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RightRisk News

Summary of Sales and Performance History for Pasture, Rangeland, Forage Insurance

The last four years have been a reminder for livestock producers throughout the country about the risk of drought. Their livelihood is dependent on perennial grass production and adequate of rainfall. One tool that can help mitigate the short-term financial risk associated with the lack of rainfall is the Pasture, Rangeland, Forage (PRF) insurance program, administered by the USDA – Risk Management Agency (RMA).

How Much Risk is Right for You?

PRF is available for purchase from crop insurance agents with coverage available on a calendar year basis in all forty-eight contiguous states. The signup deadline for calendar year 2024 coverage is December 1, 2023.

PRF insurance is a group insurance policy based on grids 0.25 degrees longitude by 0.25 degrees latitude. It uses precipitation data from the National Oceanic and Atmospheric Administration Climate Prediction Center (NOAA-CPC), providing producers with the opportunity to insure 70 percent to 90 percent of the Expected Grid Index Precipitation across a series of two-month intervals dispersed throughout the calendar year. Premium subsidies range from 51 percent to 59 percent, depending upon the coverage level selected. If precipitation falls below the insured coverage level, the producer receives an insurance indemnity payment for the productive value of the difference.

As an example, suppose a cattle producer insured a thousand acres of grass at a productive value of $48.00 per acre at the 90 percent coverage level and allocates coverage throughout the year, selecting $8.00 per acre of coverage in the January-February interval, $8.00 of coverage in the March-April interval, and so on. If the ending precipitation index is lower than 90 percent of normal in any two-month interval, then the producer indemnity calculation multiplies the index shortfall by the policy protection for that interval period. For instance, if the May-June interval actual precipitation index were 52.4, then the indemnity payment would calculate as (90-52.4)/100 * 1,000 acres * $8.00 = $3,008, or a little more than $3 per acre.

Table 1: Pasture, Rangeland, Forage (PRF) insurance national summary of business 2018-23.

Crop Year	Policies Earning Premium	Policies Indemnified	Acres	Total Premiums	Total Subsidies	Total Indemnities	Producer Loss Ratio
2018	28,306	22,366	98,283,617	$ 520,177,152	$ 278,221,376	$ 499,647,200	2.07
2019	32,118	24,713	140,054,736	$ 581,191,717	$ 310,194,464	$ 363,315,873	1.34
2020	32,632	29,997	159,630,239	$ 674,578,772	$ 359,464,086	$ 886,845,023	2.81
2021	39,645	37,504	202,256,669	$ 859,551,973	$ 457,737,629	$ 982,131,349	2.44
2022	46,759	45,156	247,590,370	$1,067,487,248	$ 567,855,373	$1,433,473,576	2.87
2023	60,918	51,335	290,623,534	$1,335,757,487	$ 706,763,012	$ 674,425,643	1.07
2018-22 Average	**35,892**	**31,947**	**169,563,126**	**$ 740,597,372**	**$ 394,694,586**	**$ 833,082,604**	**2.41**

NOTE: 2023 Crop Year is still in progress and not included in the averages.
Source: USDA-RMA, Summary of Business, October 15, 2023

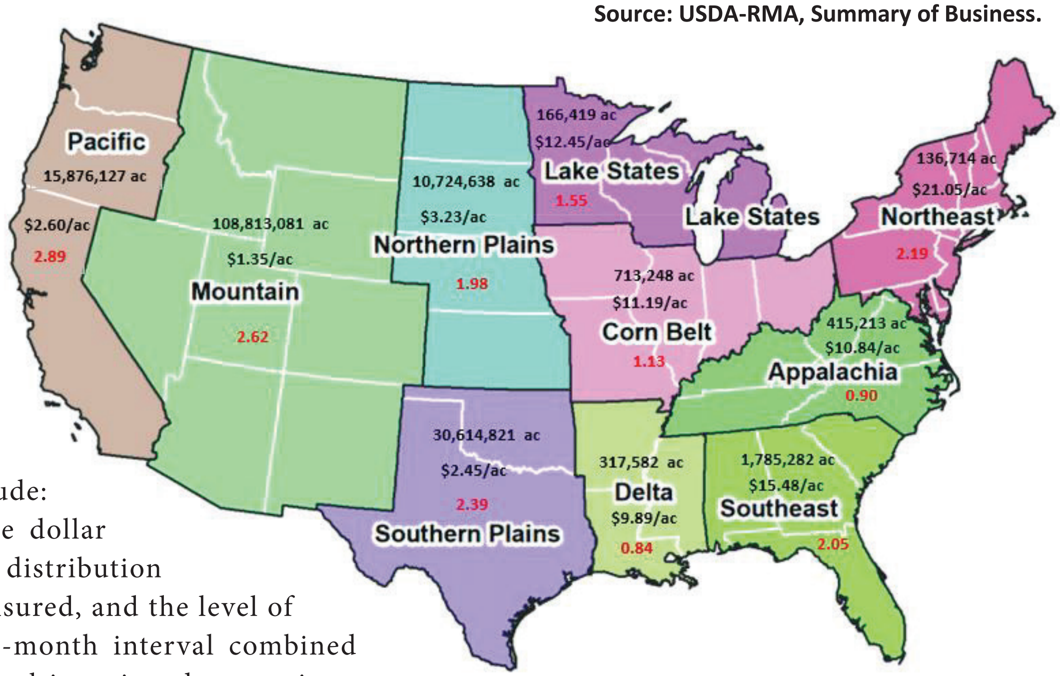
Producers insured a record 290.6 million acres with PRF insurance across the nation in calendar year 2023, Table 1. The average number of acres covered per policy was 4,770 with an average producer premium per policy of $10,325 or $2.16 per acre. In total, 84 percent of policies nationally have earned an indemnity payment in 2023, with several actual index values yet to be determined. To date, the average indemnity per policy is $11,071 or $2.32 per acre. The producer loss ratio to date is 1.07 indicating for every $1 of producer premiums, indemnity payments of $1.07 have accrued in 2023.

The producer loss ratio nationally was 2.41 over the five-year period 2018-2022, Table 1. The producer loss ratio varied across the nation, Figure 1. It was highest in the Pacific (2.89) and Mountain (2.62) regions, reflecting the extreme drought across the western half of the U.S. over the three-year span 2020-2022. It was the lowest in the Delta (0.84) and Appalachia (0.90) regions. Most of the acres insured with PRF are in the western half of the U.S., where the Mountain region leads the way with an average of almost 109 million acres insured per year over the 2018–2022-time span. In 2023, the Mountain region has over 185 million acres insured, reflecting the steady increase seen nationally over the past six years, Table 1.

The decision whether or how to participate in PRF insurance should be strategic. PRF is a heavily subsidized (51-59 percent) insurance product that U.S. law requires to be actuarial sound, based on decades of indexed rainfall data. This means that most policies over the long term will result in similar returns per dollar invested. Therefore, it is important to carefully evaluate coverage ahead of any purchase in order to achieve the best policy fit. It is also important to stick with the strategy for several years.

Figure 1: National Pasture, Rangeland, Forage (PRF) average insured acres per year, average producer premium per acre, and producer loss ratios (in red) for the five-year period 2018-2022 for the ten USDA crop production regions.

Source: USDA-RMA, Summary of Business.



RMA offers a Rainfall Tool on their website (**www.rma.usda.gov**) to help evaluate alternative plans for individual situations. Crop insurance agents have similar tools, but it is valuable to explore diverse options before sitting down with an agent to make coverage decisions.

Alternatives to consider include: which months to insure, the dollar value of coverage per acre, the distribution of coverage across months insured, and the level of rainfall to insure. Each two-month interval combined with the rainfall coverage level is assigned a premium rate, reflecting the expected indemnity based on historical data. Two-month intervals with a history of more variable rainfall, particularly below the coverage level, are assigned higher premium rates. Higher coverage levels also result in higher premium rates.

For example, the April-May interval may have a premium rate of 12.30 percent at the 90 percent rainfall coverage level and a 7.33 percent premium rate at the 75 percent coverage level. The 75 percent coverage level would qualify for a 59 percent subsidy, dropping the effective producer premium rate to 3.01 percent, while the 90 percent coverage level would qualify for a 51 percent subsidy, reducing the effective producer premium rate to 6.03 percent. Meanwhile, the February-March interval for the same land may be assigned an unsubsidized premium rate of 21.58 percent at the 90 percent coverage level and 15.90 percent at the 75 percent coverage level, reflecting more rainfall variability in that interval.

Table 2: Pasture, Rangeland, Forage (PRF) insurance national summary of coverage levels in 2023.

Cov. Level Percent	Policies Earning Premium	Policies Indemnified	Acres	Total Premiums	Total Subsidies	Total Indemnities	Loss Ratio	Producer Loss Ratio
70%	598	366	1,405,432	$ 3,708,771	$ 2,182,791	$ 2,187,946	0.59	1.43
75%	3,318	2,815	30,579,174	$ 88,064,774	$ 51,933,022	$ 50,102,891	0.57	1.39
80%	758	561	2,128,492	$ 8,634,122	$ 4,749,551	$ 5,636,815	0.65	1.45
85%	16,908	14,348	119,118,055	$ 472,822,547	$ 259,518,850	$ 189,462,126	0.40	0.89
90%	39,336	33,245	137,392,381	$ 762,527,273	$ 388,378,798	$ 427,035,865	0.56	1.14
Total	**60,918**	**51,335**	**290,623,534**	**$ 1,335,757,487**	**$ 706,763,012**	**$ 674,425,643**	**0.50**	**1.07**

NOTE: 2023 Crop Year still in progress.
Source: USDA-RMA, Summary of Business, October 15, 2023

Nationally, most of the PRF coverage is at the 90 or 85 percent coverage level, Table 2. Reducing coverage from the 90 percent coverage level to the 85 percent coverage level lowers the total premium charge per acre, as well as increases the subsidy from 51 percent to 55 percent. Some producers use this strategy to lower their overall premium expense. It is effectively increasing their "rainfall deductible" in exchange for a lower premium, just like increasing the deductible on homeowners' insurance would lower the homeowners' insurance premium.

When it comes to which months to insure, some producers focus on the pasture growing season months where rainfall is critical, while others simply spread coverage throughout the year. Some producers balance spring and early summer coverage with winter coverage to balance premium cost and expected indemnities. The more intervals covered; the more steady indemnity payments are across years. However, you may be able to find a more customized coverage strategy that best matches your pasture production and/or financial outcomes and that makes the most sense for your operation.

With the December 1 signup deadline date quickly approaching, producers interested in purchasing PRF for the 2024 calendar year should contact their crop insurance agent to begin the application process as soon as possible. For more information on PRF insurance visit: **www.rma.usda.gov**.

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