

## Fremont County producers use risk scenario planning tool – Part 2

RightRisk.org's risk scenario planning (RSP) tool from helps producers evaluate risk associated with certain variables in their budgets by allowing them to view ranges of probabilities.

We are often forced to use a "best guess" for one or more variables (harvest prices, sale weights, etc.) when putting together a partial or enterprise budget. In many cases, these may be accurate enough; however, there still is a level of uncertainty in these estimates. Even worse, once an estimate is selected and entered into a budget, it tends to become established as a "certain value." We may forget that value can fluctuate and focus our attention instead on the bottom line.

The RSP tool shows how a range of values (not just a single estimate) can affect the budget and account for uncertainty as we look at variation in the bottom line or other numbers of interest.

### Evaluating strategy with the RSP tool

The previous installment in this series introduced a fictitious Fremont County couple who used the RSP tool to analyze their decision to purchase Pasture, Rangeland, Forage-Rainfall Index insurance (RI-PRF) to reduce production risks associated with summer forage production.

The Zomers chose to purchase coverage at 90 percent of the county base value with a productivity factor of 150 percent, resulting in \$34,425 in total coverage (\$22.95/acre) for a premium cost of \$3,555 (\$2.37/acre). They established the likelihood of an indemnity payment using the RSP tool. In this case, uncertainty was introduced by the ending index value (ending rainfall index).

### For more information

The risk scenario planning tool (RSP) is another way producers can weigh potential risks and returns of a particular business strategy. The tool can assign a dollar value to any associated uncertainty.

Log on to RightRisk.org and select from the Resources tab Risk Management Tools; from there select the RSP tool or utilize any of the tools, including the enterprise risk analyzer or the whole farm budget tool.

RightRisk.org offers numerous courses, links to producer profiles, and other resources to help at any level of risk management planning.

In general, when the ending index falls below the coverage level, RI-PRF indemnity payments are calculated as the coverage level minus the ending index value times the policy protection minus the premium cost. We can use the RSP tool to evaluate the net benefit of purchasing RI-PRF by allowing the ending index values to vary around the expected index value of 100.

The RSP tool can calculate a range of outcomes based on different value spreads. First, assume the Zomers are interested in how RI-PRF would perform over a series of relatively dry years. The maximum ending index is estimated at 110, the minimum 50, and the most likely at 100.

Entering this information into the RSP tool shows that benefits would be greater than premium costs 33 percent of the time and would exceed zero 23 percent of the time. Stated another way, about a quarter of the time, indemnities ranging from zero to \$24,272 would be paid, as shown in Figure 1.

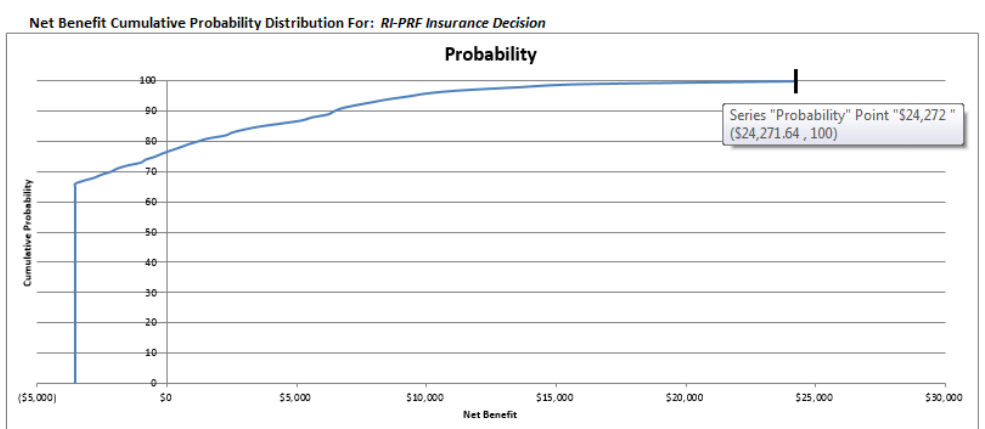
We will next consider a projection for a series of wetter years to evaluate RI-PRF insurance sensitivity to ranges of ending index values. Consider a maximum ending index of 130, a minimum of 70, and a most likely of 100. Entering these values into the RSP tool provides an estimate that benefits would exceed premium costs only 20 percent of the time and would exceed zero 10 percent of the time. Stated another way, in only about 1 out of 10 years would indemnities, ranging from zero to \$10,691, be paid, as shown in Figure 2.

Keep in mind these results follow what could be expected from an insurance product intended to provide payments in periods of reduced rainfall. We should

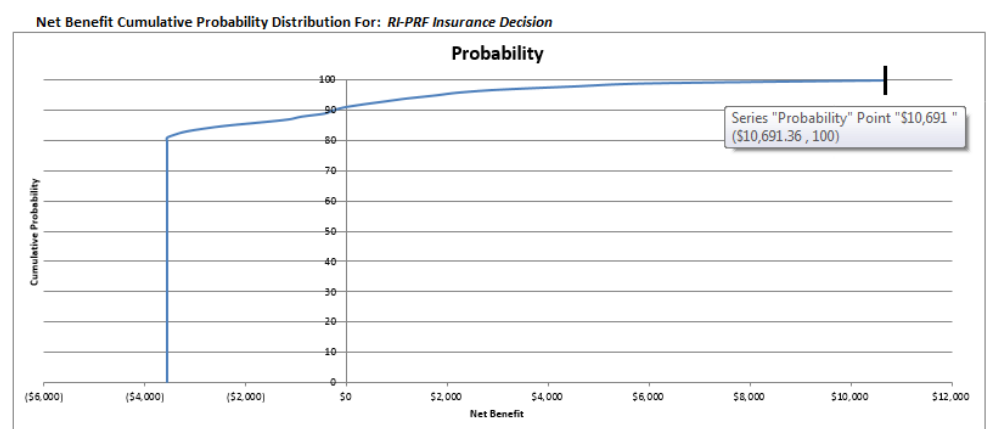
not look to make money on RI-PRF insurance. Rather, we should prefer a wetter year, more forage, and no RI-PRF indemnity payment.

Evaluating dry year and wet year scenarios provides a more accurate picture of what to expect from an RI-PRF policy under alternative weather patterns. Likewise, performing analyses using the free RSP tool gives producers more precision than inserting a "best guess" for individual values in the budget and expecting those estimates to remain unchanged throughout the year.

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Uncertain Value 1: RI-PRF Ending Index Value  
Uncertain Value 2: \_\_\_\_\_



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Uncertain Value 2: \_\_\_\_\_

## February is prep time for the upcoming spring calving season

Checking facilities, prepping corrals, and stocking supplies are all important considerations. Here are some "to-do" items to health and nutrition:

- 1 Inventory winter feed supplies, and take the time to sample and analyze forages. Balanced rations based on actual feed analyses and strategic use of medium- and high-quality forages will often reduce the need for supplements, lowering winter feed costs.
- 2 Keep cows in good condition. Besides decreasing calving problems and improving rebreeding rates, this will also help reduce feed costs. Research indicates that thin cows require about 6 percent more energy to maintain their weight during cold weather, which translates to roughly one pound of additional hay each day.
- 3 Consider the herd's nutrient requirements in late fall and early winter. Nutrient requirements and, therefore, the amount and quality of feed offered should be based on the females' stage of production and body condition. Spring-calving cows entering the last third of gestation and early lactation have greater nutritional needs than cows in mid-gestation. For example, once a beef cow calves and lactation begins, her nutritional requirements increase by about 25 percent.

- 4 Continue to monitor performance and body condition as the weather gets colder. Adjust feed, recognizing that cold weather can dramatically increase energy requirements. For every 1 °F drop in wind chill temperature below 20°, feed requirements increase by approximately 1 percent. For example, during a -10° wind chill, a cow's maintenance requirement increases by 30 percent. Windbreaks can reduce wind chill and help reduce your energy (and feed) bill.
- 5 Separate thin cows from the herd and feed separately, if possible. These thin cows are often 2- and 3-year-olds. A higher plane of nutrition for these thin cows allows feed to be utilized more efficiently and helps reduce their postpartum interval to first estrus. Consider feeding the higher-quality forages to replacement females as well as to younger cows that may lack body condition and be more nutritionally stressed.
- 6 Supplement minerals that are deficient in your area. Phosphorus is generally deficient in harvested western forages. When evaluating your mineral program, consider all feeds and sources of minerals. Purchased supplements are often formulated to provide adequate trace minerals when fed at the recommended rate. High-protein supplements also contribute phosphorus to the total ration and should be

considered when evaluating winter mineral programs. Micromineral deficiencies are often area-specific, so consult your local veterinarian about identified deficiencies.



- 7 Consider providing vitamin A in your winter mineral or feed supplement, especially if cows are consuming a low-quality forage. A cow's liver has the ability to store vitamin A for 100-120 days after the consumption of green grass. Remember that alfalfa also can be a good source of vitamin A.
- 8 Consult your veterinarian about pre- and postpartum vaccination schedules. Subcutaneous (sub-Q) vaccine administration is preferred if label-approved. If intramuscular (IM) injection is required, administer in the neck muscle.

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