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# Annual Forage Insurance: Policy Basics and Interval Selection

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The deadline to purchase Annual Forage insurance (AFI) is July 15 for any annual forage crop planted from August 2024 to July 2025, which is recognized as the 2025 commodity year. Producers who buy coverage will have premiums billed on Aug. 30, 2025. They are not required to secure AFI coverage for all annual forage acres they plant.

This article covers key AFI policy characteristics and provides additional details on interval selection. Additionally, refer to <u>this 2023 article</u>, which discusses several AFI policy changes, advantages and disadvantages.

# What is Annual Forage insurance?

An insurance product based on a precipitation (rainfall) index, AFI protects policyholders if annual forage crops yield poorly due to insufficient precipitation.<sup>1</sup> When precipitation falls below a set amount, a policy provides a payout.

Precipitation is measured locally in a "grid" that roughly covers a 14- by 16-mile area. As such, a policyholder may not receive a payout for an insured field that records low rainfall if the grid has above average rainfall. Likewise, if all of a policyholder's insured fields have sufficient rainfall but the grid has below average rainfall, then the policy still could yield a payment. Such variation is less likely during severe droughts when rainfall shortages tend to be widespread.

Like other federal crop insurance products, the government shares the AFI premium cost with policyholders.

# Who may want to consider purchasing Annual Forage insurance?

Nearly anyone in Kansas or other select states who produces an annual crop and feeds it to livestock as a grazing forage, grain, silage, or other feedstock can use AFI. Coverage may be of interest to producers who (1) want to manage drought or rainfall risk and/or (2) cannot use regular multi-peril crop insurance or are looking for alternatives.

## What major decisions must you make to use Annual Forage insurance?

A producer must make three major choices:

1. *Coverage level:* The coverage level determines the local precipitation necessary to trigger a payout. The higher the coverage level, the higher the premium and the higher the likelihood and size of a payout. You may select a coverage level from 70% to 90%. A 90% coverage level will trigger a payout when precipitation within a grid

<sup>&</sup>lt;sup>1</sup> This includes annual crops used for grazing, haying, grazing/haying, grain/grazing, green chop, grazing/green chop or silage.



is less than 90% of the historical average. A policy with a 90% coverage level would trigger a payout if precipitation is 80% of the historical average. If a policy had a 75% coverage level, then it would *not* pay out.

- 2. Productivity factor: A producer must select a productivity factor, which ranges from 60% to 150%. The productivity figures effectively scales AFI premiums and potential indemnities down or up, by decreasing or increasing, the AFI guarantee, or the value of the forage crop that is insured. The highest productivity factor has the highest premium and the highest potential payout when precipitation is lower than normal. Producers growing a high-value forage crop may want to select a higher productivity factor that will more likely match the value of their crop and vice versa for lower-value forage crops.
- 3. *Growing season and intervals:* Producers must select what months to use AFI. The "growing season" extends for seven months beginning in the month after the forage crop is planted. For example, a crop planted in June would have a growing season from July through January. Within a growing season, the producer must select four months to six months to be covered by AFI. Known as intervals, the coverage periods can be structured as three 2-month intervals, or for select growing seasons, two 2-month intervals. Read more about interval selection later in this article.

## Where is Annual Forage insurance used in Kansas?

In 2024 (commodity year)<sup>2</sup>, nearly 329,000 acres in Kansas had AFI coverage — up from nearly 323,000 acres in 2023 (commodity year) and nearly 134,000 acres in 2022 (commodity year). The total value of annual forage crop production insured (insurance liabilities or guarantee) exceeded \$64 million in 2024 (commodity year). Figures 1 and 2 show relatively high AFI participation in several western and south-central Kansas counties during 2024 and 2023 and limited participation in the eastern third of the state. AFI has only been used in Kansas since 2014.

#### Does it pay?

To date, commodity year 2024 AFI payouts in Kansas total more than \$5.7 million compared with about \$7.6 million in producer-paid premiums. Payouts in 2024 may be lower than those in the 2022 and 2023 commodity years due to relatively higher rainfall in several parts of the state. However, several counties in southwest Kansas are currently experiencing severe drought. For the first half of the 2025 commodity year, the seasonal <u>Climate Prediction Center</u> <u>outlook</u> projects below normal precipitation for portions of Kansas — particularly toward southwestern Kansas.

In 2023 (commodity year), *\$22.7 million in indemnities*, averaging about *\$70* per insured acre, were paid to Kansas producers using AFI. Kansas producers paid about *\$7 million in premiums*. Figure 3 shows 2023 county-level loss ratios, which represent the ratio of total indemnities to total premiums including the government-paid portion. While producer-selected coverage ratios and intervals and other factors affect loss ratios, high loss ratios in 2023 reflect low rainfall and drought in many parts of the state during the last half of 2022 and first half of 2023. Several southwest Kansas counties had loss ratios greater than 2.0, meaning total indemnities were more than double the total producer

<sup>&</sup>lt;sup>2</sup> The 2024 commodity year is still in progress. It refers to AFI policies purchased by the July 15, 2023, deadline with growing seasons that began in September 2023 and will extend through August 2024.



and government-paid premium. Individual producers experiences may differ, but total indemnities were higher than total producer-paid premiums in all but two counties.

A producer who consistently uses AFI year over year is likely to receive more in indemnities than what's paid in premiums because the federal government pays at least half of the premium. That said, producers have no guarantee for an indemnity, and several years can pass without indemnities.

#### How does selecting a growing season work?

The AFI growing season refers to the seven months following the month when the forage crop is planted. Like with other crop insurance programs, an AFI-covered forage crop must be planted between early and final planting dates stipulated by policy. Acreage reporting must take place by the fifth day of a growing season's first month. Take the following scenarios as examples.

- Growing season 1 for commodity year 2025 begins in September 2024 and ends in March 2025. For growing season 1, the earliest planting date is Aug. 1, 2024, and the final planting date is Aug. 31, 2024. Acreage reports are due on Sept. 5, 2024.
- Growing seasons 5 and 6 those beginning in February and March with planting dates in January and February, respectively are **not** allowed in Kansas. Any forage crops planted in January or February would be reported in growing season 7, which begins in April.
- The final (12th) growing season for commodity year 2025 begins in August 2025 and ends in February 2026. The earliest planting date for this growing season is July 1, 2025, and the final planting date is July 31, 2025. Acreage reports are due on Aug. 5, 2025.

## How does interval selection work?

Interval selection has some rules. Either two or three 2-month intervals must be selected.

- For growing seasons 1-4 and 7-9, three 2-month intervals within the growing season must be selected and assigned weights that add to 100% for example, 30%, 30% and 40%. These weights scale up or down the protection (both premium and potential indemnities) provided in each interval. No single month can be insured twice within a growing season, so the producer must insure six of a growing season's seven months.
  - For a single interval, the highest weight is 40%, and the lowest is 20%.
  - The most "concentrated" intervals would be 40%, 40% and 20% in any order.
  - The most "spread out" intervals would be 35%, 35% and 30%, in any order.
  - Instead of making interval decisions to maximize protection in specific months, producers may focus on choosing which month to exclude and placing weights on the remaining six months or three intervals.
- For growing seasons 10, 11 and 12, which begin in June, July and August, respectively, two or three intervals are allowed. The highest single interval weight allowed is 50%.
  - The most "concentrated" intervals would be 50%, 50%, in any order.
  - The most "spread out" intervals would be 35%, 35% and 30% in any order.

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- Another perspective is producers could decide whether to exclude one or three months and how to assign weights for the remaining six months (three intervals) or four months (two intervals), respectively.
- Examples
  - A producer planted forage sorghum in June 2023 in Hodgeman County (grid 22021) during growing season 11.
    - The producer wanted to ensure good growth early in the growing season and harvest in October, so the producer selected July-August at 50% and September-October at 50%.
    - The producer selected a coverage level of 90% and a productivity factor of 100%.
    - The producer paid a **\$28** premium per acre and received a **\$10** indemnity per acre.
      - An indemnity was not triggered in the July-August interval as precipitation was higher than the historical average. A \$10 indemnity was triggered for the September-October interval when precipitation was 83.3% of the historical average.
  - The same producer planted forage sorghum acreage early in May 2023 during growing season 10.
    - Regarding assigned weights, the producer selected June-July at 35%, August-September at 35% and October-November at 30%.
    - The producer selected a coverage level of **90%** and a productivity factor of **100%**.
    - The producer paid a \$25 premium per acre and received a \$47 indemnity per acre after their grid received substantially lower-than-average rainfall during the October-November interval (37.6% of the historical average).
  - Estimated using the <u>AFI Decision Support Tool</u>, these examples are for demonstration purposes and use policy rules for commodity year 2024. Outcomes vary widely across counties, years, and policy choices. Only an insurance agent officially can estimate premiums.

From a risk management perspective, intervals would ideally correspond with the periods when forage yields are most sensitive to precipitation shortfalls. Different annual forages have different growth periods. For example, triticale can be grown for six months, spring oats for 90 days, and forage sorghum x sudan for six months. <u>Research conducted in western Kansas on major forage crops shows</u> precipitation in the two months preceding planting, month of planting and first month following planting most highly correlates with forage yield. Under current rules, AFI does *not* allow for insuring the forage crop until the first month after planting and can require insuring months after harvest.

## What are some strategies to follow when selecting intervals?

There is no right or wrong way to select intervals. Producer may want to study their production history, review historical precipitation in their fields and <u>grid</u>, consider the months most critical for forage production, and consult with their insurance agents. Most insurance agents have useful decision tools, or producers can go to <u>http://af.agforceusa.com/ri.</u>

Some producers use the following strategies, which are not necessarily mutually exclusive:

1. Select intervals during the most sensitive growth periods. This would generally correspond with a growing season's earliest intervals, though this may vary by rainfall zone. Producers can apply the highest possible weights to intervals when crops are sensitive to precipitation and the lowest weights to less critical periods.

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AFI only allows for insuring crops during months after planting. For short-season crops, producers may have to insure months or intervals after the crop is harvested but before the required insurance period ends.

- Pick intervals during the months mostly likely to experience rainfall shortages. This approach could be based on studying <u>historical precipitation</u>; insurance agents may be able to provide additional resources. Producers could also reference the Climate Prediction Center's <u>outlook</u>; however, <u>long-range forecast accuracy is poor</u>.
- 3. Spread out intervals as much as possible during the growing season. This strategy may suit a producer who is uncertain about rainfall patterns or concerned about a grid having different outcomes from those observed in specific fields within the grid. Although more relevant for Pasture, Rangeland and Forage (PRF) insurance, a larger number of intervals (all else held constant) increases the likelihood that a payout will be made.
- 4. Develop a strategy to maximize expected payouts. This approach focuses less on risk management, and it may lead to higher premiums and greater risk. Some insurance agents have tools that can inform this approach. Research on past <u>PRF</u> outcomes suggests that selecting (1) winter intervals and (2) the highest productivity factor lead to higher payouts in the long run. Although AFI offers less flexibility for interval selection than PRF, both use the same grids and precipitation index, so the findings are still generally relevant.

## What else should be considered?

- For the 2025 commodity year, the AFI sign-up deadline is July 15, 2024 and Aug. 30, 2025, is the premium billing date. You may purchase AFI coverage from a local crop or livestock insurance agent. Find one at https://www.rma.usda.gov/informationtools/agentlocator.
- As of commodity year 2024, producers are **not** required to purchase an AFI policy for all annual forage crops they produce.
- Premiums vary based on location, growing season, coverage leverage and productivity factor. For commodity year 2025, a producer could pay \$3 to \$65 per acre. On average, the producer-paid premium per acre in commodity year 2024 was about \$23. Higher premiums reflect a higher likelihood and value of a payout.
- The acreage reporting deadline the fifth day of the month following the planting period is important to note. If the acreage isn't used for annual forage or other conditions are not met, then the policy may not "attach," meaning no payouts are made and the producer doesn't pay a premium. Producers using AFI should discuss acreage reporting deadlines with their insurance agents.
- Small grains used for *both* grazing and grain production have a "dual use option." See the <u>RMA</u> or <u>Texas A&M</u> fact sheets for more information. This option is available for growing seasons 1-3 only, and the county base value is adjusted to be 40% of the full county base value. This lowers the insurance guarantee in terms of the premium and potential payouts. The dual option would be used when grazing a crop through the winter and harvesting it for grain in the summer. The producer would also purchase a separate multi-peril crop insurance policy for grain yield (i.e., a revenue protection policy for wheat).
- Indemnities are based on deviations from normal or average precipitation. If certain months are typically dry, then they would have to be *even drier* to trigger an AFI indemnity.

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Cheyenne 2958		wlins 1317	Decatur 1492	Norton 1798	Phillips 768	Smith 0	Jewell 981	Republic 0	Washingtor 744		shall 19	Nemaha 0	a Brow 0	n Doniph 1118	
Sherman 9487		nomas 4974	Sheridan 1335	Graham 58	Rooks 1773	Osborne 545	Mitchell 2231	Cloud 92 Ottawa	Clay 1056	Riley 0	Pottawatomi 0	e	Jackson 0	Atchison 560 Jefferson 0	enworth
Wallace 22674	Loga 195	an 3	Gove 4150	Trego 994	Ellis 1347	Russell 1319	Lincoln 9464 Ellsworth	982 Saline 857	Dickinson 34	Ceeny Ceeny 0 Morris		unsee	Shawnee	Douglas	0 Wyandotte 0 Johnson 0
Greeley 17448	Wichita 9494	Scott 14111	Lane 5095	Ness 0	Rush 98	Barton 16106	521 Rice	McPherson 2609	Marion	Chase		yon 0	Osage 0	Franklin 0	Miami 0
Hamilton 8057	Keamy 5445	Finn 2090		Hodgeman 128	Pawnee 18233 Edwards	Stafford 27671	4389	Harve 756		330	Greenw		Coffey 0 Woodson	Anderson 0 Allen	Linn 0
Stanton	Grant	Haskell	Gray 9148	Ford 1395	Ford 2934 1395 Kiowa		7678 Kingman	Sedgwick 927		Butler 1160	0		0 Wilson	30 Neosho	Bourbon 0 Crawford
0 Morton	1151 Stevens	1353 Seward	Meade	Clark	1770 Comanche	Barber	1409 Harper	Sumner	r	Cowley	Elk 0		110 Montgomery	0 Labette	0 Cherokee
551	6578	2973	3468	11464	644	6113	23013	1287		0	Chautau 0	iqua	55	0	0 0

Figure 1: Total acres enrolled in Annual Forage Insurance in commodity year 2024

Source: The data used in this map was downloaded on May 29, 2024 from the USDA Risk Management Agency Summary of Business



Cheyenne 2208		wlins 585	Decatur 7446	Norton 995	Phillips 1647	Smith 0	Jewell 466	Republic 0	Washingto 1854	n Mar (			own Donib <del>i</del> 0 113	
Sherman 4898		nomas 3424	Sheridan 1495	Graham 1627	Rooks 2477	Osborne 42	Mitchell 1530	Cloud 0 Ottawa	Clay 100	Riley 0	Pottawatomie 0	Jackson 0	Atchison 560 Jefferson 0	venworth
Wallace 10927	Loga 412	in 6	Gove 3184	Trego 3138	Ellis 1719	Russell 359	Lincoln 800 Ellsworth	513 Saline 107	Dickinson 1884	Geeny 0 1 Morris	Wabaunse 0	e 0		0 Wyandotte 0 Johnson 0
Greeley 18527	Wichita 4034	Scott 5695	Lane 2758	Ness 308	Rush 382	Barton 9420	799 Rice 5889	McPherson 648	Marion 2483	0 Chase	Lyon 0		Franklin 0	Miami 38
Hamilton 23808	Kearny 7165	Finn 518		Hodgeman 1270	Pawnee 19705 Edwards	Stafford 46675	Reno 3066	Harve 1203	ey	0	Greenwood		Anderson 28 Allen	Linn 0 Bourbon
Stanton 12146	Grant 577	Haskell 2440	Gray 3099	Ford 1083	1420 Pratt   Kiowa 1405   0 1405		Kingman 144	Sedgwi 412	ck	Butler 0	0 Elk	0 Wilson 0	0 Neosho 0	0 Crawford 0
Morton 8744	Stevens 6253	Seward 3381	Meade 3420	Clark 12920	Comanche 5963	Barber 12717	Harper 19708	Sumner 340	r	Cowley 245	0 Chautauqua 0	Montgomer 0	/ Labette 0	Cherokee 0

Figure 2: Total acres enrolled in Annual Forage Insurance in commodity year 2023

Source: The data used in this map was downloaded on May 29, 2024 from the USDA Risk Management Agency Summary of Business



Figure 3: Annual Forage Loss Ratio in commodity year 2023

Cheyen 1.42	ie	Raw 1.1		Decatur 0.89	Norton 0.93	Phillips 0.91	Smith	Jewell 1.78	Republic	Washington 1.64	Marsi	nall Ne	maha Bro	1.25	لى ئەر
Sherma 1.20	n		omas .41	Sheridan 1.34	Graham 1.09	Rooks 1.12	Osborne 0.45	Mitchell 1.47	Cloud Ottawa	Clay 1.39	Riley	Pottawatomie	Jackson	Atchison 1.25	enworth
Wallace 1.26		Logan 1.39	·	Gove 1.64	Trego 1.29	Ellis 1.16	Russell 1.53	Lincoln 1.76 Eilsworth	0.49 Saline 1.16	Dickinson 0.82		Wabaunsee		Douglash	Johnson
Greeley 1.33		chita .65	Scott 1.61	Lane 2.24	Ness 0.82	Rush 2.28	Barton 1.86	2.24 Rice 2.17	McPherson 1.17	Marion 1.21	Chase	Lyon .	Osage	Franklin	Miami 1.06
Hamilton 2.04		earny 1.94	Finn 2.0		Hodgeman 1.35	Pawnee 1.84 Edwards	Stafford 1.24	Reno 1.59	Harve 1.47	ey 🗌	·	Greenwood	Coffey Woodson	Anderson 1.26 Allen	Linn Bourbon
Stanton 2.17		Grant 2.24	Haskell 1.38	Gray 2.16	Ford 1.77	1.96 Kiowa	Pratt 1.18	Kingman 1.40	Sedgwid 1.73		Butler	Elk	Wilson	Neosho	Crawford
Morton 1.52		tevens 1.99	Seward 2.13	Meade 1.75	Clark 1.40	Comanche 1.34	Barber 1.32	Harper 0.95	Sumner 0.94		Cowley 0.91	Chautauqua	Montgomery	Labette	Cherokee

Note: The data used in this map was downloaded on May 29, 2024 from the USDA Risk Management Agency Summary of Business. The loss ratio is calculated as (total indemnities in 2023) / (total producer and government-paid premiums in 2023).

