BARNYARDS & BACKYARDS

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Wyoming ranch uses risk scenario planning tool – Part II

By James Sedman and John Hewlett

We discussed in a previous installment a Wyoming ranch example and whether to keep heifers and sell bred heifers or sell them as calves.

The ranch managers will use the Risk Scenario Planning tool (RSP) from RightRisk.org to evaluate these alternatives.

The RSP tool helps producers make risk management decisions by using partial budget analysis combined with consideration of the inherent uncertainty for some variables in the analysis.

Rather than using a producer's best guess for determining price or yield data, the RSP tool uses a range of values and calculates the most likely outcome along with a range of other possibilities and their associated probabilities.

Partial Budget Analysis

The ranch is considering two alternatives: sell 40 heifer calves now for $137/cwt or keep and breed 34 of them and sell the bottom six.

The income and expenses associated with this decision can be divided into a simple partial budget. Total added returns of $48,573 include selling 34 bred heifers for $1,200 per head, selling the bottom six for $134.50/cwt, and culling the bulls used for $85.00/cwt.

There are no reduced costs. The total added costs of $25,920.18 include grazing, hay, labor, vet and medicine, and other related expenses of keeping heifers longer than usual. This number is added to the reduced returns of $27,400 from not selling the heifers as calves for $137/cwt.

Risk Scenario Analysis

As shown in the table, the cost items most likely to influence the decision are bred heifer prices and hay prices. Users account for this variability by entering the minimum, maximum, and most likely numbers for each value.

Hay prices are allowed to vary between $130 to $250 per ton, with the current (most likely) price set at $190 per ton; bred heifer prices are expected to range from $1,100 to $1,500 per head, with the current/most likely price being $1,200 per head. Using the most likely price results in a net return of -$4,747.18 for keeping and selling bred heifers.

RightRisk — Partial Budget For: Raise Bred Heifers to Sell

Positive Effects				Negative Effects			
Added Returns	**Quantity**	**Value**	**Total**	**Added Costs**	**Quantity**	**Value**	
Bred Heifers	34	$ 1,200.00	$ 40,800.00	Private Grazing (40 hd. X 6 AUMs)	240	$ 20.00	$ 4,800.00
6 Feeder Heifers (9 cwt.)	54	$ 134.50	$ 7,263.00	Hay (40 hd. X 1.75 tons)	70	$ 190.00	$ 13,300.00
Cull Bulls (cwt./year)	6	$ 85.00	$ 510.00	Vet & Medicine	40	$ 10.00	$ 400.00
			$ -	Hired Labor (hours)	275	$ 12.00	$ 3,300.00
			$ -	Interest - Operating Capital	27400	$ 0.08	$ 2,192.00
			$ -	Bull Opportunity Cost	2	$ 34.56	$ 69.12
			$ -	Annual Bull Depreciation	2	$ 333.33	$ 666.66
			$ -	Fuel, Supplies, Repairs, Maintenance, etc.	40	$ 29.81	$ 1,192.40
			$ -				$ -
			$ -				$ -
Total Added Returns			$ 48,573.00	**Total Added Costs**			$ 25,920.18
Reduced Costs	**Quantity**	**Value**		**Reduced Returns**	**Quantity**	**Value**	
			$ -	40 Heifer Calves @ 5 cwt.	200	$ 137.00	$ 27,400.00
			$ -				$ -
			$ -				$ -
Total Reduced Costs			$ -	**Total Reduced Returns**			$ 27,400.00

Total Positive Effects (Added Returns + Reduced Costs) $ 48,573.00

Total Negative Effects (Added Costs + Reduced Returns) $ 53,320.18

Net Benefit of: Raise Bred Heifers to Sell $ (4,747.18)

Risk Scenarios

Uncertain Value 1 (☑ Include)		Uncertain Value 2 (☑ Include)	
Description	**Cell**	**Description**	**Cell**
Bred Heifer Value	D6	Hay Price	H7
Current Value (Most Likely)	1200	Current Value (Most Likely)	190
Minimum Value	1100	Minimum Value	130
Maximum Value	1500	Maximum Value	250

Table One. Partial Budget Analysis for Raising Bred Heifers

The RSP tool generates a probability estimate for net income based on the price ranges for hay and bred heifers as shown at left.

This curve shows a roughly 92 percent probability that keeping heifer calves for sale as bred heifers will result in a net income of $0 or lower. Stated another way, the curve demonstrates an 8-percent chance of a positive net income given the range in prices used. This makes the decision to keep heifers unwise unless hay prices drop substantially or a higher price can be expected for bred heifers.

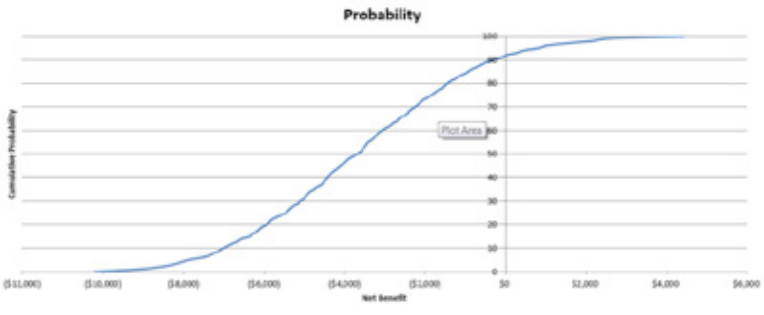

Figure One. Net Income Probability Range for Raising Bred Heifers

In the next installment, we will see at how this ranch could use the RSP tool to evaluate insurance decisions as part of an overall risk management strategy.

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For more information

RightRisk.org is an excellent risk management planning resource that includes budgeting tools, crop and other insurance information, and other online courses and resources. The site has resources to offer no matter where one is in the budgeting process. To access the Risk Scenario Planner tool (RSP), simply go to RightRisk.org and select "Risk Management Tools" from the resources tab. From there, select the RSP tool or its user guide from the list.

New trees, shrubs out this year add diversity, resilience to a landscape

Scott Hininger

New trees and shrubs coming out this year can add fall or winter color to a landscape.

The first is the hybrid buckeye "Prairie Torch." This variety was developed in North Dakota and is rated zone 3. Like most buckeyes, this one is very winter hardy with foliage that drops down some that gives it an interesting appearance. The foliage also has the fall orange-red color.

The growth rate is faster than most buckeyes, and the dense, globe form with a mature height of 30 feet and a similar spread makes this a very nice-looking tree. For best results, do not plant in heavy clay; however, this tree does well in our high ph soils and is drought tolerant. Buckeyes have done well in Wyoming.

Armstrong Gold Maple

Maples are always a favorite tree for fall colors, especially the gold color of the "Armstrong Gold" maple. This maple has a finely textured foliage and has very good branch density. This compact upright (40-foot height and 12-foot spread) tree would work very well in tighter locations such as along streets. The good angular attachment of the branches will help reduce pruning issues and maintain a healthy tree with regard to wind and snow problems. This tree will do better in well-drained soils with adequate moisture levels. For a smaller maple, take a look at this one.

Little Rebel Dogwood

The red branch color of the "Little Rebel" Tartarian dogwood really adds to the winter landscape color. This hardy zone 2 shrub grows 3-foot tall and 3-foot wide and really gives another good selection for a short hedgerow planting. Besides the red branches, the purple-red fall foliage is a nice addition for color in the landscape. This shrub is tolerant to a wide range of soils and should do very well in Wyoming. Most dogwoods are considerably taller than this one, so it is worth adding to any landscape setting.

"Prairie Torch"

Prairie Classic Viburnum

Many viburnums are on the market, and the "Prairie Classic" is a very good hybrid. This hardy zone 3 shrub grows 12 feet tall and wide. White flowers in the spring produce red-to-blue fruits, which mature to a black color. This color combination with the foliage and fruit is a nice combination not only during the growing season but into the fall, with the orange to yellowing foliage and black fruit. This is an adaptable shrub growing in wetter soils or dryer soils and will tolerate a little shade.

These selections should provide some additional choices while adding to the landscape design. So, if interested in some fall and or winter color or interest, these are some height and size choices to fit most landscape criteria needs. Some of these selections may be a little limited in the nursery trade this year, so start looking early, and there may be something similar to these that are available.

I recommend adding different varieties of trees or shrubs to a landscape not only to have a different look but also a different species that will add diversity and reduce or eliminate insect or disease problems.

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