

# Trend-Adjusted Actual Production History (APH)

## Questions and Answers

Revised November 30, 2012

**1. When should rounding occur in the calculation of the approved APH yield when Trend-Adjusted APH is elected?**

- A. The result of each step must be rounded to four decimal places, as applicable. The Trend-Adjusted annual yield must be rounded to a whole number. See example below:

Step 1 Obtain the Trend Adjustment Factor from the Actuarial Documents:  
Result: 1.67

Step 2 Calculate the Trend Adjustment by multiplying the Trend Adjustment Factor by the Trend Adjustment Percentage (based on the number of years of actual yields within the most recent 12 crop years in the APH database), if applicable. Round result to four decimal places.  
Result: 3 actuals in last 12 years:  $1.67 * 0.75 = 1.2525$ .

Step 3 Determine the Trend Adjustment amount for each yield year by calculating: (Reinsurance Year - Year of Production History) \* Yield Trend Adjustment Factor. Round result to four decimal places.  
Result: For Yield Year 2005:  $(2012 - 2005) * 1.2525 = 8.7675$ .

Step 4 Calculate Trend Adjusted annual yield: Annual Yield + Yield Trend Adjustment Amount. Round result to whole number.  
Result:  $102 + 8.7675 = 111$ .

**2. Can trend adjustment apply to the actual yields in added land and new crop/practice/type (P/T) APH databases, but not apply to the SA T-yields in the same APH database?**

- A. Trend adjustment will only apply to the actual yields in APH databases for added land and new crop/P/T and do not apply to Simple Average (SA) T-yields.

**3. If an insured elects Trend-Adjusted APH, then adds land to his/her farming operation, is the SA T-Yield for the added land APH databases calculated using the approved APH yield with or without Trend Adjustment applied to other APH databases?**

- A. The SA T-Yield is calculated using the approved APH yield of the existing APH databases (if Trend –Adjusted APH is elected, the approved APH yields will include trend adjustment).
- 4. Is the Personal T-Yield (PTY) calculated from yields in the APH databases prior to trend-adjustment?**
- A. The PTY is calculated by dividing total production by the total acreage for a crop/P/T/TMA for each year, with the sum of all years divided by the number of years. Therefore, actual yields are not trended in the PTY calculation.
- 5. Is the PTY in APH databases trend-adjusted or just the actual yields in APH databases where PTY applies?**
- A. Trend-Adjusted APH does not change the PTY calculation. The PTY is used in lieu of T-Yields, accordingly it does not receive yield trend. However, actual yields within the APH database may be trend adjusted.
- 6. Does the Trend Adjustment Limitation (Part 3 para. 1H of Trend Adjusted APH Procedure) only apply to the approved APH yield or does it apply to the annual yields within the APH database?**
- A. The Trend Adjustment Limitation only applies to the approved APH yield.
- 7. What is used as the basis for the Trend Adjustment Limitation? Does the limitation apply to the highest actual yield or the highest adjusted yield (adjusted for YA)?**
- A. The highest actual yield (without YA) plus the trend adjustment is used to calculate the Trend Adjustment Limitation. The approved APH yield will not be less than what the approved APH yield would have been without trend adjustment (Adjusted Yield).
- 8. Is there any age limit to yields adjusted by the Trend-Adjusted APH?**
- A. There is no maximum age for an actual yield to be eligible for trend adjustment.
- 9. The procedures provide that the APH yield without Trend Adjustment is not the same as the rate yield. That “the increase in coverage resulting from the Trend-Adjusted APH yield relative to the APH yield without trend adjustment is used to determine the appropriate premium rate.” Please explain in more detail what this is saying and what is used to calculate premium?**
- A. Insureds have two ways to increase their guarantee. They can either increase their coverage level; opt for Trend-Adjusted APH, or both. If the insured decides to select a higher coverage level, the insured’s guarantee increases and so does their premium rate (according to coverage level differentials). If the insured opts for

the Trend-Adjusted APH, the insured's guarantee increases and the premium rate should increase in a similar manner as if a higher coverage level is selected. Trend-Adjusted APH premium calculations, to the extent possible, charge the same premium rate for the same bushel guarantee.

- 10. Are high risk land APH databases excluded from having the Trend-Adjusted APH apply?**
  - A. If Trend-Adjusted APH is elected for the crop/county, it applies to all qualifying APH databases, which would include high-risk land APH databases, regardless of whether acreage is insured by a written agreement. Trend-Adjusted APH is available for all additional coverage levels, but is not available for Catastrophic Risk Protection Endorsement (CAT) policies. Therefore, Trend Adjusted APH would not apply to high-risk acreage insured under a CAT policy.
  
- 11. Can yield limitations be applied to APH databases that do not qualify for trend adjustment?**
  - A. If the Trend-Adjusted APH is elected by the insured, yield limitations are not applicable. Exception: the excluded practice/types (P/T) in the Trend-Adjusted APH procedures (Part 1 Section 2B) and non-irrigated corn and soybeans in some Kansas, Nebraska counties and all Colorado counties may qualify for yield limitations since Trend-Adjusted APH is not available.
  
- 12. Is the trend adjustment percentage determined separately for each APH database (rather than for the crop/county)?**
  - A. Yes, the trend adjustment percentage is determined separately for each APH database.
  
- 13. If a corn policy has two APH databases and one of the APH databases has 10 years of history but no history in the most recent four crop years, is the APH database with no history within the most recent four crop years eligible for trend adjustment?**
  - A. The APH database is not eligible for trend adjustment. The APH database must contain an actual yield within the most recent four policy crop years.
  
- 14. In the examples in the procedure, the rate yield is the same as the average yield (but not always the same as the approved APH yield). If an APH database has seven years of history and three of those annual yields are substituted under YA; is the rate yield taken from the average yield AFTER the substituted yields are used, or is the first average yield calculated strictly from the actual yields reported to derive**

**the rate yield BEFORE any substitute yields are applied and the "second" average yield calculated?**

A. The calculation of rate yield has not changed with the Trend-Adjusted APH. The rate yield remains equal to the average yield prior to yield substitutions or any yield trend.

**15. If an APH database has three T-yields of 140, and one actual yield of 20, the approved APH yield would be 110. If the trend adjustment was 2, would the approved APH yield be 110 or would it be limited to 22, due to the Trend Adjustment Limitation?**

A. The approved APH yield would be 110. The approved APH yield will not be less than the adjusted yield (APH yield without trend adjustment but with yield substitution) for the APH database, or higher than the highest actual yield plus one year of trend adjustment applied ( $20+2=22$ ) to the highest actual yield.

**16. Can the approved APH yield ever be lower than the rate yield when calculating the premium?**

A. No.

**17. If an annual yield is substituted, does it count as an actual yield for the purposes of Trend-Adjusted APH?**

A. Yes. The procedures in Part 2, para. C lists the yield descriptors of those yields that are considered actuals for Trend-Adjusted APH purposes.

**18. Can the approved APH yield be less than the adjusted Yield?**

A. In most cases, no, because the approved APH yield with trend cannot be lower than what the insured's approved APH yield (without cups or floors but with YA) would have been without trend as stated in PM-11-046.1. However, if the approved APH yield is reduced due to inconsistent yields (APH database has the yield limitation flag of "10") or for different production methods (APH database has yield limitation flag of "11"), the approved APH yield may be less than the adjusted yield.

**19. If an insured elects Trend-Adjusted APH in 2012, adds land in 2012 using the SA T-Yield and in the following year cancels Trend-Adjusted APH, what happens to the SA T-Yield?**

A. Since the SA T-Yield calculated in 2012 contains actual yields adjusted for trend, the SA T-Yield must be removed if Trend-Adjusted APH is cancelled and

replaced with the applicable variable T-Yield. See example below (example assumes the County T-Yield is 150 and the trend factor is 2).

$$[(2012 - 2011) = 1 * 2] = 2 + 210 = 212$$

$$[(2012 - 2010) = 2 * 2] = 4 + 200 = 204$$

$$[(2012 - 2009) = 3 * 2] = 6 + 180 = 186$$

$$[(2012 - 2008) = 4 * 2] = 8 + 150 = 158$$

The 2012 APH databases with the added land APH database with Trend calculated in the SA T-Yields.

2012	Corn	NI	Grain
Unit #	0001-0001 OU		
Year	Prod.	Acres	Yield
2008	1500	10	A158
2009	1800	10	A186
2010	2000	10	A204
2011	2100	10	A212
Approved APH			190
Average Yield			185
Rate Yield			185

2012	Corn	NI	Grain
Unit #	0001-0002 OU		
Year	Prod.	Acres	Yield
2008			L190
2009			L190
2010			L190
2011			L190
Approved APH			190
Average Yield			190
Rate Yield			190

If for 2013 the insured cancels Trend-Adjusted APH , SA T-Yields, which were calculated using approved APH yields based on actual yields, will no longer be applicable. Such SA T-Yields must be replaced with variable T-Yields. Trend adjustments must not be included in any APH calculations when Trend-Adjusted APH is cancelled by the insured.

2013	Corn	NI	Grain
Unit #	0001-0001 OU		
Year	Prod.	Acres	Yield
2008	1500	10	A150
2009	1800	10	A180
2010	2000	10	A200
2011	2100	10	A210
2012	2300	10	A230
Approved APH			194
Average Yield			194
Rate Yield			194

2013	Corn	NI	Grain
Unit #	0001-0002 OU		
Year	Prod.	Acres	Yield
2009			T150
2010			T150
2011			T150
2012	2000	10	A200
Approved APH			163
Average Yield			163
Rate Yield			163

20. **If an insured elects Trend-Adjusted APH in 2012, adds land in 2012 using the SA T-Yield and in 2013, a Trend-Adjustment factor is not available in the county actuarial documents, what happens to the SA T-Yield?**

- A. Since the SA T-Yield calculated in 2012 contain actual yields adjusted for trend, the SA T-Yield must be recalculated using the 2013 approved APH yields without trend adjustment if Trend-Adjusted APH is no longer available in the county.

**21. Does skip-row cotton qualify for Trend-Adjusted APH and if so when do we apply the trend factor in actuarial documents to the yields?**

- A. Yes, skip-row cotton qualifies for trend-adjusted APH. All the procedures in CIH section 12C(4) will apply to skip-row cotton. The trend-adjusted APH factor will apply to the skip-row cotton yields in the APH database after any adjustments for skip-row are made [see CIH section 12C(4)].