Dollar Insurance
Recommended Modifications Report Final

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United States Department of Agriculture
Risk Management Agency
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Submitted by:
Watts and Associates, Inc.
4331 Hillcrest Road
Billings, Montana 59101
twatts@wattsandassociates.com
DUNS # 112960633

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I. EXECUTIVE SUMMARY

This Deliverable explores various options for improving or replacing the Dollar Plan of crop insurance coverage. It complies with the requirements stated in the Statement of Work (SOW), which include:

> *"The eighth section of the report shall contain the conclusions and recommendations. Particularly salient conclusions will be whether (1) an acceptable insurance risk does or does not exist, and (2) the plan of insurance is appropriate for the crop. The recommendations shall be subdivided into individual sections dealings with changes in statute, in regulations, in the actuarial documents, and in procedures. Each section shall contain content as described in section 6. If it is concluded that a new (or replacement) plan of insurance should be adopted for the crop, recommendations of sufficient detail to allow development shall be provided in this section."*

The SOW provides that "The Recommendations Report shall contain an introductory summary of important issues from the Evaluation Report and provide an overview of the recommendations that will be presented in this report. It shall also present whether an acceptable insurance risk does or does not exist."

Overview of Issues from Evaluation Report

Research was concentrated in two areas: a detailed review of the performance of the Dollar Plan for fresh market sweet corn, fresh market peppers, and fresh market tomatoes with additional information from listening sessions involving stakeholders. The detailed review found that, while the overall performance of the Dollar Plans included under this SOW generally met acceptable standards (overall loss ratio less than 1.00 for peppers and sweet corn for the 18 crop years included in the analysis, slightly higher than 1.00, for fresh market tomatoes, and lower than the 0.88 target, with a reasonable reserve for peppers and sweet corn), the results were not so apposite when the data were dissected by harvest season (practice), minimum value option, or by coverage level. The generally more favorable loss ratio performance at coverage levels of 65 percent and lower, plus the premium from the catastrophic level of coverage is subsidizing the higher coverage levels (70 and 75 percent) for the crops overall, so the loss ratio at the crop level is much more favorable (see Appendix A). The Contractor also determined that the recent reduction in the coverage level relativity for the CAT level of coverage would have increased the observed loss ratio for the 18 years by approximately 2 to 6 percentage points had it been in effect for the entire time frame. This determination resulted from multiplying the historical CAT premiums by year by the ratio of the currently established coverage level relativity to the historical coverage level relativity, adding the revised CAT premium amounts by year to the total of the additional coverage premium amounts by year, and dividing the historical indemnities by year by the revised amount of total premiums by year. The resulting adjusted loss ratio then was compared to the actual loss ratios. This determination recognizes a recently introduced change to the actuarial structure of the plan 50 crops and appropriately includes it in the measurement of performance of the plan as it relates to the crops subject to the review. Similar to the overall assessment of loss ratio performance for plan 50 for these crops, the determination has no bearing on the potential performance of any replacement insurance plan.

Performance varied by season, with the fall season being the worst (highest loss ratios) for all crops. The winter season generally had favorable performance, and the spring season was mixed. Producers typically have opted for the lowest minimum value option, which generally has performed worse than the program overall. Staging of the guarantee has done little to manage the amount of indemnities. Only marginal improvements in the loss ratios of the three crops were determined when the actual loss ratio was compared to the loss ratio calculated without stages. Although the percentage of expected revenue (average annual production multiplied by average annual price) represented by the guarantees generated under the Dollar Plan for these three crops has been quite low historically, frequency of loss when measured by the ratio of net determined acres to net reported acres is very high within and among years. This is difficult to reconcile with the fact that, historically, a 75 percent coverage level might have represented 20 to 30 percent of the revenue expected from sales of the crop. Severity generally has been moderately low, indicating losses have been shallow. However, the Reference Maximum Dollar Amount (RMDA) has been increasing quite dramatically as a percent of revenue per acre. For example, Table 50 of Deliverable 2.4.2 Program Evaluation Report Final demonstrates the five-year moving average of the RMDA relative to the annual revenue per acre for fresh market tomatoes (as derived from data reported by NASS) was less than 50 percent until 2011. Beginning 2011, the ratio has exceeded 50 percent in every year, reaching a high of 81 percent in 2015. As a consequence, the effective coverage level is increasing relative to (though still generally smaller than) the nominal coverage level.

The foregoing summary of program performance indicates an insurance program that is not healthy. It has achieved generally positive results by fortuitous offsets among coverage levels, and practices (seasons). The increase in the effective coverage level (higher RMDA) raises questions about future performance.

Sources of data of adequate quality and sufficiency to establish reliable estimates of the RMDA, the allowable cost, and the minimum value are becoming increasingly scarce as the Extension Service, land grant universities, and the National Agricultural Statistics Service (NASS) reorganize priorities to respond to budget constraints. This is especially true of data that enable specification of these parameters by season of production. Moreover, the proliferation of additional types offered (particularly in tomatoes) has placed even greater leverage on data; the quality of which has continued to erode.

With regard to grower and stakeholder feedback gathered in listening sessions, many producers feel the coverage available under the current program provides inadequate management for their actual costs of production and market risks. Several producers indicated that the program was constructed in a way that addressed the needs of the producer (i.e., indemnities were paid regularly and at levels commensurate to perceived losses) when it began. They stated changes to the program implemented by the Risk Management Agency (RMA) since that time have progressively reduced the effectiveness of the program to meet the producer's risk management needs. Several producers and agents indicated the program would be enhanced by using more accurate pricing and updating the input costs of production with "real numbers from participants in the program." Stakeholders in the listening sessions and during phone conversations generally voiced their lack of understanding about how the value of production and the cost of production per acre are established by the program. In the minds of the stakeholders, these aspects of the

program should be transparent and easily understood. Overall, the current program is not well accepted by industry stakeholders who attended the meetings or engaged in conversation with the Contractor. (A summary of comments received is provided in Appendix B.) Some stakeholders voiced support for an insurance plan based on individual history (Actual Production History (APH) or Actual Revenue History (ARH)).

Fundamentally, there are a number of critical structural flaws inherent in the Dollar Plan design. The guarantee is established on a county (or other area) basis, but loss adjustment is performed on an individual basis. Two producers in the same county will have identical guarantees at a given coverage level even when their yields, revenues, and margins can be expected to be substantially different. This phenomenon results in strongly different effective coverage levels, expected frequency/severity of loss, and expected indemnity among producers who are paying the same premiums. Even if average rates are sufficient to cover overall program losses among an unbiased pool of insureds, this creates unappealing incentives for better-than-average producers to avoid participation and below-average producers to purchase coverage beyond their narrowly defined risk management needs. Perhaps most condemning of all, there is no mechanism to adjust a given grower's guarantee in future years based on consistent and/or major losses in past years. This, combined with the previously identified design flaws, creates an unvirtuous cycle wherein a consistently worsening pool of insureds triggers losses that incrementally drive up premium rates, driving the best of the remaining participating producers to leave the program, again worsening the pool of remaining insured growers and restarting the cycle.

Overview of the Recommendations

Based on the program review, a review of available data sources and reports, and the input of stakeholders, the Contractor concludes that the Dollar Plan in the study area as currently established for these three crops is not sustainable. Despite strong efforts on the part of RMA staff, Approved Insurance Provider (AIP) personnel, a number of very good agents, and even producers themselves to attempt to continue to obtain and service needed information, the Contractor is obliged to report that the available data are wholly inadequate to support development of the RMDA, the allowable cost, or the minimum value for the crops included in this report. While the scope of research was limited to three crop programs in the Southeast and all findings for this study may not be fully applicable to all other instances, the Contractor is of the opinion that many of the same negative characteristics exist and are inherent in the dollar-based plan of insurance.

The overriding recommendation of the Deliverable is that the insurance plan for these crops be converted to an individual plan of coverage (with an initial focus on the APH plan, and eventual consideration of a revenue-based individual plan if sufficient data can be identified and consistently obtained). The Contractor approaches justification for this recommendation by identifying issues with regard to alternatives that include modifications to the Dollar Plan. The Contractor acknowledges the long history these plans have accumulated and the constituency that has formed around them as the only insurance option available for these crops in the applicable counties. While replacement of these plans with more suitable and sustainable alternatives is the preferred approach, recommendations are also offered to marginally mitigate some of the effects of the problems with the current offerings.

II. INTRODUCTION

The SOW specifically separated the required sections of a program evaluation report as described in the Program Evaluation Handbook (PEH) for this contract into separate deliverables. The SOW instructions to the Contractor for Deliverable 2.4.1 Program Evaluation Report Draft include:

> *"Items 1 through 7 of Section 7 of the PEH shall be included in the Draft Evaluation."*

While:

> *"Item 8 of Section 7 of the PEH will be found in the Recommendations Report."*[1]

Item 8 of Section 7 in the PEH instructs the evaluator that:

> *"The eighth section of the report shall contain the conclusions and recommendations. Particularly salient conclusions will be whether (1) an acceptable insurance risk does or does not exist, and (2) the plan of insurance is appropriate for the crop. The recommendations shall be subdivided into individual sections dealings with changes in statute, in regulations, in the actuarial documents, and in procedures. Each section shall contain content as described in section 6. If it is concluded that a new (or replacement) plan of insurance should be adopted for the crop, recommendations of sufficient detail to allow development shall be provided in this section."*[2]

Item 1 of Section 7 in the PEH provides instructions to the evaluator as to what is expected to be included in the Executive Summary of the Evaluation Report. The primary instruction found in the PEH for the Executive Summary is "*This summary will contain the recommendations together with a brief justification for each.*"[3] Since the SOW places the recommendations section as a separate deliverable, the Contractor, instead, summarized the primary findings of the evaluation effort in the Executive Summary contained in Deliverable 2.4.2 Program Evaluation Report Final. The Executive Summary contained in this report responds to the instructions contained in the PEH for Item 1 of Section 7.

Item 2 of Section 7 in the PEH provides instructions to the evaluator as to what is expected to be included in the Initial Data Collection section of the Evaluation Report. The primary instruction found in the PEH for the Initial Data Collection section is the section will contain "*the descriptive program summary.*" While evaluating the information gleaned during the initial data collection, the Contractor found that "Data quality problems in establishing reference values are, in many aspects, more disruptive in dollar plan insurance than establishing pricing in insurance under other plans, as the reference values directly affect the trigger point for indemnities."[4]

Item 3 of Section 7 in the PEH provides instructions to the evaluator as to what is expected to be included in the Listening Sessions section of the Evaluation Report. The primary instruction found in the PEH for the Listening Sessions section is the "*Comments collected from the listening session shall be categorized … and shall be concise, accurate, comprehensive, and well*

[1] USDA RMA, Dollar Plan Review Statement of Work, page 50 of 58.
[2] USDA RMA, Program Evaluation Handbook, 2006 and Succeeding Crop Years, page 27.
[3] Ibid, page 26.
[4] Dollar Plan Review, Deliverable 2.4.2. Program Evaluation Report Final, Executive Summary.

organized."[5] The Contractor found "The stakeholders who provided input were exceptionally knowledgeable about a complex insurance offer and generally expressed strong support for continued availability of crop insurance, either through the current dollar plans, or through some subsequent plan."[6]

Item 4 of Section 7 in the PEH provides instructions to the evaluator as to what is expected to be included in the Industry Research Analysis section of the Evaluation Report. The primary instruction found in the PEH for the Industry Research Analysis section is "*A primary focus of the discussion should be structural changes in the industry and their potential impact on the crop insurance program under review.*"[7] The Contractor found "Unfortunately, availability and quality of the sparse data upon which the program was developed has eroded during the period the insurance has been offered. This has compromised the sustainability of a program that was built on a series of actuarial and underwriting assumptions that were challenging to address even when more data were available."[8]

Item 5 of Section 7 in the PEH provides instructions to the evaluator as to what is expected to be included in the Program Evaluation Tool section of the Evaluation Report. The primary instruction found in the PEH for the Program Evaluation Tool section is that it "*shall contain a thorough discussion of the findings from use of the Program Evaluation Tool.*"[9] The Contractor found "there are a number of critical and fundamental problems with the Dollar Plan design for the offers evaluated in the study area."[10]

Item 6 of Section 7 in the PEH provides instructions to the evaluator as to what is expected to be included in the Evaluation Components section of the Evaluation Report. The primary instruction found in the PEH for the Evaluation Components section is that "*Data contained in this section must be highly summarized. Discussions shall focus on the meaning of the data and not upon describing the numbers.*"[11] Additionally, the SOW included several "Additional Requirements" regarding changes to the specific instructions for elements within the Evaluation Components description of work found in the PEH. Among these were:

- A full review and report of these components as described in Sections 3 B (4) and 3 B (5) of the PEH (Loss Adjustment Standards Component, and Underwriting Standards Component, respectively) will not be completed.
- "In lieu of Section 3 B (8) of the PEH (Plans of Insurance Component), an analysis of the quality, scope, and availability of data from all available data sources in order to determine actuarially sound prices and rates for each of the value-based components for the Dollar Plans specified in Section 2.1 of this solicitation."
- "Section 3 B (9) of the PEH (Data Acceptance Requirements) is not required for this evaluation and will not be completed." and

[5] USDA RMA, Program Evaluation Handbook, 2006 and Succeeding Crop Years, page 26.
[6] Dollar Plan Review, Deliverable 2.4.2. Program Evaluation Report Final, Executive Summary.
[7] USDA RMA, Program Evaluation Handbook, 2006 and Succeeding Crop Years, page 26.
[8] Dollar Plan Review, Deliverable 2.4.2. Program Evaluation Report Final, Executive Summary.
[9] USDA RMA, Program Evaluation Handbook, 2006 and Succeeding Crop Years, page 26.
[10] Dollar Plan Review, Deliverable 2.4.2. Program Evaluation Report Final, Executive Summary.
[11] USDA RMA, Program Evaluation Handbook, 2006 and Succeeding Crop Years, page 26.

- "Section 3 B (12) of the PEH (Program Delivery Component) is not required for this evaluation and will not be completed."

The Contractor complied with these and the other Additional Requirements found in the SOW.

Item 7 of Section 7 in the PEH provides instructions to the evaluator as to what is expected to be included in the Unpublished Data Report section of the Evaluation Report. The primary instruction found in the PEH for the Unpublished Data Report section is that it shall provide information "*detailing the statistical analysis of the performance of the crop program.*"[12] The Contractor found "In general, the loss ratio performance for the products under review is within generally acceptable standards… However, as demonstrated in the review, the overall favorable loss ratio performance results from an excess of premium at the CAT level and at additional coverage levels of 65 percent or lower."[13]

Many of the recommendations and conclusions contained in this report were influenced by the stakeholders who attended listening sessions or reached out to the Contractor over the period of the evaluation effort. The listening session section of the Program Evaluation Report Final is provided herein as a quick reference for readers of this report.

Overall, the Contractor found there are fundamental structural problems within the Dollar Plan of Insurance for Fresh Market Sweet Corn, Fresh Market Peppers, and Fresh Market Tomatoes. Following the Listening Session section of this report, the remainder of this report addresses the requirements identified in the SOW and described in the PEH for Item 8 of Section 7 in the PEH. Namely, the Conclusions and Recommendations section of the full Program Evaluation Report Final delivered to RMA in June, 2017 and modified per interaction and discussion with RMA thereafter.

[12] USDA RMA, Program Evaluation Handbook, 2006 and Succeeding Crop Years, page 27.
[13] Dollar Plan Review, Deliverable 2.4.2. Program Evaluation Report Final, Executive Summary.

III. FINDINGS OF THE LISTENING SESSIONS

This section of the evaluation summary report contains a discussion of the results from the efforts by the Contractor to gather input from fresh market peppers, tomatoes, and sweet corn industry stakeholders in the regions identified in the SOW,[14] specifically, Alabama, Florida, and Georgia.

The Contractor conducted three on-site stakeholder listening sessions. In addition to traditional listening sessions, the Contractor had considerable success in obtaining useful stakeholder feedback through one-on-one discussions. In this review, stakeholders were unusually engaged and motivated to provide their impressions of the program, share their experiences, and reflect on past changes to the program. Moreover, the growers and the agents who market the program are very competitive and consider their experiences proprietary. They expressed a greater willingness to be fully forthcoming in one-on-one conversations than in a group environment. Relative to past feasibility studies and program reviews, the stakeholders in Florida and Georgia were unusually familiar with the specific details of the Dollar Plans, and strongly vested in the availability of coverage for their specialty crops. The Contractor participated in protracted telephone conversations with four large growers from Florida, as well as with representatives of the Florida Fruit and Vegetable Association (FFVA). Additionally, the Contractor participated in the FFVA sweet corn growers meeting via telephone three weeks prior to the first on-site listening session in Florida and encouraged participation at the upcoming on-site listening sessions.

During these meetings, the Contractor engaged industry stakeholders in conversations regarding 1) the level of knowledge attendees had of the Dollar Plan of Insurance for their crops, 2) use of the program, 3) needs of the industry being met by the program, 4) impacts (both positive and negative) of the program on the industry, 5) suggested improvements to the program, 6) alternative programs for their crops, and 7) other issues raised by the attendees during the session. Both the Dollar Plan of Insurance and the WFRP program were discussed at each session.

The program evaluation handbook instructs the Contractor to determine, as possible, the answers to the following list of questions while remaining in compliance with the Paperwork Reduction Act:

> *"(a) Do producers have knowledge of the program?;*
> *(b) Why producers elected or did not elect to use the program to meet their risk management needs;*
> *(c) Did the program meet the growers' risk management needs?;*
> *(d) How the program affected the growers;*
> *(e) What effect did the program have on the market?;*
> *(f) What improvements are needed to enhance the effectiveness of the insurance program?;*
> *(g) Other concerns or issues with the program;*
> *(h) Impact of program requirements on existing sales and marketing of the crop;*

[14] Alabama, Florida, and Georgia.

(i) Are there any issues, policy limitations or other factors associated with the pilot insurance program that have inferred or required the growers to change there [sic] farming practices to meet insurability requirements?;
(j) Is this an appropriate risk management model/plan of insurance for the crop?;
(k) If not, what type of risk management model/plan of insurance would be appropriate for the crop?;
(l) Overview of program acceptance;
(m) Identify any inconsistencies between the program materials, the rating and pricing methodologies, forms completion and/or the delivery of the program; and
(n) Identify potential for the insurance program to cause overproduction of the crop, leading to market price decline or collapse."[15]

The initial effort at garnering interest in the project within the vegetable industry came at the invitation of the FFVA. As noted earlier, the Contractor participated in a meeting of the FFVA sweet corn growers meeting on January 27, 2017 by teleconference organized by FFVA. This call was intended primarily as an educational and recruiting tool for the Florida listening sessions. The half hour call was attended by nearly 35 individuals representing growers, insurance agents, and local extension service personnel. The Contractor introduced the firm, the contract, and the focus of the evaluation. Participants had few questions. Most of the questions focused on historical changes to the Dollar Plan which were viewed as negatively impacting the sweet corn industry in Florida. Several of the participants at this meeting also grow peppers and tomatoes. Several follow-up emails and calls were exchanged following this teleconference.

In the following paragraphs, the Contractor provides a brief overview of the on-site listening session meetings. Analysis of appropriate issues raised by the participants in those meetings are discussed in the appropriate sections of the Program Evaluation Report Final – rating, underwriting, pricing, loss adjustment, insurance experience, etc. The Contractor traveled to West Palm Beach and LaBelle, Florida to speak with fresh market pepper, tomato, and sweet corn and industry stakeholders in the counties with the highest number of policies earning premium as published on the RMA summary of business website. The Contractor then drove to Bainbridge, Georgia to speak to fresh market sweet corn industry stakeholders in the county with the largest number of policies earning premium in Georgia. This location also was selected because of its relative closeness to Baldwin County, Alabama (the only county in Alabama with insured production addressed in this evaluation). Appendix B contains comments received grouped by theme.

Although the Contractor was informed that agents and growers had historically expressed their impressions of the program passionately and even, at times, angrily, the level of decorum at each of the scheduled sessions was very professional. The stakeholders demonstrated an unusually strong and detailed understanding of the nuance and history of the current program and offered insights at a level the Contractor has rarely encountered from stakeholders previously.

[15] USDA, RMA, 2005, Program Evaluation Handbook, FCIC-22010 (09-2005), pages 22 and 23.

West Palm Beach, Florida

The Contractor traveled to West Palm Beach, Florida to conduct a listening session on February 28, 2017 and met with six fresh market pepper and tomato and crop insurance industry stakeholders. Participants at this session included two growers, three insurance agents, and a representative from the RMA Valdosta Regional Office. There was general participant agreement that under the current Dollar Plan, MVO cannot "work" if the grower is honest in its use and WFRP is difficult to justify using because the maximum revenue/liability threshold is too low for fresh market operations in Florida and growers reported indemnity payments associated with this coverage are not received by the grower until the following year. Both growers and agents voiced substantial skepticism as to the appropriateness of using AMS prices to value production. Attendees reported that growers and fresh market produce operations provide this pricing data to AMS and, many times, inflate the prices to maintain high values for contract market price and other purposes. Participants could not identify an alternative government source for pricing of fresh market peppers, tomatoes, or sweet corn in this region. Some of the growers did offer to share their individual pricing histories with the Contractor. One major concern raised during the session was the establishment of the actual cost of production for peppers and tomatoes in Florida. There was a general consensus that post-harvest costs of tomato production have been around $12,000 to $14,000 per acre for 3 to 4 years and that peppers production costs are currently about $14,000 per acre, substantially more than the RMDA.

Several participants indicated that they feel the North American Free Trade Agreement (NAFTA) has had a detrimental effect on the industry in Florida. Growers noted that it was their perception that production in Mexico was being dumped into the American market at prices that were less than their anticipated production costs and expressed concern that the imported production was grown in a regulatory environment without the strict environmental, food safety, or labor rules to which American producers must adhere. While limited quantitative data regarding the volumes of imported tomatoes was identified, growers attributed recent reductions in market prices to plentiful supplies of imported production being offered to their traditional customers, particularly in the food service supply channels. Growers reiterated the importance of price risk as a critical component of the risks their operations face.

MVO changes in recent years have been a point of contention in this growing region. The stakeholders in the meeting were confused and concerned about how RMA developed the current MVO value and what caused the removal of the MVO II. There was a general perception on the part of the participants in the meeting that RMA is not aware of or paying attention to the local conditions, and moreover voiced a generalized skepticism of government at all levels and functions. Stakeholders believe RMA and loss adjusters are looking only at data for the state, and do not factor in individual circumstances. The attendees reported concern that suspicion of fraud is the basis from which the government begins its investigations. The current system that uses growth stages for different levels of coverage is not well liked, although early stage losses are infrequent. Growers emphasized the need for continued availability of crop insurance for their crops, and requested that the report include their urging that if dollar plans are to be replaced, that they not be removed until a suitable new program can be put into place.

LaBelle, Florida

The Contractor traveled to LaBelle, Florida to conduct a listening session on March 1, 2017 and met with three fresh market pepper and tomato and crop insurance industry stakeholders. Participants at this session were two insurance agents and a representative from the RMA Valdosta Regional Office. The participants in this meeting felt the Dollar Plan should be adjusted to address the increasing market risk in the industry brought about by Mexican protected agriculture programs, their imports, and the effect of those imports on the fresh market produce sector. The loss of the zero value MVO for the program resulted in many growers deciding to stop participating in the program. The agents expressed their concern that the guidelines for loss adjusters seem to be very open to interpretation by the AIPs. This, in turn, has led to inconsistencies associated with how a company will adjust the claims. Appraisals of production left in the field or potential production can vary substantially between companies and between adjusters. Some AIPs are requiring post-harvest loss appraisal samples be sent to the USDA for grading. This practice can have a negative impact on the marketability of the rest of the crop as the crop deteriorates over the time period it takes for the samples to reach USDA graders, be graded, and have the grading report complete and returned to the loss adjuster.

One area that is not currently covered in the fresh market sweet corn plan is grading as "Fancy". The current market has a high demand for this grade of sweet corn which is not currently insurable as a unique entity under the Dollar Plan. The Dollar Plan insures a number 1 (one size smaller than fancy). Over time, the industry has moved toward production of the larger ears.

Under the Dollar Plan, growers are required to harvest the crop several times for some crops (peppers and tomatoes). New hybrids for these crops enable the growers to harvest fewer times. The insurance plan should be based on the grower's total yield, not number of pickings. Additionally, some risks to production that occur before harvest do not reveal themselves until after harvest. These risks, such as the white fly which causes mottling in tomatoes, can result in rejection of the crop at market – a total loss to the grower. This peril was perceived as an insurable peril when the tomato program had a zero value MVO. Participants indicated that the allowable costs value in the policy is irrelevant in light of the MVO value. One participant stated they would rather see the policy left alone than replaced with an unknown alternative. The other participant indicated a policy based on the grower's own revenue history might be very interesting to their clients. One issue that was raised during this session dealt with the timing of tax filing against the crop policy dates. In the opinion of the participants, any replacement revenue policy should not be tied to the grower's Schedule F tax forms as the time period covered for the forms is not conducive to the policy dates for the crop being grown.

Bainbridge, Georgia

The Contractor traveled to Bainbridge, Georgia to conduct a listening session on March 2, 2017 and met with five fresh market sweet corn and crop insurance industry stakeholders. There were three insurance AIP representatives, an extension agent, and a representative from the RMA Valdosta Regional Office at this session. Most of the participants at this session were fairly comfortable with the fresh market sweet corn policy. There was some discussion about the possibility of creating a hybrid insurance plan using the best of the Dollar Plan and an APH plan. As in the previous two sessions, AMS data was considered as being "suspect and untrustworthy." Labor shortages were discussed during this session as well as publicized "food scares"

devastating the fresh vegetable market even when the event occurred in a distant market within the United States. Labor tends to migrate northward and if Florida crops are late arriving, the laborers availability to Florida and Georgia growers suffers. Georgia growers have requested an expansion of the Dollar Plan for tomatoes into Georgia on several occasions and wondered why their requests continue to be denied. Many tomato and pepper growers in Georgia have left those markets as a result of the import pressure from Mexican production of those crops. Sweet corn appears to have been not impacted as much to date. Many growers use the sweet corn product as a catastrophic safety net for when the intense heat in the southeast causes the grower to leave acres unharvested.

Many regulatory requirements have been placed on the fresh vegetable market in recent years (2012 - 2017) by both state and federal regulators. These regulations increase the cost of producing crops, yet the Dollar Plan does not appear to account for these added costs in their input cost calculations as they increase over time. One participant indicated an area-based program which provides coverage guarantees closer to the actual costs associated with producing the crop would be a better option for farmers. Again, the WFRP maximum revenue provision excludes many growers in this area from using it as a risk mitigation tool. One AIP representative indicated there just was not much interest in the sweet corn dollar plan policy in that area, which has upwards of 25,000 acres of sweet corn spread over 8-10 growers.

The overall acreage participation in the insurance plan is decreasing. Competition from imports and other pressures are driving growers to alternate crops or into other businesses. Many of the larger growers also have Mexico-based operations in place, allowing them to work both sides of the import market issue.

The Contractors responds to the PEH questions in order for all issues addressed in the listening sessions.

"(a) Do producers have knowledge of the program?"

Yes, and many have either used the program in the past or are currently using it as part of their risk management practices.

"(b) Why producers elected or did not elect to use the program to meet their risk management needs."

Many growers feel the coverage available under the current program provides inadequate management for their actual costs of production and market risks. Those who do elect to use the program indicated their financial institution required the grower have crop insurance as a guarantee for the operating loan.

"(c) Did the program meet the growers' risk management needs?"

Several growers indicated that when the program began in the early 1990s, it was constructed in a way that addressed the needs of the grower (i.e., indemnities were paid regularly and at levels commensurate to perceived losses). Changes to the program implemented by RMA since that time have progressively reduced the effectiveness of the program to meet the grower's risk management needs.

"(d) How the program affected the growers?"

Growers and agents both indicated that the program has become less effective over time, and consequently has had less of a positive effect on growers. One grower in particular indicated to the Contractor that the program had historically kept them in business in bad market or production years. This grower went on to say that the current program indemnities "barely cover the premium cost."

"(f) What improvements are needed to enhance the effectiveness of the insurance program?"

Several growers and agents indicated the program would be enhanced by using more accurate pricing and updating the input costs of production with "real numbers from participants in the program." Additionally, some growers believe wind should be included as a cause of loss for peppers and that the coverage period needs to be lengthened to provide insurance during the third picking of tomatoes. Growers also voiced their opinion that all tomatoes do not carry the same cost of production as is implicit in the insurance program. Several participants stated that cherry and grape tomatoes can cost as much as three times as much as round tomatoes to produce, yet the program uses the same $9,000 per acre value for all three. Some participants indicated that the sweet corn market has changed and the Dollar Plan needs to be modified to include grade "Fancy" sweet corn as insurable.

"(g) Other concerns or issues with the program?"

Every stakeholder in the sessions and during phone conversations voiced their lack of understanding about how the value of production and the cost of production per acre are established by the program. In the minds of the stakeholders, these aspects of the program should be transparent and easily understood. One grower indicated it was their experience that RMA and the OIG of USDA have different definitions for marketable production and maintenance of a crop after losses are reported. This grower recommended a standard definition should be published and used ubiquitously within the USDA. Growers perceive the relatively frequent investigations into program performance, reviews of the program, and changes to coverage offered constitute a "witch hunt," which has made the program less attractive, but not improved its general function or efficacy.

"(j) Is this an appropriate risk management model/plan of insurance for the crop?"

Most growers indicated this was the best product available outside of individually focused insurance products like Revenue Protection (RP) and ARH. In further conversation with the Contractor, these stakeholders agreed these products had their own limitations and issues when applied to the fresh market crops under evaluation.

"(k) If not, what type of risk management model/plan of insurance would be appropriate for the crop?"

Of the more than 30 growers engaged by the Contractor in the listening sessions, teleconference, and one-on-one telephone conversations, 2 growers mentioned the ARH plan of insurance might be appropriate as most growers in the industry are keeping detailed price and cost data for other programs and could relatively easily provide those to RMA in support of an ARH style program for fresh market crops.

"(l) Overview of program acceptance;"

Overall, the program in its current rendition is not well accepted by those in the industry stakeholders who attended the meetings or engaged in conversation with the Contractor.

Listening Sessions are conducted by agenda to address issues in the Paperwork Reduction Act. In spite of repeated efforts by the Contractor to obtain comments from stakeholders regarding the following questions from the Program Evaluation Handbook, no stakeholder chose to address those subjects. The Contractor is very aware of the constraints of the Paperwork Reduction Act and fully conformed with those constraints.

"(e) What effect did the program have on the market?

(h) What is the impact of program requirements on existing sales and marketing of the crop?

(i) Are there any issues, policy limitations or other factors associated with the pilot insurance program that have inferred or required the growers to change their farming practices to meet insurability requirements?

(m) Identify any inconsistencies between the program materials, the rating and pricing methodologies, forms completion and/or the delivery of the program.

(n) Identify potential for the insurance program to cause overproduction of the crop, leading to market price decline or collapse."

IV. PROGRAM MODIFICATION RECOMMENDATIONS

The Contractor identified several areas within the current program in need of revision. In this section, the Contractor addresses modifications to the current program necessary to address those areas and assesses each recommended modification in the light of conformity to the following requirements identified in the Statement of Work (SOW):

- Conform to RMA's enabling legislation, and identify potential changes to regulations, and procedures;
- Be ratable and operable in an actuarially sound manner;
- Control or eliminate moral hazards;
- Not change market behavior or create market distortions that change or influence producer decisions to plant one crop over another; and
- Be marketable (i.e., based on listening sessions with crop producers, there must be an expectation of demand for the revised/new program).

The primary modifications to the existing Dollar Plans addressed by the Contractor are: Require a Production (Revenue) Report to Modify the Guarantee, Require Proof of Yield Loss as a Condition of Eligibility for an Indemnity, Promulgate Rules to Establish the Appropriate Value of RMDA, and Establish the RMDA as a Percent of Average Revenue. Each of these modifications is discussed in the following paragraphs individually.

Require a Production (Revenue) Report to Modify the Guarantee

The Dollar Plans as constituted provide an area-based guarantee with individual loss adjustment. Unlike other insurance plans with individual loss adjustment, there is no "feed-back" loop that incorporates the performance of individual producers to modify that producer's guarantee for future years. This feature is important when individual performance results in consistent and persistent indemnities. Under Dollar Plans, the guarantee for each producer who elects the same coverage level is identical regardless of prior performance and never changes unless RMA elects to modify the RMDA for all producers.

Section 3(f) of the Basic Provisions (17-BR) requires the insured to "… report all production of the crop (insured and uninsured) to us for the previous crop year by the earlier of the acreage reporting date or 45 days after the cancellation date, unless otherwise stated in the Special Provisions or as specified in section 18." Section 18 concerns Written Agreements and thus does not affect routine duties of the insured under the crop insurance program. The Crop Provisions for Dollar Plan crops waive this requirement; hence, production reporting is not a required duty of the insured.

This requirement is modified under ARH by requiring that both production and revenue be reported. Since the RMDA represents a portion (adjusted for some costs) of expected revenue, the policy and procedures of ARH are most applicable to this modification of the Dollar Plans. Revenue and production per crop insurance unit are the only variables producers can fully document. Production costs, the basis of the RMDA, are difficult to isolate and quantify at the unit level because unbiased third-party data is difficult to capture or does not exist. Thus, a database of annual revenue amounts is the indicated choice of a variable to accumulate and utilize for managing the RMDA to measure the potential risk of individual producers.

Incorporating a feed-back loop into the Dollar Plan model is not a simple matter of applying the procedures set forth in 7 CFR Part 400 Subpart G and the supporting instructions found in the Crop Insurance Handbook (CIH). Under Dollar Plans, the reported actual revenue derived from sales of the crop for any season should exceed the RMDA for many producers, and the average of reported revenue over time most likely will exceed the RMDA. Thus, average revenue does not determine the appropriate adjustment to the RMDA because the ratio of average revenue to RMDA most likely will exceed 1.00.

The database for the Dollar Plan can consist of the annual reported revenue amounts. However, similar to yield substitution and other adjustments to APH, the process for calculating the approved RMDA would make substitutions as needed. For example, if an annual revenue amount exceeds the RMDA, the value min(RMDA, actual revenue) could be incorporated into the calculations. This is substantially the same as yield substitution, wherein the calculation is max(actual yield, 0.60 * t-yield). In this manner, if a producer never had a claim during the base period, the guarantee would continue to be based on the RMDA. A claim would reduce the guarantee by the ratio of the approved (limited) revenue amount to the RMDA. The actual calculation would be min(approved (limited) revenue amount, RMDA) x coverage level percent.

The approach outlined above will never allow a producer to achieve a guarantee based on the RMDA if a claim ever is filed within the ten-year base period. This outcome results from the fact that the upside is limited (the RMDA) whereas the downside is not. Under APH, yields above average and yields below average provide offsets to each other. Unfortunately, under Dollar Plans, there is no natural means by which an appropriate value higher than the RMDA can be included for any annual revenue greater than the RMDA. Some investigation would be needed to establish a formula that would allow the RMDA in the presence of a limited number of loss events.

This action does not address the observation by interested parties that the process for determining the RMDA is not transparent. It is a means to address the observed outcome that losses are paid very frequently at higher coverage levels with no impact on future guarantees.

Require Proof of Yield Loss as a Condition of Eligibility for an Indemnity

Although the description of Dollar Plans as provided by RMA on its website[16] states that these insurance plans provide protection against loss of value due to a *yield shortfall* (see above), there is nothing in the Crop Provisions or the Loss Adjustment Standard Handbooks that establishes this condition of eligibility for an indemnity. Instead, the Settlement of Claim section of the respective Crop Provisions states the following calculations apply:[17]

> RMDA x coverage level percent x insured acres - $\sum$ units sold$_j$ x max(price per unit$_j$ – allowable cost, minimum value)

where the subscript j denotes the number of units sold at a particular price. This is the manner in which the value of production to count is captured on the Harvested Production Worksheet. The effect of the entries on the Harvested Production Worksheet is that the weighted average of the

[16] USDA RMA, Policies, Dollar Plan, https://www.rma.usda.gov/policies/, accessed October 2017.
[17] For simplicity, uninsured losses, appraisals, and other aspects of the loss adjustment process are not included.

net values is determined, and this result is multiplied by the total number of units sold. In the event the producer has elected a minimum value option, the minimum value term in this expression is replaced by the amount for that minimum value option. The issue is this: if one or both of these prices is too low, it is possible that an indemnity could be triggered with no yield loss. While that is not necessarily a structural problem (it is quite possible for a revenue policy to trigger with no yield loss) it is contrary to stated intent of Dollar Plan policies.

Should RMA choose to maintain the current Dollar Plan for these crops, the Contractor recommends RMA implement a policy change wherein the insured is required to submit proof that the actual yield is less than the area-based yield on which the RMDA is based. This change will help to achieve the stated goal that any indemnity is due to a yield shortfall. It does not guarantee that the entire amount of the indemnity is due to yield loss.

Promulgate Rules to Establish the Appropriate Value of RMDA

Dollar Plans presently are not subject to codified rules regarding the establishment of the RMDA. This lack provides opportunity for interested parties to request ever higher amounts for this program parameter. One outcome of this situation is that effective coverage levels (relative to expected revenue) have been increasing as documented in the research report.

Promulgation of rules via the Federal Register, along the lines of 7 CFR Part 400 Subpart G provides a means of assuring a consistent methodology is followed. Since the process requires opportunity for public input, interested parties must make their positions known during the comment period.

The sole purpose of this option to modify the structure of the Dollar Plan model is to provide a consistent framework for establishing this critical program parameter and minimize pressures for ever greater amounts. Given the paucity of published data and the lack of standardization of available information, it would be difficult to set forth a standardized methodology along the lines of APH. For this reason, the Contractor recommends an alternative approach for establishing the RMDA if codification of process is deemed desirable.

Establish the RMDA as a Percent of Average Revenue

The RMDA is cost of production based. Unfortunately, the amount of resources dedicated by land-grant universities and the extension service to developing and publishing such data has been decreasing. This is resulting in a less objective basis for determining the RMDA.

Variable costs of production, according to economic theory and common sense, must be less than expected revenue. The total cost of production over the long term is equal to the expected revenue per unit of production where total cost is defined as variable costs plus fixed costs plus profit. Therefore, the variable production costs must be some fraction of the expected revenue.

Expected revenue is much more readily available than costs. A historical series of average yields and average prices can be obtained from NASS data. The data may not be as granular as producers would prefer for establishing guarantees by seasons or by other parameters. However, if the Dollar Plan is to be continued for a crop, a basis other than searching for possibly non-

existing production budgets with sufficient precision in terms of defining costs most likely will be needed.

IV.A Recommendations Affecting Statute

"*(1) Recommendations that affect statute are those that cannot be implemented unless the Federal Crop Insurance Act or other Federal law is modified in the appropriate manner.*

(a) The complete basis for a recommendation involving statutory changes must be described.

(b) One or more alternatives to statutory change should be presented if possible. The alternative recommendations obviously will have a lesser ability to have the intended impact. The degree to which the full impact cannot be realized should be described."

No such recommendations are made. The scope of the Act provides sufficient latitude to implement changes that improve the performance of the insurance for crops currently insured under Dollar Plan coverage, reduce the workload on RMA, and improve the actuarial basis of insurance coverage for these crops.

IV.B Recommendations Affecting Regulations

"*Recommendations that affect regulations are those that involve a change to the Basic Provisions, the Crop Provisions, or any subparts at 7 CFR Part 400.*

(a) The complete basis for a recommendation involving regulatory changes must be described.

(b) One or more alternatives to regulatory change should be presented if possible. The alternative recommendations obviously will have a lesser ability to have the intended impact. The degree to which the full impact cannot be realized should be described."

Based on the totality of the information developed in this review, the Contractor believes the Dollar Plan model is not sustainable in the future. Lack of sufficient and reliable data for determining the RMDA, especially by season in the case of some crops and states, the allowable cost, and the minimum value contribute to this assessment.

In Section V, the Contractor presents seven alternatives to the modifications to the Dollar Plan model. The majority of the options are based on existing crop insurance models. One is based on the authority under the Act to develop cost of production insurance and another is based on tweaks to the nursery model. Strengths and limitations of each are discussed. Please note: the alternatives are offered and considered for completeness; the Contractor recommends replacement of the dollar offerings considered with an individual plan based on established insurance models.

In the introduction to this Section IV, the Contractor provided options to modify the existing Dollar Plan to address certain deficiencies that were identified during the review. However, in the opinion of the Contractor, these are not sufficient to overcome the major failings of the model or to overcome the negative impressions some interested parties expressed during the

listening sessions. The Contractor was unable to determine a path to improvement that is sufficient to overcome all negative attributes of the plan. Accordingly, the Contractor examined alternative insurance models to identify a potential replacement.

The Contractor considered plans of insurance under the Area Risk Protection Insurance (ARPI) policy. These do not appear to be feasible for many of the same reasons that the Dollar Plan is not sustainable. In particular, there is a lack of sufficient and reliable unbiased third-party data for determining the area average yield or revenue on a seasonal basis.

The Contractor considered a cost of production plan of insurance as authorized under the Act. The Federal Crop Insurance Corporation (FCIC) Board of Directors already has determined that one effort to develop coverage on an individual basis was administratively cumbersome and placed burdens on producers due to the extremely detailed record-keeping entailed by such a plan. The Contractor also considered an area-based plan of coverage based on production costs. Although some published data regarding quantities of fertilizer and chemicals are available, along with annual prices, there still is a lack of detailed information regarding use and pricing of inputs such as labor, equipment, and energy. Another hindrance to this approach is data are not available on a seasonal basis.

The Contractor considered Margin Protection (MP) coverage as an alternative. In addition to the shortcomings of the cost of production alternative, there is insufficient information to measure the change in prices of the specified inputs that may occur.

The Contractor also considered a different plan of insurance loosely based on the Nursery insurance model. It depends on assessments of expected revenue by type, planting density, and other variables. Sufficient information to support this model is not available.

ARH has many desirable characteristics that lend it to serving as a replacement. Many of the attributes of APH coverage also extend to this insurance model. However, lack of Catastrophic Coverage (CAT) may not be well received by those producers who presently elect this choice. It may be possible to develop a hybrid plan that merges APH with the ARH component. The APH component could be restricted to the CAT level of coverage. This is not inconsistent with the general recommendation set forth below.

By a process of elimination, the only model consistent with the nature of the crops and that meets the identified data needs to the greatest extent is the APH model. This alternative minimizes the need for developing information from external sources since the primary basis of the guarantee is based on producer supplied data. Producers certify that adequate records exist to substantiate the certified historical acreage and production. Records are subject to audit (7 CFR Part 400.53). Forms of adequate records for a crop are defined in the CIH.

Under APH, the guarantee is based on the approved yield calculated in accordance with 7 CFR Part 400 Subpart G. A loss exists whenever the production is less than the guarantee formed by the product of the approved yield and the coverage level. A price election determined by RMA monetizes the guarantee and the amount of production loss. Acreage and production data must be reported by type and practice. Practice includes the season of production. As noted at various

points in the discussion of this report, there are no third-party public sources of probable prices for a crop year for these crops. However, the APH plan has operated for many years for several field crops, fruit crops, and vegetable crops for which no third party public pricing information is available. APH is the presently established insurance plan for fresh market tomatoes in three northern counties of Florida and for fresh market beans in several counties located in three states along the eastern seaboard. A detailed evaluation of the performance of these programs is beyond the scope of this SOW. A high level overview shows the simple average loss ratio for fresh market tomatoes insured under the APH plan in Florida was 0.907 for the period 1989-2015 and the dollar weighted loss ratio was 1.043. The difference between the two loss ratios was primarily due to crop year 2012, when the loss ratio was 3.235. Fresh market green beans were insured under a Dollar Plan for 2000-2006; insurance was not offered for 2007-2010; and APH has been offered since 2011. The dollar weighted loss ratio for 2011-2015 is 0.682 and the simple average is slightly lower at 0.628.

The same basic rules of APH apply under ARH. The major difference is that historical records of total revenue must be reported by the producer in addition to acreage and production. Third party pricing data is not needed since the guarantee is based on the approved revenue, not the product of approved yield and a price election. ARH is the presently offered insurance plan for sweet and sour cherries in several states and for oranges and strawberries in California. Insured acreage has been quite robust, especially for cherries. This is an indicator that producers are not averse to reporting revenue as the basis of insurance. However, as noted, lack of the CAT option may not be well perceived.

Either APH or ARH resolves the issues of data sufficiency and quality. Developing premium rates for either will require acquisition of data representative of the risks being insured. The required data are part of what is required to properly develop premium rates for a Dollar Plan. As was noted in the Evaluation Report, the increasing level of the RMDA relative to expected revenue negatively impacts the ability to use experience rating since the effective coverage level has been increasing over time.

This determination does not affect the Common Crop Insurance Policy Basic Provisions (the Basic Provisions). The Basic Provisions, as the name infers, contain generally applicable terms of the insurance contract. All the options discussed herein affect the Crop Provisions for the affected crops (fresh market sweet corn, fresh market peppers, and fresh market tomatoes). While the Crop Provisions for other crops also may be affected, the scope of this review was limited specifically to the named crops.

Since the Crop Provisions are codified at 7 CFR Part 400, those regulations necessarily are affected by the recommendation. Existing Crop Provisions and regulations must be cancelled and replaced. The only option the Contractor was able to identify as an alternative to regulatory action is to leave the existing Dollar Plan coverage in place. This requires no regulatory action since the insurance plans for the crops are permanent until revised through regulatory action.

IV.C Modifications Affecting Actuarial Documents

"*Recommendations that affect actuarial documents are those that involve a change to the Special Provisions or the FCI-35 documents.*

(a) If changes are recommended, the complete basis for a recommendation involving changes to the actuarial documents must be described.
(b) Unlike changes that affect statute or regulation, no alternatives are required."

The recommendations regarding either APH or ARH as the plan of insurance for these crops will require replacement of information presently contained within certain tabs of the actuarial documents shown in the Actuarial Information Browser. No changes in the fundamental format of the documents are needed. Affected tabs include Prices, Rates, and the Special Provisions. The changes are needed to accurately describe the coverage provided under the adopted approach and to provide accurate information for establishing the appropriate premium rate. The revised documents will convey the same information in the same format as presently conveyed for crops included under the APH plan.

IV.D Modifications Affecting Procedures

"*Recommendations that affect procedures are those that involve a change to the CIH, the LAM, the crop LASH, or other handbooks and documents that convey information for administering the crop program.*
(a) The complete basis for a recommendation involving changes to the specific handbooks and documents must be described.
(b) Unlike changes that affect statute or regulation, no alternatives are required."

The primary changes to the CIH and Loss Adjustment Manual (LAM) will involve including the affected crops in the instructions for APH crops and deleting information about the affected crops from other sections of these documents. Changes to the Loss Adjustment Standards Handbook (LASH) involve modifications of the instructions for the Appraisal Worksheet and the Production Worksheet to convert the data presently presented in dollars to units of production. The units of production already are included as part of the information for the Appraisal Worksheet.

No additional handbooks or issuances are affected if APH is the chosen alternative. If ARH were to be accepted, separate Insurance Standards Handbooks will be needed since ARH is not considered to be a permanent program. Terms and conditions for pilot crops or insurance plans are not included in general issuances.

V. ALTERNATIVE PLANS OF INSURANCE

The Contractor identified several areas within the current program in need of revision which cannot be effectively modified without creating or adopting a different insurance program altogether. In this section, the Contractor identifies seven alternative plans of insurance and discusses each.

Convert the Insurance Plan to Area Yield Protection or Area Revenue Protection (ARP)

These alternatives have advantages relative to the current Dollar Plan model. Since the amount of insurance is based on an area average, the actions of any producer have no discernable impact on the area average yield or the area average revenue. There is no individual loss adjustment, so no feed-back loop is needed to adjust guarantees. All producers who choose the same coverage level and protection factor have the same amount of insurance, similar to the coverage available under the Dollar Plan. All producers so situated will have the same amount of indemnity in the event the area average yield (Area Yield Protection), price, or combination thereof is below the value that triggers a loss.

There also are clear disadvantages to these alternatives. NASS production and price statistics have been published on a crop year basis in the past. For most states and crops, the crop year equates to the calendar year. All harvesting activity occurs during that calendar year. Beginning 2012, the NASS statistics for vegetables are published on an annual basis.

The Crop Provisions for fresh market sweet corn, fresh market peppers, and fresh market tomatoes are established for a crop year that begins in southern Florida with fall season planting (earliest planting date is July 15 for sweet corn and August 10 for peppers and tomatoes) and extends until the end of insurance date the following calendar year (approximately mid-year in southern Florida). These dates do not coincide with the production statistics published by NASS.

In addition, NASS no longer publishes production statistics by planting season. All data are on an annual basis. Assume, for example, that a producer plants a winter season for one of these crops. The final planting date is in January of the crop year. Suppose a freeze occurs in mid-January, destroying the crop. The amount of any indemnity for a crop cannot be determined until early in the following calendar year when the Vegetables Annual Summary is released by NASS. That publication will be based on the results reported for winter, spring, and fall seasons combined. Although the producer may plant only the one season, any indemnity is based on the entire year's results. Hence, producers might have a complete loss but receive little or no indemnity because the remaining seasons might have results that fail to trigger an indemnity or that trigger a much smaller indemnity than warranted for the winter season loss. This situation likely will not be acceptable to affected producers.

In addition to these limitations, there is no source of unbiased third-party information regarding pricing. Establishing the price election or projected price will require methods such as those used for many, if not most, crops reinsured by FCIC. Since these are fresh market crops with no carryover stocks, an adequate estimator of the current season's expected price likely can be found in an Olympic average of the five most recent crop years, the approach often used by FSA. This average, which eliminates the highest and the lowest price of the five observations, eliminates the effects of extremes that can occur with fresh market vegetables – oversupply

situations, natural disasters, etc. An alternative is the simple average of the last five years. Other crops that are currently insurable also do not have third-party pricing information available as a basis for the price election.

A final limitation of the data available to support an insurance program under ARPI pertains to the state-wide nature of the data. Fresh market tomatoes are insured under two plans in Florida: the Dollar Plan in the southern counties and the APH plan in three northern counties. A loss event may severely affect the southern counties (e.g., hurricane or freeze) but have limited effect on the northern counties. The state-wide results may not reflect the severity of the disaster to the affected producers.

In summary, conversion to an insurance plan under ARPI likely will necessitate a change in the crop year used by crop insurance for these crops, at least in Florida and in Georgia (fresh market sweet corn in selected counties). It also will require elimination of seasons since there will be no data to support estimation of seasonal guarantees and to determine indemnities. Producer acceptance of these changes would likely be very low.

Convert the Insurance Plan to Actual Production History (APH)

Introduction of APH supports the current crop year definitions and seasonal guarantees since it is based on the individual producer's actual production as documented via the production report. This report requires the producer to certify there are acceptable records as defined in the CIH for each crop. For fresh vegetable crops, the majority is sold to or through brokers and other middlemen; hence, documentation is available. These are the same documents presently required to support a claim for indemnity.

Producer acceptance is a question regarding this model. It was available when Dollar Plans first were introduced, but producers did not voice acceptance of the model. A stated reason was that there was no desire to obtain high dollar amounts of coverage due to trepidation that such a model might attract competitors due to the perception of substantially reduced risk of financial losses. Producers supported an insurance plan based on production costs. The listening sessions demonstrated some interest now in alternatives to the perceived deficiencies of the Dollar Plans.

Another drawback of the APH plan is the lack of an unbiased third-party source of pricing information, the same as discussed above for Area Yield Coverage. The same alternatives for price discovery that were identified in that discussion also apply to this alternative.

Conform to RMA's enabling legislation, and identify potential changes to regulations, and procedures;

The recommended action conforms to FCIC's enabling legislation. Potential changes to regulations and procedures have been identified.

Be ratable and operable in an actuarially sound manner;

APH has been an established insurance plan since the middle 1980s. It has operated successfully for many crops including some fresh market vegetable crops. The data needed to develop an appropriate premium rate are well known and methods to develop a premium rate have been developed.

Control or eliminate moral hazards;

The primary moral hazards that exist under APH are shifting of production among optional units and unreported sales. The Crop Provisions for these three crops allow a basic unit to be established by planting period. Since the fresh vegetables deteriorate rapidly, shifting production among seasons is deemed unlikely. Optional unit division by irrigated or non-irrigated practice cannot occur for these three crops in the study area since acreage must be irrigated to be insured. The Contractor does not believe the incentives for moral hazard will increase if the insurance plan is converted from Dollar to APH. A loss adjuster can evaluate the condition of the plants on one optional unit versus another to make an assessment as to whether any substantive difference in reported production per acre is warranted.

Not change market behavior or create market distortions that change or influence producer decisions to plant one crop over another; and

There are no reasons to assume that a crop with proper crop insurance guarantees and appropriate relative prices will change producers' behavior with respect to planting. If there is concern, a restriction such as that contained in the Fresh Market Bean Crop Provisions can be imposed. That restriction limits the insurable acreage in any year to not greater than 110 percent of the acreage planted in any of the three previous crop years. If a greater number of acres are planted, the guarantee per acre is reduced proportionately. In other words, the total insurable production cannot exceed 110 percent of the approved yield multiplied by the maximum acres planted in any of the three most recent crop years. Acreage planted to each of the fresh market vegetable crops in Florida, the primary state included in this review, has been relatively stable from year to year but with a generally downward trend.

Be marketable (i.e., based on listening sessions with Dollar Plan crop producers, there must be an expectation of demand for the revised/new program).

There is dissatisfaction with the Dollar Plan as it exists. Lack of transparency with regard to the determination of the RMDA, minimum values, and other program parameters is a major issue with stakeholders. There are perceptions that participants are regarded as dishonest and are subject to frequent audits. There were statements that changes imposed by RMA have degraded the program significantly. No one voiced satisfaction with the status quo. There were expressions of support for individual insurance coverage such as APH or ARH.

Participation in the Dollar Plans has generally been declining, but with a shift in the mix of business with higher percentages of acres insured at CAT levels. While these characteristics do not signal overwhelming immediate acceptance of an APH plan of coverage, there are indications producers want a change. As referenced previously, this shift in participation is completely consistent with the incentives the Dollar Plan creates for an ever-degrading pool of insureds. A market readiness test using listening sessions to discuss this specific idea during any development effort will provide stronger indications of support for this particular solution.

Convert the Insurance Plan to Actual Revenue History (ARH)

ARH functions substantially the same as APH but uses reported revenue per acre rather than reported production per acre to establish the insurance guarantee. The value of production to count is deducted from the insurance guarantee to determine if an indemnity is payable. Thus, it provides insurance protection for low market prices, reduced yield, or low quality. This insurance plan also is compatible with the current definition of the crop year since producers will report actual revenue and production by season for the defined crop year. The FCIC Board recently lifted a temporary moratorium on submission of new ARH plans following a comprehensive and favorable review of these relatively recently rolled out plans.

ARH requires that the production be sold at a reasonable price as determined by the loss adjuster. Reasonable price means, considering the quality of the product, the price received is representative of the price paid to similarly situated producers at the time of sale. It is similar to the term local market price as this term is used in several crop insurance policies.

The purpose of ARH is to indemnify the producer for monetary losses due to loss of yield or reduced price due to market conditions or quality issues. It differs from the Dollar Plans in this respect in that the Dollar Plans protect "…against declining value due to damage that causes a yield shortfall."[18] As discussed previously, while this is the stated goal of the protections afforded by the Dollar Plan, in reality, the Crop Provisions calculations support the opportunity for an indemnity payment when one or both of the reference prices is too low, even with no yield loss. Similarly, ARH does not require a yield shortfall as a condition of eligibility for an indemnity.

The Contractor notes the CAT level of coverage is not offered under ARH consistent with FCIC policy regarding availability of that coverage under revenue plans of insurance. Use of that level of coverage is relatively high under the Dollar Plan in the study area, though that may be associated with the perception on the part of many producers that the coverage under the Dollar Plan does not cover the risk they care about most. Consequently, producer acceptance of this alternative plan may be low.

Conform to RMA's enabling legislation, and identify potential changes to regulations, and procedures;

The recommended action conforms to FCIC's enabling legislation. Potential changes to regulations and procedures have been identified.

Be ratable and operable in an actuarially sound manner;

ARH has been offered since 2009. As noted earlier, the plan recently was subject to review. The review was favorable. The data needed to develop an appropriate premium rate are well known and methods to develop a premium rate have been developed. ARH is somewhat more data-intensive than is APH.

Control or eliminate moral hazards;

The primary moral hazards that exist under APH are shifting of production among optional units and unreported sales. The Crop Provisions for these three crops allow a

[18] Op. cit.

basic unit to be established by planting period. Since the fresh vegetables deteriorate rapidly, shifting production among seasons is deemed unlikely. Optional unit division by irrigated or non-irrigated practice cannot occur for these three crops in the study area since acreage must be irrigated to be insured. The Contractor does not believe the incentives for moral hazard will increase if the insurance plan is converted from Dollar to ARH. A loss adjuster can evaluate the condition of the plants on one optional unit versus another to make an assessment as to whether any substantive difference in reported production or revenue per acre is warranted.

Not change market behavior or create market distortions that change or influence producer decisions to plant one crop over another; and

There are no reasons to assume that a crop with proper crop insurance guarantees and appropriate relative prices will change producers' behavior with respect to planting. If there is concern, a restriction such as that contained in the Fresh Market Bean Crop Provisions can be imposed. That restriction limits the insurable acreage in any year to not greater than 110 percent of the acreage planted in any of the 3 previous crop years. If a greater number of acres are planted, the guarantee per acre is reduced proportionately. In other words, the total insurance guarantee cannot exceed 110 percent of the approved revenue multiplied by the maximum acres planted in any of the three most recent crop years. Acreage planted to each of the fresh market vegetable crops in Florida, the primary state included in this review, has been relatively stable from year to year but with a generally downward trend.

Be marketable (i.e., based on listening sessions with Dollar Plan crop producers, there must be an expectation of demand for the revised/new program).

There is dissatisfaction with the Dollar Plan as it exists. Lack of transparency with regard to the determination of the RMDA, minimum values, and other program parameters is a major issue with stakeholders. There are perceptions that participants are regarded as dishonest and are subject to frequent audits. There were statements that changes imposed by RMA have degraded the program significantly. No one voiced satisfaction with the status quo. There were expressions of support for individual insurance coverage such as APH or ARH.

Develop a Cost of Production Insurance Plan as Authorized by the Act

Since the underlying premise of the Dollar Plan of coverage was to provide protection of production costs in the event of the occurrence of a covered peril, the question naturally arises: why not address the matter directly by developing an insurance plan specifically intended to cover production costs? Such authority did not exist at the time the Dollar Plans first were developed, but has been established since that time. The Federal Crop Insurance Act (Act) now authorizes cost of production insurance plans in section 508(c)(5)(C)(iii): the expected market price "… in the case of cost of production or similar plans of insurance, shall be the projected price of producing the commodity, as determined by the Corporation…"

No cost of production insurance plan has ever been formalized and adopted by the FCIC. Research was funded by the FCIC in the early 2000s to support development of a cost of production insurance policy. At its meeting on October 16, 2003, the FCIC Board of Directors

voted to disapprove a submission that would have established a cost of production insurance policy for cotton. The Board cited a number of issues and concerns as reasons for disapproval (https://www.rma.usda.gov/fcic/2003/1009collinstatement.pdf). The Contractor is not aware of any subsequent submission to the Board or any contract let by RMA that would establish a cost of production policy.

The submission described in the preceding paragraph was intended to provide cost of production coverage on an individual producer basis. The complex record-keeping and reporting requirements and burden on producers to supply such information was one of the reasons cited by the FCIC Board for disapproval.

This leaves open the question as to whether a cost of production approach on an area basis might be feasible. Such a policy would establish a set of commonly used inputs for each crop and establish the cost using prevailing prices of those inputs. Projected cost per unit would be established based on the area average yield, quantities of identified inputs, and prevailing prices of those inputs. Actual yields (final area yield) would be determined and the actual cost per unit produced determined using the initially determined cost of production. Any increase in the cost per unit that exceeded the chosen deductible would result in an indemnity.

The plan described above suffers from the same limitations that exist for insurance plans under ARPI or for continuation of the Dollar Plans without change. Data to support the quantity of an input typically used by harvest season are not available. NASS does report annual quantities of chemicals used per acre and percent of acres treated with each chemical by crop by state in survey results for vegetables published every two years (from NASS Quickstats home page, select survey, environmental, vegetables, crop name). With regard to fertilizers, "Percentage acreage treated, number of applications, rates of application, and total amounts applied of the primary macronutrients nitrogen (N), phosphate (P2O5), and potash (K2O) as well as (since 2005) the secondary macronutrient sulfur (S) … are available intermittently for fruits and vegetables."[19]

NASS also reports annual average prices paid by producers for fertilizers and chemicals. For example, the webpage https://quickstats.nass.usda.gov/results/F76D51C6-ED84-3540-94EC-0B698A7F6281 reports the annual national average price of Capstan 50% WP. Thus, it should be possible, for a selected base year, to determine the annual quantity of fertilizer and chemical inputs used by crop by state and value that quantity at the national average price.

While NASS data appear to exist for determining the variable cost associated with fertilizers and chemicals, the quantities of diesel fuel, labor, and electricity to plant the crop, maintain it (including irrigation), harvest it, and perform other miscellaneous activities are less available. Annual prices can be obtained at the national level from NASS Quickstats for some inputs (e.g., diesel, gasoline, LP gas). Data regarding labor have not been published by NASS for several years. Consequently, the task of developing an area-based crop of production plan appears formidable but not impossible. Moreover, even if constructing such a plan is possible, the precedent set by insuring cost of production without regard to current market forces would

[19] https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Chemical_Use/, accessed September 2017.

fundamentally break from the non-trade-distorting intent of the Federal crop insurance program as it has been implemented to date.

Develop a Margin Protection (MP) Insurance Plan

MP is an area-based plan of insurance based on the expected revenue (expected area yield x expected price) minus the estimated costs of production. In its simplest form, it measures change in the per-acre costs of producing a crop during a period of time when producers normally would purchase inputs for the crop year. A fixed basket of inputs is priced immediately prior to the sales closing date and again at a later time.

MP is more complex than would be an area-based cost of production plan because the prices of inputs must be determined on two or more distinct dates during the growing season. All the issues discussed under the area-based cost of production alternative exist with this alternative in addition to the complications of finding multiple prices during a growing season.

Develop an "Inventory" Style of Insurance Plan

This plan would incorporate some aspects of the Nursery Crop Insurance plan. Under this style of plan, the expected value of an acre of vegetable plants with a specified plant population would be established. The expected value equals the plant population x expected production per plant x expected price. Alternatively, it can be expressed as expected cartons per acre x expected price. Expected price can be estimated in the same manner as was discussed for the area plans or for APH. A loss exists when the number of cartons sold plus the number of cartons of appraised production is less than the guarantee, which equals expected cartons per acre x coverage level.

This approach is substantially similar to the existing Dollar Plans in that the guarantee is area-based and loss adjustment is individually based. This plan also would need some form of a feedback loop to better manage future guarantees.

VI. QUANTITATIVE METRICS

The SOW requires the Contractor to include in this report:

> "*a quantitative metric (e.g. scores) to evaluate the extent to which each of the recommendations address the issues, vulnerabilities, and weaknesses identified in Section 2.1.1 of this SOW and the Evaluation Report. The quantitative evaluation of the recommendations shall be included in a table, with a supporting discussion providing an interpretation of the quantitative metric.*"

Section 2.1.1 of the SOW deals with the significant problems with maintaining the existing Dollar Plan insurance for the crops evaluated in the study area. RMA identified specific issues primarily related to data availability in Section 2.1.1 of the SOW. The Contractor provided a comprehensive analysis of these issues as they affect the existing insurance in Deliverable 2. As noted previously, the impact of the data problems carries over into different elements of any modification of the existing insurance. Furthermore, the data issues affect development and maintenance of any modified insurance differently, depending on the nature of the modifications.

To assist the Government in determining its actions related to the insurance of fresh market corn, fresh market peppers, and fresh market tomatoes in the study area, the Contractor has developed a quantitative matrix that assigns a numeric value to data availability regarding cost of production, seasonal differences (e.g., in yield and price), and type differences. Furthermore, the matrix includes the Contractor's assessment of the various impacts of these limitations on development and implementation of the modified insurance. Each category has been scored with values between 1 (no substantive issues) and 5 (issues so great that the change is likely to fail). The supporting discussion providing an interpretation of each of the metrics is provided below.

In the development, administration, and maintenance of a modification of the Dollar Plan insurance for fresh market corn, fresh market peppers, and fresh market tomatoes, extensive data are required for rating and underwriting. It is important to note, in the study area producers make decisions about varieties, planting seasons, and production practices which affect their revenues. Varietal differences are currently reflected in insurance types only for fresh market tomatoes. While currently the markets for fresh market sweet corn seem to ignore differences in bicolor, white, and yellow kernelled varieties, the same cannot be said for the differences between green bell peppers and the orange, red, and yellow varieties. There are substantial differences in the prices received for the more colorful varieties as compared to the green bell peppers.

The Contractor, in completing this requirement of the SOW, is assigning a quantitative value based on the research and evaluations that formed the basis of the first two deliverables. The Contractor's experience with development and maintenance of crop insurance products influenced the assignment of a specific value to each cell of the matrix. While another analyst might assign a slightly different value, the relative values among the potential modifications considered should reflect the relative practicality of these alternatives.

Type Data Availability

This metric addresses the availability of data related to type. For the crops under review, this primarily affects development, administration, and maintenance of a modification of the Dollar

Plan insurance for fresh market tomatoes. In assigning a quantitative value for this metric, the Contractor has considered the utility of data including acreage planted, acreage harvested, yield, price, and revenue. The Contractor would assign an optimum score of 1 if sufficient data are currently available from an appropriate source and are anticipated to be maintained by that source using a consistent methodology. The Contractor would assign the lowest score of 5 if no data were currently available and if there were no mechanism that could reasonably be expected to provide the data for development, administration, and maintenance.

Seasonal Data Availability

This metric addresses the availability of data related to the season. For the crops under review, the harvest season affects prices received and yields. In addition there may be cost differences between similar crops planted and harvested in different seasons, although these differences are not well documented. Cost and price data would be used in the development, administration, and maintenance of modifications of the Dollar Plan insurance for the crops under review in the study area. In assigning a quantitative value for this metric, the Contractor has again considered the utility of data including acreage planted, acreage harvested, yield, price, and revenue. The Contractor would assign an optimum score of 1 if sufficient data are currently available from an appropriate source and are anticipated to be maintained by that source using a consistent methodology. The Contractor would assign the lowest score of 5 if no data were currently available and if there were no mechanism that could reasonably be expected to provide the data for development, administration, and maintenance.

Cost of Production Data Availability

This metric addresses the availability of data related to the cost of production. For the crops under review in the study area, as noted previously there may be cost of production differences between similar crops planted and harvested in different seasons and in different zones of a production area. However, these differences are not well documented. Cost of production data would be used in the development, administration, and maintenance of cost of production and Margin Protection modifications of the Dollar Plan insurance for the crops under review in the study area. The Contractor would assign an optimum score of 1 if sufficient data are currently available from an appropriate source and are anticipated to be maintained by that source using a consistent methodology. The Contractor would assign the lowest score of 5 if no data were currently available and if there were no mechanism that could reasonably be expected to provide the data for development, administration, and maintenance.

Changes to the Act

This metric addresses whether existing language in the Act would support development of the potential modification. The Contractor only assigned two values: 1 and 2. The Contractor assigned the optimum score if it appears no change to the language of the Act were required. The Contractor assigned a score of 2 if a legal determination would be required to establish if the existing language was sufficient to support the proposed modification (see the description of the inventory-based approach in the preceding section).

Complexity of Development

This metric addresses the anticipated difficulty in developing an actuarially sound modification of the Dollar Plan for the three crops in the study area. The Contractor would assign an optimum

score of 1 if there were no identified challenges to a development effort. The Contractor would assign a score of 5 if it appeared barriers to development were insurmountable.

Complexity of Transition
This metric addresses the anticipated difficulty in transitioning from the existing insurance to the modified product. This includes activities required of RMA, AIPs, and insureds. It reflects the efforts required to modify existing records to address the new product requirements. It considers the possibility that some producers who are currently uninsured may choose to insure under the new structure. The Contractor would assign an optimum score of 1 if there were no identified challenges to a transition. The Contractor would assign a score of 5 if it appeared barriers to transition were considered insurmountable.

Record Keeping Requirements
This metric addresses the requirements for record keeping. This includes activities required of RMA, AIPs, and insureds. It reflects the efforts required to maintain future records to address the new product requirements. The Contractor would assign an optimum score of 1 if there were no identified challenges to maintaining appropriate records. The Contractor has assigned a score of 5 where it appeared barriers to record keeping may be insurmountable.

Administrative Burden
This metric addresses the administrative burden required to support the new approach. This includes activities required of RMA and AIPs. It reflects the efforts required to underwrite, rate, and adjust losses. It considers training activities, potential field inspections related to underwriting requirements, and the challenges of loss adjustment. Since development, transition, and record keeping requirements are addressed separately, they are not included in this element of the analysis. The Contractor would assign an optimum score of 1 if the new approach introduced no new administrative responsibilities. The Contractor has assigned a score of 5 where it appeared the administrative burden may be so great as to fashion the proposed modification unfeasible.

Recognizes Producer Ability
This metric addresses the extent to which the proposed product addresses the differences in producer skill and success. Insurance plans such as APH or ARH inherently recognize differences in yields and/or revenue per acre that result from the quality of management, soils, application of variable inputs, and other factors, that occur among producers; the Dollar Plan does not (all growers in the county are assigned the same reference values without regard to their own historical or expected production or revenues). The Contractor has assigned an optimum score of 1 if the proposed product recognizes most or all aspects of these difference (including differences in prices realized). The Contractor has assigned the lowest score of 5 when the product does not recognize these differences in any aspect of the proposed insurance.

Producer Acceptance
This metric addresses the Contractor's expectation concerning acceptance of the proposed product by producers. It is the most subjective of the metrics in the matrix. The Contractor has based this judgement first on the producer input during the research effort and then on experience with insurance products similar to those proposed. The Contractor would assign an

optimum score of 1 if universal acceptance were anticipated. The Contractor has assigned the lowest score of 5 for products where substantial and widespread resistance to the proposed modifications is anticipated.

Table 1. Matrix of a Quantitative Metrics Regarding Potential Modifications of the Dollar Plan Insurance for Fresh Market Corn, Peppers, and Tomatoes in the Study Area

Modify Existing Insurance by Conversion to	Type Data Availability	Seasonal Data Availability	Production Cost Data Availability	Changes to the Act	Complexity of Development	Complexity of Transition	Record Keeping Requirements	Administrative Burden	Recognizes Producer Ability	Producer Acceptance	Total
Area Yield Protection	4	5	N/A	1	2	2	1	2	5	5	27
Area Revenue Protection	4	5	N/A	1	2	2	1	2	5	5	27
Actual Production History	3	3	N/A	1	2	3	3	3	2	2	22
Actual Revenue History	3	3	N/A	1	2	3	3	3	1	4	23
Cost of Production Insurance	4	4	4	1	4	2	1	4	5	4	33
Margin Protection Insurance	4	5	4	1	4	3	1	4	5	5	36
Inventory Insurance	4	4	N/A	2	3	4	3	5	3	4	32

Rankings are subjective, based on judgements that compare one plan against another in terms of the attribute being measured. The results show that APH and ARH are regarded as substantially the same in terms of the aggregate of these attributes. ARH would have had a higher score than APH if the attribute of producer acceptance was scored at 2 or higher. The lack of a CAT option for coverage was the motivating factor affecting this score. The concept advanced earlier – ARH with an APH option for CAT coverage – would overcome this perceived disadvantage. This alternative would be compatible with the Policy Acceptance and Storage System since specific parameters can be specified for edits.

VII. CONCLUSIONS

"*If it is concluded that a new (or replacement) plan of insurance should be adopted for the crop, recommendations of sufficient detail to allow development shall be provided in this section.*"

The current dollar-based plans evaluated in this study have been offered for an extended period. In that time, RMA and other Federal agencies have conducted a number of detailed reviews of the program and made adjustments to the offerings based on the findings of these studies. Despite the changes that have been made and sincere efforts to improve the dollar-based coverage to provide a reasonable and sustainable model for insuring fresh market crops, fundamental flaws in program design and function remain. There are a number of changes that are explored in this document and that can be implemented to marginally improve expected program performance, but none of these will fully address the fundamental flaws in the dollar-based program design. The Contractor recommends current dollar-based offers for fresh market tomatoes, fresh market corn, and fresh market peppers be converted to individual-based programs under the APH plan of insurance.

Critical Considerations: APH versus ARH

In the evaluation of alternative plans to replace the dollar-based plans for these crops, two candidates emerged and substantially more attractive than alternatives; the Actual Production History Plan and the Actual Revenue History Plan. The scores for the two plans were nearly identical. The Contractor is charged with making a single recommendation for a replacement plan and has recommended APH based primarily on three critical considerations:

1) APH is very simple, requires minimal data to maintain, and indeed it is already offered for tomatoes in Florida,
2) ARH faced a firm moratorium on expansion imposed by the FCIC Board of Directors until as recently as September of 2017, and
3) APH is inherently set up to support a CAT offer, whereas there is no precedence for a CAT offer for ARH.

In the text of the report the Contractor explores the potential for offering a special designated CAT-only APH offer to accompany an ARH-based buy-up offer. If this were deemed viable by RMA (and USDA legal counsel), the ARH plan would outscore the APH approach because it includes coverage for a class of perils (price risk) that are important to growers and that APH excludes. There can be little question that growers who currently purchase buy-up dollar coverage would prefer an ARH-based design. The ARH plan is more complex to offer and administer than APH based on two primary differences; the consideration of an Expected Revenue Factor (used to adjust guarantees if there are known fundamental shifts in markets relative to the values contained in growers' histories), and the need for collection of pricing information in the current year to settle claims (or to rely on a standard benchmark price if there is no sold production. Each of these attributes implies a need for data of the same sort that has proven difficult to obtain in support of Dollar Plans. If RMA is comfortable that it can:

1) Obtain sufficient data to broadly monitor market prices,
2) Establish a proxy (potentially based on sales data collected from other growers in the same season) to value production for growers with no sales in the current insurance period, and

3) Offer a form of CAT coverage in support of the ARH plans,

The Contractor's recommendation would be revised to suggest ARH as the preferable replacement for Dollar Plans.

The APH plan of insurance (like Dollar-based plans) has existed for more than 30 years since its inception in the mid-1980s. Many improvements have been made in the intervening years. Protection is provided to many producers of many crops, including some fresh vegetable crops under this plan of insurance. While producers have demonstrated overwhelming preference for Revenue Protection plans of insurance (i.e., with harvest price change protection), there simply is not a viable mechanism to set forward prices and measure price change for fresh vegetable crops. APH coverage is already available in select Florida counties for tomatoes.

The fundamentals for creating an APH plan of insurance are known due to the familiarity of this insurance plan. Required are observations of actual yield outcomes, by season in the case of some crops, for as many years as can be obtained from as many producers as can be encouraged to provide the information. Since producers typically do not maintain records for the long term (or are reluctant to spend time digging through archives), some measure of a "typical" (i.e., average) yield is needed. Crops under this contract do have NASS reported data concerning acres planted and harvested, production, and revenue. However, since 2012, those data are not reported by season of harvest.

The industry for producing these vegetables is incredibly concentrated. For example, the 2012 Census reports that 28 farms produced 97 percent of the fresh market sweet corn acres harvested in Florida that year. That Census also reports that 47 farms produced 97 percent of the harvested acres for fresh market tomatoes and 24 farms produced 93 percent of the harvested acres of fresh market peppers. Some of these farms might produce more than one of these crops. Hence, success in acquiring the data needed to develop appropriate premium rates depends on a high level of participation from among this small universe.

The crop insurance experience data available to RMA has limited utility for moving forward. The data reported in the Policy Acceptance and Storage System (PASS) records only the dollar amount of the guarantee and the dollar amount of the production to count. The quantity of production and the dollar value per unit of that production are not acquired. Detailed Harvested Production Worksheets that contain the quantity of production to count are maintained in producer's insurance files in locations designated by the AIP. The Standard Reinsurance Agreement provides that records must be retained for three years after the last day the information contained in those records may be submitted through the automated systems (PASS). Hence, it is possible that records concerning the insurance under these Dollar Plans may be available for seven or eight years after the end of a crop year.

The goal of the information gathering would be to accumulate at least five, and preferably ten, years of production records from the majority of the farms that produce these crops. Once the data are accumulated, analysis of historical losses becomes possible. With sufficient information, econometric techniques can be applied to the data. In any event, quantitative analysis of the information is possible.

Appendix A

Summarized Statistical Data – Insurance Experience Select Tables (Entire Appendix May Be Found in the Program Evaluation Report Final)

Table A6. Insurance Experience: Fresh Market Peppers, By State for Evaluated States and Counties, 1998-2015

Year	State	Policies Earning Premium	Acres	Premium	Liability	Determined Acres	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	Florida	59	7,833.20	2,833,648	19,772,348	1,400.60	2,620,149	0.9247	0.1325	0.1433
1999	Florida	58	9,346.50	3,357,350	22,895,928	2,113.90	4,012,342	1.1951	0.1752	0.1466
2000	Florida	49	8,387.60	3,336,665	22,894,198	1,772.20	3,749,383	1.1237	0.1638	0.1457
2001	Florida	66	10,571.30	5,440,692	34,617,726	1,336.00	1,901,208	0.3494	0.0549	0.1572
2002	Florida	69	9,934.60	5,202,560	33,681,374	3,675.10	8,386,766	1.6120	0.2490	0.1545
2003	Florida	96	11,914.80	6,009,283	39,521,462	4,773.80	11,136,354	1.8532	0.2818	0.1521
	Georgia	1	25.00	9,174	66,625	-	-	0.0000	0.0000	0.1377
2004	Florida	110	12,827.47	6,896,637	44,471,497	3,346.70	9,109,614	1.3209	0.2048	0.1551
	Georgia	2	45.50	14,193	121,258	21.50	53,262	3.7527	0.4392	0.1170
2005	Florida	95	12,279.87	6,447,042	37,367,589	1,972.50	3,684,151	0.5714	0.0986	0.1725
	Georgia	2	37.70	14,410	100,471	-	-	0.0000	0.0000	0.1434
2006	Florida	94	12,168.30	5,372,843	32,220,093	2,366.75	4,933,075	0.9181	0.1531	0.1668
	Georgia	2	40.00	13,309	154,040	20.00	10,719	0.8054	0.0696	0.0864
2007	Florida	84	8,364.80	5,747,575	29,622,106	1,178.35	2,095,873	0.3647	0.0708	0.1940
	Georgia	2	22.00	8,351	89,298	-	-	0.0000	0.0000	0.0935
2008	Florida	87	8,943.50	5,327,236	28,808,560	1,295.50	2,844,296	0.5339	0.0987	0.1849
	Georgia	2	31.50	13,450	129,308	-	-	0.0000	0.0000	0.1040
2009	Florida	79	9,560.32	5,022,519	28,911,936	728.90	1,658,020	0.3301	0.0573	0.1737
	Georgia	2	43.40	19,426	180,674	-	-	0.0000	0.0000	0.1075
2010	Florida	73	7,057.00	3,383,793	21,775,104	633.30	1,719,054	0.5080	0.0789	0.1554
	Georgia	2	48.00	23,830	210,144	24.00	16,942	0.7110	0.0806	0.1134
2011	Florida	93	7,432.60	3,446,784	22,727,139	683.60	1,494,218	0.4335	0.0657	0.1517
	Georgia	2	30.30	14,388	132,653	19.80	18,753	1.3034	0.1414	0.1085
2012	Florida	95	7,053.30	3,087,482	21,417,494	747.30	1,370,124	0.4438	0.0640	0.1442
	Georgia	3	37.50	41,227	151,737	17.00	37,626	0.9127	0.2480	0.2717
2013	Florida	85	6,233.70	4,179,203	24,952,612	725.80	2,244,152	0.5370	0.0899	0.1675
	Georgia	3	33.70	33,442	176,886	25.50	74,340	2.2230	0.4203	0.1891
2014	Florida	74	5,479.70	3,441,281	21,953,566	354.40	1,136,020	0.3301	0.0517	0.1568
	Georgia	2	20.60	8,528	72,636	-	-	0.0000	0.0000	0.1174
2015	Florida	77	5,423.90	1,914,602	17,888,882	997.00	2,710,006	1.4154	0.1515	0.1070
	Georgia	1	10.50	4,474	40,751	-	-	0.0000	0.0000	0.1098

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A7. Insurance Experience: Fresh Market Sweet Corn, By State for Evaluated States and Counties, 1998-2015

Year	State	Policies Earning Premium	Acres	Premium	Liability	Determined Acres	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	Alabama	1	574.80	26,902	224,172	-	-	0.0000	0.0000	0.1200
	Florida	114	27,394.00	664,298	9,721,571	397.90	121,343	0.1827	0.0125	0.0683
	Georgia	41	6,694.10	144,217	2,579,224	50.00	11,602	0.0804	0.0045	0.0559
1999	Alabama	1	572.00	26,770	223,080	-	-	0.0000	0.0000	0.1200
	Florida	96	25,376.70	869,364	10,324,269	900.80	268,838	0.3092	0.0260	0.0842
	Georgia	55	13,013.50	314,233	3,928,642	745.70	273,223	0.8695	0.0695	0.0800
2000	Alabama	1	425.00	19,890	165,750	130.00	40,032	2.0127	0.2415	0.1200
	Florida	105	25,637.80	886,782	12,019,560	1,979.30	909,861	1.0260	0.0757	0.0738
	Georgia	71	15,805.70	345,396	4,429,727	817.30	336,728	0.9749	0.0760	0.0780
2001	Alabama	1	454.00	23,683	190,680	150.00	50,749	2.1428	0.2661	0.1242
	Florida	118	27,459.60	1,405,778	15,121,012	4,372.50	2,147,491	1.5276	0.1420	0.0930
	Georgia	83	15,853.10	434,995	5,095,572	2,137.80	739,698	1.7005	0.1452	0.0854
2002	Alabama	1	441.00	23,607	190,071	-	-	0.0000	0.0000	0.1242
	Florida	123	29,479.40	1,233,793	15,066,985	1,783.30	618,182	0.5010	0.0410	0.0819
	Georgia	79	17,707.60	381,028	4,755,472	24.60	9,865	0.0259	0.0021	0.0801
2003	Alabama	1	485.80	26,426	212,780	326.80	108,253	4.0965	0.5088	0.1242
	Florida	112	30,237.50	1,394,777	16,286,156	3,073.30	1,066,466	0.7646	0.0655	0.0856
	Georgia	90	17,536.10	406,055	4,869,531	1,232.60	404,616	0.9965	0.0831	0.0834
2004	Alabama	1	554.00	51,032	246,532	500.00	180,080	3.5288	0.7305	0.2070
	Florida	91	26,089.10	1,296,592	14,392,919	689.60	180,517	0.1392	0.0125	0.0901
	Georgia	70	16,490.30	432,964	4,949,179	640.90	254,578	0.5880	0.0514	0.0875
2005	Florida	104	25,372.80	1,555,293	17,925,856	1,055.60	339,360	0.2182	0.0189	0.0868
	Georgia	71	16,253.50	561,147	6,307,075	1,022.10	393,231	0.7008	0.0623	0.0890
2006	Florida	87	25,110.70	1,427,817	18,247,956	5,430.20	1,987,152	1.3917	0.1089	0.0782
	Georgia	64	17,293.80	737,375	7,157,435	734.20	251,417	0.3410	0.0351	0.1030
2007	Florida	104	24,910.20	1,604,570	19,794,963	1,968.50	691,012	0.4307	0.0349	0.0811
	Georgia	65	16,820.50	726,256	7,592,922	465.60	322,661	0.4443	0.0425	0.0956
2008	Florida	86	23,830.50	1,456,730	18,806,640	1,940.30	894,169	0.6138	0.0475	0.0775
	Georgia	52	15,665.60	559,073	6,363,130	1,514.60	348,840	0.6240	0.0548	0.0879
2009	Florida	89	22,129.70	1,467,323	18,796,731	1,508.90	492,055	0.3353	0.0262	0.0781
	Georgia	53	13,195.80	486,986	5,523,631	1,651.70	408,958	0.8398	0.0740	0.0882
2010	Alabama	1	536.10	76,223	306,115	136.10	77,714	1.0196	0.2539	0.2490
	Florida	107	25,748.70	1,389,356	20,194,430	4,073.10	2,610,749	1.8791	0.1293	0.0688
	Georgia	58	16,462.15	850,919	8,611,223	2,174.60	1,275,888	1.4994	0.1482	0.0988
2011	Alabama	1	439.10	63,044	253,800	-	-	0.0000	0.0000	0.2484

Year	State	Policies Earning Premium	Acres	Premium	Liability	Determined Acres	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
	Florida	89	26,502.00	1,784,205	25,404,213	1,532.80	1,250,197	0.7007	0.0492	0.0702
	Georgia	49	13,215.40	809,041	7,957,042	1,281.40	538,205	0.6652	0.0676	0.1017
2012	Alabama	1	559.80	82,319	331,400	99.00	56,313	0.6841	0.1699	0.2484
	Florida	82	23,604.50	1,909,030	23,881,619	1,055.10	852,283	0.4464	0.0357	0.0799
	Georgia	46	14,332.20	831,634	8,578,806	295.90	274,195	0.3297	0.0320	0.0969
2013	Alabama	1	591.70	103,914	418,333	300.70	203,879	1.9620	0.4874	0.2484
	Florida	58	24,735.80	2,122,462	26,919,171	1,521.00	489,151	0.2305	0.0182	0.0788
	Georgia	47	16,136.50	1,152,973	10,909,812	818.80	379,998	0.3296	0.0348	0.1057
2014	Alabama	1	499.70	93,467	376,275	287.80	204,468	2.1876	0.5434	0.2484
	Florida	61	23,883.80	1,734,569	22,749,721	1,399.80	995,457	0.5739	0.0438	0.0762
	Georgia	46	14,033.20	1,090,862	10,342,320	1,507.40	817,015	0.7490	0.0790	0.1055
2015	Alabama	1	400.00	76,210	306,800	173.80	133,304	1.7492	0.4345	0.2484
	Florida	54	20,504.40	1,337,514	22,114,269	545.70	347,156	0.2596	0.0157	0.0605
	Georgia	43	12,317.70	850,272	10,669,960	1,888.10	581,179	0.6835	0.0545	0.0797

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A8. Insurance Experience: Fresh Market Tomatoes, By State for Evaluated States and Counties, 1998-2015

Year	State	Policies Earning Premium	Acres	Premium	Liability	Determined Acres	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	Florida	124	21,587.40	4,582,412	44,728,947	836.10	1,332,654	0.2908	0.0298	0.1024
1999	Florida	130	24,964.60	4,960,899	50,564,970	1,999.50	2,961,655	0.5970	0.0586	0.0981
2000	Florida	130	26,196.80	5,680,463	53,974,974	2,732.90	5,213,082	0.9177	0.0966	0.1052
2001	Florida	138	28,013.60	6,118,250	61,476,278	2,181.40	3,262,615	0.5333	0.0531	0.0995
2002	Florida	179	29,210.20	6,257,742	65,274,332	2,417.94	3,140,523	0.5019	0.0481	0.0959
2003	Florida	166	26,238.92	6,368,530	62,389,830	2,622.90	3,229,336	0.5071	0.0518	0.1021
2004	Florida	168	26,990.20	5,883,137	61,603,008	1,892.70	2,970,233	0.5049	0.0482	0.0955
2005	Florida	149	25,269.59	8,234,689	75,542,446	2,673.40	3,744,538	0.4547	0.0496	0.1090
2006	Florida	166	27,132.22	8,756,485	80,116,813	5,498.80	10,803,594	1.2338	0.1348	0.1093
2007	Florida	166	25,198.90	11,434,800	94,099,673	7,598.70	17,359,744	1.5182	0.1845	0.1215
2008	Florida	141	24,466.73	10,300,230	87,281,640	388.50	1,222,436	0.1187	0.0140	0.1180
2009	Florida	156	26,878.59	15,076,195	103,961,239	9,902.49	23,777,468	1.5772	0.2287	0.1450
2010	Florida	133	24,818.03	9,638,839	82,204,166	5,424.40	12,873,724	1.3356	0.1566	0.1173
2011	Florida	149	24,913.90	13,150,043	105,015,381	6,665.80	16,534,644	1.2574	0.1574	0.1252
2012	Florida	153	24,002.50	16,458,350	129,618,936	15,676.10	54,595,054	3.3172	0.4212	0.1270
2013	Florida	260	23,539.00	19,981,132	145,036,008	5,004.90	11,546,541	0.5779	0.0796	0.1378
2014	Florida	242	23,550.10	13,600,037	113,213,478	3,223.50	6,896,649	0.5071	0.0609	0.1201
2015	Florida	216	18,027.60	8,205,663	80,530,138	2,498.40	5,121,304	0.6241	0.0636	0.1019

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A14. Insurance Experience: Fresh Market Peppers, National for Evaluated States and Counties, Insurance Option VA, VB, and VO, 1998-2015

Year	Policies Earning Premium	Acres	Premium	Liability	Determined Acres	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	34	6,391.70	2,686,736	17,458,162	1,373.80	2,561,079	0.9532	0.1467	0.1539
1999	38	6,044.20	3,082,931	18,190,414	2,113.90	4,012,342	1.3015	0.2206	0.1695
2000	31	6,036.50	3,093,848	19,343,552	1,772.20	3,749,383	1.2119	0.1938	0.1599
2001	40	8,225.10	5,148,018	30,494,483	1,320.60	1,885,854	0.3663	0.0618	0.1688
2002	49	7,699.30	4,922,571	29,435,613	3,675.10	8,386,766	1.7037	0.2849	0.1672
2003	68	8,682.60	5,612,207	34,114,215	4,710.40	10,938,523	1.9491	0.3206	0.1645
2004	80	10,078.68	6,496,783	39,278,581	3,368.20	9,162,876	1.4104	0.2333	0.1654
2005	62	8,486.77	5,988,643	31,242,006	1,957.70	3,662,679	0.6116	0.1172	0.1917
2006	50	5,000.30	4,430,773	20,000,274	2,131.25	4,404,837	0.9941	0.2202	0.2215
2007	60	5,594.20	5,118,929	23,066,684	1,178.35	2,095,873	0.4094	0.0909	0.2219
2008	52	5,130.00	4,568,657	20,517,294	1,264.00	2,807,028	0.6144	0.1368	0.2227
2009	44	4,420.72	4,089,971	18,138,338	711.20	1,651,878	0.4039	0.0911	0.2255
2010	37	2,959.80	2,732,302	12,674,934	605.50	1,704,334	0.6238	0.1345	0.2156
2011	49	3,063.00	2,682,180	13,573,287	683.60	1,494,218	0.5571	0.1101	0.1976
2012	55	3,300.00	2,500,211	13,657,947	764.30	1,407,750	0.5631	0.1031	0.1831
2013	59	3,846.00	3,765,319	19,656,452	725.80	2,244,152	0.5960	0.1142	0.1916
2014	50	3,238.10	3,050,989	16,792,970	354.40	1,136,020	0.3723	0.0676	0.1817
2015	51	2,507.00	1,708,311	11,467,895	997.00	2,710,006	1.5864	0.2363	0.1490
Total	909	100,703.97	71,679,379	389,103,101	29,707.30	66,015,598	0.9210	0.1697	0.1842

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A15. Insurance Experience: Fresh Market Sweet Corn, National for Evaluated States and Counties, Insurance Option VA, VB, and VO, 1998-2015

Year	Policies Earning Premium	Acres	Premium	Liability	Determined Acres	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	2	513.80	19,300	205,520	-	-	0.0000	0.0000	0.0939
1999	10	1,142.80	106,828	686,423	478.20	147,797	1.3835	0.2153	0.1556
2000	3	146.40	6,456	62,160	-	-	0.0000	0.0000	0.1039
2001	9	2,976.40	306,247	1,872,232	1,334.90	331,631	1.0829	0.1771	0.1636
2002	11	2,169.40	222,342	1,708,664	1,248.70	516,369	2.3224	0.3022	0.1301
2003	10	2,483.00	272,707	1,965,646	2,044.60	769,460	2.8216	0.3915	0.1387
2004	15	3,237.40	453,714	2,804,845	956.60	328,112	0.7232	0.1170	0.1618
2005	14	2,153.50	451,670	2,554,113	670.10	242,375	0.5366	0.0949	0.1768
2006	10	3,216.60	507,942	2,779,125	336.90	163,259	0.3214	0.0587	0.1828
2007	12	3,864.20	686,839	4,023,790	407.80	276,373	0.4024	0.0687	0.1707
2008	6	2,056.00	457,912	2,508,087	1,408.70	724,350	1.5819	0.2888	0.1826
2009	6	1,724.80	411,257	2,242,449	553.80	232,476	0.5653	0.1037	0.1834
2010	12	4,853.30	718,873	4,479,368	2,191.00	1,135,276	1.5792	0.2534	0.1605
2011	14	5,694.00	935,111	6,600,628	1,219.90	544,356	0.5821	0.0825	0.1417
2012	19	6,585.10	1,236,654	8,652,620	490.60	388,702	0.3143	0.0449	0.1429
2013	17	7,424.80	1,394,473	9,520,812	955.00	429,158	0.3078	0.0451	0.1465
2014	19	6,026.70	1,194,819	8,059,262	2,453.50	1,440,881	1.2059	0.1788	0.1483
2015	14	5,611.70	903,319	7,686,842	2,341.70	836,617	0.9262	0.1088	0.1175
Total	203	61,879.90	10,286,463	68,412,586	19,092.00	8,507,192	0.8270	0.1244	0.1504

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A16. Insurance Experience: Fresh Market Tomatoes, National for Evaluated States and Counties, Insurance Option VA, VB, and VO, 1998-2015

Year	Policies Earning Premium	Acres	Premium	Liability	Determined Acres	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	61	10,745.90	3,340,285	27,424,911	796.10	1,254,274	0.3755	0.0457	0.1218
1999	56	9,469.30	3,366,525	26,071,982	1,248.50	2,309,261	0.6859	0.0886	0.1291
2000	71	11,468.50	4,144,239	32,008,140	2,568.90	5,094,274	1.2292	0.1592	0.1295
2001	77	10,062.90	4,054,233	30,410,285	1,839.30	2,339,459	0.5770	0.0769	0.1333
2002	109	12,757.80	4,463,578	38,509,963	2,302.44	2,943,696	0.6595	0.0764	0.1159
2003	98	12,797.42	4,751,566	39,466,005	2,525.90	3,114,207	0.6554	0.0789	0.1204
2004	100	12,496.70	4,485,682	39,172,992	1,640.60	2,698,844	0.6017	0.0689	0.1145
2005	93	15,685.80	7,074,065	57,833,854	2,642.30	3,674,221	0.5194	0.0635	0.1223
2006	95	14,684.97	7,296,731	56,918,395	5,167.60	10,545,187	1.4452	0.1853	0.1282
2007	123	17,182.30	9,889,384	72,026,740	7,515.80	17,292,206	1.7486	0.2401	0.1373
2008	110	14,928.53	8,632,978	64,161,388	388.50	1,222,436	0.1416	0.0191	0.1346
2009	130	18,690.29	13,641,631	83,283,915	9,843.49	23,752,983	1.7412	0.2852	0.1638
2010	82	9,491.70	6,627,470	41,601,022	4,694.90	11,607,379	1.7514	0.2790	0.1593
2011	120	16,817.10	12,031,491	87,317,066	6,665.80	16,534,644	1.3743	0.1894	0.1378
2012	127	17,619.60	15,409,747	112,694,640	15,668.10	54,588,615	3.5425	0.4844	0.1367
2013	203	18,216.90	19,068,295	129,884,952	5,004.90	11,546,541	0.6055	0.0889	0.1468
2014	152	11,284.40	11,558,328	77,537,284	3,223.50	6,896,649	0.5967	0.0889	0.1491
2015	139	8,936.10	7,459,865	55,401,234	2,498.40	5,121,304	0.6865	0.0924	0.1347
Total	1,946	243,336.21	147,296,093	1,071,724,768	76,235.03	182,536,180	1.2392	0.1703	0.1374

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A42. Insurance Experience: All Insurance Options: Fresh Market Peppers Policies Indemnified by State; 1998-2015

Year	State	Policies Indemnified	Insured Acres	Determined Acres	Premium	Liability	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	Florida	9	7,833.20	1,400.60	2,833,648	19,772,348	2,620,149	0.9247	0.1325	0.1433
1999	Florida	12	9,346.50	2,113.90	3,357,350	22,895,928	4,012,342	1.1951	0.1752	0.1466
2000	Florida	7	8,387.60	1,772.20	3,336,665	22,894,198	3,749,383	1.1237	0.1638	0.1457
2001	Florida	12	10,571.30	1,336.00	5,440,692	34,617,726	1,901,208	0.3494	0.0549	0.1572
2002	Florida	30	9,934.60	3,675.10	5,202,560	33,681,374	8,386,766	1.6120	0.2490	0.1545
2003	Florida	53	11,914.80	4,773.80	6,009,283	39,521,462	11,136,354	1.8532	0.2818	0.1521
	Georgia	-	25.00	-	9,174	66,625	-	0.0000	0.0000	0.1377
2004	Florida	46	12,827.47	3,346.70	6,896,637	44,471,497	9,109,614	1.3209	0.2048	0.1551
	Georgia	1	45.50	21.50	14,193	121,258	53,262	3.7527	0.4392	0.1170
2005	Florida	27	12,279.87	1,972.50	6,447,042	37,367,589	3,684,151	0.5714	0.0986	0.1725
	Georgia	-	37.70	-	14,410	100,471	-	0.0000	0.0000	0.1434
2006	Florida	26	12,168.30	2,366.75	5,372,843	32,220,093	4,933,075	0.9181	0.1531	0.1668
	Georgia	1	40.00	20.00	13,309	154,040	10,719	0.8054	0.0696	0.0864
2007	Florida	16	8,364.80	1,178.35	5,747,575	29,622,106	2,095,873	0.3647	0.0708	0.1940
	Georgia	-	22.00	-	8,351	89,298	-	0.0000	0.0000	0.0935
2008	Florida	17	8,943.50	1,295.50	5,327,236	28,808,560	2,844,296	0.5339	0.0987	0.1849
	Georgia	-	31.50	-	13,450	129,308	-	0.0000	0.0000	0.1040
2009	Florida	15	9,560.32	728.90	5,022,519	28,911,936	1,658,020	0.3301	0.0573	0.1737
	Georgia	-	43.40	-	19,426	180,674	-	0.0000	0.0000	0.1075
2010	Florida	17	7,029	606	3,361,480	21,653,396	1,704,334	0.5070	0.0787	0.1552
	Georgia	1	48	24	23,830	210,144	16,942	0.7110	0.0806	0.1134
2011	Florida	17	7,432.60	683.60	3,446,784	22,727,139	1,494,218	0.4335	0.0657	0.1517
	Georgia	1	30.30	19.80	14,388	132,653	18,753	1.3034	0.1414	0.1085
2012	Florida	17	7,053	747	3,087,482	21,417,494	1,370,124	0.4438	0.0640	0.1442
	Georgia	1	38	17	41,227	151,737	37,626	0.9127	0.2480	0.2717
2013	Florida	23	6,233.70	725.80	4,179,203	24,952,612	2,244,152	0.5370	0.0899	0.1675
	Georgia	2	33.70	25.50	33,442	176,886	74,340	2.2230	0.4203	0.1891
2014	Florida	11	5,480	354	3,441,281	21,953,566	1,136,020	0.3301	0.0517	0.1568
	Georgia	-	21	-	8,528	72,636	-	0.0000	0.0000	0.1174
2015	Florida	31	5,423.90	997.00	1,914,602	17,888,882	2,710,006	1.4154	0.1515	0.1070
	Georgia	-	10.50	-	4,474	40,751	-	0.0000	0.0000	0.1098

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A43. Insurance Experience: All Insurance Options: Fresh Market Sweet Corn Policies Indemnified by State; 1998-2015

Year	State	Policies Indemnified	Insured Acres	Determined Acres	Premium	Liability	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	Alabama	-	574.80	-	26,902	224,172	-	0.0000	0.0000	0.1200
	Florida	6	27,394.00	397.90	664,298	9,721,571	121,343	0.1827	0.0125	0.0683
	Georgia	1	6,694.10	50.00	144,217	2,579,224	11,602	0.0804	0.0045	0.0559
1999	Alabama	-	572.00	-	26,770	223,080	-	0.0000	0.0000	0.1200
	Florida	14	25,376.70	900.80	869,364	10,324,269	268,838	0.3092	0.0260	0.0842
	Georgia	4	13,013.50	745.70	314,233	3,928,642	273,223	0.8695	0.0695	0.0800
2000	Alabama	1	425.00	130.00	19,890	165,750	40,032	2.0127	0.2415	0.1200
	Florida	32	25,637.80	1,979.30	886,782	12,019,560	909,861	1.0260	0.0757	0.0738
	Georgia	2	15,805.70	817.30	345,396	4,429,727	336,728	0.9749	0.0760	0.0780
2001	Alabama	1	454.00	150.00	23,683	190,680	50,749	2.1428	0.2661	0.1242
	Florida	39	27,459.60	4,372.50	1,405,778	15,121,012	2,147,491	1.5276	0.1420	0.0930
	Georgia	9	15,853.10	2,137.80	434,995	5,095,572	739,698	1.7005	0.1452	0.0854
2002	Alabama	-	441.00	-	23,607	190,071	-	0.0000	0.0000	0.1242
	Florida	17	29,479.40	1,783.30	1,233,793	15,066,985	618,182	0.5010	0.0410	0.0819
	Georgia	1	17,707.60	24.60	381,028	4,755,472	9,865	0.0259	0.0021	0.0801
2003	Alabama	1	485.80	326.80	26,426	212,780	108,253	4.0965	0.5088	0.1242
	Florida	19	30,237.50	3,073.30	1,394,777	16,286,156	1,066,466	0.7646	0.0655	0.0856
	Georgia	14	17,536.10	1,232.60	406,055	4,869,531	404,616	0.9965	0.0831	0.0834
2004	Alabama	1	554	500	51,032	246,532	180,080	3.5288	0.7305	0.2070
	Florida	5	26,089	690	1,296,592	14,392,919	180,517	0.1392	0.0125	0.0901
	Georgia	3	16,490	641	432,964	4,949,179	254,578	0.5880	0.0514	0.0875
2005	Florida	20	25,373	1,056	1,555,293	17,925,856	339,360	0.2182	0.0189	0.0868
	Georgia	11	16,254	1,022	561,147	6,307,075	393,231	0.7008	0.0623	0.0890
2006	Florida	57	25,111	5,430	1,427,817	18,247,956	1,987,152	1.3917	0.1089	0.0782
	Georgia	5	17,294	734	737,375	7,157,435	251,417	0.3410	0.0351	0.1030
2007	Florida	29	24,910	1,969	1,604,570	19,794,963	691,012	0.4307	0.0349	0.0811
	Georgia	4	16,821	466	726,256	7,592,922	322,661	0.4443	0.0425	0.0956
2008	Florida	15	23,831	1,940	1,456,730	18,806,640	894,169	0.6138	0.0475	0.0775
	Georgia	7	15,666	1,515	559,073	6,363,130	348,840	0.6240	0.0548	0.0879
2009	Florida	14	22,130	1,509	1,467,323	18,796,731	492,055	0.3353	0.0262	0.0781
	Georgia	13	13,196	1,652	486,986	5,523,631	408,958	0.8398	0.0740	0.0882
2010	Alabama	1	536.10	136.10	76,223	306,115	77,714	1.0196	0.2539	0.2490
	Florida	26	25,748.70	4,073.10	1,389,356	20,194,430	2,610,749	1.8791	0.1293	0.0688
	Georgia	10	16,462.15	2,174.60	850,919	8,611,223	1,275,888	1.4994	0.1482	0.0988
2011	Alabama	-	439	-	63,044	253,800	-	0.0000	0.0000	0.2484

Year	State	Policies Indemnified	Insured Acres	Determined Acres	Premium	Liability	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
	Florida	25	26,502	1,533	1,784,205	25,404,213	1,250,197	0.7007	0.0492	0.0702
	Georgia	8	13,215	1,281	809,041	7,957,042	538,205	0.6652	0.0676	0.1017
2012	Alabama	1	559.80	99.00	82,319	331,400	56,313	0.6841	0.1699	0.2484
	Florida	16	23,604.50	1,055.10	1,909,030	23,881,619	852,283	0.4464	0.0357	0.0799
	Georgia	5	14,332.20	295.90	831,634	8,578,806	274,195	0.3297	0.0320	0.0969
2013	Alabama	1	592	301	103,914	418,333	203,879	1.9620	0.4874	0.2484
	Florida	13	24,736	1,521	2,122,462	26,919,171	489,151	0.2305	0.0182	0.0788
	Georgia	6	16,137	819	1,152,973	10,909,812	379,998	0.3296	0.0348	0.1057
2014	Alabama	1	499.70	287.80	93,467	376,275	204,468	2.1876	0.5434	0.2484
	Florida	11	23,883.80	1,399.80	1,734,569	22,749,721	995,457	0.5739	0.0438	0.0762
	Georgia	5	14,033.20	1,507.40	1,090,862	10,342,320	817,015	0.7490	0.0790	0.1055
2015	Alabama	1	400.00	173.80	76,210	306,800	133,304	1.7492	0.4345	0.2484
	Florida	7	20,504.40	545.70	1,337,514	22,114,269	347,156	0.2596	0.0157	0.0605
	Georgia	5	12,317.70	1,888.10	850,272	10,669,960	581,179	0.6835	0.0545	0.0797

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A44. Insurance Experience: All Insurance Options: Fresh Market Tomatoes Policies Indemnified by State; 1998-2015

Year	State	Policies Indemnified	Insured Acres	Determined Acres	Premium	Liability	Indemnity	Loss Ratio	Loss Cost Ratio	Earned Premium Rate
1998	Florida	10	21,587.40	836.10	4,582,412	44,728,947	1,332,654	0.2908	0.0298	0.1024
1999	Florida	17	24,964.60	1,999.50	4,960,899	50,564,970	2,961,655	0.5970	0.0586	0.0981
2000	Florida	15	26,196.80	2,732.90	5,680,463	53,974,974	5,213,082	0.9177	0.0966	0.1052
2001	Florida	21	28,013.60	2,181.40	6,118,250	61,476,278	3,262,615	0.5333	0.0531	0.0995
2002	Florida	27	29,210.20	2,417.94	6,257,742	65,274,332	3,140,523	0.5019	0.0481	0.0959
2003	Florida	28	26,238.92	2,622.90	6,368,530	62,389,830	3,229,336	0.5071	0.0518	0.1021
2004	Florida	27	26,990.20	1,892.70	5,883,137	61,603,008	2,970,233	0.5049	0.0482	0.0955
2005	Florida	28	25,269.59	2,673.40	8,234,689	75,542,446	3,744,538	0.4547	0.0496	0.1090
2006	Florida	48	27,132.22	5,498.80	8,756,485	80,116,813	10,803,594	1.2338	0.1348	0.1093
2007	Florida	59	25,198.90	7,598.70	11,434,800	94,099,673	17,359,744	1.5182	0.1845	0.1215
2008	Florida	10	24,466.73	388.50	10,300,230	87,281,640	1,222,436	0.1187	0.0140	0.1180
2009	Florida	76	26,878.59	9,902.49	15,076,195	103,961,239	23,777,468	1.5772	0.2287	0.1450
2010	Florida	49	24,753.03	5,424.40	9,607,110	81,914,721	12,873,724	1.3400	0.1572	0.1173
2011	Florida	56	24,913.90	6,665.80	13,150,043	105,015,381	16,534,644	1.2574	0.1574	0.1252
2012	Florida	107	24,002.50	15,676.10	16,458,350	129,618,936	54,595,054	3.3172	0.4212	0.1270
2013	Florida	79	23,539.00	5,004.90	19,981,132	145,036,008	11,546,541	0.5779	0.0796	0.1378
2014	Florida	54	23,550.10	3,223.50	13,600,037	113,213,478	6,896,649	0.5071	0.0609	0.1201
2015	Florida	48	18,027.60	2,498.40	8,205,663	80,530,138	5,121,304	0.6241	0.0636	0.1019

Source: Table developed by the Contractor based on data provided by RMA and/or other USDA sources.

Table A102. Insurance Experience: Fresh Market Peppers All Options, Percent Crop Value Insured by State, 1998-2015

Year	State	Planted Acres \1	Value \1	Insured Acres \2	Insured Liability \2	Percent Acres (Insured Acres/Planted Acres)	Percent Liability (Insured Liability / Value)
1998	Florida	19,400	$275,441,200	7,833.20	$19,772,348	0.40	0.07
1999	Florida	19,000	$210,938,000	9,346.50	$22,895,928	0.49	0.11
2000	Florida	19,000	$251,712,000	8,387.60	$22,894,198	0.44	0.09
2001	Florida	16,000	$189,888,000	10,571.30	$34,617,726	0.66	0.18
2002	Florida	17,600	$181,632,000	9,934.60	$33,681,374	0.56	0.19
2003	Florida	17,800	$178,925,600	11,914.80	$39,521,462	0.67	0.22
2004	Florida	18,500	$220,797,500	12,872.97	$44,592,755	0.70	0.20
2005	Florida	19,400	$216,969,600	12,317.57	$37,468,060	0.63	0.17
2006	Florida	19,800	$224,601,300	12,208.30	$32,374,133	0.62	0.14
2007	Florida	19,500	$185,152,500	8,386.80	$29,711,404	0.43	0.16
2008	Florida	19,000	$270,256,000	8,975.00	$28,937,868	0.47	0.11
2009	Florida	16,900	$183,424,150	9,603.72	$29,092,610	0.57	0.16
2010	Florida	15,700	$262,158,600	7,077.20	$21,863,540	0.45	0.08
2011	Florida	14,100	$198,457,500	7,462.90	$22,859,792	0.53	0.12

Source: \1 After NASS Quick Stats https://quickstats.nass.usda.gov/ accessed April 2017.
\2 After RMA Insurance Data

Table A103. Insurance Experience: Fresh Market Sweet Corn All Options, Percent Crop Value Insured by State, 1998-2015

Year	State	Planted Acres \1	Value \1	Insured Acres \2	Insured Liability \2	Percent Acres (Insured Acres/Planted Acres)	Percent Liability (Insured Liability / Value)
1998	Alabama	2,300	$976,000	574.80	$224,172	0.25	0.23
	Florida	41,600	$104,607,600	27,394.00	$9,721,571	0.66	0.09
	Georgia	19,000	$34,830,000	6,694.10	$2,579,224	0.35	0.07
1999	Alabama	2,400	$1,885,000	572.00	$223,080	0.24	0.12
	Florida	39,200	$105,840,000	25,376.70	$10,324,269	0.65	0.10
	Georgia	22,000	$52,920,000	13,013.50	$3,928,642	0.59	0.07
2000	Alabama	2,300	$1,233,000	425.00	$165,750	0.18	0.13
	Florida	40,900	$102,102,000	25,637.80	$12,019,560	0.63	0.12
	Georgia	23,000	$42,000,000	15,805.70	$4,429,727	0.69	0.11
2001	Alabama	2,200	$2,393,600	454.00	$190,680	0.21	0.08
	Florida	40,200	$117,262,600	27,459.60	$15,121,012	0.68	0.13
	Georgia	25,500	$47,450,000	15,853.10	$5,095,572	0.62	0.11
2002	Alabama	2,500	$2,652,000	441.00	$190,071	0.18	0.07
	Florida	41,600	$100,531,200	29,479.40	$15,066,985	0.71	0.15
	Georgia	26,000	$43,750,000	17,707.60	$4,755,472	0.68	0.11
2003	Alabama	2,500	$2,150,000	485.80	$212,780	0.19	0.10
	Florida	39,400	$90,016,000	30,237.50	$16,286,156	0.77	0.18
	Georgia	26,000	$46,200,000	17,536.10	$4,869,531	0.67	0.11
2004	Alabama	2,600	$1,513,200	554.00	$246,532	0.21	0.16
	Florida	38,900	$110,381,600	26,089.10	$14,392,919	0.67	0.13
	Georgia	28,000	$46,656,000	16,490.30	$4,949,179	0.59	0.11
2005	Alabama	2,200	$1,152,000			0.00	0.00
	Florida	35,100	$108,057,600	25,372.80	$17,925,856	0.72	0.17
	Georgia	30,000	$79,387,500	16,253.50	$6,307,075	0.54	0.08
2006	Alabama	2,200	$761,600			0.00	0.00
	Florida	33,000	$117,270,600	25,110.70	$18,247,956	0.76	0.16
	Georgia	27,000	$58,916,000	17,293.80	$7,157,435	0.64	0.12
2007	Alabama	2,200	$750,200			0.00	0.00
	Florida	40,000	$149,175,000	24,910.20	$19,794,963	0.62	0.13
	Georgia	27,000	$54,687,500	16,820.50	$7,592,922	0.62	0.14
2008	Alabama	1,900	$1,121,000			0.00	0.00
	Florida	45,300	$158,592,000	23,830.50	$18,806,640	0.53	0.12
	Georgia	25,000	$81,719,000	15,665.60	$6,363,130	0.63	0.08
2009	Alabama	2,000	$2,220,000			0.00	0.00
	Florida	45,200	$218,722,000	22,129.70	$18,796,731	0.49	0.09

Year	State	Planted Acres \1	Value \1	Insured Acres \2	Insured Liability \2	Percent Acres (Insured Acres/Planted Acres)	Percent Liability (Insured Liability / Value)
	Georgia	26,000	$85,150,000	13,195.80	$5,523,631	0.51	0.06
2010	Alabama	1,800	$2,006,000	536.10	$306,115	0.30	0.15
	Florida	43,900	$183,804,600	25,748.70	$20,194,430	0.59	0.11
	Georgia	24,900	$56,178,800	16,462.15	$8,611,223	0.66	0.15
2011	Alabama	1,700	$1,943,000	439.10	$253,800	0.26	0.13
	Florida	44,500	$153,495,000	26,502.00	$25,404,213	0.60	0.17
	Georgia	23,800	$54,502,000	13,215.40	$7,957,042	0.56	0.15

Source: \1 After NASS Quick Stats https://quickstats.nass.usda.gov/ accessed April 2017.
\2 After RMA Insurance Data

Table A104. Insurance Experience: Fresh Market Tomatoes All Options, Percent Crop Value Insured by State, 1998-2015

Year	State	Planted Acres \1	Value \1	Insured Acres \2	Insured Liability \2	Percent Acres (Insured Acres/Planted Acres)	Percent Liability (Insured Liability / Value)
1998	Florida	39,300	$13,952,037	21,587.40	$44,728,947	0.55	3.21
1999	Florida	45,200	$15,820,026	24,964.60	$50,564,970	0.55	3.20
2000	Florida	39,400	$15,760,031	26,196.80	$53,974,974	0.66	3.42
2001	Florida	44,500	$14,908,032	28,013.60	$61,476,278	0.63	4.12
2002	Florida	43,200	$13,975,038	29,210.20	$65,274,332	0.68	4.67
2003	Florida	43,300	$14,190,039	26,238.92	$62,389,830	0.61	4.40
2004	Florida	42,400	$15,120,033	26,990.20	$61,603,008	0.64	4.07
2005	Florida	45,200	$15,540,052	25,269.59	$75,542,446	0.56	4.86
2006	Florida	41,200	$13,475,041	27,132.22	$80,116,813	0.66	5.95
2007	Florida	38,200	$13,321,032	25,198.90	$94,099,673	0.66	7.06
2008	Florida	32,400	$10,458,060	24,466.73	$87,281,640	0.76	8.35
2009	Florida	34,600	$12,298,042	26,878.59	$103,961,239	0.78	8.45
2010	Florida	32,000	$8,555,073	24,753.03	$81,914,721	0.77	9.57
2011	Florida	30,000	$9,120,055	24,913.90	$105,015,381	0.83	11.51

Source: \1 After NASS Quick Stats https://quickstats.nass.usda.gov/ accessed April 2017.
\2 After RMA Insurance Data

Appendix B

Stakeholder Comments

Dollar Plan
Listening Session Comments by Topic

Note: (i) – Insurance Industry Representative
(p) – Producer

Knowledge of the Program

- I'm not sure if the RMA has looked at the guidelines for adjusters; I know a lot of their procedures are really open for interpretation by the AIP, and it's not clearly black and white, and the problems that growers have experienced with the policy - many of those problems result in the way that the company interprets how the adjusters are supposed to interpret those guidelines. (i)

- Potential production seems to be one of the items open to the most interpreting. (i)

- I think it's a good plan, myself. I've always wondered if you could make a Dollar Plan-APH hybrid plan. (i)

Use of the Program – Why or Why not?

- When there was a zero minimum value - we're going back to the dollar plan. When you had that, guys were actually using that as a market protection. (p)

- I don't know how it all plays out in the actuarial world and the factors for the premiums and all, but it seems like to me there's too much emphasis or concern on the cost. The grower is selecting a dollar amount he wants to insure anyway. I don't think it makes a difference if the RMA says it costs $10,000/acre to grow tomatoes, or $8k/ac, it's all the grower selecting the amount of premium he wants to pay to cover x amount per acre on this plan, and he's trying to insure a percentage of his growing cost, so if he has a disaster, he's not totally out. There's no way growers are making money on this policy. But, they are using it to limit their risk. (i)

- I don't really see a problem with it in the way it's written *(concerning stages).* I've been selling crop insurance since 1991, and I only remember seeing one claim that was paid before a final stage and that was because of a total freeze. (i)

- The ones that use the plan effectively have found it satisfactory, but changing the MVO, especially on the peppers, has soured some people; the changes in cultural practices to the higher density stuff…I don't have a whole lot of feedback on the tomato stuff - they either like it or they don't. The big guys, they've got their own thing going on anyway. (i)

- Whether this works for smaller growers, I don't feel that's an effective program, whereas the whole farm might be. If they switched to fiscal year filing, which is an option, but I don't know many people that are willing to do that. They have it set up one way for their

taxes, which doesn't jive with their insurance, so if we could harmonize that I think we'd have more buy-in. (i)

- Some corn growers say that coverage was too high and guarantee was too low. The insurance was expensive but the coverage was too cheap. (i)

Does Program Address Industry Needs?

- I think the plan serves a purpose. I think the original plan served a better purpose, when the grower could elect to, in exchange for an increased premium, have a true zero minimum value, which has been taken away now; it covers most of the perils that are a threat to the grower that would wipe out a yield. (i)

- I don't see how you're going to make it work unless you steal, falsify records, or lie and cheat. Nothing makes any sense to me, and this whole farm revenue, that would be nice, but you have to wait till next year to get your money – that may work for you beans and corn and all out west, you know, where they have that winter chop, you know where they've got nothing in the ground…(p)

- Part of your problem is, too, you've got grades and sizes. Beans are beans, corn is corn; you've got 5/6's, 6/6's, 6/7's, no 1's, you got color, they're all priced differently. (p)

- Every carton of tomato that is going out can be valued at a different price depending on the sizes and the color. I don't think the market bulletin takes all that into consideration either. (p)

- I remember sitting in meetings with RMA from years ago…the federal crop days… and you used to get in a room….they stayed in tune with what was going on in the State of Florida. (i)

- I don't want to throw blame anywhere, but how a claim gets handled has so much to do with the adjuster, and if that adjuster doesn't know what he's doing, and doesn't work the claim correctly, it can be significant. (i)

- Well it was very interesting that they reduced the allowable cost. I don't know why that they reduced it because every time there's a claim paid, the grower has to document what the actual cost is to the adjuster and it's always greater than the allowable cost, so why did they reduce it? (i)

- Stakeholders expressed concern that the review would inevitably result in "…further erosion of the usefulness of the dollar plans." (i)

- The program had been changed several times in recent years and that these changes, while not entirely without justification, had made the program substantially less attractive for tomato and pepper growers. (p)

- The current program offers far less protection than the previous offer, and I have concern that the program will only likely to be further altered to reduce indemnities. (p)

Program Impacts

- That's where I got so frustrated…we needed the insurance to be working and helping us, you know, this crop that is hurt and damaged severely, is going to be worth more to us in the ground if we can bring it out, than it is to put in a new plant….cause you had Charlie on the west coast that year, and you knew you'd have a good market in the fall season, but if you pull it out and replant, you just changed your timeline. (p)

- There's a notice for disease filed, because of the inability to control whitefly, we knew it was going to cause a disease problem, but at harvest when they're all green, it's not evident. It's a risk that currently is not addressed in the policy because they changed the minimum value, because they didn't want to insure against low markets. (i)

- Loan collateralization using the crop insurance product obviously is a standard practice, but they've *(banks)* noticed that as we've messed up these policies that they are no longer at full value collateralized. (i)

- It seems to me the specialty crop regions like FL are basically the tail of the dog being wagged hard by the Midwest, which is obviously where all of the major crop insurance is sold….so what we get varies dramatically....we're hostage to corn prices, so citrus, nursery, tomato, all of those things are subject to the vagaries of corn and soy. (i)

- We always have that discussion in our meetings; that we are insuring the market, and everybody says we're not, but we are, indirectly. (i)

- The current picking and packing allowance is $3.35/acre. RMA lowered our allowance cost by 20% and increased our coverage cost by 5%. So we are paying more for less coverage. (p)

Appropriateness to Industry

- If you're going to have effective insurance to help us, you need an 85% level. (p)

- How is the grower supposed to get any of this appraised production to market when it doesn't make grade? They're going to throw the whole box out. So they're being charged with this production to count, but yet the USDA has proven by this inspection that they wouldn't make grade. So, if they brought all of this to the packing house and packed it, so it couldn't be marketed, but yet they are interpreting the policy that they have to appraise at for production to count. I don't think that's right. (i)

- An agent noted that the long term actuarial performance of the dollar plans has been "generally pretty good," and that he is frustrated that the program changes have all been made to the detriment of the efficacy of the program. "If it ain't broke, why do they keep fixing it? And why do all the *fixes* just make it worse for growers?" The agent believes that the program is workable and functioning as intended in its current form; "When there is a bad year, growers get indemnities. Isn't that what crop insurance is supposed to do?" (i)

- Bankers are requiring us to have crop insurance so we buy this plan even though the coverage is not adequate. (p)

- COP budgets do not take into consideration some of the basic input costs we are subject to every year. Our cost to produce an acre of tomatoes runs between $11,000 and $12,000, Dollar Plan allows $9,000. My cost to package a box of tomatoes is $4.53. The Dollar Plan MVO allows $3.55, so if I make a claim for loss, I start the process at a $0.98 a box loss. I've used this insurance for 15 years and in some of those years the only thing that kept me in business was the insurance. Now, I may go out of business even with the insurance because it doesn't cover the losses I would incur. (p)

- Different types of tomatoes are harvested and graded differently so costs vary greatly between types. Roma tomatoes are harvested once, then graded. Low graded fruit is gassed then graded again. Cherry and Grape tomatoes, on the other hand are harvested every day. Harvest costs for these types can be as much as 15 times higher than for round tomatoes. (p)

- In my estimation, under the current plan, the potential indemnity doesn't even cover the cost of the premium to purchase the insurance. (p)

Suggested Improvements

- Do I have a number that sticks in my mind that's appropriate for MVO? Zero. I'm already paying extra premium for the buy-up. Why should we be penalized? We're already losing money, why should they take more away from us? (p)

- If you had an insurance policy that used revenue – just like this dollar plan…if somehow you could meld that…that's what would help a farmer. (p)

- Stages - I'd like to see it done away with and go 100% the day you plant. (p)

- Rather than documenting their production based on how many times their growers picked it, it should really be based on yield. All growers have that information; the grower can tell the adjuster what the yield was on that first pick. The number of times it's been picked really shouldn't make a difference. (i)

- Yeah, if there was more of a gross revenue policy that would apply to large growers, I'm sure there would be interest. (i)

- There used to be a 30 day grace period for planting inspection, now it's 5. So there's an immediate need.

- In the policy it says the crop must be harvested 3 times. These new hybrids….they are done at 2. The percentage on replant is at 50%. That needs to be triggered somewhere between 15-20%.

- Under current market conditions it is critical that coverage offers not be permitted to lapse while a new program is brought on line. (p)
- Wind should be a risk covered by the insurance and it currently is not. (p)

- The coverage period is too short. It only covers 125 days. Spring planting to first harvest is 90 to 100 days, first picking is 114 days, second picking 128 days, third picking 138 days. Coverage should last for 140 days. (p)

Other Programs more Appropriate?

- I'd like to have the whole farm revenue this year, because it looks like…I didn't qualify anyway, but if we had a true revenue program that could be tailored to each area, where at the end of the deal, June 1 you did your books, what you were gonna file with your tax return for that year, I mean you could do it ahead of time with an auditor or accountant, and, then, that would be a big help. (p)

- That's why I go back to a revenue based policy makes so much more sense for me as a farmer. Because then I can make the decisions that I need to make without trying to tailor the insurance to try to maximize the crop, which is only gonna mean less insurance money I have to collect. (p)

- The timing of the whole farm (revenue protection) does not work for us. (p)

Other Issues

- Do I trust the AMS reported prices? No, I don't. Because too many of the people now are playing contract games with that price, you know, they'll want a quote…say they have a 9 or 10 dollar contract and they've got trigger points, and the trigger's 15, they're gonna want to keep quoting that 15 so they can get a higher, you know 16, so they can get a higher number, if you have a trigger built in, even when the market is headed to 10, 11, 12, they'll quote that as long as they can to have that high quote out there to hold the ups in their contract, cause once they come below that , then you got to go to your contract number. (p)

- It (*imports*) affects every commodity in this state…the strawberry guys got slaughtered, guys down in Mexico – you've got a strawberry grower down there, went from 14,000 acres to 25,000 acres in 5 years – that's a two thousand acre per year increase. You got farmers down there telling everybody he's going from 74 acres to 500 acres of peppers. These guys aren't in the produce business; these guys are in the drug business. We need volume control at the border, we need to regulate what's coming over, how much is coming, and every truck that's coming across that border needs to be inspected – not run through a scanner to check for masses, bodies, or such – every truck needs to have a dog in it. These guys aren't in the produce business – they're in the drug business. (p)

- There's no way, as Steve says, that they can expand like that. Because their costs are the same as ours, except for labor. Labor is 10, 12, 15 dollars a day, but less productive, too, than our labor. But still, that's a big advantage. They've got more shipping to get to the border…so how do you do that? Now they have a lot of contracts, they went out when NAFTA opened up and the scoured the country and went to these retailers. (p)

- They (Mexico) figured out how to grow in different elevations; they actually brought Israeli growers over…it's our problem right now, but it's fixing to be the whole county's problem, because they're learning how to grow year round, in different elevations to get into cooler weather in the summer. (p)

- Anymore, I mean…I'll make the statement – it's very hard to see it rain in Del Ray or Martin county from the office window in Valdosta. If you're not participating in paying attention to what the state is going through, you're going to doubt everything…because they look, and go…here's data mining…they look and they go 'well, we have 10 cat policies in FL, and nobody had a loss, but we have 50 buy up policies, all different ranges of coverage, and of those 50, ten growers that bought the 70 or 75% coverage, have a claim'. And they go, 'nobody else did'. So you're suspect because you bought 70 or 75, and you had a claim. (i)

- I agree they need to be concerned about the food supply – especially American food, where we're so head to head with Mexico – Mexico is a year round competitor. They just really hammer the winter deal, but they should be intrusive, if we were offered this type of plan, they should send in auditors that are not just yes men; that have some actual skill and know our industry, to audit us and hold people's feet to the fire, and penalize the bums and crooks. (p)

- (*Concerning AMS price reports*) You know how they get their data - they call up a salesman, 'hey what's the price today?' There's nothing magical about what he's telling them. The only thing that their reports are beneficial for is the movement; you can see the movement coming in from Mexico. (i)

- I think that a big thing for tomatoes and peppers is that a lot of growers have gone out of business. (i)

- Heat can be a problem. If it is 100 degrees, they might not be able to gather it up fast enough if they have a lot of acres. The heat is very hard on them and they might just have to plow it up. (i)

- Probably one of the biggest costs of production issues right now is the Food Safety Act. They have to hire people to do everything for it. You have to document everything that is done in the field, spraying, people, bathroom, sanitation in the field. You get audited every year. You have to have all the documentation to show that you are following everything. (i)

- Imports are killing our industry. Mexican tomatoes were selling at our local market for $2.53 a pound. (p)

- Labor is not cheap. We pay $12 - $15 per hour. We also have to hire two full time employees just to keep us in compliance with federal, state, and local employment regulations. (p)