

CROP INSURANCE: QUALITY ADJUSTMENT AND SAMPLING/GRADING FOR SOYBEAN RUST

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 actual production history (APH), acres planted, insurance level of coverage, crop share, quality adjustments, and uninsured causes of loss

Calculating coverage

☁ Example of coverage calculation:

☁ Producer has 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 and no uninsured causes of loss:

☁ 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

Quality adjustment

- ☁️ Some policies provide for a reduction in the PTC when the quality of the appraised or harvested production is reduced due to insurable causes
- ☁️ The quantity of mature production is reduced when it meets certain requirements
- ☁️ This adjusted PTC is used for indemnity and APH purposes

Calculating indemnity for APH-based plans of insurance

- ☁ Example with quality adjustment but no uninsured causes of loss:
 - ☁ Producer harvested 100% of the 100 acre crop
 - ☁ Producer harvested 2,000 bu
 - ☁ Production is quality adjusted from 2,000 bu 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

Uninsured causes of loss

☁ Crop insurance does not cover losses due to uninsured causes

☁ Examples include:

☁ Failure to follow good farming practices (GFP) such as:

☁ Not spraying for Asiatic soybean rust (ASR) when advised by an Agriculture Expert or

☁ Inadequate seeding rate

☁ Inappropriate chemical usage such as:

☁ Wrong chemicals,


☁ Too much or too little, or

☁ Poor timing

Determining production lost due to uninsured causes

 Discuss with:

 Producer to determine what **did** happen

 Agricultural Experts to determine GFP, chemical recommendations, and what **should have** happened

 Compare to similar fields in the area where producers followed GFP and obtain:

 Production data

 Spray program information

Calculating indemnity for APH-based plans of insurance

☁ Example with quality adjustment and uninsured causes:

☁ Producer harvested 100% of the 100 acre crop

☁ Producer harvested 2,000 bu

☁ Production is quality adjusted from 2,000 to 1,000 bu

☁ Producer lost 500 bu due to uninsured causes of loss

☁ $PTC = 2,000 \text{ bu} - 1,000 \text{ bu} + 500 \text{ bu} = 1,500 \text{ bu}$


☁ $3,000 \text{ bu coverage} - 1,500 \text{ bu PTC}$


☁ 1,500 bu shortfall


☁ Indemnity based upon $1,500 \text{ bu} \times \text{price election} \times 100 \% \text{ share}$

Special Provisions of Insurance (SPOIs)

SPOIs:

-  Are part of the insurance contract

-  Modify the crop provisions

-  Exist on a county crop basis

Soybeans have quality adjustment discount factor (DF) charts

-  These charts are located in the SPOIs

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 DFs

Who can grade production (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

2007 SPOI soybean charts

- ☂ Discounts for sample grade
- ☂ Discounts for low test weight from 48 pounds to 44.99 pounds
 - ☂ Test weight below 44 pounds is “off the chart”
- ☂ Discounts for excessive kernel damage (excluding heat damage) from 8.01 % to 35%
 - ☂ Damage greater than 35% is “off the chart”
- ☂ Discounts for sample grade factors
 - ☂ Musty Odor
 - ☂ Sour Odor
 - ☂ Commercially Objectionable Foreign Order (COFO)

1995 – 2006

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 \div 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 – 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 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 charts”)

☁ 1,000 bushels of soybeans with 25% kernel damage and 48 pound test weight is designated as U.S. Sample Grade.

(a) .175 (DF for kernel damage)

.007 (DF for test weight)

+.111 (DF for Sample Grade)

.293 Total DF's

(b) $1.000 - .293 = .707$ QAF

(c) $1,000 \text{ bushels} \times .707 = 707$ bushels to count

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

2007 - 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 soybeans with 45% kernel damage and 48 pounds test weight is designated as U.S. Sample Grade. However, since the 45% kernel damage is off the chart, the producer may elect to sell their production and use the RIVs to determine the DF
- ☁ Two examples:
 - $\$3.50$ (RIV for kernel damage)
 $+\$.85$ (RIV for test weight)
 $\$4.35$ Total RIV
 - $\$4.35$ Total RIV \div $\$5.50$ (LMP) = $.791$ (DF)
 - $1.000 - .791 = .209$ QAF
 - $1,000$ bu X $.209 = 209$ bu PTC
- $\$1.00$ (RIV for kernel damage)
 $+\$.85$ (RIV for test weight)
 $\$1.85$ Total RIV
 - $\$1.85$ Total RIV \div $\$5.50$ (LMP) = $.336$ (DF)
 - $1.000 - .336 = .664$ QAF
 - $1,000$ bu X $.664 = 664$ bu PTC

2007 - 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 soybeans with 45% kernel damage and 48 pounds test weight is designated as U.S. Sample Grade. However, since the 45% kernel damage 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) $1,000 \text{ bu} \times .500 = 500$ bushels to count

2007 - 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 the .500 DF
- ☁ 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 the .500 DF
- ☁ The producer may choose to have their unsold and unfed production adjusted based on the .500 DF prior to 60 days after the calendar date for the end of the insurance period

2007 - 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 the .500 DF

⚡ If the producer has not sold, used, destroyed or elected to use the .500 DF in the 146 days, then the production₂₂ will be adjusted with the .500 DF

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 1,000 acres at 50 bu/acre. This 1,000 acres produces 50,000 bushels. For 1,000 acres RMA requires 28 samples
- ☁ The AIP and insured can agree to take as many additional samples (over the minimum) as necessary

ASR affects production

-  ASR affects production only
-  However fields affected by ASR may qualify for quality adjustment
-  Uninsured causes may also apply if the producer does not follow the advise of Agricultural Experts or use GFP

Questions

Please direct questions concerning
the interrelationship of
crop insurance and ASR to:

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