

# Pasture, Range, and Forage Insurance

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Pasture, Range, and Forage (PRF) Insurance is a risk policy designed to provide livestock and hay producers the ability to buy insurance protection that covers acreage losses. Payment is not determined by individual damages, but rather area losses based on the grid system. Producers can select any portion of acres to insure. They must also choose a **minimum** of two, two-month intervals, or a **maximum** of six, two-month intervals per year. Insured acres are then spread between time periods. **The 2014 sign-up and acreage reporting deadline for this program is November 15, 2013. Premiums are billed on July 1, 2014.**

Coverage levels between 70 and 90 percent are available. Once coverage is selected, the producer chooses a productivity factor between 60 and 150 percent. Productivity factor is a percentage of the established county base value for forage. Base value is a standard rate published by the Risk Management Agency (RMA) for each county. It is calculated based on the estimated per acre cost of grazing. For example, Hansford County's value is \$8.11.

Either a Rainfall Index or a Vegetation Index determines PRF coverage. Texas and Oklahoma utilize the Rainfall plan while New Mexico producers operate under the Vegetation system. The Rainfall Index uses National Oceanic and Atmospheric (NOAA) Climate Prediction Center data and a 12 x 12 mile grid system. **Indemnities are calculated based on the deviation from normal precipitation within an area for a specific period selected.**

The Vegetation Index employs the Normalized Difference Vegetation Index (NDVI) data from the United States Geological Survey and a 4.8 x 4.8 mile grid system. The NDVI is an alternative measure of greenness and correlates to forage conditions and productive capacity. Plants that are not stressed generally have a higher NDVI value. Losses calculated using the Vegetation Index are also indemnified based on deviation from normal.



*In the face of continued dry conditions, insurance becomes a critical component in producers' risk management portfolios*



### Hansford County Example

<b>County Base Value per Acre</b>	\$8.11
<b>Subsidy Level</b>	51%
<b>Maximum % of Value Index Interval</b>	50%

**Example:** Joe Farmer has 500 acres of grassland in Hansford County. He insures the January/February interval and May/June interval. Joe places 250 acres (50% of Value) in each time period. If he chooses the 90% coverage level and 150% productivity factor, his total coverage per acre is \$10.95 (\$8.11/acre X 0.90 X 1.50).

**Calculations:** If rainfall in Jan/Feb was 70% of normal, the producer is paid as follows:

$$\begin{aligned}
 &0.90 \text{ coverage} - 0.70 \text{ normal rainfall} = 0.20 \\
 &0.20 \times 1.50 \text{ productivity factor} = 0.30 \\
 &0.30 \times \$8.11 \text{ base value} = \$2.43/\text{acre insurance payment} \\
 &\$2.43/\text{acre} \times 250 \text{ acres} = \mathbf{\$608.25}.
 \end{aligned}$$

If rainfall in May/June was 20% of normal, the producer is paid as follows:

$$\begin{aligned}
 &0.90 \text{ coverage} - 0.20 \text{ normal rainfall} = 0.70 \\
 &0.70 \times 1.50 \text{ productivity factor} = 1.05 \\
 &1.05 \times \$8.11 \text{ base value} = \$8.52/\text{acre insurance payment} \\
 &\$8.52/\text{acre} \times 250 \text{ acres} = \mathbf{\$2,128.88}.
 \end{aligned}$$

Joe Farmer's total annual payout is \$2,737.13, with an estimated premium cost of \$630 (\$1.26/acre). Premium expenses vary by coverage levels and intervals selected.

A PRF decision support tool is available at <http://agforceusa.com/rma/ri/prf/dst>.

Alfalfa can also be insured under a PRF policy at different coverage levels and higher county base values. Contact your local insurance office for additional information.