

# BARNYARDS & BACKYARDS



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## Fremont County producers use risk scenario planning tool

Producers can evaluate a wide range of values when making budget projections or production decisions by using the Excel-based risk scenario planning tool (RSP) from RightRisk.org.

The RSP tool helps quantify risks associated with a particular decision or change under consideration. Most operators have a firm grasp on certain budget projections and input costs, but many values are simply best estimates.

The RSP tool helps eliminate some of the uncertainty by evaluating a range of probable outcomes for certain variables. This approach is much more helpful, particularly when the tool can estimate probabilities for various possible outcomes.

In a previous installment in this series, Fremont County producers Bob and Betsy Zomer decided to purchase the newly available Pasture, Rangeland, and Forage Rainfall Index (RI-PRF) insurance for some of their summer pasture (visit RightRisk.org or your local crop insurance agent for a detailed description of RI-PRF insurance).

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).

Using the RSP tool, the Zomers entered the total value of the coverage for added returns and the total premium cost under added costs on the budget. Shown in Figure 1, the highest possible outcome for purchasing the PRF policy would be \$30,870 (a full payout of the insurance guarantee minus the premium cost).

The Zomers do not believe they will be using 100 percent of the guarantee, so this is where the probability analysis section of the tool is used.

Assume under the first scenario the Zomers are expecting a less-than-normal rainfall year. Users can input up to two different variables for risk in the budget in the Risk Scenario section of the tool.

In this case, the uncertainty would be the actual value of the RI-PRF coverage. The guarantee level is \$22.95 per acre with the county average value at \$17 per acre. Looking at past index data, the Zomers choose \$17 per acre as the maximum value, \$5 as the minimum, and \$12 per acre as the most likely outcome. The scenario outcome is shown in Figure 2.

The RSP analysis shows the RI-PRF coverage outlined will result in indemnity payments greater than \$14,157 around 50 percent of the time.

We will examine the effects of changing the outcome ranges of this decision and adding an additional uncertainty variable in the next installment in this series.

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Positive Effects				Negative Effects			
Added Returns	Quantity	Value	Total	Added Costs	Quantity	Value	Total
RI-PRF Coverage per acre	1500	\$ 22.95	\$ 34,425.00	RI-PRF Insurance Premium	1500	\$ 2.37	\$ 3,555.00
	0		\$ -				\$ -

Figure 1. Initial Partial Budget for RI-PRF Policy.

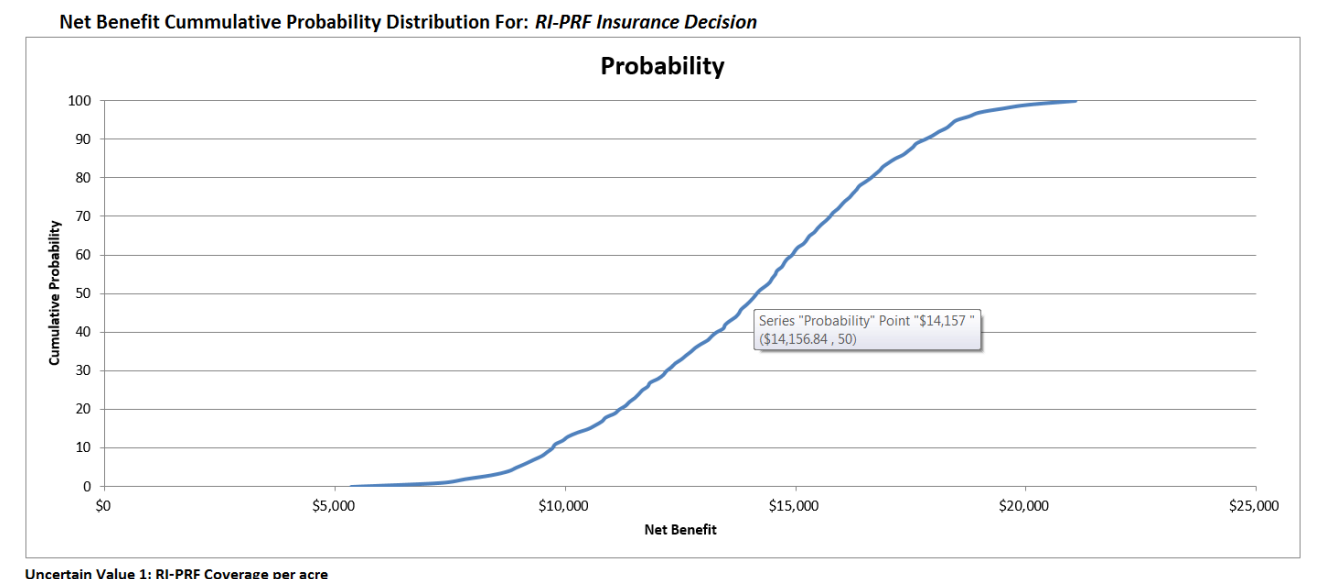


Figure 2. Net Benefit Under RI-PRF Insurance for the Zomer's Pasture.

### 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.

## Add diversity to windbreaks for long-term wind protection

There seems a common denominator to windbreaks as we drive across the plains and the mountainous parts of our state.

They are aging and declining rapidly. Trees grow and mature and then begin to decline and die. Trees must be in top health or replaced to keep a windbreak serving its intended purpose around a home place or in a winter pasture.

Many aging windbreaks include only one or two species of trees, and most, if not all, were planted in the same year or within five years of one another.

Foresters are now recommending species diversity that includes only 10 percent of any one species, no more than 20 percent from a single genus, and no more than 30 percent from any one family. More recent research would lead us to numbers even lower than these.

The age of the plantings also needs diversity. U.S. Forest Service research indicates 40 percent of a population of trees should be young trees – trees with a diameter at breast height (DBH) of 6 inches or less. Thirty percent of the trees should be maturing, or between 6 inches and 12 inches DBH. Mature trees with a DBH over 12 inches and in good health should be 20 percent of the stand. The declining or old trees – trees that are past their prime and in need of removal from the stand – should be less than 10 percent.

Continuing to add new trees to the planting as a part of a maintenance plan is important to reverse a declining windbreak. Age and species diversification can be implemented over time and in stages, but a management plan should be developed and put into practice. Local conservation districts can help in planning windbreaks or modifying the plantings and improving the diversification of existing windbreaks as well as helping start new windbreaks.

Proper pruning and removal of dead or declining trees is the most important part of management until a plan is established. Prune remaining trees to encourage the strongest structure possible with single, strong dominant leaders or one trunk from the crown of the plant to the top of the tree. Removing a weaker, co-dominant leader is a great step leading to greater longevity for individual trees and overall improved stand longevity. After this step, more focused pruning can improve the structure and longevity of the trees.

New seedlings can replace the removed trees. Adding a variety of species within the rows of the windbreak will add diversity; age diversity will be improved, and the additional rows will establish a rotation for multigenerational tree populations. Improved

diversity increases the likelihood the trees will be more resistant to pest attacks.

For help selecting a variety of species suited for your site and windbreak improvement or for information and assistance in proper pruning practices, contact your local conservation district office, local extension office, or Wyoming State Forestry Division offices.

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