



Big Horn County producers look to partial budgeting for profitability answers – Part I

By James Sedman and
John Hewlett

RightRisk's partial budgeting tool can be an effective part of a comprehensive risk management strategy for crop production and livestock enterprises.

The Excel-based tool allows producers to examine revenues and expenses associated with proposed operation changes, past or present crop insurance, other risk management strategies, or adjustments of other aspects of an individual enterprise where profitability is in question.

The Partial Budget Analyzer tool includes a simple and complex partial budget. The complex budget allows evaluating cash flow outcomes and determining total profitability and repayment capacity.

A partial budget examines four effects of a potential change or strategy in operations: items that add to net income (additional revenue and reduced expenses)

and items that reduce net income (reduced revenues and additional expenses) resulting in an estimated net benefit or loss.

Previous articles in this series focused on a crop-based operation in the Big Horn Basin. For the next installments, we focus on an example Big Horn County ranch and its use of the Partial Budget Analyzer tool from RightRisk.org.

Big Horn County Ranch Looks for Answers

Owners of the HR Ranch are studying their options for the next production year. The ranch includes a 360-head, cow-calf enterprise along with alfalfa and native hay enterprises. Like most of the state's producers, the HR faced severe drought affecting pasture and forage production.

The HR purchased extra alfalfa hay last year and is looking at more expensive hay for the coming season to maintain its cow numbers.

They also purchased a VI-PRF (Vegetation Index-Pasture, Range-



For more information

The partial budget tool available from RightRisk.org can help livestock producers examine production changes and analyze past and current risk management decisions. The partial budget, enterprise analysis, and whole-farm evaluation tools from RightRisk.org are available under the resources tab via the "Risk Mgt tools" link.

The tools are Excel-based worksheets, and all include a user guide with examples to help producers navigate and successfully use each tool in their own production situations.

The partial budgeting tool can assist producers at any stage in the budgeting process. For more information on partial budgeting, along with producer profiles and other risk management material, logon to RightRisk.org.

land, Forage) insurance policy last year and received an indemnity payment due to the severe drought.

The HR has the option during the sign-up period to increase coverage levels. Partial budget analysis can help provide direction.

Partial Budgeting Questions

We examine the production adjustments or changes the HR Ranch is considering using both the **simple** and **complex** partial budgeting tool. Their options include:

1. Should the ranch buy more expensive hay to maintain its cowherd? Should they

consider reducing numbers to what the ranch will support? Should they do some of both? The **complex** partial budget tool will show the most effective strategy and the effects on cash flow, net income, and repayment capacity.

2. Is their past VI-PRF insurance choice effective and, if so, are there any policy adjustments to consider? This choice will be evaluated with the **simple** partial budget tool, which will show the net profitability using the policy.

Evaluation of these and other considerations will be covered in Part II.

James Sedman is a consultant to the Department of Agricultural and Applied Economics in the University of Wyoming College of Agriculture and Natural Resources, and **John Hewlett** is a farm and ranch management specialist in the department. Hewlett may be reached at (307) 766-2166 or hewlett@uwyo.edu.

Extension's online tool helps calculate AUM price

By Bridger Feuz

One of the most common questions asked of university extension faculty members is, "How much is an AUM worth?"

Unless the extension educator has conducted a full survey of the pastures and ranges in her/his area, providing an educated guess is not prudent. A better response is to provide a method for calculating a more accurate value based upon the producer's input.

Some methods for calculating an AUM value focus on the costs of alternative sources such as grain or hay. Other methods take a pasture management cost approach to the problem. This article examines the value created in the cattle grazing the pasture or range to calculate the AUM. An online tool for assisting in the valuation of an AUM is at www.uwyoextension.org/ranchtools.

Tool for Yearling, Pair AUM Pricing

The two most common cattle grazing options are yearlings and pairs. Since the value created in grazing a yearling is slightly different than grazing a pair, the basic method and the online tool has been adapted to accurately reflect an AUM price for both situations. This article will look at a yearling AUM, but yearling AUM and pair

AUM prices can be calculated using the tool.

The total value per yearling is represented by the value of the pounds gained by the yearling.

First, calculate the initial value of the yearling. This is the easiest calculation – it is simply

the weight of the yearling at entry multiplied by the current market price for that yearling.

Initial value: 700 lbs X \$1.50 = \$1,050

Next, calculate the potential value of the yearling at the end of the month. The two factors that will

affect this value are the amount of weight gain and the new market price. This method then uses the price slide to adjust the original market price for the yearling. As animals gain weight, the market price for that animal declines on a per-pound or cwt-basis. On average, the price slide is \$9 per cwt.

End weight: 750 lbs

Price slide: \$150 cwt – ((50 lbs/100 cwt) X \$9) = \$145.50

End value: 750 lbs X \$1.455 = \$1,091.25

Next, calculate the value created per yearling by subtracting the initial value from the end value.

Value created: \$1,091.25 – \$1,050 = \$41.25

Finally, calculate the total value of an AUM based upon the number of yearlings per AUM. Then, multiply the yearling value created times the adjusted AUMs to calculate the total potential value of an AUM.

Yearling AUMs: 700 lbs / 1,000 lbs = 0.70

Total AUM value: \$41.25 / 0.70 = \$58.93

Although the math to get to a total AUM value is relatively straightforward and easily agreed to, the calculation of an AUM price is a negotiation. Determining a fair share for the leaser and the lessee is the challenge.

One-third, 50-50 Share Options

This tool uses a one-third split to the leaser as a base value. A 50/50 revenue share is also calculated and would represent top-level service provided by the leaser. It would also imply additional advantages to the lease such as close proximity or limited availability.

Yearling AUM price 33% share: \$58.93 X .33 = \$19.45

Yearling AUM price 50% share: \$58.93 X .50 = \$29.46

AUM prices calculated using this method serve as a starting point for the negotiation process. The method allows both the leaser and the lessee to see the total potential value creation per AUM. However, the actual agreed upon share may vary, with a one-third split being a good starting point in the negotiation process. The online tool at www.uwyoextension.org/ranchtools simplifies the calculations.

Bridger Feuz, based in Uinta County, is the University of Wyoming Extension livestock marketing specialist and also serves Lincoln, Sublette, Sweetwater, and Teton counties. He can be reached at (307) 783-0570 or at brfeuz@uintacounty.com.

