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Wyoming cattle producers transition to rainfall index insurance

Pasture, Rangeland and Forage (PRF) insurance offered in Wyoming beginning with the 2016 crop year is the Rainfall Index (RI) type instead of the Vegetative Index (VI) type previously offered.

VI-type policies are now only available for apiculture.

While the two types of coverage are similar in offering protection against vegetation losses in a specific grid area, there are some key differences.

VI policies use satellite images to estimate biomass density for an individual grid area. RI policies use a larger grid area (0.25 by 0.25 degrees or approximately 12 miles x 12 miles) and rely on National Oceanic and Atmospheric Administration Climate Prediction Center data to estimate precipitation for each grid area.

RI policies use a two-month index interval – shorter than the three-month interval for VI policies. RI-PRF policies do not measure rainfall at individual locations. They are based on the index established for the entire grid area.

Producers can select a productivity factor between 60 and 150 percent of the county base value and coverage levels from 70 up to 90 percent for the forage covered. Indemnities are paid when the rainfall index drops below the coverage level.

Central Wyoming Ranch Example

Fremont County producers Bob and Betsy Zomer have decided to make the transition to RI-PRF insurance (for more on the Zomer's Z-F Ranch, visit RightRisk.org > Resources > Risk Management Profiles).

For more information

RightRisk.org offers resources for livestock and forage producers looking to learn more about Pasture, Rangeland and Forage-Rainfall Index (RI-PRF) insurance, including online tools to determine the best level of coverage, and other risk management resources such as the Risk Scenario Planning tool and RightRisk Analytics.

Visit with your local crop insurance agent to determine if RI-PRF is right for your farm or ranch.

While generally happy with the protection offered under VI-PRF, they are now deciding how much coverage they might expect under the new policy.

Using the Decision Support Tool (found on the Risk Management Agency's website at http://bit.ly/decisiontool – look under Rainfall Index), they find their grid identification number and location on the map. They can then select a coverage level using the tool as shown in Figure 1 and discover how their policy choice might have turned out in 2015.

The Zomers had previously insured their 1,500 acres of summer pasture at 90 percent coverage, with a productivity factor of 150 percent. Catastrophic drought a few years ago taught them that paying for the most insurance available was worth it for them.

The county base value is set at $17 per acre for their operation's grid, making their value of protection $22.95 per acre.

With RI-PRF, producers can choose whether to put all their insurance in two, two-month intervals or spread it out over several (no more than 70 percent may be assigned to a single interval).
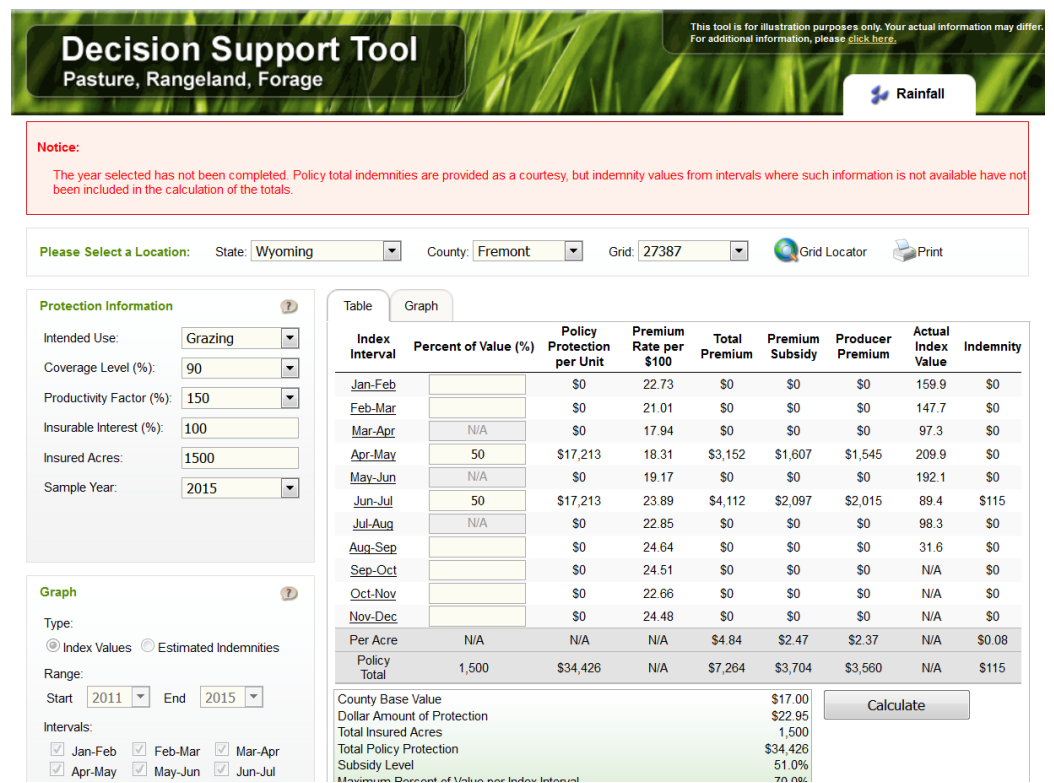

Figure 1. RMA Decision Support Tool for VI-PRF Policies

The Zomers chose to insure the April-May and June-July intervals, the most crucial times for rainfall on their pastures. Overall, they would have purchased $34,426 worth of coverage for a producer premium (after the 51 percent subsidy) of $3,560 or $2.37 per acre.

Using this tool and RightRisk Analytics, the Zomers can also evaluate if their risk management goals for forage protection have been met.

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Cow valuation tool considers future returns producer may receive

The cow valuation tool can help producers determine the current value of their breeding animals and offspring and make decisions regarding the purchase or sale of breeding cows.

The tool's value is in its consideration of all future returns the producer will see from the animal as a current value. The tool uses net present value (NPV) to determine the true value of the animal. NPV is used to account for the time value of money by looking at an animal and its projected future net income. The future net income in the case of a breeding cow is in terms of calves produced and the eventual sale or culling of the cow.

The valuation tool can be found at http://bit.ly/valuationtool or http://bit.ly/cowvalue. Information needs to be gathered prior to using this tool, including the annual cost of owning a cow, calf weight, price per hundred weight, cull cow weight, cull price per hundred weight, and discount rate.

Annual costs are all expenses associated with owning a cow throughout the year. These costs include feed (both fed and grazed), veterinarian, transportation, etc. The tool is pre-populated with a base value of $750 but should be updated by the producer.

Calf weight is the weight at which the producer expects his calves to be sold. Each operation is different, so producers should update the tool with their values.

Calf price per hundred weight is the expected market price for calves being sold. This information can be found at the local livestock market or in area data.

Cull cow weight is the weight of the cows when they reach the auction market. This is the terminal value of the cow when the useful breeding life of the animal is over.

Cull price per hundred weight is what typical cull animals are bringing at local auction.

Discount rate is needed to put future values into current dollar amounts. This discount rate typically ranges from 5 percent to 15 percent, depending on the producer. The base discount rate used in this tool is 7 percent. This can be defined as the minimum rate of return required to justify an investment. It can also be determined as equal to the rate of return expected from an alternative investment of equal risk. If an operating loan is required to fund the operation, the minimum discount rate should be the current operating loan rate plus at least 3 percent for a risk premium.

Cattle price change is the next piece of the cow valuation tool. Cattle prices rarely stay constant for long. The valuation tool returns cow values for market prices that might be decreasing, for example, by 5 percent per year, or increasing by 5 percent per year. The horizontal axis represents the number of calves produced by the cow using 1 calf as a base. These values include the profit from the calf sold and the value of the cow if culled after that calf. For example, the profits in the column under 1 calf include the profit from 1 calf and the value of the cow as a cull animal. The next column for 2 calves shows profits that would be realized from the sale of 2 calves born by the cow and the value of the cow as a cull animal, and so on.

The next table shows how different discount rates can change what that cow is worth today. The discount rate expresses the value of the cow at a future date in current dollars. A lower discount rate means a producer is willing to pay more for the future revenue streams. Conversely, investing in a cow at a high discount rate means you are willing to pay less today for the future revenue stream.

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