

Rainfall Index - Annual Forage Insurance

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The Rainfall Index - Annual Forage (RI-AF) Insurance plan is an insurance policy designed to protect livestock and forage producers against losses due to low moisture conditions. **The deadline to sign up for Growing Season 1 - Fall Seeded Crops - is July 15, 2016.**

While similar in design to the Pasture Range and Forage (PRF) Insurance, the difference lies in the type of commodity covered. The insured crop under RI-AF is ALL annually planted acres grown for forage or fodder with the intended use including, but not limited to grazing, haying, green chop or silage. In contrast, PRF encompasses perennial grasses, rangeland, and hay types such as alfalfa that are not planted on an annual basis.

For Growing Season 1 (Sept 1, 2016 - March 31, 2017), the most common types of crops insured are winter small grains (wheat, oats, rye, triticale, etc.) while Growing Season 2 (March 1, 2017 - September 30, 2017) include spring plantings such as sudan, haygrazer, dryland sorghum silage, and millet. **Season 2 must be purchased by Dec. 15, 2016.**

Under both plans, payment is not determined by individual damages, but rather area losses based on a grid system. A major difference between the two policies is that while PRF allows producers to insure only a portion of their acreage, RI-AF requires coverage on all certified acres that are not intended for grain production. Also, the same crop acres can't be covered on both a Multi-peril policy and a RI-AF policy.

When signing up for annual forage insurance, participants may select protection levels ranging from 70% to 90% of historic rainfall. CAT level coverage is also available for some commodities. A loss is triggered when actual rainfall for an area is less than the chosen coverage level for the time period selected. Producers also choose a protection factor between 60% and 150%, which is a price multiplier that allows an increase or decrease in the policy's base value. Each county has a base value established by the Risk Management Agency. The Protection Factor allows producers the ability to customize a policy's dollar value to fit their needs. For example, Hansford County's base value is \$165.87.

Once coverage is selected, participants must divide coverage among three, two-month intervals per growing season. There are seven months in each growing season, and months of coverage cannot overlap. For example, a producer cannot insure the Sept-Oct interval and the Oct-Nov interval. Also, no more than 40% of the policy value (acres) can be placed in an interval.



In the face of uncertain weather conditions, insurance becomes a critical component in producers' risk management portfolios



Hansford County Example

County Base Value per Acre	\$165.87
Subsidy Level	51% to 59%
Maximum % of Value Index Interval	40%

Joe Farmer has 500 acres of grazed wheat in Hansford County. If he chooses a 90% coverage level and 150% productivity factor, his coverage per acre is \$223.92 (\$165.87/acre X 0.90 X 1.50) for a total of \$111,960.

He insures 40% of this value in the September/October interval, another 40% in the November/December interval, and the remaining 20% in the January/February interval.

Calculations:

If rainfall in Sept/Oct was 50% of normal, the producer is paid as follows:

$$\begin{aligned}
 &0.90 \text{ coverage} - 0.50 \text{ normal rainfall} = 0.40 \\
 &0.40 \times 1.50 \text{ productivity factor} = 0.60 \\
 &0.60 \times \$165.87 \text{ base value} = \$99.52/\text{acre ins. payment} \\
 &\$99.52/\text{acre} \times 200 \text{ acres (500 total ac} \times 40\%) = \mathbf{\$19,904.}
 \end{aligned}$$

If rainfall in November/December was 20% of normal, the farmer is paid as follows:

$$\begin{aligned}
 &0.90 \text{ coverage} - 0.20 \text{ normal rainfall} = 0.70 \\
 &0.70 \times 1.50 \text{ productivity factor} = 1.05 \\
 &1.05 \times \$165.87 \text{ base value} = \$174.16/\text{ acre ins. payment} \\
 &\$174.16/\text{ acre} \times 200 \text{ acres (500 total ac} \times 40\%) = \mathbf{\$34,832.}
 \end{aligned}$$

Assuming rainfall in January/February was normal and no indemnity is collected, Joe Farmer's total annual payout is \$54,736, with an estimated premium cost of \$15,847 (\$31.69/acre).

Premium expenses vary by coverage levels and intervals selected. In Hansford Co, they range from \$6.37/ac for a \$70/acre maximum payout at 70% Coverage/60% Protection Factor and go up to \$32/ac for a \$224 maximum payout at 90% Coverage/150% Protection Factor.

For specific program details, or to purchase a policy, please contact a licensed crop insurance agent. As with any area-based risk management product, payments are not guaranteed and we encourage producers to research their grid data prior to purchase. More information on Rainfall Index –Annual Forage Insurance can be found at www.rma.usda.gov/policies/ri-vi/annualforage.html The RI-AF model uses National Oceanic and Atmospheric (NOAA) Climate Prediction Center data and a 0.25 x 0.25 degree latitude/longitude grid system. Indemnities are calculated based on the deviation from normal precipitation within a grid for a specific period selected.