

# Evaluation and Recommended Improvements for the Sugar Beets Crop Insurance Program

## Deliverable 2.4.4: Final Recommended Improvements and Modifications to Current Program Report

Order Number: D16PD00067

**Submitted to:**

United States Department of Agriculture  
Risk Management Agency  
Product Administration and Standards Division

**Submitted by:**

Watts and Associates, Inc.  
4331 Hillcrest Road  
Billings, Montana 59101  
twatts@wattsandassociates.com



---

Watts and Associates, Inc., as a Contractor, has developed this material under contract with the United States Department of Agriculture and has exclusive ownership rights in part or all of its format and content. No material presented in any format, including orally, in print, or electronically, or that has been viewed, disseminated, or heard, may be further disseminated to any unauthorized person or entity. "Unauthorized person or entity" may include, but is not necessarily restricted to, any person who or entity that has no official connection to this project under the Federal government, or has not been authorized by Watts and Associates, Inc. to review a portion or all of this material. This material is protected by law.

---

### Table of Contents

I. Executive Summary.....	1
II. Recommendations and Modifications to Improve the Current Program .....	3
III. Recommended Changes to Program Documents.....	7
IV. Conclusions.....	20

### List of Appendices

Appendix A. Draft Text for a Sugar Factor “Fact Sheet”

## **I. EXECUTIVE SUMMARY**

Sugar beets are insured under the Actual Production History plan of insurance, which provides coverage for yield-based losses. The Crop Provisions were reissued for 2017 with changes only to the provision that states the location of the prevented planting percentage. The most meaningful changes to the program since its last review include the Stage Removal Pilot Program (implemented in 2005) and changes to the special provisions in several counties of Michigan and southern Minnesota to support temporary piling of beets in field-edge clamps. The USDA Risk Management Agency (RMA) contracted with Watts and Associates, Inc. (hereinafter, ‘the Contractor’) to conduct a review of the Sugar Beet Crop Insurance Program, with an emphasis on experience and issues that have accumulated since the 2004 program review.

In June of 2016, the Contractor delivered a final report (Deliverable 2.3.2) outlining a number of important recommendations for changes and improvements to the existing program. On September 15, 2016, RMA opted to engage an option for recommended improvements to the current program. This included (Deliverable 2.3.3), a brief draft report outlining the changes that would be appropriate to implement the most important of the recommended changes, and (Deliverable 2.3.4) a final report based on the draft. This report constitutes Deliverable 2.3.4. Options remain for deliverables to provide a response to expert reviewer comments on implementation of the recommended changes (Deliverable 2.3.5), and presenting the recommended changes to the FCIC board of Directors (Deliverable 2.3.6).

The purpose of this report is to

*“...provide recommendations for coverage appropriate in providing simplification, reasonableness, and clarity to the coverage and eliminate any current complexity of administering and maintaining this program” (SOW, 2.4.3, page 29).*

*The Recommended Improvements Report shall outline proposed revisions to the current sugar beet program, but should include any program modifications that would be required to the existing program to improve it. The recommended improvements shall clearly outline changes to the policy provisions, loss adjustment procedures, underwriting guides, liability establishment, indemnity determination, and price establishment. The contractor shall also provide the specific revised language that is recommended for the modifications to the current program. (SOW, 2.4.3, page 30).*

The Contractor provided 12 primary recommendations for modifications and improvements to the sugar beet program in the previous report (Deliverable 2.3.2). These included a number of changes to be implemented by Regional Office (RO) staff as time and resources permit, and consistent with previous discussions with the agency, prescriptive changes for each county offer are not provided in the report. Moreover, any changes and updates that have been made subsequent to the delivery of the previous report, but prior to the delivery of this report are omitted to prevent confusion and duplication of efforts. In summary, these primary recommendations were:

---

## Recommended Improvements and Modifications to Current Program Report

---

- Update the sugar beet provisions
- Revise insurance dates as locally appropriate
- Revise replant payments as locally appropriate.
- Update data systems
- Revise basis of coverage from standardized tons to sugar content
- Continue limited application of clamps in specific locations
- Make the Stage Removal permanent
- Revise language regarding multiple entities controlling planted acres
- Provide specific language supporting changes to sugar basis
- Provide specific information regarding clamps language
- Provide guidance for joint venture entities
- Make Stage Removal an optional endorsement to the policy

As requested, the bulk of this report is focused on the specific modifications necessary to update the provisions (now designated 17-039) to current standards and terms, to convert the basis of the program from a standardized tons basis to a pounds of raw sugar basis, and to remove the “pilot” designation from the current Stage Removal “pilot” program, if approved by FCIC.

## II. RECOMMENDATIONS AND MODIFICATIONS TO IMPROVE THE CURRENT PROGRAM

Consistent with communication with the COTR and RMA regarding this deliverable, every effort was made to keep this report as succinct and implementation oriented as possible. The Contractor is working from the assumption that the readers of this report are deeply familiar with the content of previous reports and the sugar beet program, or can reference these materials for information regarding the rationale and justification for the proposed changes. The Contractor has omitted commentary and additional supporting information that are not specifically pertinent to the tasks associated with making appropriate changes to specifically cited materials. It is our hope that this Spartan approach to this deliverable is consistent with the expectations of the agency as expressed in these communications.

The format of this report will state each recommendation from the Final Program Evaluation Research Report (Deliverable 2.3.2) and state the action taken in this deliverable to implement that recommendation and detail the recommended revisions to the crop insurance documents to implement the change(s). The term “crop insurance documents” is used to collectively reference the policy provisions, loss adjustment procedures, underwriting guides, liability establishment, indemnity determination, and price establishment. Some of the recommendations listed below are duplicates. This occurred due to overlap among the topics of the various sections of Deliverable 2.3.2. These are identified as duplicated, but included to facilitate review for completeness by RMA staff.

1. Update the Sugar Beet Crop Provisions, which are dated 1998 and which reference a previous edition of the Basic Provisions to use current terms, format, and references to the current (2011) Basic Provisions. Comments regarding revisions to accommodate the changes to the program since the last issuance of provisions (particularly references to dates applicable to regions where the program is no longer offered) are provided in the review section.

Recommended language to update the Sugar Beet Crop Provisions and to implement other recommended changes is presented in this deliverable. The Contractor notes that the Basic Provisions now is denoted as 17-BR, which was released in July 2016. Additionally, the Sugar Beet Crop Provisions now are designated 17-039. The revisions to 98-039 did not include all the recommendations included in Deliverable 2.3.2 since that deliverable was not yet available at the time the Proposed Rule was published.

2. Consider the implications of substantially different initial planting dates, final planting dates, and insurance dates across county and state lines. In many areas where sugar beets are grown, a given production region will fall into the territories of multiple ROs. While dates are generally internally consistent within a RO’s territory, there are some discrepancies across state lines that are difficult to explain agronomically.

This recommendation affects the Special Provisions, which are the responsibility of the Regional Offices. This report contains no changes to the crop insurance

documents regarding this topic. Any changes to these dates would fall under the ongoing efforts of the RO personnel.

3. Revise the replant payment from a single uniform national value (\$80/acre) to a regionally appropriate value, which can and will be updated regularly based on the frequently changing costs associated with planting sugar beets.

The Contractor recognizes the language included in the Common Crop Insurance Policy Basic Provisions (17-BR, section 13(c)(1)) authorizes this action. The Contractor further believes further implementation of this recommendation is under the purview of the Regional Offices.

4. Update the data acceptance system to accommodate several recommendations regarding references to exhibits, instructions, and other operational components as detailed in the appropriate section of the report.

This recommendation is rendered moot by the changes to program documents in this report that convert the basis of insurance from standardized tons of sugar beets to pounds of raw sugar. The recommendation was based on the finding that the data acceptance system documents never identified the basis of coverage as standardized tons, thereby leaving some content unclear.

5. Utilize a relatively minor revision in the process currently used in calculating standardized tons of sugar beets per acre to convert the basis of insurance to raw sugar content per acre. The proposed process uses existing data and offers a more transparent and more internally consistent basis for the approved yield and determining losses.

The changes in the crop insurance documents contained in this report fully implement this recommendation. Implementation of this change will also require a substantial training effort for AIP personnel, agents, and insured producers. Appendix A is provided to offer a draft of a fact sheet that may be used with these stakeholders to offer additional explanation of the implications of the change and its practical application.

6. Continue to offer coverage for sugar beets lifted and temporarily stored in clamps only through Special Provisions and only in areas where this coverage is currently available, and do not extend the current seven day period for which beets can be insured following initial placement in the clamp (which applies in Minnesota, but not in Michigan). Study the impacts on clamps on the marginal risk such storage may have on the quality and volume of beets available at the time of loss adjustment.

In accordance with this recommendation, this deliverable does not provide any recommended changes to any crop insurance documents. The recommendation results in a continuation of the status quo.

7. Make the Stage Removal Option, currently a pilot program, permanent. The coverage it offers, however, should remain optional, offering growers the opportunity to choose whether or not the additional coverage is appropriate for their operations. Convert “No Practice Specified” practices to actual practice (irrigated or non-irrigated) as may be regionally appropriate.

This recommendation is contingent upon its approval by the FCIC Board of Directors and publication of relevant content in the Federal Register. Most likely, this would occur when changes to the Sugar Beet Crop Provisions are proposed. After publication as a final rule, the Endorsement would remain as it currently is but without the word “Pilot” in its title and the attendant implications regarding written agreements.

8. Consider modifying and extending the current treatment of acres within a field that involve two or more persons with a common operator to all persons with which that operator is involved county-wide provided specific underwriting rules are met.

Recommended language is provided in this report.

9. Change the basis of insurance from standardized tons of sugar beets to pounds of raw sugar.

This essentially is the same as the recommendation labeled as number 5. The changes in the crop insurance documents contained in this report fully implement this recommendation.

10. The Contractor recommends this harvest method (clamping) remain as an SP statement and not be expanded into any additional counties.

This recommendation essentially is the same as the recommendation labeled as number 6. The recommendation results in a continuation of the status quo.

11. Make provisions to allow joint ventures formed to accommodate sugar processor’s requirements to be insurable persons.

This recommendation essentially is the same as the recommendation labeled as number 8. The statements herein are recommended changes that the Contractor acknowledges are subject to interpretation by the Office of General Counsel. Recommended language is provided in this report.

12. Convert the Sugar Beet Stage Removal Pilot from a separate endorsement and change it to an optional policy benefit (i.e., as a common option such as the Optional Coverage for Fresh Fruit Quality Adjustment for apples).

This recommendation essentially is the same as the recommendation labeled as number 7 with the exception that it recommends different presentation (i.e., it is

---

**Recommended Improvements and Modifications to Current Program Report**

---

included in the terms of the Crop Provisions but is optional coverage that may be purchased versus presentation in a separate document.)



### III. RECOMMENDED CHANGES TO PROGRAM DOCUMENTS

In this section, the report details the specific changes to the program documents, referencing the document to be modified, and providing the instructions for modification for implement each recommendation. All modifications to a given document are listed sequentially and may be relevant to multiple recommendations. Numbers in brackets [n] following specific language denote the recommendation number being addressed as referenced in Section II of this report.

#### A. Changes to the Basic Provisions

No changes are needed. The recommendations have no effect on this document.

#### B. Changes to the Sugar Beet Crop Provisions (98-039)

##### Section 1. Definitions

Crop year –Revise to read: The period within which the sugar beets are normally grown, which is designated by the calendar year in which the sugar beets are normally harvested. [1]

Local market price – Delete [5, 9]

Production guarantee (per acre) – Revise to read:

- (a) First stage production guarantee - The final stage production guarantee multiplied by 60 percent.
- (b) Final stage production guarantee - The number of pounds of raw sugar determined by multiplying the approved yield per acre by the coverage level percentage you elect. [5, 7, 9, 12]

Standardized tons. - Delete [5, 9]

Ton. - Delete [5, 9]

##### Section 2. No Changes

##### Section 3. Insurance Guarantees, Coverage Levels, and Prices for Determining Indemnities.

3(b) Revise to state: If you do not elect the Stage Removal Option, the production guarantees are progressive by stages, and increase at specified intervals to the final stage. The stages are:

- (1) First stage, with a guarantee of 60 percent (60%) of the final stage production guarantee, extends from planting until July 1 in all states;

(2) Final stage, with a guarantee of 100 percent... [1, 7, 12]

3(c) Revise to state: The production guarantee will be expressed in pounds of raw sugar. [5, 9]

Section 4. Contract Changes

Revise to read:

In accordance with the provisions of section 4 (Contract Changes) of the Basic Provisions, the contract change date is April 30 preceding the cancellation date for counties with an August 31 cancellation date and November 30 preceding the cancellation date for all other counties. [1]

Section 5. Cancellation and Termination Dates

Revise to read:

In accordance with section 2 (Life of Policy, Cancellation, and Termination) of the Basic Provisions, the cancellation and termination dates are:

State & County	Cancellation Date	Termination Date
Imperial County, California	August 31	August 31
All Other States	March 15	March 15 [1]

Section 6. No Changes

Section 7. Insured Crop

Add a sub-section (c), as follows:

(c) An individual person who participates in multiple joint ventures may elect to insure all acreage within a county in which that individual person has a share under one crop insurance policy provided:

- (1) The individual person actively produces the sugar beets by making all substantive production decisions affecting the sugar beet crop;
- (2) The joint ventures are required by a processor as a condition for delivery of production under a sugar beet processor contract;
- (3) The processor certifies that the joint venture complies with its rules regarding such joint ventures;

(4) Verifiable records of the production of sugar beets and of the average raw sugar content of such production are maintained for each joint venture, in addition to other record requirements under the Basic Provisions and these Crop Provisions; and

(5) Any other requirements that may be stated in the Special Provisions are met. [8, 11]

Section 8. No Changes

Section 9. Insurance Period

Revise sub-section (a) to read as follows:

(a) In accordance with the provisions of section 11 (Insurance Period) of the Basic Provisions, the calendar date for the end of the insurance period is:

(1) July 15 in Imperial County, California; and

(2) November 15 in all other States and counties. [1]

Section 10. No Changes

Section 11. Replanting Payments

Remove section 11(b). Re-designate section 11(c) as 11(b).

The Basic Provisions (17-BR, section 13(c)(1)) specify the replanting payment will not exceed the lesser of the actual costs of replanting or the amount stated in the Crop Provisions or the Special Provisions. Section 11(b) of the Crop Provisions has been nullified in recent years by a statement in the Special Provisions which states: “In lieu of the section 11(b) of the Sugar Beet Crop Provisions, the maximum amount of the replanting payment per acre will be \$80.00, multiplied by your insured share.” The specific dollar amount has varied since this statement first was implemented. Accordingly, the statement in the Special Provisions should be changed to read “In accordance with section 13(c)(1) of the Basic Provisions, the dollar amount of any replanting payment cannot exceed \$nn.nn multiplied by your insured share.” [3]

Section 12. No Changes

Section 13. Settlement of Claim

Revise section 13(c) to eliminate the parenthetical expression “in standardized tons.” [5, 9]

Revise section 13(c)(1)(iii) to eliminate the parenthetical expression “unharvested production that is appraised prior to the earliest delivery date that the processor accepts harvested production will not be eligible for a conversion to standardized tons in accordance with section 13(d) and (e).” [5, 9]

Revise section 13(d) by replacing the language “...will be converted to standardized tons by:

- (1) Dividing the average percentage of raw sugar in such sugar beets by the raw sugar content percentage shown in the Special Provisions; and
- (2) Multiplying the result (rounded to three places) by the number of tons of such sugar beets”

With:

“will be multiplied by the average percentage of raw sugar to determine the production to count.” [5, 9]

Do not change the paragraph of 13(d) that begins “The average percentage of raw sugar...” [5, 9]

Revise section 13(e) by replacing the current language “...will be converted to standardized tons by:

- (1) Dividing the gross dollar value of all of the damaged sugar beets on the unit (including the value of cooperative stock, patronage refunds, etc.) by the local market price per pound on the earlier of the date such production is sold or the date of final inspection for the unit;
- (2) Dividing that result by 2,000; and
- (3) Dividing that result by the county average raw sugar factor contained in the Special Provisions for this purpose”

With:

“... will be converted to pounds of raw sugar by multiplying the tons of such damaged sugar beets by 2,000 and by the percent of raw sugar contained in such production.” [5, 9]

#### Section 14.

Delete. It no longer is needed with the elimination of the July 15 contract change date (see change to section 5). [1]

Section 15.

Re-designate as section 14.

Delete sub-section 15(a).

Revise sub-section 15(b) follows. No sub-section identifier is needed.

Delete the first clause. The provision will read: “Your prevented planting coverage will be a percentage specified in the actuarial documents of your production guarantee for timely planted acreage. If you have additional levels of coverage and pay an additional premium, you may increase your prevented planting coverage if such additional coverage is specified in the actuarial documents.” [1]

C. Changes to the 2017 Crop Insurance Handbook (FCIC 18010 (06-2016))

Sub-paragraph 1302A(4)(b) (page 177): This information is not correct. It states: “See Exh. 13 for completed samples for individual crops and for directions outlining adjustments to total production entries. Directions for sample production worksheets for Sugar Beets, Dry Beans, and Northern Potato Quality Endorsement and for Multi-Purpose Production and Yield Worksheets are also provided in Part 17 and Exh. 17.”

Exhibit 13 contains completed sample production worksheets for corn and soybeans. It does not contain any “directions outlining adjustments to total production entries.” Part 17 provides detailed standards for APH databases and related information. It is not crop specific. Exhibit 17B contains information about the Multi-purpose Worksheet. Specific instructions are provided for skip-row cotton, green peas, contract seed beans, sugar beets, potatoes, and cultivated wild rice. The text should read “See Exh. 13 for samples of completed production worksheets. See Exh. 17 for instruction for completing the Multi-purpose worksheet for selected crops.” [no specific recommendation]

Paragraph 1511 (page 228): This paragraph provides information regarding the required elements of an APH database. The Required Information for the element Total Production states: “Sample production worksheets have been provided for Sugar Beets, Dry Beans, Northern Potato Quality Endorsements and Skip-Row Cotton. See Part 17 and Exh. 17.” The text should read “See Exh. 17 for the Multi-purpose Worksheet and entry instructions.” [no specific recommendation]

Paragraph 1920A (page 421): Delete this paragraph since it will no longer apply after the California counties other than Imperial are removed from the Crop Provisions. [1]

Paragraph 1920B (page 422): Replace the first sentence which reads “Adjust sugar beet production for APH by taking net paid tons times percent sugar divided by county percent sugar factor found in the SP” with “Adjust sugar beet production for APH by

multiplying net paid tons *of such production by 2,000 and* by the average percent of raw sugar contained in that production.” [5, 9]

Sub-paragraph 1920B(2) (page 422): Replace the phrase “... the AIP may use the harvested acreage’s actual yield per acre calculated in standardized tons...” with “... the AIP may use the harvested acreage’s actual yield per acre calculated in pounds of raw sugar...” [5, 9]

Exhibit 17B(6) (page 652): Replace the words “...to adjust production to percentage of sugar on the actuarial documents” with “to express sugar beet production in terms of pounds of raw sugar.”

Col. 1 – % Raw Sugar (records)\*

Col. 2 – Actual Production of Sugar Beets (Tons)

Col. 3 – Raw Sugar Production (col. 1 x col. 2) [5, 9]

D. Changes to the 2017 Loss Adjustment Manual (FCIC 25010 (10-2016))

Exhibit 23 (page 406): Change the unit of measure for sugar beets from “Tons 1” to “Pounds.” [5, 9]

E. Changes to the 2017 Sugar Beet Loss Adjustment Standards Manual (FCIC 25450 (05-2016))

Section 14 (page 5): Replace the words “standardized tons” in the first line with the word “pounds.” [5, 9]

Sub-section 14(1) (page 5): Replace the words “standardized tons of sugar beets” in the first line with the words “pounds of raw sugar.” [5, 9]

Sub-section 14(1) (page 5): Change the example to read as follows:

The producer harvests 100 tons of sugar beets damaged by an insured cause

The processor determined the sugar beets contained 10.6 percent of raw sugar

$100 \text{ tons} \times 2,000 \text{ lbs.} \times 0.106 = 21,200 \text{ lbs. of raw sugar to count}^1$  [5, 9]

Sub-section 14(2) (page 5): Replace the words “standardized tons of sugar beets” in the first line with the words “pounds of raw sugar.” [5, 9]

Sub-section 14(2) (page 5): Change the example to read as follows:

An appraisal of 5.5 tons per acre of sugar beets was made

The percentage of raw sugar tested by the processor is 10.6% (.106).

$5.5 \text{ tons} \times 2,000 \text{ lbs.} \times 0.106 = 1,166 \text{ lbs. per acre appraised production.}$  [5, 9]

<sup>1</sup> The example in the current LASH is incorrect. According to it, the production to count increased by 42.5 percent for the damaged sugar beets. The problem is that it treats the 100 tons of sugar beets as though these beets contain 100 percent sugar. The proposed language corrects this error.

Sub-section 14(3). Delete. It is unnecessary because the verifiable records must contain the net tons of sugar beets and the average percent of raw sugar content. [5, 9]

Sub-section 14(4) (page 5): Re-designate as section 14(3). Add the following sentence: “If the representative samples of sugar beets do not consist of 25 pounds, send the entire quantity of representative samples to the processor for testing.”<sup>2</sup> [no specific recommendation]

Section 22 (page 6): Change the word “tons” in the note at the end of this section to “pounds.” [5, 9]

Sub-section 34B(2) (page 9): Replace the words “in tons per acre, to tenths,” in the first line of section 34B(2) to “in whole pounds of raw sugar per acre.” [5, 9]

Sub-section 34C(1) (page 10): Replace the words “in tons per acre, to tenths,” in the second line with the words “in whole pounds of raw sugar per acre.” [5, 9]

Sub-section 34C(6) (page 10): Replace the sentence “Multiply that result by the factor (1.0)” with “Multiply that result by the yield factor determined in accordance with the formula in Exhibit 7.” [5, 9]

Sub-section 34C(7) (page 10): Delete the second sentence.<sup>3</sup> Replace that sentence with “If fewer than 25 pounds of sugar beets were obtained from all samples, send the entire amount to the processor.” [5, 9]

Exhibit 2 (page 14): Replace the words “standardized tons” in the definition of Production Guarantee with “pounds of raw sugar.” In part (b) of this definition, replace the word “tons” with “pounds.” [5, 9]

Exhibit 3 (page 15): Insert the words (centered on the page)<sup>4</sup>  
“Part I - Plant Count Method  
(From emergence through the day prior to the earliest delivery date)”

Element 13 (page 15): Change (Tons/Acre)” to “(Pounds/Acre.” [5, 9]

Appraisal Worksheet (page 17):

Change the value of the yield factor from in column 12 from .108 to 32.572. Change the appraised amount in column 13 from 13.4 to 4,195. Change the heading of column 13 from Tons/Acre to Pounds/Acre.<sup>5</sup> Revise the Remarks section as follows:

<sup>2</sup> The sample Appraisal Worksheet in Exhibit 3 (page 20) illustrates an example wherein fewer than 25 pounds of sugar beets were collected from the random sampling.

<sup>3</sup> The sentence is superfluous because the weight method cannot be used until the processor begins to accept harvested production.

<sup>4</sup> This change makes the information parallel to that provided for the weight method that follows.

<sup>5</sup> Due to the need to obtain OMB approval for changes in forms, instructing the users to make a “pen and ink” change may be more expeditious.

APH Yield = 8,143 lbs. per acre  
 Determined Plant Population per Acre = 25,000  
 $8,143 \times 100 \div 25,000 = 32.572$  [5, 9]

Element 21 (page 18): Replace “Enter factor of ‘1.0’ to “Yield factor (rounded to three decimal places) as determined by using the formula from exhibit 7.” [5, 9]

Element 22 (page 18): Change “(Tons/Acre” to “(Pounds/Acre.” Delete “Rounded to tenths” in the standard. [5, 9]

Appraisal Worksheet (page 20):

Change the entry for “Factor” in column 21 from 1.0 to 290.0. Change the entry in column 22 from 5.5 to 1,595. Change the heading of column 22 from Tons/Acre to Pounds/Acre.<sup>6</sup> Revise the Remarks section by adding the following to the existing text:

Factor =  $0.145 \times 2,000 = 290.0$  [5, 9]

Production Worksheet Forms Standards

Element 13 (page 22): Change the word “tons” to “pounds.” [5, 9]

Element 31 (page 28): Change “tons, to tenths” to “pounds” in the second paragraph (Preliminary and Final) [5, 9]

Element 31 (page 28): Change the example of appraised production with stage adjustment (item 31a) as follows:

Delete the existing text. Insert the following:

Final Stage Guarantee 5,304 lbs.  
 First Stage Guarantee 3,182 lbs. (5,304 lbs. X 60% = 3,182 lbs.)  
 Appraised Production 4,195 lbs. (Appraisal worksheet column 13)  
 $5,304 \text{ lbs.} - 3,182 \text{ lbs.} = 2,122 \text{ lbs.}$  (Difference between “first” and “final” stage). From the appraisal worksheet column "13"  $4,195 \text{ lbs.} - 2,122 \text{ lbs.}$  (Difference between “first” and “final” stage) equals 2,073 lbs. that will be entered in column 31 (Appraised Potential). [5, 9]

Element 31 (pages 28-29): change the example shown in element 31b. as follows:

Delete the existing text. Insert the following:

Final Stage Guarantee 5,304 lbs.  
 First Stage Guarantee 3,182 lbs. (5,304 lbs. X 60% = 3,182 lbs.)  
 Appraised Production 1,685 lbs. (Appraisal worksheet column 13)<sup>7</sup>

<sup>6</sup> See footnote 5.

<sup>7</sup> This situation is not included in a sample of an Appraisal Worksheet.



5,304 lbs. – 3,182 lbs. = 2,122 lbs. (Difference between “first” and “final” stage). From the appraisal worksheet column “13” 1,685 lbs. (Appraised Potential – example not included) minus 2,122 lbs. (Difference between “first” and “final” stage) equals -437 lbs. Therefore, the appraisal does not exceed the difference between the first and final stage guarantee, and an entry of 0.0 pounds would be entered in column 31. [5, 9]

Element 33 (page 29): Replace all existing text with “Enter the value 1.0.” [5, 9]

Element 34 (page 30): Change the standard for Preliminary and Final by deleting all existing text and inserting the following:

Enter the result, in whole pounds, of multiplying column 19 by column 31 and by column 33. [5, 9]

Element 37 (page 30): Delete the words “, rounded to tenths of a ton” in the third line of instructions for Preliminary and Final. [5, 9]

Element 37 (page 30), item (a)(3): Change the words “tons to tenths” in the third line to “whole pounds.” [5,9]

#### Narrative Instructions

Item s (page 32): Change “tons” to “pounds” in the first line.

Element 56 (page 35):

Change the word “tons” in the first line to “pounds.” [5, 9]

Revise item ‘a’ to read as follows: “For sugar beets that meet the minimum acceptable standards contained in the processor contract, enter the production of raw sugar in whole pounds.” [5, 9]

Delete item ‘c’ in its entirety. Insert “For sugar beets that do not meet the minimum acceptable standards contained in the processor contract, use the following formula to compute pounds of harvested sugar: Multiply the tons of such damaged sugar beets by 2,000 and by the percentage of raw sugar contained in such production.

Example: A total of 100 tons of damaged sugar beets were harvested from a unit. The processor determined these sugar beets contained an average of 10.0 percent of raw sugar. The production to count is

$$100 \text{ tons} \times 2,000 \text{ lbs.} \times 0.100 = 20,000 \text{ lbs.} \text{ [5, 9]}$$

Revise item d(2) by deleting “divided by 2000 equals weight in tons” and replacing that language with “and multiply by the average percentage content of raw sugar.” [5, 9]

Element 57 (page 36): Replace all existing text with “Insert the value ‘1.0’.” [5, 9]

Element 61 (page 36): Replace the words “tons rounded to tenths” with “whole pounds.” [5, 9]

Element 62 (page 37): Replace the words “tons rounded to tenths” with “whole pounds.” [5, 9]

Element 67 (page 37): Delete the words “to tenths.”

Element 71 (page 37): Delete the words “, rounded to tenths.”

Element 72 (page 37): Delete the words “to tenths.”

Production Worksheet example (page 39), make the following changes:

Column 31, delete 6.6 and 5.5. Insert 2,059 in row 1 and 1,595 in row 2.

Column 33, delete .679 in row 2. Insert 1.0 in row 1 and 1.0 in row 2.

Column 34, delete 66.0 and 37.3. Insert 20,730 in row 1 and 15,950 in row 2.

Column 36, delete 66.0 and 37.3. Insert 20,730 in row 1 and 15,950 in row 2.

Column 38, delete 66.0 and 37.3. Insert 20,730 in row 1 and 15,950 in row 2.

Row 42, replace 103.3 with 36,680 in all three cells

Change the Narrative, as follows:

Delete all current text and insert the following:

Stage Adjustment Amount =  $5,304 - 3,182 = 2,122$  lbs. Stage Adjustment Appraised Potential =  $4,195 - 2,122 = 2,073$ .  
Field B appraised after the earliest delivery date that the processor accepts harvested production.

Column 56, delete 734.5 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2.

Column 57, delete 0.929 in row 1. Insert 1.0 in row 1 and 1.0 row 2.

Column 61, delete 682.4 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2.

Column 63, delete 682.4 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2.

Column 66, delete 682.4 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2.

Cell 67, delete 733.4. Insert 228,917.

Cell 68, delete 733.4. Insert 228,917.

Cell 69, delete 103.3. Insert 36,680.

Cell 70, delete 836.7. Insert 265,597.

Cell 72, delete 836.7. Insert 265,597.

Production Worksheet example (page 40), make the following changes:

Column 31, delete 13.4 and 5.5. Insert 4,181 in row 1 and 1,595 in row 2.

Column 33, delete .679 in row 2. Insert 1.0 in row 1 and 1.0 in row 2.

Column 34, delete 134.0 and 35.3. Insert 41,810 in row 1 and 15,950 in row 2.

Column 36, delete 66.6 and 35.3. Insert 41,810 in row 1 and 15,950 in row 2.

Column 38, delete 66.6 and 35.3. Insert 41,810 in row 1 and 15,950 in row 2.

Row 42, replace 103.3 with 57,760 in all three cells

Change the Narrative, as follows:

Delete all current text and insert the following:

Field A appraised prior to the earliest delivery date that the processor accepts harvested preproduction. Field B appraised after earliest delivery date that processor accepts harvested production. Stage Removal Option applies.

Column 56, delete 734.5 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2.

Column 57, delete 0.929 in the first row. Insert 1.0 in row 1 and row 2.

Column 61, delete 682.4 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2.

Column 63, delete 682.4 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2.

Column 66, delete 682.4 and 51.0. Insert 213,005 in row 1 and 15,912 in row 2

Cell 67, delete 733.4. Insert 228,917.

Cell 68, delete 733.4. Insert 228,917.

Cell 69, delete 171.3. Insert 57,760.

Cell 70, delete 904.7. Insert 286,677.

Cell 72, delete 904.7. Insert 286,677.

Production Worksheet example (page 41), make the following changes to the document in the upper half of the page:

Column 31, change 80.00 to 24.960

Column 33, insert 1.0

Column 34, change 2400.00 to 748,800

Column 36, change 2400.00 to 748,800.

Column 38, change 2400.00 to 748,800.

Row 42, change all entries from 2400.00 to 748,800.

Change the Narrative, as follows:

Example above shows the maximum dollar amount as allowed in the SPOIs for replanting payment. Appraised potential less than 90% of the production guarantee ( $5,304 \times 90\% = 4,774$  lbs/ac. Appraised potential = 780 lbs./ac. Acreage was determined using wheel measurements. See attached Special Report for wheel measurements and calculations.

Production Worksheet example (page 41), make the following changes to the document in the lower half of the page:

Column 31, change 40.00 to 12,480

Column 33, insert 1.0

Column 34, change 1200.00 to 374,400

Column 36, change 1200.00 to 374,400.

Column 38, change 1200.00 to 374,400.

Row 42, change all entries from 1200.00 to 374,400.

Change the Narrative, as follows:

Example above shows the maximum dollar amount as allowed in the SPOIs for replanting payment. Appraised potential less than 90% of the production guarantee ( $5,304 \times 90\% = 4,774$  lbs/ac. Appraised potential = 780 lbs./ac. Acreage was determined using wheel measurements. See attached Special Report for wheel measurements and calculations.

Exhibit 7 (page 44):

Delete all existing text. Insert the following:

Section 1: For appraisals performed after emergence until the day prior to the earliest delivery date

Yield Factor = APH yield X 100 ÷ Determined Plant Population per acre after thinning but before damage.

Example: APH yield = 8,143 lbs. per acre

Determined plant population per acre = 25,000 plants

$8,143 \times 100 \div 25,000 = 32.572$  yield factor

Section 2: For appraisals performed on or after the earliest delivery date.

Yield Factor = % sugar (three decimals) x 2,000

Example: Processor determines the raw sugar content of the submitted sample is 14.5%

$0.145 \times 2,000 = 290.0$

#### IV. CONCLUSIONS

The Sugar Beet program has been very popular and continues to offer effective risk management to growers with a reasonable actuarial performance. In the time since it was last updated, the industry has evolved and new insurance documents have been implemented. The industry has changed as the economics and regulatory environment of sugar beet production have evolved. The changes detailed in this report are intended to bring the Sugar Beet program up to date with the changes to the industry and RMA insurance materials.

The changes detailed in this report, particularly the conversion of the basis of insurance from a standardized tons basis to a pounds-of-sugar basis, will improve the efficacy of the program by allowing crop insurance coverage to better conform to the production practices and incentives of the modern sugar industry. These changes also eliminate the inverse incentive presented by the county sugar factor, which many producers believe they want increased even though this action reduces their insurance guarantee. This report details the specific changes to insurance documents appropriate to support implementation of these changes. Additional changes, including revision of insurance dates and implementation of regionally (and temporally) appropriate replanting coverage will require interaction with RO personnel and be maintained on an ongoing basis with the full support of the Contractor based on this and previous reports.

This report is intentionally succinct and provides specific technical changes to insurance materials to implement the changes recommended in previous reports. To supplement these technical materials, in support of the most important of the recommended modifications to the program, the Contractor has provided a sample of text of a fact sheet to disseminate critical information regarding the new basis of the insurance to stakeholders. The proposed changes offer a useful and appropriately incremental improvement to the Sugar Beet insurance program. This text also can provide a clear and concise statement of need for change when a proposed rule is published.

## Appendix A

### Draft Text for a Sugar Factor “Fact Sheet”

## Sugar Beet Guarantee Fact Sheet

The Risk Management Agency (RMA) is considering a change in the basis of the guarantee for sugar beets. The revised guarantee is based on pounds of raw sugar in the sugar beets delivered to the processor instead of the current standardized tons basis. This Fact Sheet discusses the impacts of this action.

What is the basis of the current sugar beet guarantee?

The current insurance guarantee for sugar beet guarantee is standardized tons, which equal the tons of sugar beets you delivered to the processor multiplied by the raw sugar content of those sugar beets with this result divided by the sugar factor established by RMA for the county.

What is the sugar factor?

The sugar factor is a percentage established by RMA that is intended to be representative of the average content of raw sugar in sugar beets grown in the county. The factor converts the tons of sugar beets you delivered to a number of tons equivalent to the sugar factor. The intent is to consider the quantity of sugar in the beets that have been delivered when accounting for a growers' production (yield). For example, if Producer 1 delivers 1,000 tons of sugar beets with a raw sugar content of 15.5 percent and the sugar factor is 15.0 percent, the number of delivered tons is equivalent to  $1,000 \times (15.5 \div 15.0) = 1,033.3$  tons. If Producer 2 delivers 1,000 tons of sugar beets containing 14.5 percent raw sugar, the number of tons is equivalent 966.7.

	Producer 1:	Producer 2:
Production Delivered	1,000 tons	1,000 tons
Raw Sugar Content	15.5%	14.50%
County Sugar Factor	15.0%	15.0%
Adjustment	1.0333	0.9667
Standardized Tons	1,033.3 tons	966.7 Tons

What happens if the sugar factor is updated?

Sugar factors are updated from time to time based on changes to the expected sugar content of most production delivered in the county. An increase in the sugar factor will reduce your insurance guarantee. If the sugar factor is increased to 15.5 percent in the previous example, the number of standardized tons for Producer 1 will be reduced to 1,000 and reduced to 935.5 for Producer 2. The insurance guarantee is reduced by the same percentage as the change in standardized tons. A decrease will have the opposite effect. However, the number of pounds of sugar will never change.

How are pounds of raw sugar calculated?

Pounds of raw sugar are equal to the tons of sugar beets you delivered multiplied by the raw sugar content of those sugar beets and by 2,000 pounds. Continuing the previous examples, Producer 1 delivered  $1,000 \times 0.155 \times 2,000 = 310,000$  pounds of raw sugar and Producer 2 delivered  $1,000 \times 0.145 \times 2,000 = 290,000$  pounds of raw sugar.



## Recommended Improvements and Modifications to Current Program Report

	Producer 1:	Producer 2:
Production Delivered	1,000 tons	1,000 tons
Raw Sugar Content	15.5%	14.50%
Lbs/Ton conversion	2,000	2,000
Raw Sugar	310,000 lbs	290,000 lbs

Are pounds of raw sugar in an APH database subject to change in the same manner as standardized tons?

Pounds of raw sugar will never change. Your APH database always will contain the same yields. Those yields cannot change in contrast to standardized tons, which are subject to changes in the sugar factor. These changes in the APH database are cumbersome and can have meaningful impacts on producers' guarantees. One of the principle advantages of the raw sugar approach is that APH databases will not need to be adjusted in the future.

Why not simply set the county sugar factor at some value and never change it?

Many people – producers, agents, others – often request a change in the county sugar factor because they believe the currently established value does not represent the average raw sugar content produced in the area. The county sugar factor does not promote understanding of the basis of the insurance guarantee. In addition, the implied value per pound of raw sugar is affected by the county sugar factor. If the county sugar factor is high, the implied value of raw sugar is low. If the factor is low, the implied value of raw sugar is high. For example, if the sugar factor is 15.5 percent and the price election is \$45 per ton, the implied value of raw sugar is \$0.145 per pound. If the sugar factor is 14.5 percent, the implied value of raw sugar per pound is \$0.155 per pound. This is counter-intuitive and the opposite of market realities.

What information will I be required to report for my production history?

The information needed from you is the same as the information you report today – the number of tons of sugar beets you delivered and the raw sugar percentage contained in those sugar beets. This information has been used to calculate standardized tons; in the future, it will be used to calculate pounds of raw sugar.

Will I need to provide my historical yields and raw sugar percentages for each year in my APH database?

You will not be required to provide any historical yields or raw sugar percentages. Your production history in terms of raw sugar can be created by multiplying the standardized tons in your APH database by the known sugar factor for the county.

What will happen to my insurance guarantee in terms of dollars of protection?

The effect will vary by grower and by county because the price election for sugar beets has been expressed in dollars per ton regardless of raw sugar content. Standardized tons were an attempt to adjust this amount so it would be more representative of raw sugar content in your sugar beets. Overall, changes should be minor. Consider this example: suppose the producer has planted 50 acres every year in the production history and has produced 1,000 tons with 15.5 percent raw sugar content every year. The approved APH

yield is 20.7 tons per acre. Assume the price election is \$45 per ton. The value of the insurance guarantee, assuming 80 percent coverage level, is \$747 per acre. Now assume the price election is \$0.15 per pound of raw sugar. The approved APH yield is 6,200 pounds per acre. The value of the price election is \$744 per acre. The difference is due to rounding the number of tons to tenths of a ton. For producer 2, the results are \$693 for standardized tons and \$696 for pounds of raw sugar. Again, the difference is due solely to rounding to the nearest tenth of a ton.

How will the price election per pound of raw sugar be determined?

NASS publishes the season average price received by producers per ton of sugar beets. This information has been used to determine the price election per ton. NASS also publishes the average percentage of raw sugar in the sugar beets produced each year. Using these data, the NASS price per ton sugar beets can be converted to a price per pound of raw sugar. This information will be used by RMA in the same manner as it now uses the price per ton of sugar beets to determine the price election per ton.