

Production to Count, Quality Adjustment, Sampling, and Grading Overview

Beginning with:

2007 Corn, Grain Sorghum, Soybeans, and Sunflowers and
2008 Barley, Rye, Wheat, Canola, Flax, Oats, and Safflowers

Risk Management Agency



Production to Count (PTC)

- ☁ PTC is calculated for crop insurance indemnity purposes using:
 - ☁ Appraised production and
 - ☁ Harvested production
- ☁ For indemnity calculations, PTC is used along with production history, insurance level of coverage, uninsured causes of loss, crop share, acres planted, and quality adjustments

Calculating coverage

☁ Example of coverage calculation:

☁ Producer has actual production history (APH) of 50 bu/acre

☁ Producer plants 100 acres

☁ Producer elects 60 percent coverage

☁ Producer has 100% share in the crop

☁ $50 \text{ bu/acre} \times 100 \text{ acre} \times 60\% \times 100\% = 3,000$ bu coverage

Calculating indemnity for APH-based plans of insurance

☁ Example with no quality adjustment:

☁ Producer harvested 100% of the 100 acre crop

☁ Producer harvested 2,000 bu PTC

☁ 3,000 bu coverage – 2,000 bu PTC =

☁ 1,000 bu shortfall

☁ Indemnity based upon 1,000 bu X price election X
100 % share

Calculating indemnity for APH-based plans of insurance

☁ Example with quality adjustment:

☁ Producer harvested 100% of the 100 acre crop

☁ Producer harvested 2,000 bu

☁ Production is quality adjusted to 1,000 bu PTC

☁ 3,000 bu coverage – 1,000 bu PTC =

☁ 2,000 bu shortfall

☁ Indemnity based upon 2,000 bu X price election X
100 % share

Determining quality for crop insurance (excluding mycotoxins)

- ☁ Grader licensed under the United States Grain Standards Act or the United States Warehouse Act (USWA)
- ☁ Grader licensed under State law and employed by a warehouse operator who has a storage agreement with the Commodity Credit Corporation (CCC)
- ☁ Grader not licensed under State law, but who is employed by a warehouse operator who has a commodity storage agreement with the CCC and is in compliance with State law regarding warehouses

Determining quality for crop insurance (mycotoxins)

- ☁ For substances or conditions injurious to human or animal health, samples must be analyzed by a laboratory that:
 - ☁ Is a disinterested third party;
 - ☁ Performs quantitative tests that are certified by Federal Grain Inspection Service (FGIS); and
 - ☁ Is a recognized commercial, governmental, or university testing laboratory

Crops having quality adjustment discount factor charts in the Special Provisions Of Insurance (SPOIs)

Barley	Canola
Corn	Flax
Grain Sorghum	Oats
Rye	Safflowers
Soybeans	Sunflowers (Oil)
Wheat	Sunflowers (Confectionary)

Developing the charts

- ☛ Risk Management Agency (RMA) uses Farm Service Agency (FSA) loan discount data and national average loan rates for the past 10 years
- ☛ This data is compiled and the average of the last 10 years is used to construct the discount factors

1995 – 2006/2007

quality adjustment procedure

- ☁ Use chart values for most quality adjustment determinations
 - ☁ Called “on the chart”
- ☁ Use bid or offer value of production based upon Reductions In Values (RIVs) for insured causes of loss during the insurance period ÷ local market price (LMP) = QAF for production of extremely poor quality or for production with conditions injurious to human or animal health
 - ☁ Called “off the chart”

2007/2008 – present quality adjustment procedure

- ☁ For “on the chart” production, use chart values as has been done since 1995
- ☁ For “off the chart” production, use either:
 - ⚡ Actual sale price (as opposed to bid or offer value) based upon RIVs for insured causes of loss during the insurance period \div LMP = DF
 - or-
 - ☁ DF of .500

Determining the Quality Adjustment Factors (QAFs)

- ☁ The QAF is determined by subtracting from 1.000, the sum of all applicable pre-established discount factors (DFs) listed in the SPOIs or DFs derived from RIVs of the damaged production.
- ☁ The QAF is multiplied by the number of applicable bushels or pounds remaining after any reduction due to excessive moisture or foreign material (FM), in accordance with the crop provisions.

Determining QAF based on DFs (“on the chart”)

☛ 1,000 bushels of corn with kernel damage (25%) and test weight (47 pounds) is designated as U.S. Sample Grade.

(a) .254 (DF for kernel damage)

.065 (DF for test weight)

+ .126 (DF for Sample Grade)

.485 Total DF's

(b) $1.000 - .485 = .515$ QAF


(c) $1,000 \text{ bushels} \times .515 = 515 \text{ bushels PTC}$

Not using the DFs on the SPOI (“off the chart”)

- ☁️ If there are no pre-established DFs
-or-
- ☁️ There are pre-established DFs on the SPOI, and there is at least one type/level of damage which exceeds the pre-established DFs (amount is off the chart), the pre-established DFs are not used to determine the QA factor

1995 – 2006/2007

Determining QAF based on RIVs (“off the chart”)

 1,000 bushels of corn with 45 pound test weight and 12 percent kernel damage is designated as U.S. Sample Grade. However, since the 45 pound test weight is off the chart, RIVs are used to determine the DF.

a) \$.65 (RIV bid for kernel damage)

+\$.85 (RIV bid for test weight)

\$1.50 Total RIV

b) $\$1.50 \text{ Total RIV} \div \$2.20 \text{ (LMP)} = .682 \text{ (DF)}$

c) $1.000 - .682 = .318 \text{ QAF}$

d) $1,000 \times .318 = 318 \text{ bushels PTC}$



2007/2008 - present

Determining QAF based on RIVs ("off the chart")

- ☔ Assuming the production is sold prior to 60 days after the calendar date for the end of the insurance period
- ☔ 1,000 bushels of corn with 45 pound test weight and 12 percent kernel damage is designated as U.S. Sample Grade. However, since the 45 pound test weight is off the chart, the producer may elect to sell their production and use the RIVs to determine the DF
- ☔ Two examples:
 - a) \$.65 (RIV for kernel damage)
+\$.85 (RIV for test weight)
\$1.50 Total RIV
 - b) $\$1.50 \text{ Total RIV} \div \$2.20 \text{ (LMP)} = .682 \text{ (DF)}$
 - c) $1.000 - .682 = .318 \text{ QAF}$
 - d) $1,000 \times .318 = 318 \text{ bu PTC}$
- a) \$.25 (RIV for kernel damage)
+\$.25 (RIV for test weight)
\$0.50 Total RIV
- b) $\$0.50 \text{ Total RIV} \div \$2.20 \text{ (LMP)} = .227 \text{ (DF)}$
- c) $1.000 - .227 = .773 \text{ QAF}$
- d) $1,000 \times .773 = 773 \text{ bu PTC}$

2007/2008 - present

Determining QAF based on RIVs (“off the chart”)

-  Assuming the production is not sold prior to 60 days after the calendar date for the end of the insurance period
-  1,000 bushels of corn with 45 pound test weight and 12 percent kernel damage is designated as U.S. Sample Grade. However, since the 45 pound test weight is off the chart, the producer may elect to use a DF of .500 at any time prior to 60 days after the calendar date for the end of the insurance date or feed or use the production and receive a DF of .500.
 - a) Producer elects a .500 DF
 - b) $1.000 - .500 = .500$ QAF
 - c) $1,000 \times .500 = 500$ bushels to count

2007/2008 - present

Determining QAF not based on RIVs (“off the chart”)

- ☁ Sold production will be quality adjusted based on the dollar value amount received if sold prior to 60 days after the calendar date for the end of the insurance period (using RIVs for insured causes of loss during the insurance period)
- ☁ Fed production that is fed prior to 60 days after the calendar date for the end of the insurance period will be adjusted based on a DF of .500
- ☁ Unsold and unfed production that remains unsold and unfed 60 days after the calendar date for the end of the insurance period will be adjusted based on a DF of .500
- ☁ The producer may choose to have their unsold and unfed production adjusted based on the .500 discount factor prior to 60 days after the calendar date for the end of the insurance period

2007/2008 - present

Determining QAF not based on RIVs ("off the chart")

- ☁ Example (for 2007 and succeeding crop years):
 - ⚡ Producer harvests soybeans on September 15
 - ⚡ According to the Coarse Grains Crop Provisions, the calendar date of the end of the insurance period is December 10
 - ⚡ Producer has from September 15 until February 8 (60 days after the calendar date of the end of the insurance period) to sell, use, or destroy their production or elect to use a DF of .500
 - ⚡ If the producer has not sold, used, destroyed or elected to use the DF of .500 in the 146 days, then the production will be adjusted with a DF of .500

Aflatoxin coverage

- ☁ RMA uses three categories based on FDA advisory levels. Based upon an approved testing laboratory results:
 - ⚡ 0-20 ppb – No Advisory levels. Safe for human consumption. No quality adjustment
 - ☁ 21-300 ppb – FDA advisory levels. RIV procedures apply
 - ⚡ Over 300 ppb – FDA prohibits use. Production must be sold, used, or destroyed before claim settlement

Vomitoxin coverage

- ☁️ Prior to 2008 lab results had to be over 5 ppm before any quality adjustment applied
- ☁️ Beginning in 2008 and for wheat only, RMA added “chart values” for levels 2.1 – 5.00 pp
 - ⚡ 2.1 ppm – 3.00 ppm DF = .207
 - ⚡ 3.1 ppm – 4.00 ppm DF = .301
 - ⚡ 4.1 ppm – 5.00 ppm DF = .395
 - ⚡ Over 5.00 ppm “off the chart”
- ☁️ Just as with all chart values, DFs may change for future years based upon changes to the FSA loan discounts

2007/2008 - present

Determining QAF for mycotoxins (“off the chart”)

- ☁️ Adjustments will be made to PTC which contains levels of substances in excess of the maximum amounts shown in the SPOIs (300 ppb aflatoxin, 5 ppm vomitoxin, etc.)
- ☁️ Claims will not be settled until such production is sold to a disinterested third party, fed, used, or destroyed
- ☁️ The DFs will be:
 - ⚡ For production sold to a disinterested third party - the RIV applied by the buyer due to all allowable covered quality deficiencies and then that value divided by the LMP; or
 - ⚡ .500 for production fed or used in a manner other than feed; or
 - ⚡ 1.000 for production having zero market value and is properly destroyed

Sampling requirements for mycotoxins

- ☁ Mycotoxins, especially aflatoxin, can increase in storage and insurance ends at harvest. Therefore, for crop insurance purposes, samples must be taken before storage
 - ☁ Sampling does not need to be done before harvest
 - ☁ Samples may be taken from:
 - ☁ Unharvested field,
 - ☁ Authorized representative strips left in an otherwise harvested field,
 - ☁ Harvested production prior to storage, or
 - ☁ The elevator

Field sampling for unharvested appraised production

☂ Requirements for minimum number of samples:

- ☂ Minimum number of samples are based upon the acreage being sampled.

<u>Acres in Field or Subfield</u>	<u>Minimum No. of Samples</u>
0.1 – 10.0	3
10.1 – 40.0	4

Add one additional sample for each 40.0 acres (or fraction thereof)

☂ Examples:

- ☂ 3 samples for a 10 acre field
- ☂ 4 samples for a 40 acre field (3 for first 10 +1)
- ☂ 16 samples for a 500 acre field (3 for first 10 + $(490/40 = 12.25$ or) 13)

☂ RMA requires several samples:

- ☂ FGIS pulls one sample from each 50,000 bushel barge. Assume 500 acres at 100 bu/acre. This 500 acres produces 50,000 bushels. For 500 acres RMA requires 16 samples
- ☂ The AIP and insured can agree to take as many additional samples (over the minimum) as necessary

Milling qualities not insured

- ☁️ Protein and falling numbers are not considered quality deficiencies under the Small Grains Crop Provisions
- ☁️ Oil is not considered a quality deficiency under the Coarse Grain Crop Provisions
- ☁️ Milling qualities (protein, falling numbers, oil) do not affect the commodity's grade

Questions

Please direct questions to:

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