# Annual Forage Insurance

Essentials and Application to Water-Limited Settings

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# Essentials and Applications

- What where when why how
- Applications for producers facing water shortages
  - Triticale AF versus Triticale APH
  - Dual-use wheat AF + MPCI

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# What is it?

- Like PRF, but for annually-produced forage crops
- When it rains less than usual in your area within a 2-month period during the USDA-defined growing season, you get paid
- Deadline: July 15
  - Crops used for forage planted from August 2026 through July 2027

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# Many forage insurance options

- Regular insurance, MPCI
  - Silage sorghum endorsement
  - Triticale APH
  - Alfalfa RP under development
- Index insurance
  - Pasture, Rangeland, and Forage (PRF)
  - Annual Forage (AF)
- Whole Farm Revenue Protection

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# Why? Insurance Attributes

- Standard multi-peril crop insurance (MPCI) might not be available
- MPCI might have some disadvantages
  - Written agreement
  - Producer doesn't have a production history
  - Forage yields may be difficult to establish

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# Why? Water Limitations

- Annual forage production can be part of a drought or deficit-irrigation management strategy
  - Lower water requirements than grain crops depending on management
  - Local forage production is more cost-effective than grain in general, and especially during drought

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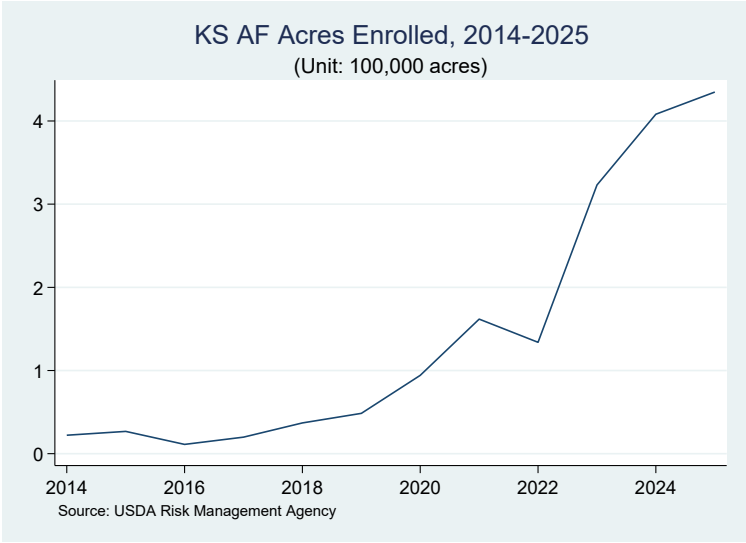


Note: The 2025 crop year is still in progress—2025 acreage is not final

US acres enrolled: 178,000 in 2014 to ~4.3 million in 2025 in CO, KS, ND, NE, NM, OK, SD, TX

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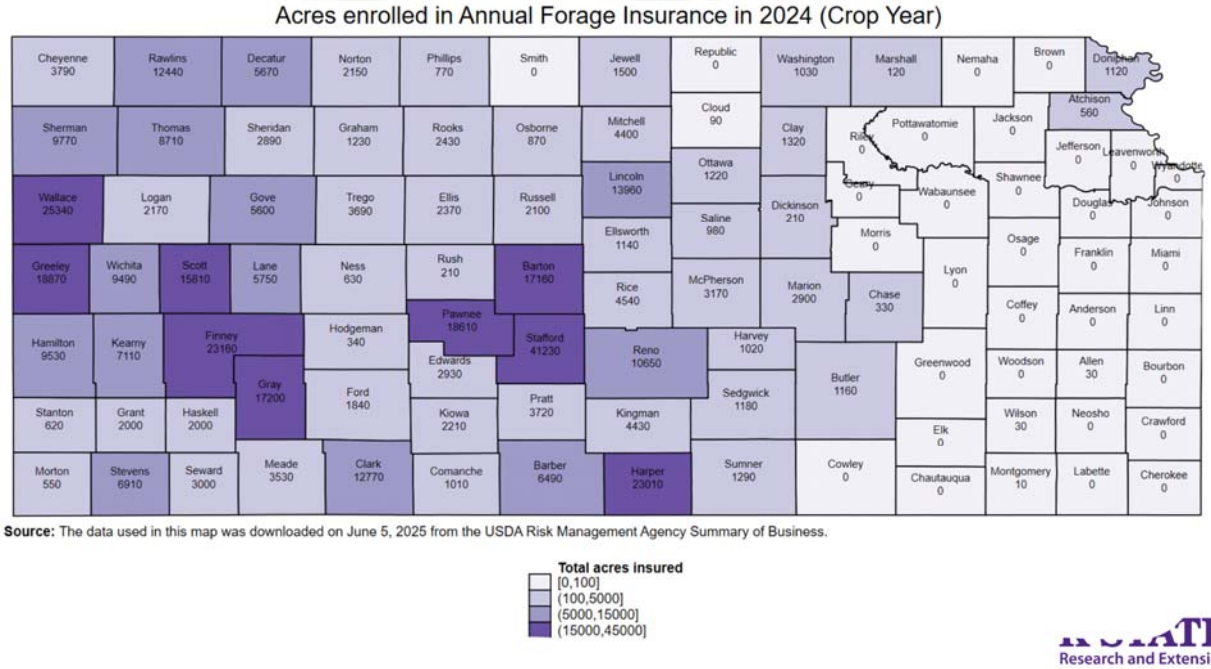


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**WHEN IT RAINS LESS THAN USUAL IN YOUR AREA WITHIN A 2-MONTH PERIOD DURING THE USDA-DEFINED GROWING SEASON, YOU GET PAID**

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# What: Rainfall index

- Single peril – precipitation* is *lower* than the historic average
  - Source: National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center
  - Pulls from weather stations, may vary based on data availability
  - Estimated as a percent of average precipitation using data from 1948
- Index
  - 100 = average
  - 120 = higher than average
  - 75 = lower than average

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# What: Less than usual

- 100 = *normal* weather
- Producer selects a coverage level of 70-90%
- Payouts are made when rainfall index effectively falls below the coverage level
  - If the rainfall index is 60, payouts will be made
  - If the rainfall index is 80, payouts will be made depending on coverage level selected
    - 70% doesn't pay out, 90% does
  - If the rainfall index is 90 or higher, no policies will make a payout

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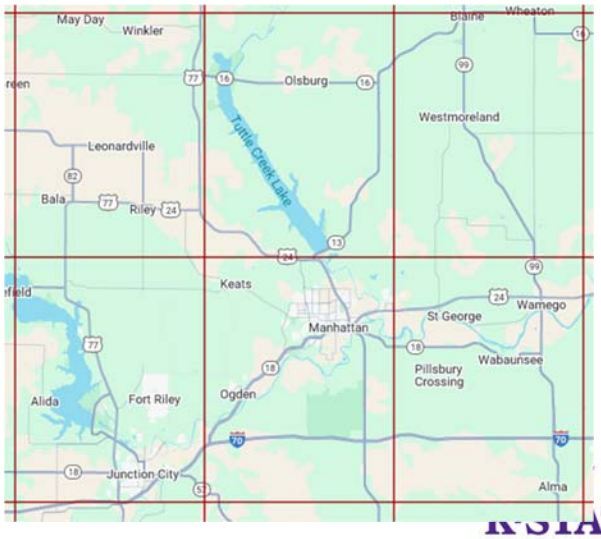
# Where: Area Insurance

Rainfall is measured for an approximately 14 X 16* mile grid.




http://af.agforceusa.com/ri

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# Where: Area Insurance

- Payouts are based on what happens for the entire grid, not a particular operation/field
- Payouts might not match field-level experience
  - Management approaches
    - Study historic data
    - Take a long-term approach

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# When: Growing Season

- Crop is planted during a given month
- The next seven months are the growing season for which you can purchase AF coverage
- Example 1
  - Planting in August 2025
  - Growing season 1 is September 2025-March 2026
- Example 12
  - Planting in July 2026
  - Growing season 12 is August 2026-February 2027

Note: Growing seasons 5 & 6 not eligible for coverage in Kansas. Crops planted in Dec/Jan would be reported as growing season 7

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# When: Intervals

- Coverage is provided in consecutive 2-month periods called intervals
- Producer selects specific intervals and decides how important each interval is
  - Premiums and payouts are based on weights
    - Higher weights have higher premiums and higher payout
- For growing seasons 1-4 and 7-9, 3 intervals must be selected
  - Weights of 20-40% that add up to 100%

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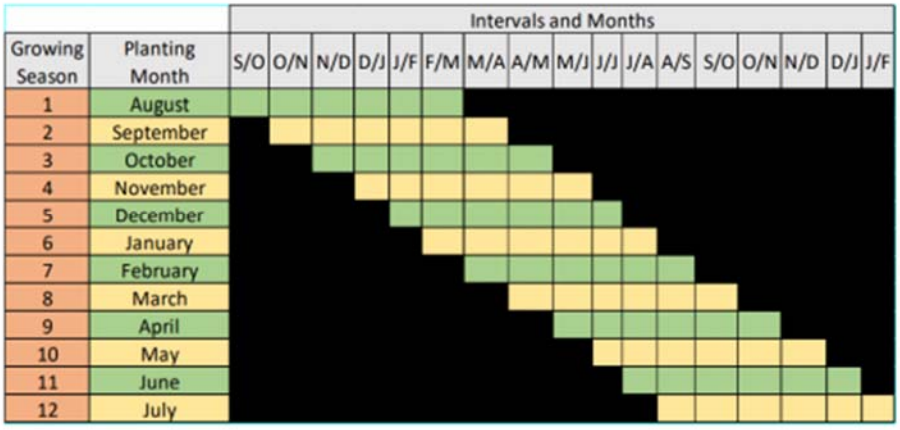
# Intervals




Source: Collin Olsen https://www.agmanager.info/2023-kansas-crop-insurance-presentations/rma-update

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# When: Interval Example 1

- Planting in August 2025
- Growing season 1 is Sept 25-Mar 26
- Sept-Oct Interval: 40%
- Nov-Dec Interval: 40%
- Jan-Feb Interval: 20%
- March: not covered

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# When: Interval Example 10

- For growing seasons 10-12 (only), **two** OR **three** intervals can be selected
  - Highest weight is 50%
- Example
  - Planting in May 2026
  - Growing season 10 is June 26-December 26
  - Jun-July Interval: 50%
  - Aug-Sept Interval: 50%
  - Oct-Dec: not covered

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# Agronomic Considerations

- Timing of precipitation impacts forage yield
- May vary by region, season, and crop

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# Why: Value of insured crop

- Big picture: the value of the crop is determined county-by-county, but producers have some flexibility to increase or decrease their insurance guarantee
- The county base value (CBV) is the estimated value of the insured crop.
  - In KS, the CBV varied from $289 (Morton)-$458 (Doniphan) for the 2025 crop year.
- Productivity factor
  - CBV can be scaled up or down, from 60%-150%
  - KS CBV X Productivity factor ranges from $173-$687
- Guarantee: CBV X Productivity Factor X Coverage Level (70-90%)

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# Why: calculating indemnities

- Suppose you have a CBV of $300 and select a 90% coverage level. Your guarantee (protection) is $270.
  - Suppose the you select 2 intervals, each with 50% weight. The protection in each interval is $135 ($270 * 0.5).
- The first interval index is 10
  - Rainfall is 10% of the historic average.
- You get paid ($300/2) * (0.90-0.10) = $120
  - Your indemnity of $120 "brings you back" to your protection of $135
  - (.1*(300/2))+$120 = ($15+$120) = $135

Yellow=CBV Purple=protection Green=indemnity

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# Example 1: Triticale

- Scott county
  - Triticale is being produced for silage at a nearby feed yard
  - Producer could use Annual Forage or Triticale APH***
- Scenario: Triticale is produced in rotation with corn for silage, both are irrigated
  - Planted in (early) September (Growing season 2)

***Triticale APH is a grain policy, so the crop yield must be measured "as grain"

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# Example 1: Annual Forage, 90% coverage level

| Interval | Weight (% of Value) | Producer Premium | Protection | Actual Index | Indemnity |
|---|---|---|---|---|---|
| Oct-Nov | 40 | $19 | $118 | 210.4 | $0 |
| Jan-Feb | 20 | $8 | $59 | 9.5 | $53 |
| Mar-Apr | 40 | $14 | $118 | TBD | TBD |
| TOTAL | 100 | $41 | $296 | | $53 |

Estimate (only) from http://af.agforceusa.com/ri. Grid is 22016. Mar-Apr interval actual index has not been reported yet. County base value is $328, guarantee (protection) can range from $138-$443, depending on productivity factor and coverage level.

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# Example 1: Triticale APH

- Yield policy
  - APH = average production history
  - Assuming no yield history, our example uses the county t-yield
- 2025 Crop Year Guarantee
  - 75% coverage level
  - $5.17/bushel* X 55 bushel/acre irrigated triticale t-yield
  - $213/acre guarantee
  - Approximate premium per acre
    - $14 optional units, $13 basic units
- Low likelihood of payout (for 2025 crop year) based on yield losses
- Contact price can be used, up to $11.74/bushel

Unofficial estimate from https://ewebapp.rma.usda.gov/apps/costestimator/

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# Comparison: guarantee

- Annual Forage could provide a maximum guarantee of $443 in this scenario
- Triticale APH, if using the maximum contract price and irrigated t-yield, could provide a guarantee up to $549

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# Example 2: Dual Use Wheat

- Ford County
  - Wheat is grazed over the winter, harvested for grain in June
  - Producer can use a lower-value AF policy and insure crop as grain under a standard MPCI policy
- Scenario: Wheat is grown dryland following fallow
  - Planted in (late) September – growing season 2

Note: The same API must write both policies

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# Example 2: Annual Forage (Dual Use), 90% coverage level

| Interval | Weight (% of Value) | Producer Premium | Protection | Actual Index | Indemnity |
|---|---|---|---|---|---|
| Oct-Nov | 40 | $6 | $42 | 291.2 | $0 |
| Dec-Jan | 40 | $6 | $42 | 18 | $33 |
| Feb-Mar | 20 | $3 | $21 | 19.5 | $16 |
| TOTAL | 100 | $15 | $104 | | $49 |

Estimate (only) from http://af.agforceusa.com/ri. Grid is 20820. County base value is $289, but this is reduced by 40% for the dual use option. Protection/guarantee is thus $289*0.4 *0.9=$104/acre.

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# Example 2: Wheat RP

- Practice: Summer-fallow (dryland)
- Revenue Protection (RP) Policy
  - Most common policy
- 2025 Crop Year Guarantee
  - 75% coverage level
  - $5.90/bushel X 46 bushels/acre (county expected yield)
  - $204/acre guarantee
  - Approximate premium per acre
    - $6/acre if using enterprise units
- Unlikely to trigger in 2025 based on yield losses
- Short-rate option

Unofficial estimate from https://ewebapp.rma.usda.gov/apps/costestimator/

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# Wrap up

- Annual Forage insurance is one of many options to manage forage risk
- There is a learning curve, especially if no PRF experience
  - Work closely with an insurance agent
  - Acreage reporting
- You are not required to insure all acreage*

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# Resources

- Local insurance agents

https://www.rma.usda.gov/tools-reports/agent-locator

- Online decision tool

http://af.agforceusa.com/ri

- Local extension educators
- Experienced producers
- AgManager.info

https://agmanager.info/crop-insurance/kansas-crop-insurance-maps

https://agmanager.info/crop-insurance/livestock-insurance-papers-and-information/annual-forage-insurance-policy-basics-0

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