not exceed the covered expenses, adjusted for non-expended amounts. However, it is unclear as to the application of increased expense due to replanting with regard to these specific policy limitations.

(I) *Does the policy contain indemnity or other provisions that cannot be objectively verified by loss adjusters, underwriters, or auditors?*

The policy contains several provisions and requirements that will be problematic for loss adjusters, underwriters, and auditors to objectively verify. For example, the Underwriting Guide states that production from a claim for indemnity will be used for the Production and Yield Report. The loss adjusting procedures and policy state that adjustments for quality, test weight, moisture and foreign material are not to be applied directly to the production but are instead, reflected in the price. However, under item B.3 (pp. 52-53) of the Underwriting Guide it states that a producer must provide information on their production report (e.g., for non-loss years) in a manner equivalent to what may be required for other plans of insurance. The purpose for this requirement is to ensure that yield information is available in case the

insured selects a different plan of insurance in a subsequent year. This raises a serious concern regarding the consistency of the reported production contained in an APH database for COP as compared to the production contained in a traditional APH database. Since production reported under an APH plan should include an adjustment for quality while production reported under COP should not, the historical data needed for the two programs is inconsistent. This will create an additional burden to calculate production two different ways, once for COP and another for the APH database. Additionally, appraised production under the COP policy is reduced to a net value after subtracting any expenses not expended. It is unclear how this production is captured for inclusion in APH history and whether it is captured before or after any reduction.

Item 10, 44 Unit Verification, states that all insurable acreage of the crop grown in the United States is to be verified as insured by the insurance provider. It is difficult to envision how a company would be able to sufficiently verify and document this.

The instructions for the Production worksheet instructions, Section II, item L state that price reductions due to an uninsured cause must be added back to the price per unit. Under the COP plan, it is unclear what price reductions are insurable and what price reductions are not. An example of this (although not applicable to cotton) is whether drying charges are insurable or uninsurable.

(J) *Is the policy likely to treat all similarly situated producers the same?*

Two similarly situated producers may qualify for different amounts of coverage simply due to differences in the methods used to allocate overhead and other expenses to crop or unit. Unlike other insurance plans, COP is designed to be attractive to only a limited segment of the producer population. The nature of this policy will most likely preclude marginal or limited resource farmers from participating. Even within the population of "efficient" farmers, the variation among business organization models or size of operation may result in dissimilar treatment.

(K) *Will insureds be able to comply with all the requirements of the policy?*

The COP plan may place an excessive burden upon the insured to verify compliance with the terms and requirements of the policy. The extensive record keeping requirements and enterprise level specificity of detailed farm accounting probably exceeds the current practice of most farm operators. For instance, in the Overview of Concept portion of the Cost of Production Insurance rating methodology white paper, it states, "*if a claim is submitted and the producer is spot checked, he will be required to provide credible documentation of all variable expenditures to receive a payment.*" The footnote states that credible documentation is considered cash sales receipts or supplier settlement sheets. Since most insureds produce more than just cotton, it may not be possible to identify those expenses associated exclusively with the producer's cotton crop. With the exception of a few crop specific variable expenses such as seed, ginning, or possibly chemicals, most receipts provided by an insured will contain total item expenditure for their operation. For example,

the fuel receipt will include the fuel used for planting all crops, not just cotton. The same would hold true for fertilizer, utilities, repairs, maintenance, irrigation, etc.

The directions for the allocation of expenditures categorized as either fixed costs or land fees is needed, but not provided. These allowed expense items can compose as much as 50 percent of the approved yield times the price. A significant amount of expense represented by the receipts or documentation of a typical producer will obviously require prorating in order to obtain the portion of the expense applicable to cotton. The policy and procedure provided seems to leave this process up to the discretion of the insured. This is a fundamental concern with the policy design. Lack of specificity opens the possibility to expectations of program manipulation and abuse.

Insureds are to provide documentation of allowable expenses. Expenses such as insured labor and return to land ownership will be difficult to document and are subject to interpretation.

The insured is responsible for maintaining a formal written record system (General Underwriting Guide, Section 5.A.17.(f), p. 50) of variable expenses and to have those records available at any time a policy or claim may be audited or spot-checked for quality assurance purposes. This requirement is not explicitly stated in the policy. The policy requires the insured to be able to document their expenses but does not provide detail regarding the required documentation.

(L) *Does the policy create vulnerabilities to waste, fraud, or abuse?*

The enterprise-level documentation requirements of the COP policy will exceed the common practice of the majority of producers. The lack of specificity on expense allocation across enterprises on the farm, and how farm operator labor and land cost are to be treated create opportunities for program abuse and potentially for fraud. Another example is the lack of flexibility in the program to allow coverage for unexpected expenses that were not considered initially. This can result in situations involving moral hazard. The producer could decide to provide inadequate care for the insured crop simply because an additional expense was not originally included in the initial expense estimation.

Under the prevented planting provisions, the method used to determine whether payment will be made on an alternate crop, should the insured COP crop not have enough historical base acreage eligibility for prevented planting, allows for payment to be made on another insured crop under another plan of insurance. The insured crop used must be the one that would result in the closest payment (had it been prevented) to the COP crop but the amount may be either higher or lower. A vulnerability exists whereby an insured could assure that payment would be based on whichever crop resulted in the largest prevented planting payment.

(M) *Is the product likely to adversely affect the agricultural economy of the crop that is proposed for coverage, or of other crops or areas?*

Without formally referencing a great deal of agricultural economics literature, one can reasonably presume that the existence of any crop-specific insurance program will impact land allocation at the margin. Based on the information provided in the program package, it is difficult to determine if COP provides greater incentives than current plans. It may be the case that COP will have less of an effect since coverage is limited to actual expenses throughout the growing season. However, the within season expense accumulation or allocation feature of COP could result in a counter-intuitive dynamic behavior which is not obvious upon first inspection of the policy. The within-season expense/coverage escalation of COP, particularly in the case of cotton, could result in unintended consequences for input utilization. Assessing the specific nature and magnitude of these effects is not within the scope of this review.

(2) Actuarial Soundness

(A) Is adequate, credible, and reliable ratemaking data available? Is it likely that the data will continue to be available? Is the data vulnerable to tampering if the proposed policy is approved?

One of the most significant concerns regarding the Cost of Production proposal is the nature of the information used in this analysis. The original Cost of Production proposal used 1997 NASS Census of Agriculture survey to develop the rates. The data was summarized into 5 cohorts (i.e., classifications) based on producers' observed yields. The revised proposal uses the 1997 NASS Census of Agriculture survey data in combination with crop insurance data from RMA. Our concern is whether the NASS data is an appropriate source of information for developing county rates. The most important consideration in determining rates is the yield variability of individual producers. However, the NASS data provides no information on individual producer yield variability since it includes only a single year of experience. In addition, the NASS results have been summarized into five classifications. Even if the individual producer yields were available, the NASS data would only provide information on the differences in yields between producers rather than on the yield variability of individual producers. NASS data can be used in the development of crop insurance rates, but we would be hesitant to use it in the manner described in the COP proposal.

In order to illustrate the problem with the use of the NASS data, we prepared a simulation of producers' yields for a single year. The simulation assumed that each producer had a different expected yield. In addition, each producer was assumed to have no risk so that his observed yield was identical to his expected yield. Since each producer's yield is fixed, the producer's rate should be $0. The results of the simulation have been summarized into five classifications based on the observed yield, similar to the procedure used for grouping the NASS Census data. The following table shows the results from the simulation.

Yield comparison between Groups Each Producer has a certain outcome (i.e., no risk)		
Producer Group	Average Yield	Standard Deviation
1	62.9	12.3
2	86.1	4.6
3	98.9	3.1
4	109.7	3.5
5	130.7	11.8

The table shows that the five classes have very different average yields and standard deviations. This appears to indicate that the process of grouping producers into five groups based on their observed yields captures real differences in risk between the producer groups. However, this is not true – each producer has no risk whatsoever.

The conclusion to be drawn from this analysis is that the differences observed between the five producer groups do not provide any useful information for ratemaking purposes. This would still be true even if our simulation took producer yield variability into account. The only difference would be that the results would now include both effects: (1) the differences in yields between producers, and (2) the variability of individual producer's yields. Rates should be based solely on the second effect. Since the two effects are combined, the producer groupings do not provide the appropriate information for establishing rates.

Another consideration is whether an adequate amount of producer data will be available for the individual risk calculation. For instance, if the producer were to use several different practices in the experience period, or were to use a new practice for the current policy year, the historical values for average yield, coefficient of variation, and average profit margin would not be relevant for determining the producer's rate for the current year. Even though a COP rate could still be developed, it is not clear how meaningful or reliable this rate would be.

(B) Are the explicit and implicit assumptions used in the rating process reasonable?

We found several problems with the methods used to develop county base rates.

1. A major flaw in the COP proposal is that it uses on a single base rate for each county. Instead, a different rate should be available for each practice.

   The county base rates in the COP proposal blend the experience of different practices. Since the risks can differ significantly for the different practices, these differences should be reflected in the county base rates. However, the base rate table in Appendix L (p. 107) shows only a single base rate for each county rather than a different base rate for each practice. The assumption appears to be that differences in risk between the various practices can be accounted for by using the individual risk rating procedure. (Note: the COP proposal refers to individual risk rating as "individualizing the county base rate to a producer level." See p. 51). This is not the most consistent and reliable method for reflecting differences in risk in the rate.

   One problem with using the experience for all practices combined is that this violates the assumptions underlying the individual risk rating procedure. The individual risk rating procedure is based on a credibility formula that adjusts the producer's rate in relation to the county base rate. Since the county base rate may not be representative of the producer's practice, this is the proverbial "apples to oranges" problem. According to the actuarial literature, credibility methods should be applied only after the exposures have been grouped into risk classifications that have similar expected loss costs. Any risk characteristics that have a significant influence on the expected loss costs need to be explicitly accounted for in the risk classification structure. In applying this principle to COP, it means that the producer's practice needs to be accounted for in the county base rate structure rather than in the individual risk rating procedure. After this revision, the individual risk rating procedure credibility weights the producer's experience with the countywide experience for this

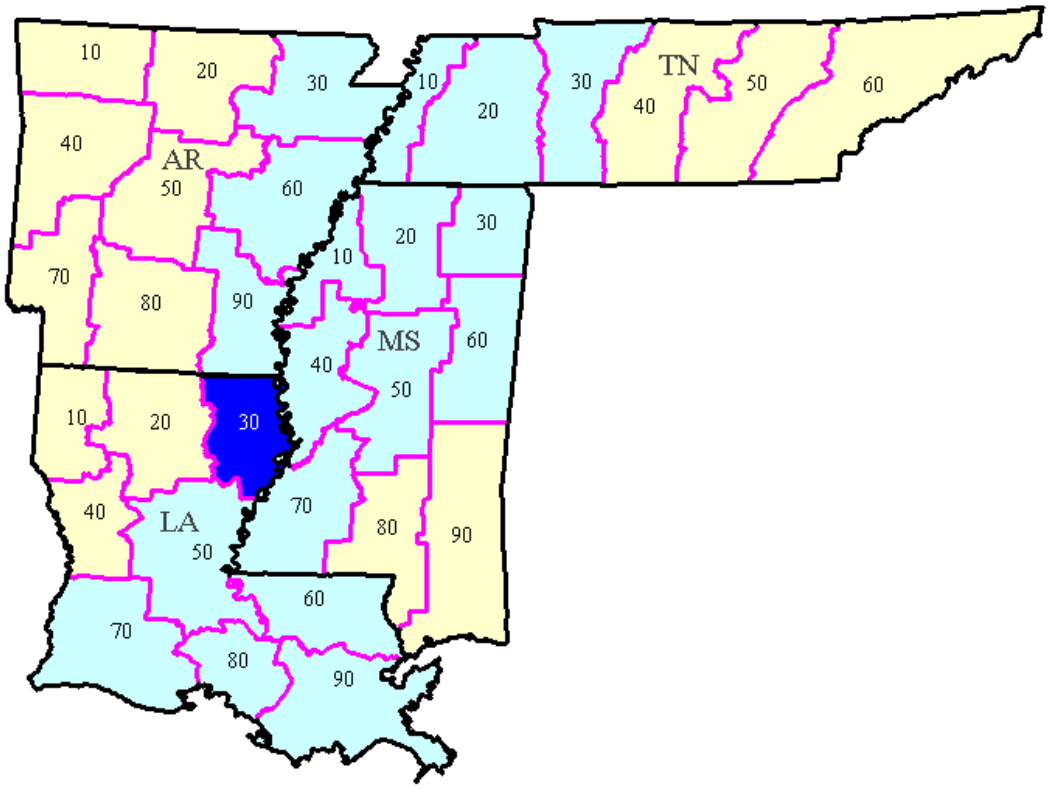
practice. This correction eliminates the "apples to oranges" comparison described above. The danger from using a single countywide base rate for all practices combined as in the COP program is that it may cause every producer to be severely misrated. For example, suppose that the base rates for irrigated and non-irrigated practices in a county should be $2 and $10, but that the county has a single published base rate of $6. Each producer's experience would be credibility weighted against the $6 county base rate rather than the correct base rate for the producer's practice. As a result, the non-irrigated producers would be underpriced and the irrigated producers would be overpriced.

Another problem with the use of a single county base rate is that it violates the assumptions underlying the smoothing process. The smoothing process averages a county's experience with the experience of neighboring counties. Unless each county has the same mix of practices as its neighboring counties, and this mix has been stable over the entire experience period, the smoothing process is unreliable. The smoothing process requires that the regions being smoothed have similar expected loss costs. In order for this to occur, the counties need to have similar rating characteristics. If producers in one county use a dry land practice while the producers in a neighboring county irrigate their crops, the two counties are close in proximity but differ in practice. In this example, it would not be appropriate to smooth the data because of the confounding effect of varying practices.

2. The region used for loss cost smoothing is excessively large

   Smoothing can be an effective method for improving the accuracy of the estimated loss costs, provided that smoothing occurs over a region with reasonably similar loss costs. Generally, the region needs to be fairly compact to ensure that growing conditions and risks are similar. In Figure 6 (p. 32), the regional loss cost for Louisiana CRD 30 (shown as dark blue in the map presented below) is estimated based on the experience of all of the highlighted CRDs (shown in pale blue). Five of these CRDs are more than 200 miles away from Louisiana CRD 30. This region is much larger than seems reasonable.

REGION USED IN LOSS COST SMOOTHING



We also found several problems with the individual risk rating procedure.

3. COP inappropriately rewards or penalizes producers for their prior experience

   The COP individual risk rating procedure determines a different rate for each producer. Much of the difference in the rate can be due simply to random variation rather than to any real difference in the expected loss costs between producers. The effect of the individual risk rating procedure can be seen in Figure 95 (p. 172), which illustrates the high variability of COP rates in relation to the APH rates.

   In order to test whether the accuracy of the COP individual risk rating procedure, we simulated the experience for 100 producers, all of whom were assumed to have identical yield distributions. Even after 8 years of experience, the producer coefficients of variation (CV's) ranged from 0.11 to 0.41. These values are roughly +/-60% around the true CV of 0.25. Since the CV affects 37% of the producer's rate (Figure 9, p. 56), two producers could be charged very different rates even though their true risk is identical.

   The individual risk rating procedure can also result in large fluctuations in a single producer's rate over time. In the simulation of 100 producers, we found that individual producer CV's changed from –8% to +94% from year 7 to year 8. This variation occurs even

though each producer's risk was unchanged. This shows is that the producer's rate under COP is strongly affected by random outcomes. As a result, two equally risky producers can be charged very different rates.

The fundamental problem with using the coefficient of variation for setting the producer's rate is that the CV is statistically unreliable. The coefficient of variation is the ratio of two values, the standard deviation and the average yield. Both values need to be estimated from the producer's yields. The uncertainty in the estimate of the standard deviation is likely to be very large due to the small number of years of experience included. Since this limits its value as a predictor of future experience, the CV is not a reliable rating variable.

4. The weights assigned to the mean yield, CV, and mean profit margin are not well supported

   The COP proposal (p. 56) determines the portion of the county base rate to be allocated to each of the three rating variables (mean yield, CV, and mean profit margin). This is based on an analysis of the correlation between the three rating variables and producers' 10-year average loss costs over a 26-year period (see Figure 9). In essence, this method tests whether rating variables based on historical data can be used to predict historical loss costs. This relies on circular reasoning since rating variables representing the producer's previous experience should be strongly linked to the producer's loss cost over the previous 10-year period. However, the real issue for ratemaking is whether these rating variables have any ability to predict the producer's future experience.

5. Two of the three individual risk rating variables may be unnecessary

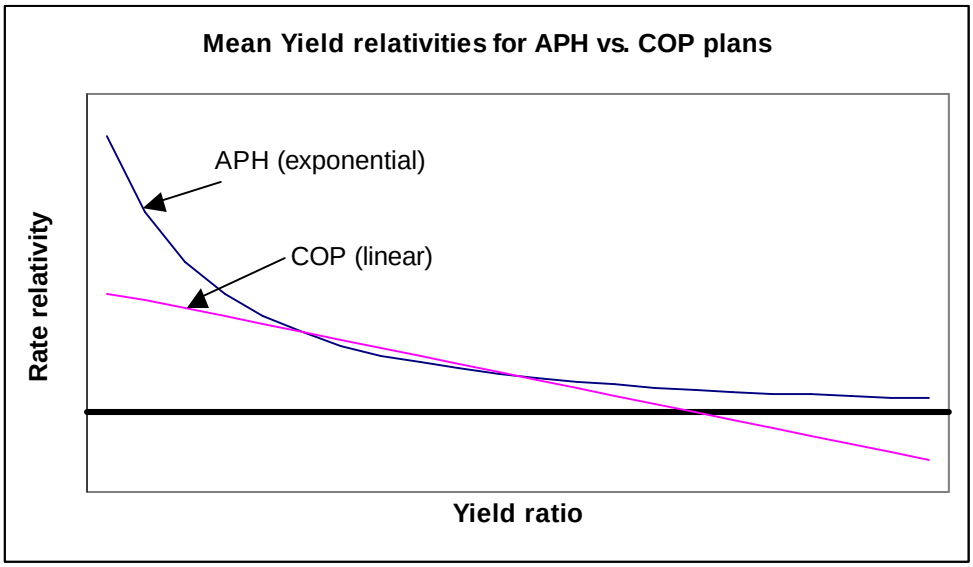
   An example provided in the COP proposal suggests that the producer's APH may be the primary determinant of the producer's rate. For the producer in Figure 83 (p. 157), the two red lines indicate an inverse relationship between the producer's mean yield and the producer's final rate. The CV appears to have only a limited impact on the rate.

6. The comparison of the producer's CV to the county CV is not appropriate

   Due to the law of large numbers, county yields should be more stable than the yields of individual producers. As a result, the typical producer's CV should be larger than the county's CV. Since the individual risk rating procedure compares the producer's CV to the county's CV, most of the individual risk rating rate adjustments will tend to be rate increases. However, the credibility formula is expected to be approximately revenue neutral in total. The reason for this inconsistency is that the CV comparison is incorrect. The proper comparison should be the producer's CV to the average CV over all producers.

7. The individual risk rating adjustment formula uses an improper functional form that may result in inaccurate rates

   The individual risk rate adjustments are determined by a linear function. This allows the indicated rate adjustment to be negative, as indicated in the following chart. In addition, the linear adjustment for the producer's mean yield is inconsistent with the exponential function currently used for the APH plan.



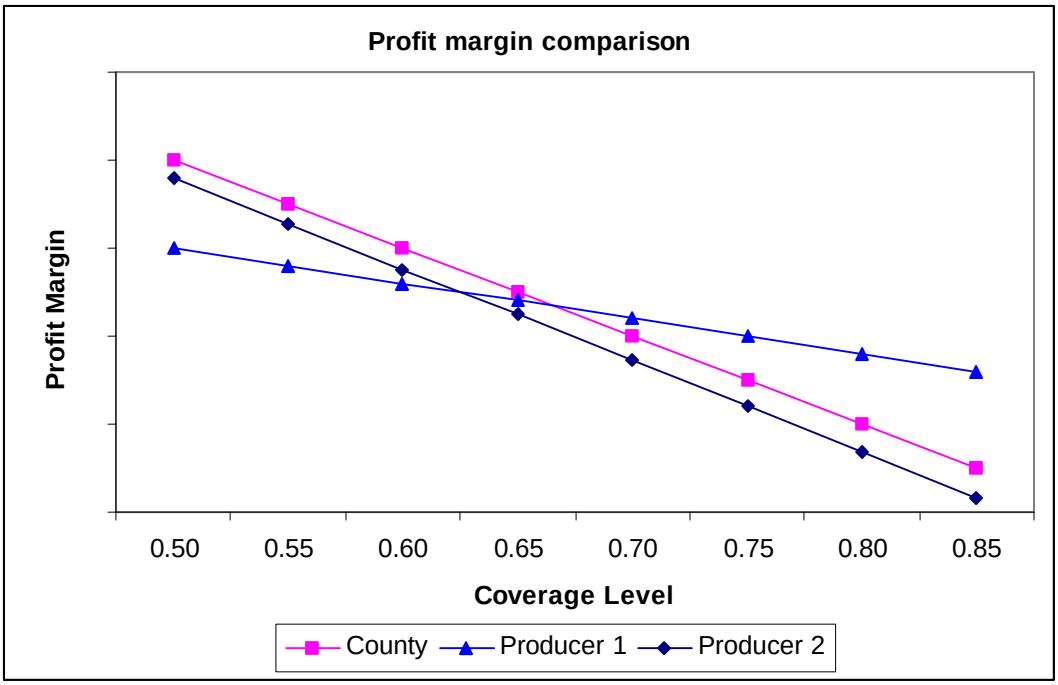
8. Producers receive two rate adjustments for their coverage level relativity

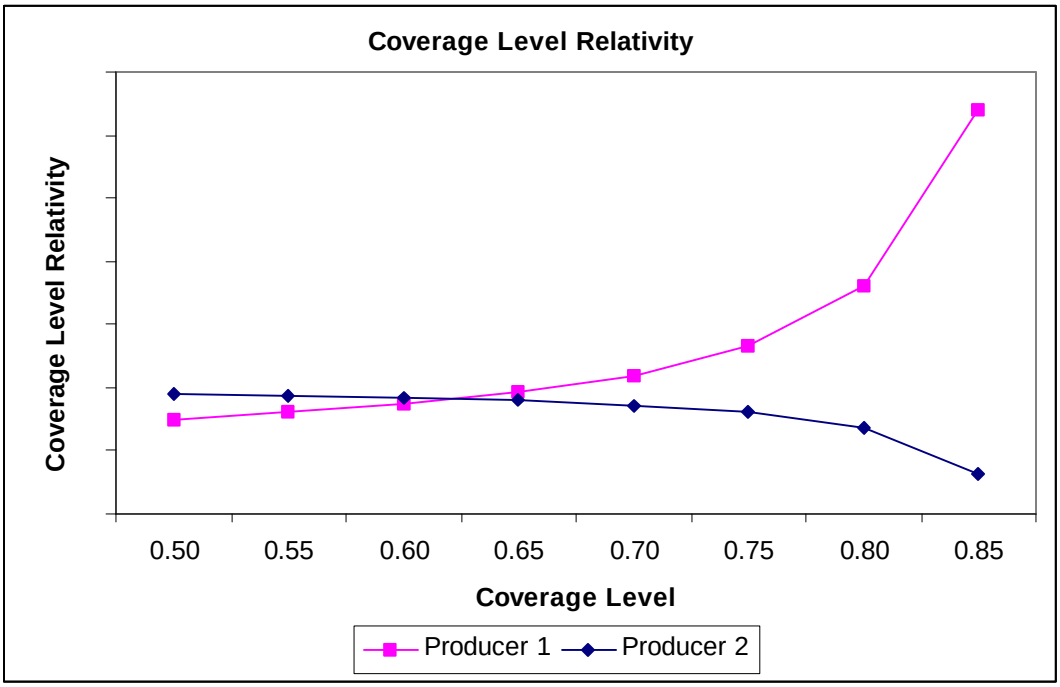
   The COP program develops a county base rate for each coverage level (p.10). However, each producer receives a second coverage level rate adjustment as part of the profit margin comparison.

   In order to simplify the analysis, assume that the producer's yield is constant over all years. For a fixed yield, the producer's profit margin is a linear function of the coverage level:

   Profit Margin = Yield * Price – Covered COP * Coverage Level

   The following chart shows the indicated profit margins for the county and two producers at each coverage level. The individual risk rating adjustment for the producer's profit margin is based on the ratio of the producer's profit margin to the county's profit margin (Appendix J). The rate adjustments shown in the second chart differ for each coverage level. These are on top of the coverage level adjustments included in the county base rate. In addition, the coverage level adjustment affects the two producers in a different way.





9. The rate adjustment for the producer's practice is not appropriate

   The practice factor is used to modify the producer's rate only if "a modification in the producer's practices has occurred that would not be reflected in his historical performance" (p. 49). The COP proposal provides no basis for evaluating whether the proposed rate adjustment overlaps with the other individual risk rating adjustments. In addition, the COP

proposal should use different county base rates for each practice, as discussed above, instead of an adjustment to the producer's rate.

10. Justification for critical values used in the assignment of credibility to the producer's experience

    No justification has been provided for the critical values used to assign credibility to the producer's experience. Assigning full credibility to 10 years of experience or to 4200 cumulative acres over the 10-year period appears to be excessive, particularly in light of the critical values used in the development of county base rates. The documentation provides no analysis to indicate whether the individual producer's experience should be given very little weight or a significant amount of weight in determining the final premium. The weight should depend on the extent to which the producer's own experience is a reliable predictor of his future experience. Instead, the critical values used to determine the producer's credibility appear to have been selected arbitrarily.

11. Rating of the Increasing Cost of Production feature

    One of the primary selling points for the Cost of Production program is that it provides lower rates due to its reduced guarantee for early season losses. Despite this, the rate credit (p.63) is so small that it hardly seems worth including. The adjustment is only about 6% for fixed and land costs and about 2% for variable costs. Since the producer obtains so little benefit from this feature, it could easily be eliminated without much effect on the producer's rate. All else being equal, the producer would be able to obtain more coverage for early season losses from other revenue coverages without the administrative burden of maintaining detailed accounting records.

12. Prevented Planting

    The calculation of the rate loading factor for prevented planting is inconsistent with the coverage being provided. The prevented planting factor (p. 33) is based on actual losses reported under the prevented planting provision since 1990. This calculation is appropriate if the prevented planting coverage under COP were consistent with the coverage provided under other plans. However, prevented planting payments under other plans are determined as a percentage of the guarantee, while prevented planting payments under COP are based on the product of the coverage level and the actual expenses incurred.

13. New COP rates are needed each year

    Unlike RMA's major plans of insurance, the rates for COP must be updated annually in order to properly account for the effect of the crop price on the rate. Figure 13 (p. 73) provides an illustration of the effect of crop price changes on the COP rate. This could create an unnecessary burden on RMA, insurance providers, and producers.

(C) Are the technical analyses (e.g., stochastic and other simulations) technically correct? Do they provide credible, relevant results?

We have not performed a detailed review of the technical analyses.

(D) Is the data used for the analyses appropriate, reliable, and the best available?

As indicated in our response to (2)(A), we do not have a clear understanding of how NASS data is used in this proposal.

(E) Does the actuary certifying the submission's rates provide adequate and accurate support for the certification?

No response.

(F) Does experience from prior years and relevant crops and areas support the validity of the proposed rates?

The COP program uses two sources of information to develop the county base rates: NASS Census of Agriculture summaries, and RMA insurance data. To the extent that county rates use the RMA data, the county base rates should be reasonably adequate in aggregate.

(G) Is the product likely to be sold in a sufficient number such that actuarial projections would be credible?

We anticipate that the Cost of Production program will not attract enough business to provide a credible body of experience for ratemaking. The primary disadvantage of the Cost of Production program is that the accounting and documentation aspects appear to be burdensome for the producer. The producer can obtain equal or better coverage with less paperwork by selecting other insurance plans. In addition, Cost of Production coverage is available only on an enterprise or whole farm basis. Under existing insurance programs, producers have demonstrated a strong preference for optional units, even if enterprise units are available at a reduced rate. For these reasons, we expect that the Cost of Production product will not be sold in sufficient numbers to provide a credible body of experience.

(H) Does the submission increase or shift risk to another FCIC-insured policy?

Yes. The Cost of Production program competes against other FCIC insurance programs that offer comparable types of coverage. Due to the significantly different method for determining the producer's premium, producers could adversely select against insurers by purchasing coverage under the program that provides the lowest rate for similar coverage.

One other concern is that the Cost of Production program is intentionally designed to segment the producer population. Only a self-selected group of producers would be likely to

purchase the coverage. Small and limited resource producers would be unlikely to participate.

The individual risk rating feature of the COP program is intended to be attractive to producers who have stable yields. In other words, this program is designed to provide lower rates for the low risk producers. If the Cost of Production program is successful in attracting the low risk producers, the remaining FCIC insurance programs would retain the higher risk producers, which would increase the risk for the remaining insurance programs.

On the other hand, the COP program charges the same county base rate for all practices. This rate overcharges the low risk producers and undercharges the high risk producers. If this leads to high participation by high risk producers, the total premium collected may not be adequate for the risk exposure.

Due to the limitation of coverage to no more than 85% of the expected value of the crop, high cost producers are able to obtain better coverage under existing insurance programs than they would under the Cost of Production program. The Cost of Production program is likely to be attractive to these producers only if its rate is less than that of other programs, that is, only if it provides an opportunity for adverse selection. In comparison, the Cost of Production program may be attractive to low cost producers since these producers would be able to insure all but 15% of their cost of production. However, it may be possible for highly efficient producers to obtain more coverage at a lower price under the CAT policy.

(I) Are the proposed premium rates likely to cover anticipated losses and a reasonable reserve?

This question is difficult to answer due to the opportunities for adverse selection against the program discussed in the response to item (H). If we can assume that adverse selection is not a concern, such as by requiring every producer to participate in the COP program, then an answer to the question may be feasible. To the extent that the COP rates are based on RMA insurance data rather than NASS data, the rates should be reasonably adequate. This would only be true in aggregate. For individual producers, or for certain subgroups such as irrigated or non-irrigated producers, the rates may or may not be appropriate.

(3) Other review areas

(A) *Does the policy provide coverage that, in whole or in part, is generally available from the private sector?*

A comparable coverage is not available in the private sector. However, the program may compete against other federally reinsured crop coverages. Another issue is that some variable expenses may be "double insured" with other private insurance policies, such as Farmowners and Homeowners policies. For example, repairs are approved variable expenses for machinery and equipment, while office expenses are approved fixed costs. Disputes among insurers can arise after a covered event regarding which policy is primary. An example is when a tractor catches fire and needs new tires or engine. Another is whether the homeowner's policy will pay to reimburse office expenses.

The Underwriting Guide states that if another federally subsidized insurance plan permits other federally subsidized insurance to be purchased on a crop insured under COP Insurance, the provisions of such other plan of insurance as it pertains to the other federally subsidized insurance plan shall apply to the COP Insurance coverage. It is difficult to envision how this would work. It would be helpful if additional information were provided using an example such as might be encountered with COP and Adjusted Gross Revenue (AGR).

(B) *Does the policy propose to insure a peril that is not authorized by the Act?*

No. The perils appear to be consistent with the ACT.

(C) *Does the policy place an unreasonable administrative burden on the insureds, AIPs, or the Federal crop insurance program?*

Yes.

1. Impact on the Insurance Provider

The program places an unreasonable burden on insurance providers, primarily because the lack of sufficient detail in the submission would indicate that the administrative impacts of the proposed policy have not been clearly and completely thought out. The following discussion considers the impact of the proposed program on reinsurance terms, M-13, Data Acceptance System (DAS), the government and Approved Insurance Providers' (AIP) information systems. It also discusses provisions within the handbooks and other operational considerations such as use of required forms. The submission does not attempt to address the cost impact to insureds, AIPs or the Federal crop insurance program.

The proposal indicates COP is to be introduced for the 2004 crop year, and that AIPs are to be provided all program material 75 days prior to the earliest sales closing date of 01/31/2004. This lead-time is an absolute necessity, particularly given the complexity of such a new plan of insurance. As presented, the policy has not been converted to include recent changes to the Basic Provisions as mandated by ARPA, and significant

implementation work remains to be completed. It is difficult to envision all program material being available within 75 days of the earliest sales closing date. The package must receive Board approval, have necessary modifications to policy and procedure completed, specific data reporting requirements must be incorporated into M-13, changes must be implemented within Actuarial information systems and the Actuarial Data Master (ADM), and the final program package along with the Actuarial filing must be completed by 11/17/2003 to meet this required 75 day lead-time.

2. Impact on Reinsurance Program

The submission does not address all of the reinsurance program issues related to the introduction of the COP cotton insurance program. The following provides a selection of topics that will need to be resolved:

(a). Indicate whether insurance fund limitations will or will not apply during the pilot stage.

(b). Resolve whether the existing fund placement rules will apply. Specifically, determine whether all county/crop "units" are to be placed in a single reinsurance fund. Currently, each "county/crop program" can be placed into separate funds.

(c). Determine whether reinsurance gain/loss provisions will apply to the policy as a whole (all acreage in the US) or on a county/crop unit basis.

(d). Specify how state fund limitations, cessions, minimums and rollbacks will be applied to a policy that insures crops in multiple states.

(e). Specify whether late sales and late acreage reductions are applied to the policy on a countrywide basis or on a county/crop unit basis.

(f). Indicate whether the original submission date will be tracked on a countrywide crop/policy basis or a county/crop unit basis.

(g). The policy allows for reporting acreage after the latest acreage reporting date for all crops on the policy. It should indicate how the latest acreage reporting date for the crop would be determined when there are different acreage reporting dates for cotton in different states.

(h). If the producer reports intended acreage with his application, indicate whether the acreage report should be constructed and reported to RMA at that time to avoid late reporting penalties.

(i). Under the assumption that late reporting penalties are applied on a county/crop unit basis, resolve whether the penalties will apply to a new county/crop added later in the crop year, given that the loss adjuster determines that not all units were reported by the insured.

(j). The requirement that all units must be insured by the same AIP may create a competitive disadvantage for any AIP that does not operate in all states.

(k). The underwriting guide lacks a specific prohibition on the purchase of COP precluding the insured from purchasing another coverage plan in another county from a different AIP. In fact, Item 8 in Section 4 of the Underwriting Guide indicates that cotton in another county could be insured under another plan of insurance, which would be in direct contradiction to the COP basic provisions requiring nationwide coverage of the insured crop. Conversely, the earlier purchase of another insurance plan on cotton in a different county should preclude the purchase of COP in all other

counties in the US, due to the policy requirement to insure all counties in the nation where cotton is planted under the COP plan of insurance.

(l). Specify whether the duplicate policy tracking system will check for cotton acreage grown in different states and counties that is not reported under a single policy.

(m). The producer may farm in multiple joint operations that are reported under a single SSN. Specify how the duplicate policy tracking process will determine whether or not there is not duplicate coverage, particularly when the joint operations are in different states.

Due to these and other uncertainties regarding the reinsurance program requirements, it is difficult to determine the full impact of the proposed COP cotton program on AIPs and on the Federal crop insurance program.

3. M-13

The information provided on the impacts to M-13 lacks the necessary supporting documentation, does not fully address all of the impacts to M-13 and RMA's Data Acceptance System (DAS), and does not address the impacts to RMA's systems outside of the DAS. This makes it difficult to fully determine the administrative burden that could be placed on the AIPs and the Risk Management Agency (RMA).

The submission package only contains reference to M-13 issues under Section A, item 13 and consists of a half page high-level summary. It inaccurately labels M-13 Exhibits 24, 25, 26 and 27 as Record Types. It is questionable whether the submission correctly identifies all of the impacts to M-13 and to AIP and RMA information systems. For instance, it fails to recognize the impact to Record Type 81 (Policy Holder Tracking System, PHTS, Output Record). Proposed modifications to those record types impacted by this program have not been provided. Furthermore, this section of the proposal has not been modified to reflect the changes to M-13 for the 2004 reinsurance year.

Based on the limited information available to us, the submission appears to indicate that potential administrative impacts have not been completely addressed and that unreasonable burdens could be imposed. One of the issues that needs to be addressed is data capture and reporting related to multiple-state operations. For example, this affects the tracking of fund designations across units for Type 9, particularly if the units are in different states. Similar issues arise with tracking of producer information and SBI information on Type 10, interest and premium due on Type 12, and acreage reporting dates and maximum fees on Type 14. Another data capture issue is related to the use of enterprise unit data in combination with data collected at a more detailed level, such as with acreage reporting on Type 11.

Validation procedures for the applicable base rate on the Type 11 must also be determined. The submission does not include detailed producer rate calculation instructions for AIP programmers to use in coding the producer specific rate calculations within their information systems, although this information is contained within an exhibit of the Training unit. This information should be included in M-13. Furthermore, additional ADM records may be needed to provide AIPs the required information to rate policies and to determine the

individual producer rate adjustments.

Another problem arises with the current year production data reported on Type 21. The production, at least for claim purposes, is not adjusted for quality, moisture content, test weight, etc., inconsistent with the reporting requirements for other programs. This will make it more difficult for the producer to change over to other insurance programs in future years. Harvested and appraised production is recorded on the production worksheet along with values from other sources of income such as LDP payments. Appraised production may also be modified for unexpended expenses. Procedure has not been provided to indicate that any consideration has been given as to how or where production that is to be included in the APH database will be captured. It is anticipated that extensive reprogramming will be required just to accommodate this. There are several other production worksheet issues that will entail unique programming concerns.

The documentation does not clearly indicate how actual expenses are to be collected. The documentation does indicate a new record type will be required. However, the documentation does not indicate whether all or only some of the information on the Covered Expense Worksheet is to be captured and aggregated, or even if the desired information will fit within the current DAS record length.

4. Information Systems

The proposed COP insurance program will have a significant impact on the AIPs information systems and RMA's Data Acceptance System (DAS). The requirement for a single nationwide policy introduces significant requirements for tracking and reporting data, as well as impacting RMA's Accounting Reporting System (ARS). Additional ADM records will be required; the premium calculator module will need to be revised, along with new record types and database entities having to be created. If the AIP is required to track a producer's production history for APH purposes separately from what is required for COP, then this imposes a double burden on the AIP to collect this information.

In addition, this proposal assumes the COP program will be developed within the DAS environment. Yet, at a recent RMA IT Meeting, RMA announced their intentions to convert all processing from DAS to eDAS over the next four years. Implementing this insurance program in DAS, only to convert it to eDAS two to three years into the pilot presents an unreasonable cost impact on both the RMA and the AIPs. If this insurance program is to be implemented within eDAS, then many significant impacts on RMA and the AIPs information systems and accounting processes have not been contemplated within this package.

5. Forms

The OMB clearance number is not displayed on the new Covered Expense Worksheet, and this form does not contain the required privacy act, paperwork act and non-discrimination statements. This new form may need to be revised to include these required statements. In addition, obtaining OMB approval for use of this new form may preclude implementing this program for the 2004 crop year.

6. Impact on the Insured

The underwriting guide requires the producer to revise his Covered Expense Worksheet after RMA announces the market price for a crop. The producer must also revise his Covered Expense Worksheet by lining out expected expenses and entering in actual expenses when a claim is filed. This requires more effort than under existing plans.

The producer must allocate certain whole farm expenses to his cotton crop. No procedure is provided for doing this. Individual producers would need to devise an appropriate expense tracking and allocation mechanism in order to complete the required forms. Without this mechanism, completing the forms would be extremely burdensome.

The underwriting guide and the training unit indicate that production history is to be reported by the production reporting date. Production reporting dates are typically 45 days after sales closing, but the sample actuarial document does not contain a production reporting date. Policy terms would then make the production report due at the sales closing date. Besides the potential for confusion, this could result in two different production-reporting dates for a producer if he insures multiple crops in a county. In addition, these policy terms allow for the introduction of a production reporting date that is different than the sales closing date. Should two different dates be introduced, this could cause problems in completing the EGI computations on the covered expense worksheet, which must be completed by the sales closing date. It seems unnecessary to provide a mechanism to introduce two different sets of dates.

Similar confusion to producers and the AIPs could arise when a producer elects COP coverage in a county with a later sales closing date, and he also plants a COP crop in a county with an earlier sales closing date. It could be interpreted that the underwriting guide implies that the producer would be ineligible for COP coverage in this case. Since the policy requires insuring all counties nationwide where a COP crop is planted, it seems a single nationwide sales closing date should be used for a COP policy. This problem will be exacerbated when different crops, particularly those with multiple planting periods, are included in the COP plan of insurance in the future. In addition, the requirement to cover all cotton planted in the nation could encourage producers to set up different entity arrangements to circumvent this policy requirement.

(D) *To the extent of the reviewer's knowledge, does the policy comply with all requirements of the Act and the public policy goals of the Corporation?*

It must be noted that significant portions of the COP Basic Provisions will require revision before implementation in order to be in compliance with the ARPA initiated additions to the ACT. Similarly, additional revisions will be necessary in order for the COP Basic Provisions to be consistent to the provisions found in RMA's 2004 Common Policy. We are unable to fully evaluate the policy for consistency to the ACT and the procedural documents until these revisions have been made. The procedural documents were evaluated for consistency with the policy version provided with this review package.

The program may not adequately reflect the public policy goals of the Corporation. More importantly, the program does not treat all producers alike. The program targets large, highly efficient producers with stable yields. Small and limited resource farmers are unlikely to maintain the level of accounting detail necessary for documenting expenses under this program. In addition, since these farmers are likely to have higher than average expenses, the Cost of Production program may be less desirable coverage for these producers than existing insurance programs.

(4) Other issues

(A) *Would it be likely that this product would affect crop selection decisions?*

See response to (M) under section 1.

(B) *Would it be likely that this product would affect the Extension crop budget preparation process?*

The following discussion of enterprise budgets is not required as part of the Expert Review. However, this subject was raised with the contractor during the one-day informational session held at RMA's offices. Since we still feel strongly on this issue, we have included the following response.

Extension Budget Preparation Process: It is unlikely that the crop enterprise budgeting process as performed by the Extension Service would be explicitly or overtly impacted. Enterprise budgeting techniques are fairly mechanical, however, there is a degree of judgment used in developing enterprise budgets that can be considered subjective and not the direct result of a formal analytical process. The inadvertent impact of COP might be that delineation between certain categories of expenses/projected costs might be made with the insurance product in mind. That is, the development of enterprise budgets at the farm-level is traditionally done to develop cash flow statements, provide sequence of operations, aid in determining input decisions throughout the growing season, etc. The existence of COP might result in categorization of expenses/projected costs for the purposes of insurance as opposed to a farm management-planning tool. Taken to a possibly perverse set of incentives, an insured could evaluate potential indemnity in relation to his/her liability at each stage in the decision process. This has serious implications for a crop such as cotton because there are a variety of input decisions made during the growing season that directly impact cost of production and profitability of the crop.

(C) *Are existing Extension crop budgets reliable and accurate for insurance purposes?*

Traditionally, enterprise budgeting has been used as a planning tool, not as an explicit or formal process for establishing precise estimates to be used in a contractual setting. In practice, certain fixed cost inputs are allocated to a specific crop enterprise using judgment and ad hoc rules of thumb. Extension enterprise budgets would have to be developed using formal standards for consistent allocation of inputs and their associated costs in order to use enterprise budgets for insurance pricing purposes.

(I) Does the submission create potential excessive adverse selection, either by itself or in the presence of any other risk management product, whether reinsured by FCIC or not?

Due to the availability of other insurance plans with similar coverage, the program has the potential for creating excessive adverse selection. Offsetting this possibility is the likelihood

that many producers will not be interested in the Cost of Production program due to the enterprise unit basis for coverage.

Final Program Recommendation

Our recommendation is that the FCIC Board disapprove this program. Our review has identified a series of major concerns with the proposed pilot. A concern expressed in our previous review was the lack of sufficient documentation to adequately evaluate various facets of the proposed pilot. Although additional material has been provided for this review, certain program components still lack adequate documentation. Regardless of the deficiency in documentation, the material provided is adequate to formulate and justify a conclusion. Fundamentally, COP does not provide a unique form of crop insurance coverage in comparison to existing RMA plans of insurance. Moreover, the complexity of COP will place additional administrative burdens on insureds and insurers. In brief, COP does not provide a significant improvement in producers' crop insurance coverage, but does results in a significant increase in the administrative burden.