Cow-Calf Ranch Input Worksheet- *Unit Cost of Production Workshop Users Guide*

Introduction and Background

To guide ranchers in assessing their business profitability, the BC Ministry of Agriculture is hosting a series of workshops for beef producers on analysing their cow herd's unit cost of producing a hundredweight of calf (UCOP). UCOP distills your operation's productivity and costs of doing business into a single number that is powerful tool. UCOP is simply your herd's total costs divided by the total pounds of weaned calves your herd has produced expressed on a hundred weight (cwt) basis. Calculating your UCOP can give you instant feedback regarding your profitability when you look at market prices because they are in the same units. Tracking, calculating and understanding your productivity measures as well your costs, and comparing to other ranches can help in managing your herd to reduce total cost of production per pound of calf weaned and thereby improve profitability.

The workshop also includes a session on the Western Livestock Price Insurance Program (WLPIP). This risk management tool provides producers with protection against an unexpected drop in prices on cattle over a defined period of time. Knowing the herd's unit cost of production will enable you to make better decisions on utilizing this program to mitigate the increased price risk resulting from the current economic volatility and related uncertainty in future calf prices.

Excel Cost Model- Ranch Inputs

The workshop will employ an Excel based Beef Unit Cost of Production model that uses individual ranch information to calculate the unit cost of production (UCOP) per hundred weight (cwt) of calves weaned. The Cow-Calf Ranch Input Worksheet is intended to collect the information needed for inputting the required data (input cells) in order to calculate an accurate UCOP for the ranch.

The model outputs include:
- A summary of the ranch inputs that includes calculations for Weaning %, Herd Replacement %, Cow and Calf Death Loss %, and Cow/Bull ratio.
- Income and Expense Statement
- Net Worth Statement
- Unit Cost of Production calculation with Production Summary and Sensitivity Analysis
- Comparison Summary of your ranch to BC Regional Ranches

Once you have your data entered, the model can be used to assess the effect of changes on various items on the UCOP and profitability of the ranch and identify areas you should manage to reduce the cost of production and improve profitability.

The regional example ranches were developed on a consensus basis to provide base line data for a representative ranch business in six areas of British Columbia. The data is from 2013. These ranches were not meant to be average or typical ranches but rather those being a reasonable fit for the area in which they were designed. The information is presented as a basis for comparing herd to herd variation in beef cow profit.

The Cow-Calf Ranch Input Worksheet is intended to be completed in advance of the workshop in order to better utilize your time to get the most out of the workshop. It has been designed to enable input of your specific ranch information into the Excel cost model to calculate the Unit Cost of Production (UCOP) per hundred weight of calves weaned for your operation. You will receive a copy of the cost model to use at the workshop and for your use later.

The required information can be collected from various production and financial records (e.g. Income & Expense Statement), invoices, and inventories that you have on the ranch. It is important to try and get the information as precise as possible in order to obtain an accurate assessment of costs and returns and the resulting UCOP per CWT. The input worksheet includes an example regional ranch to illustrate the type of numbers to be entered. You may not have information applicable to all of the input cells. For those that don't apply to you, just enter zero or leave blank.

Page 1

This page contains some basic information including the calendar year on which all the information entered is based on, ranch name and acreage. The Production Information input cells include the number of various animals on the ranch starting with the number of pregnant Cows and Yearling Heifers at the beginning of the calendar year. As well, there are 3 input cells to enter the average value per head for Purchased Bred Cows, Bred Heifers and Bulls. The last 2 cells are Calving Start Date and Calf Sale Date which are entered using yyyy/mm/dd format. There is a worksheet at the end of this guide to assist you in calculating the average weights and prices for various animals for entry into the Ranch Input cells.

Page 2

Inputs for this page include numbers on sales, purchases, marketing costs as well as private and crown land grazing, land rent and forage production, sales and purchases as well as winter feeding requirements. If you sold in a number of groups you can use the tables on the back two pages of this guide to help calculate the average weight and average $ per head (there is also an extra spreadsheet in the computer model that will do the math provided you have your numbers ready to enter into it).

Forage production includes home grown forage (acres in production and total tons produced) as well as hay sales and purchases (annual tons and dollars). The sales and purchases dollar amounts are used in the Income and Expense Statement and the tonnage information (production, sales, and purchases) are linked to the winter feeding amounts. The numbers you enter here will be used to compare the total hay available to the total hay fed.

Page 3
Inputs for this page cover the annual amounts for other direct and indirect expenses. This information should be accessible from the income and expense statement (Tax) for the calendar year you are using. It should be noted that the line items (or expense descriptions) may not be exactly the same as for your operation. In this case just allocate the expenses to those boxes that seem to fit best to your expense items.

The last two items on this page are for input of any annual crop sales and other income items.

Page 4
This section is collecting information to calculate a Net Worth Statement for the ranch which includes the calculation of two financial ratios that look at cash flow and financial risk. The values entered should be for the end of the calendar year that you are working with. Again, not all input items may apply to you.

Resources for the Workshop
Bring the completed Ranch Input Worksheet with you to the workshop. There will be instruction and support at the workshop to assist you in entering your data. It may be helpful to bring your source information to refer to, if you have questions or concerns about the data you have entered onto the worksheet.

Computers will be available for your use at the workshop. *You are welcome to bring your own computer as well.*

If you have questions regarding the Ranch Input Worksheet in advance of the workshop, please contact:

> Local Agrologist, BC Ministry of Agriculture at 1-888-221-7141
> AgriServiceBC@gov.bc.ca or
>
> Jim Forbes at 1-888-823-3355
> Jim.Forbes@gov.bc.ca

	Date	Type	Number	Weight	Price/lb.	Total lb.	Total Revenue

Worksheet to Calculate the Average Weight and Price per Pound for Cattle Sales

	Date	Type	Number	Weight	Price/lb.	Total lb.	Total Revenue
Sale#	**Section 1**	**Steers**					
1							
2							
3							
4							
5							
6							
		Totals					
	Steers	**Avg. Wt. (lb.)**		**Avg. $/lb.**			
Sale#	**Section 2**	**Heifers**					
1							
2							
3							
4							
5							
6							
		Totals					
	Heifers	**Avg. Wt. (lb.)**		**Avg. $/lb.**			
Sale#	**Section 3**	**Cull Yearling Heifers**					
1							
2							
3							
4							
5							
6							
		Totals					
	Cull Yearling Heifers	**Avg. Wt. (lb.)**		**Avg. $/lb.**			

Worksheet to Calculate the Average Weight and Price per Pound for Cattle Sales							
	Date	Type	Number	Weight	Price/lb.	Total lb.	Total Revenue
Sale#	**Section 4**	**Cull Cows**					
1							
2							
3							
4							
	Totals						
	Cull Cows	**Avg. Wt. (lb.)**		**Avg. $/lb.**			
Sale#	**Section 5**	**Cull Bulls**					
1							
2							
3							
4							
		Totals					
	Bulls	**Avg. Wt. (lb.)**		**Avg. $/lb.**			