



Big Horn Basin farm uses new enterprise risk analyzer tool - II

By James Sedman and John Hewlett

In a previous installment in this series we looked at the example Big Horn Basin farm, the EF, and how its managers were beginning to use the Enterprise Risk Analyzer tool (ERA tool) from RightRisk.org.

We assess their various cropping enterprises over 835 acres of farmland and determine areas of potential improvement.

Organizing Information and Tracking Income and Expenses

After the farm managers entered their data for cropping enterprises, they input total income and expense data from their IRS Schedule F and tax return. This includes

For more information

The Enterprise Risk Analyzer tool is available at RightRisk.org. Under the Resources tab, click Risk Mgt Tools. The tool includes a user guide and an example farm and ranch already loaded. Producers can input their information for various enterprises and their Schedule F and begin their enterprise risk analyses. Visit RightRisk.org for other risk management planning resources including tools, courses, producer profiles, and other important information.

NET INCOME ANALYSIS						
	WHOLE FARM	Melting Barley	Sugar Beets	Grain Corn	Silage Corn	Alfalfa (est+growing)
FARM REVENUE						
TOTAL FARM INCOME - CASH	418,218.00	89,119.00	218,845.00	30,996.00	41,400.00	37,858.00
TOTAL NON-CASH INCOME ADJUSTMENTS						
GROSS FARM REVENUE	418,218.00	89,119.00	218,845.00	30,996.00	41,400.00	37,858.00
FARM EXPENSES						
FARM EXPENSES - CASH	251,303.00	55,137.00	109,123.00	28,032.00	32,961.00	26,050.00
FARM EXPENSES - NON-CASH EXPENSE ADJUSTMENTS	207,982.00	53,085.00	80,191.00	24,339.00	23,977.00	26,390.00
GROSS FARM EXPENSES	459,285.00	108,222.00	189,314.00	52,371.00	56,938.00	52,440.00
NET FARM INCOME FROM OPERATIONS	(41,067.00)	(19,103.00)	29,531.00	(21,375.00)	(15,538.00)	(14,582.00)

Net Income RISK Analysis						
	WHOLE FARM	Melting Barley	Sugar Beets	Grain Corn	Silage Corn	Alfalfa (est+growing)
NET Enterprise CASH INCOME (cash income - cash expenses)						
Minimum	(76,728.25)	(33,672.50)	2,877.00	(26,232.00)	(11,901.00)	(6,799.75)
Most Likely	166,915.00	33,982.00	109,722.00	2,964.00	8,439.00	11,808.00
Maximum	437,851.75	99,887.50	159,627.00	69,168.00	30,219.00	78,950.25
NET Enterprise REVENUE (gross revenue - gross expenses)						
Minimum	(283,710.25)	(86,757.50)	(77,314.00)	(50,571.00)	(35,878.00)	(33,189.75)
Most Likely	(41,067.00)	(19,103.00)	29,531.00	(21,375.00)	(15,538.00)	(14,582.00)
Maximum	229,869.75	46,802.50	79,438.00	44,529.00	6,242.00	52,560.25

all cash expenses. These figures for total income and expenses will be allocated over each enterprise as we move further into the ERA tool.

The EF Farm has inventories, farm machinery, other buildings and equipment, and real estate to enter into depreciation schedules. They also provide basic details for any loans and other liabilities.

The next step is to allocate cash and non-cash income and expenses to each enterprise based on the total data entered previously. While this is a relatively simple exercise when entering cash income and expenses, the challenging part becomes entering non-cash income and expense data.

The method chosen for this example is to allocate based on

acreage for each enterprise. Remain consistent in this method for both income and expenses, otherwise results may be misleading.

The summarized results show that the EF has one enterprise out of five that provides a positive net income over all expenses -- sugar beets.

Areas of Success and in Need of Improvement

The ERA tool provides a summarized breakdown under the NIAAnalysis tab. Scrolling down, we see net cash income and net revenue are broken down for each enterprise based on their minimum, most likely, and maximum values entered earlier (General tab).

For EF's data, sugar beets carry the farm while the corn enter-

prises show considerable losses unless the best price scenario is realized.

While some cropping enterprises may be necessary for rotational benefits, the silage corn enterprise should be examined further due to its low net income potential even in the best scenario.

Short-term and Long-term Break-even Analysis

Another useful feature of the ERA tool is the break-even analysis. This allows the producer to examine how break-even price and yield compare with the minimum, most likely, and maximum values entered earlier.

This analysis provides managers with a method to evaluate prices necessary to cover expenses if the

minimum scenario of price or yield occurs. In terms of the corn silage enterprise, the break-even price to cover gross expenses is \$27.51 per ton or \$7 more than the most likely price.

Further breakdown of the silage corn enterprise should be performed to see if efficiencies could be gained, such as costs reduced or gains made to estimated revenues.

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.

BREAK-EVEN ANALYSIS						
	Melting Barley	Sugar Beets	Grain Corn	Silage Corn	Alfalfa (est+growing)	
FARM REVENUE						
TOTAL FARM INCOME - CASH	89,119.00	218,845.00	30,996.00	41,400.00	37,858.00	
TOTAL NON-CASH INCOME ADJUSTMENTS						
GROSS FARM REVENUE	89,119.00	218,845.00	30,996.00	41,400.00	37,858.00	
FARM EXPENSES						
FARM EXPENSES - CASH	55,137.00	109,123.00	28,032.00	32,961.00	26,050.00	
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GROSS FARM EXPENSES	108,222.00	189,314.00	52,371.00	56,938.00	52,440.00	
NET FARM INCOME FROM OPERATIONS	(19,103.00)	29,531.00	(21,375.00)	(15,538.00)	(14,582.00)	
Break-Even PRICE Analysis						
YIELD PER ENTERPRISE UNIT						
Minimum	140	25	180	27	5	
Most Likely	110	22	140	23	3.75	
Maximum	32	14	10	18	2.5	
BREAK-EVEN PRICE - CASH EXPENSES						
Minimum	1.49	17.46	1.73	13.56	37.21	
Most Likely	1.89	19.84	2.22	15.92	49.62	
Maximum	6.50	31.18	31.15	20.35	74.43	
BREAK-EVEN PRICE - GROSS EXPENSES						
Minimum	2.92	30.29	3.23	23.43	74.91	
Most Likely	3.71	34.42	4.16	27.51	99.89	
Maximum	12.76	54.09	58.19	35.15	149.83	

UW Extension offers Wyoming Master Stockman Ranch Management Institute

By Bridger Feuz

An in-depth ranch management session with a focus on ranch economics is March 4-6 at the Vee Bar Guest Ranch near Laramie.

Ranch Management Institutes are hosted by University of Wyoming Extension. Twenty-six producers attended three Ranch Management Institutes in 2013.

This institute represents the next step in learning tools to make good decisions on a ranch. Participants learn the use of the tools, practice using the tools in real ranch situations, and walk away from the program with all of the tools, software, and information from the institute.

All participants must RSVP by registering for the institute before Feb 21. The institute is limited to 12, and the fee is \$200 per person. The fee includes two nights lodging, meals, and software tools if participants bring their own laptops. If participants would like a new laptop computer with all of the software tools pre-loaded, the fee for the program is \$500.

Register by emailing me at bmfeuz@uwyo.edu or calling 307-783-0570.

The institutes are designed for small groups of eight-12 participants to enhance the learning process. All of the producers indicated they would recommend the program to other producers. Producers also indicated the value of the program to their ranches. The average response indicated that more than \$5,000 was created for their ranch.

Program locations were chosen to be fairly isolated so participants could work on their assignments with few distractions. Additionally, the presenter team members are available to help with any questions. The interaction with presenters and participants worked well in this setting; however, an additional benefit was the wealth of knowledge shared among participants as they interacted with each other.

Here are quotes from last year's participants.

• "It is tough to answer the question of how much value is cre-

ated; it doesn't take much to amount to \$5,000 to \$10,000 when one sees \$2.00 5 weights. The insurance information seems like a government giveaway, but it may be reckless to thumb my nose at it if doing so disqualifies our ranch from any disaster help. We all know wrecks can happen. So in the end, since I am reluctant

to exaggerate, I would answer \$5,000 - \$10,000."

• "The amount of information was almost overwhelming since I am not the one that usually works on these things on our ranch. Having the tools and the information pre-loaded on the laptop has been a big help. I have been able to work on the information on my own time table."

The institute will have an intensive focus on ranch economics. Agriculture has been and will continue to be a business with significant risk. Drought, highly variable input costs, and fluctuating prices are just a few of the risks producers face. This institute will teach strategies and tools to help producers make good decisions that will lead to increases in profit. Participants will roll up their sleeves and not only learn to use the tools, but they will also be guided through the process of completing analysis on their own ranch. Just like many other jobs on a ranch, management is hard work. We will expect participants to work hard and complete the tasks at hand during this institute.

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 bmfeuz@uwyo.edu.

Ranch Management Institute location and dates:
March 4-6, Wednesday-Thursday, at the Vee Bar Guest Ranch near Laramie. www.veebar.com
The institute starts 1 p.m. Tuesday and finish by 2 p.m. Thursday.

Agenda
Day 1 Whole ranch marketing assessment and financial analysis
Day 2 Time for completing assignments from day 1
- Partial budgeting and investment analysis tools
- Range management
- Basis management tools
- Genetics
Day 3 Time for completing assignments from day 2

Analysis tools available at www.uwyoextension.org/ranchtools
Livestock Risk Protection and RightRisk