Photo credit: Kathy Larson

WesternBeef

DEVELOPMENT CENTRE

Whole Ranch Cost of Production Calculator Training

Fall 2016

Table of Contents

Background

The Western Beef Development Centre has been assisting Saskatchewan cow-calf producers with their whole ranch cost of production (COP) analysis since the late 1990s.

A Microsoft Office Excel calculator was developed in 2014 by WBDC Economist Kathy Larson to help producers calculate their cost of production on their own.

Prior to 2014, producers filled in data forms or had farm visits where they would provide their production and financial data to the WBDC Economist who would then enter all the data into a software program called CowProfit$. COP summary reports would then be provided back to the producer. Data collection from producers ceased in 2013.

There are a few reasons why this MS Excel COP calculator has been developed:

1) CowProfit$ software is outdated for today's computer operating systems and is currently undergoing an upgrade;

2) Producers have expressed they wish to work on their COP throughout the year and at their own pace, with this calculator they can, and;

3) By having the ability to input the numbers and generate COP results, producers will be able to better understand how the production and financial data work together to generate cost of production.

What is Cost of Production?

Cost of Production is a summation of the costs – cash and non-cash, variable and fixed – to produce a commodity. Cost of production is for informed farm-level decision making. Knowing one's cost of production is the first step in making adjustments to modify it. As the saying goes "You cannot manage, if you do not measure." *Good cost of production information starts with good farm records.*

Variable Costs
+
Fixed Costs
=
Cost of Production

Typically reported as $ per cow wintered

Total Costs
÷
# of Cows Wintered
=
$/cow

Unit Cost of Production (UCOP) is your Break-Even Price

Total Costs
÷
Lbs of Calf Weaned
=
$/lb of calf weaned

What is Whole-Farm or Whole-Ranch Cost of Production?

A cow-calf operation seldom exists in isolation. If a producer has a cow-calf operation, but they also raise their own replacement heifers, keep back some calves to background and sell in the spring, make their hay and own pasture to graze, they essentially have five enterprises or business lines (Figure 1).

Each of these enterprises has its own cost of production. It is advisable for a producer to separate their costs and revenues into the respective enterprises to determine the cost of production for each. Doing so will enable a producer to see which enterprises are making money (winners) and which are losing money (losers).

Figure 1. Enterprises on a Typical Cow-Calf Operation

What Units is Cost of Production Reported in?

Typically, cost of production is reported in production units which is the base unit used to produce the commodity (i.e., per cow wintered, per replacement heifer, per acre). For the cow-calf enterprise you will often see cost of production reported as $ per cow wintered, however, it can be useful to also report costs by the unit produced (also known as “unit cost of production”). For the cow-calf enterprise that would be $ per pound of calf weaned. For the forage enterprise it would be $ per tonne of hay produced. Working costs back to the primary unit of production generates a break-even price which is easily comparable with posted market prices (Table 1).

By dividing total costs by the total production (lbs of calf for cow-calf enterprise) you are tying production to financials. To illustrate this with an example, think of three producers, all with the same cost of production on a $/cow wintered basis, but they all require different prices for their calves because unit cost of production factors in the number of calves weaned and the weight of those calves.

As Table 2 shows, Producer A, B and C each have a cost of production of $750 per cow wintered, however their break-even price on calves varies as wean percentage and wean weight change from $1.58/lb to $1.76/lb for weaned calves weighing 500 lbs and from $1.32 to $1.47/lb for 600 lb calves.

Table 1. Units to Report COP for Various Enterprises

Enterprise	Production Unit Reporting	Unit Produced Reporting
Cow-Calf	$/cow wintered	$/lb of calf weaned
Replacements	$/bred heifer	same
Backgrounders	$/head	$/lb of gain
Forage	$/bale or $/acre	$/tonne
Pasture	$/acre	$/AUM or $/hd/day

Table 2. Demonstrating Difference Between COP and UCOP

Producer	Cost of Production, $/cow	Wean Percentage	Wean Weight, lbs	Break-Even on Calves, $/lb
Producer A	$750	95%	500	$1.58†
			600	$1.32
Producer B	$750	90%	500	$1.67
			600	$1.39
Producer C	$750	85%	500	$1.76
			600	$1.47

† Calculation as follows: $750 ÷ 0.95 (Wean percentage) ÷ 500 (Wean weight) = $1.58/lb of weaned calf

Why It's Important to Calculate Your COP with Your Numbers

While there are posted benchmarks and cost of production estimates available it is highly advisable to go through the effort of determining your own cost of production using your own production and financial numbers. Reason being, cost of production is highly variable between operations.

Data collected from producers in Saskatchewan from 2001 to 2012 shows there was at least a $100 per cow difference between the top producers and the study average each year (Figure 2). Similarly, results from Alberta show a $90 per cow difference between the study average and the top low-cost producers. Another study of cost of production results in Kansas found that there was a $250 per cow difference between the top third and bottom third of producers surveyed, with the biggest differences being in feed costs, interest charges and labour.[1] .The producers in the top one-third also had larger herd sizes (n=187) compared with the bottom one-third (n=85), which is important when it comes to fixed costs

[1] Dhuyvetter, K.C., 2011, Differences between High, Medium and Low profit Producers: An Analysis of 2006-2010 Kansas Farm Management Association Cow-Calf Enterprise, AgManager.info

(those that change very little to not at all with changes in herd size) as there are more cows to spread the costs out over.

Figure 2. Difference in $ per cow wintered between Top 25% and Study Average, SK

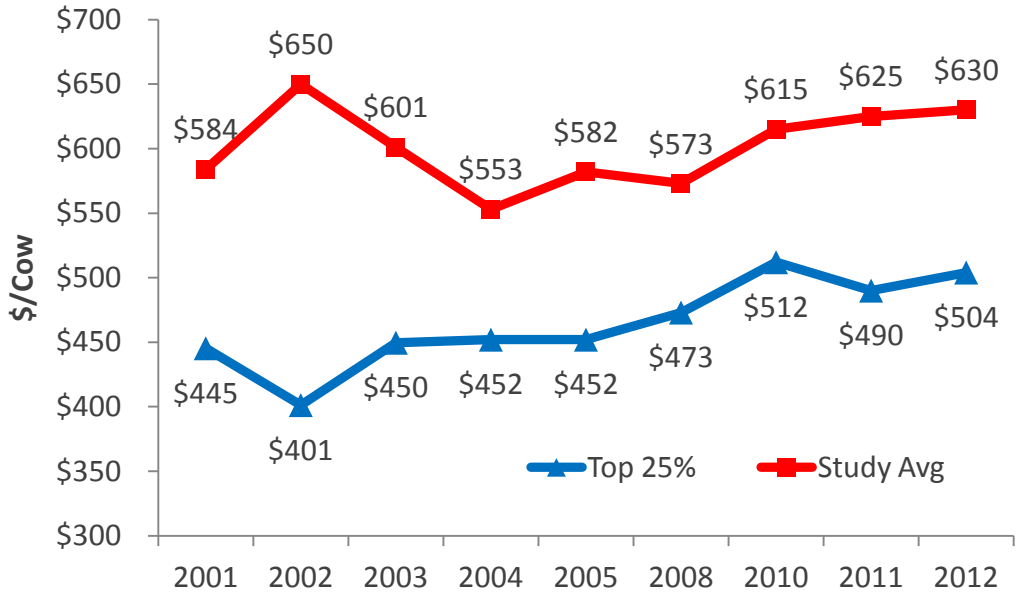
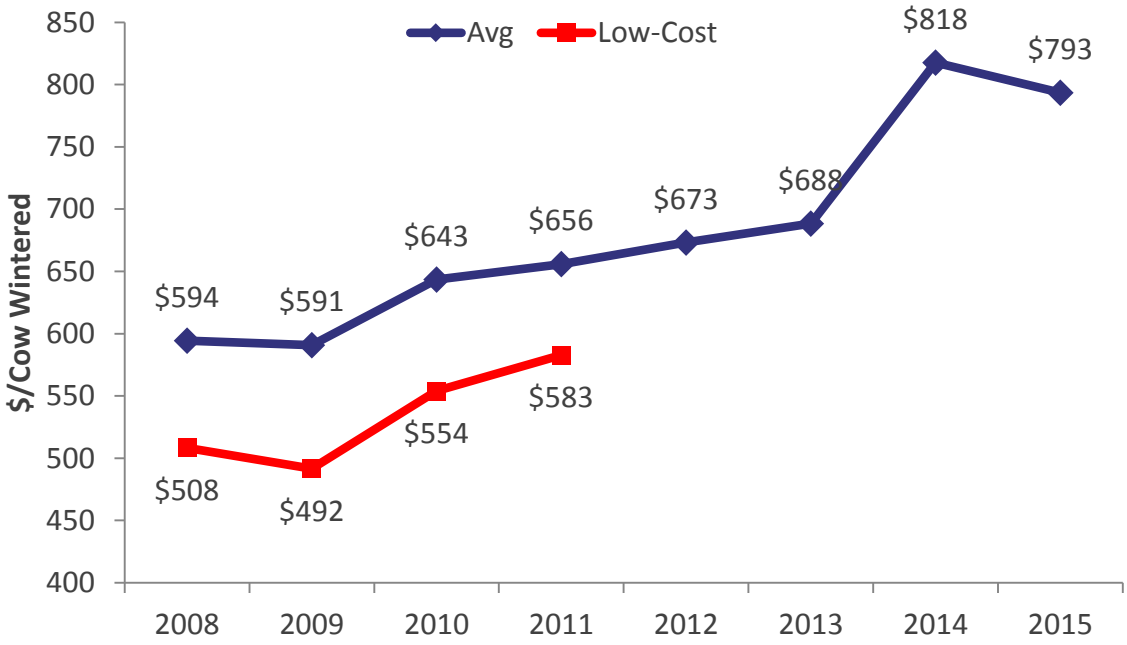


Figure 3. Difference in $ per cow wintered between Top and Study Average, AB



The Biggest Herds Do Not Always Have the Lowest Costs

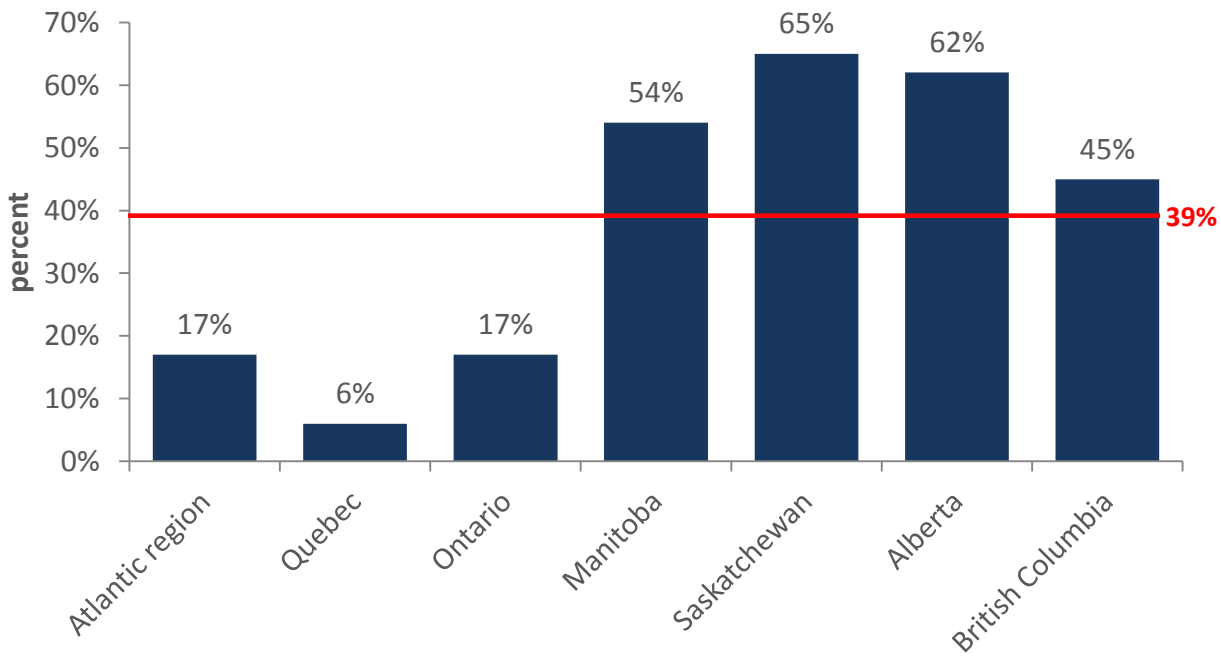
While having a larger herd size does allow a producer to spread fixed costs (e.g., unpaid labour, depreciation, interest) over more animals, thereby reducing the costs per cow wintered, it does not necessarily mean the producer will have the lowest costs or the best net returns. They simply have size on their side when it comes to sharing fixed costs. There are many smaller sized operations that are very efficient, cost conscious and profitable. Another point to stress is that being low-cost is only part of the picture, a producer also needs to have strong production performance in order to have calves to sell to earn revenues and generate a positive net return.

Low-Cost Producers Tend To…

Have Lower Winter Feeding Costs and Fewer Winter Feeding Days

Low-cost producers tend to have ***lower winter feeding costs*** and ***fewer winter feeding days***. Use of field feeding for at least part of the winter feeding program has tended to become the norm on the Prairies with 60% of producers surveyed in Manitoba, Saskatchewan and Alberta indicating they use extended grazing (Figure 3). Research has shown that field feeding can be in 10-30% lower cost than pen feeding (drylot) round bale hay in the yard.

Figure 4. Utilization of Extended Grazing Across Canada, FEMS Survey



Source: http://www.statcan.gc.ca/pub/21-023-x/2013001/part-partie1-eng.htm

Have Lower Investment in Machinery & Buildings

Low-cost producers tend to have ***lower investment in machinery and buildings*** which will impact repairs, fuel, interest (if purchased with loans) and depreciation (decline in value of asset over time) expenses as well. Lower investment can be a producer owning older equipment and buildings or simply choosing to operate with less.

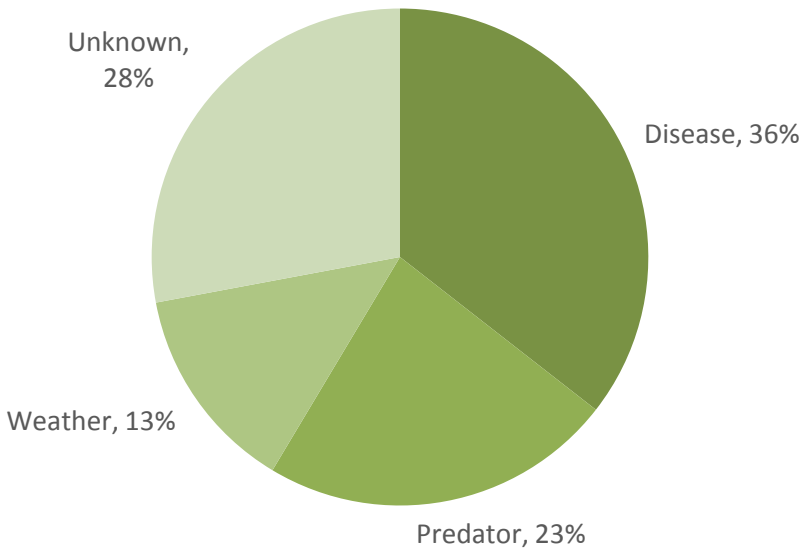
Have Larger Herd Sizes

Low-cost producers tend to have ***larger herd sizes***. With a larger number of cows comes the ability to spread fixed costs – unpaid labour, depreciation, interest, property taxes – over more head thereby reducing the per unit cost of production. Fixed are those costs that do not change or change very little with a change in production units (i.e. cowherd size). However, there are examples where smaller herd sizes are just as efficient and low-cost as larger herds.

Have Higher Wean Percentages

Low-cost producers tend to have ***higher wean percentages***. Wean percentage (number of calves weaned ÷ number of live births / 100) is dependent on the number of live calves born and calf death loss. The number of live births can be negatively impacted if cows have difficult births in which the calf dies or calve in inclement weather (calf dies from exposure). Calf deaths often result from sickness (pneumonia, scours), predators, or weather (Figure 4). Because the sale of weaned calves is the primary revenue source for cow-calf producers, following recommended management practices is a key way to ensure exposed females wean marketable calves. Strong conception rates (target 90%+) and ideal calving distribution (target 60%+ calving in first 21 days of calving season) all influence the number of calves weaned and the total pounds of calf weaned.

Figure 5. Calf Death Loss by Reason, WCCCS 2014



Not Cut Corners on Herd Health, Nutrition, Bulls and Pasture

Low-cost producers tend not cut corners on ***herd health, nutrition, bulls and*** **pasture** as these are deemed necessary expenditures. Savings in time, money and labour as a result of short changing these areas will reduce herd productivity and end up costing a producer even more in the long-run.

Using the COP Calculator

Make Sure MS Excel Installed on Your Computer

You must have Microsoft Office installed on your computer to use this calculator – MS Office is software that will include Word, Excel and PowerPoint. When you purchase a new computer or laptop, MS Office will not likely be installed on the computer/laptop, it will need to be purchased separately. Some producers have installed Excel Viewer, which will allow them to open the calculator and view the contents, but they will not be able to modify any of the numbers.

Where to Start

The Excel calculator is available free for download from Western Beef's website at:
http://www.wbdc.sk.ca/economics_current.htm#coptool

When the Excel file is first opened, it will open to a **'Welcome'** page that provides information about the tool. It is best to start at the '**About My Ranch**' tab, in this tab there are three steps: type an "X" beside all the enterprises in the operation, enter which production year the analysis is for and the beginning/ending dates for the accounting year.

After completing these three steps, click on tabs numbered 1 through 12, found to the right of the 'About My Ranch' tab to enter in the remaining data required for whole-ranch COP analysis.

The reports (coloured tabs following the Input Form worksheet tabs) will have errors in the fields if any of the required data has not been entered in the input forms (numbered 1 through 12) (Figure 5). **If you go to a report and see a whole pile of "0's" and "#DIV/0!" it means data entry has been missed – go back through tabs 1 through 12 and complete data entry.** Table 3 below provides a summary of what each tab is about.

Table 3. Description of all the Worksheets in the Calculator

Worksheet Name	What this Worksheet is for
Welcome	Contains background information on COP efforts by WBDC and some details on how to use the calculator.
About My Ranch	**3 Steps** – identify enterprises on operation to be analyzed, production year and accounting year
1. Cow-Calf_InputForm	**8 Steps** – Provide key dates; head counts; breeding stock sale, purchase and transfers; calf crop numbers & sales info; winter feed amounts; and summer grazing amounts related to the cow-calf enterprise
2a. Replacement_InputForm	**5 Steps** - Provide key dates; head counts; heifer sales, purchases and transfers; winter feed amounts; and summer grazing amounts related to replacement heifer enterprise
2b. HomeRaisedBulls_InputForm	**5 Steps** - Provide key dates; head counts; bull sales, purchases and transfers; winter feed amounts; and summer grazing amounts related to home-raised bulls
3. Backgrounder_InputForm	**4 Steps** - Provide key dates; head counts; weights; sales, purchases and transfers; and winter feed amounts related to backgrounder enterprise
4. Grasser_InputForm	**4 Steps** - Provide key dates; head counts; weights; sales, purchases and transfers; and summer grazing amounts related to grasser enterprise
5. Finisher_InputForm	**4 Steps** - Provide key dates; head counts; weights; sales and purchases; and fed amounts related to finisher enterprise
6. Pasture_InputForm	**2 Steps** – Enter tame and native acreage for owned, leased and rented pasture; custom grazing income
7. Forage_InputForm	**1 Step** - Provide acres, yield and market value for each forage type produced on the operation
Worksheet Name	**What this Worksheet is for**
8. Grain_InputForm	**1 Step** - Provide acres, yield, sold amount and market value for each crop type produced on the operation
9. "Other" Revenues	Optional; Provide custom work revenues, government program payments, rebates
10. Expenses	**2 Steps** – Enter livestock related expenses and shared expenses; provide % allocation across enterprises
11. Unpaid Labour	Provide "salary" value for all unpaid labourers (family members) and allocate time across enterprises

12. Assets_for Depreciation	**3 Steps** – Provide complete listing of powered, non-powered and buildings/handling equipment with current market value and % allocation of use across enterprises
Summary Report Tabs	***Coloured tabs after InputForms 1 thru 12***
Production Indicators	Summary of key production indicators based on numbers entered in Input Forms. Suggested targets can be altered by user. Enter number of calves born by 21 d interval to generate a calving distribution chart
Cow-calf CoP	Summary report of production, revenues, direct costs, yardage costs, total production costs and break-even for the cow-calf enterprise in $/cow wintered and $/lb of calf weaned
Repl Heifer CoP	Summary report of production, revenues, transfer values, direct costs, yardage costs, total production costs and break-even for the replacement heifer enterprise in $/heifer
RanchRaised Bull CoP	Summary report of production, revenues, transfer values, direct costs, yardage costs, total production costs and break-even for the home-raised herdsire enterprise in $/heifer
Bckgrdr CoP	Summary report of production, revenues, transfer values, direct costs, yardage costs, total production costs, net returns and cost of gain for backgrounders from the previous calf crop
Grasser CoP	Summary report of production, revenues, transfer values, direct costs, yardage costs, total production costs, net returns and cost of gain for grassers from previous calf crop
Finisher CoP	Summary report of production, revenues, transfer values, direct costs, yardage costs, total production costs, net returns and cost of gain for finished cattle
Pasture CoP	Summary report of acreage, production (total grazing days), costs and returns for the grazing enterprise with break-even estimate of $/hd/day
Forage CoP	Summary report of acreage, production, costs and returns for the forage enterprise reported in $/acre, $/bale and $/tonne
Grain CoP	Summary report of acreage, production, revenues and expenses for the grain enterprise reported in $/acre and $/tonne
Winners_Losers	1-page summary showing the cash and non-cash revenues and expenses, contribution margin and return to equity and unit cost of production (break-even) for each enterprise on the operation

Whole Farm Report	1-page summary showing the value of production, variable costs, capital costs, gross margin, net income and investment per breeding female

Figure 6. Cow-Calf COP Summary Report With Prior to Data Entry

WesternBeef DEVELOPMENT CENTRE

0 COW-CALF - COST OF PRODUCTION

# of Cows Wintered				0		
# of Calves Weaned				0		
Pounds of Calf Weaned				0		
Average WWT				#DIV/0!		
Weaning %age				#DIV/0!		
Income				**Total $**		
Weaned Calf Sales	0	head		$0		
Retained to Background	0	head		$0		
Retained as Replacement	0	head		$0		
Total Income/Production			**A**	**$0**	**#DIV/0!**	**#DIV/0!**
Direct Costs				**Total $**	**$/Cow**	**$/lb**
Winter Feed/Bedding				$0	#DIV/0!	#DIV/0!
Grazing				$0	#DIV/0!	#DIV/0!
Salt & Mineral				#DIV/0!	#DIV/0!	#DIV/0!
Veterinary & Medicine				#DIV/0!	#DIV/0!	#DIV/0!
Breeding Fees				$0	#DIV/0!	#DIV/0!

#DIV/0! Showing up in the fields where summary data should be means that not all of the required data has been entered in numbered Tabs 1 through 12.

Things to Consider

a) Allocation of Shared Expenses

When it comes to shared expenses (10. Expenses) - feel free to break-down expenses to make allocations to your enterprises easier. For example, for your fuel expense you can enter your diesel, gas and oil & filters on three separate lines. If your financial records do not have that much detail and fuel-related expenses are all lumped together, that is fine as well. **Just remember to allocate shared expenses across all of your enterprises that contribute to that expense.** Providing more detail is also useful in the machinery repairs category and custom work expense category.

b) Winter Feeding & Summer Grazing Details

Winter feed should be for the winter prior to the calf crop year being examined. For 2016-born calves, you need to enter in the winter feeding details for the Fall/Winter of 2015-16. When it comes to tracking pasture and winter feed, including dates that cows were on pasture or stubble grazing, or bale grazing and/or on winter feed is helpful for reconciling a years' worth of feed.

Everyone seems to track winter feed differently. Perhaps you know the number of bales that you fed or maybe you know what was fed on a daily basis (i.e. 1 ba hay, 600 lb oats, 1100 lb silage, 35 lb/hd/day, etc.). Whatever method you choose to use is fine, just be sure to include details and prices (use market values for any homegrown feed) so you can generate a winter feed cost.

c) Protected Worksheets to Protect Formulas

All the worksheets have been "protected" to prevent accidental changes to formula cells. If you are proficient in Excel and want to make modifications, you can "unprotect" a worksheet by clicking on Review --> Unprotect Sheet.

d) Green-Shaded Cells Contain Formulas

If a cell is green with white text it contains a calculation or links to data from another worksheet and will be uneditable unless you “unprotect” the worksheet.

e) COP Summary Reports have Coloured Tabs

The sheets with coloured tabs (starting with **'Production Indicators'**) contain the COP Summary for each enterprise. The COP Analysis Summaries will only show accurate/complete results once all of the required data in Tabs 1 through 12 has been entered.

f) Requires Microsoft Office Excel to be Installed

If you are having trouble with this Excel tool, do not hesitate to contact me. You must have Microsoft Office Excel installed on your computer to use this calculator. Excel Viewer will allow you to open the calculator and view the content, but you will not be able to modify any of the numbers.

About ABC Ranch – Example Ranch

The following production and financial data serves as a practice ranch for learning how to use this cost of production calculator for Whole Farm Cost of Production. The data outlined over the next few pages has been used to populate the Excel file named "COPTool_Excel_ABCRanch".

ABC Ranch is a 200-head cow-calf operation that raises its own replacement heifers, keeps back steer calves at weaning to background and sell the following spring, the ranch makes its own hay and owns pasture land for grazing. Therefore ABC Ranch has five (5) enterprises – each with their own cost of production. Cost of production will be calculated for each enterprise in order for ABC Ranch to determine where the ranch is making money and where the ranch is losing money.

Cow-Calf Enterprise

The bulls are turned out every year to breed the cows on July 1st and are pulled September 1st. Heifers are exposed 2 weeks earlier (June 15th) and the bulls are pulled August 1st. The first calf was born April 5th (1st calvers start calving 2 weeks earlier). Calves are always weaned November 10th and marketed shortly thereafter and the cows are put back out to bale graze till February 1st. From February 1st to pasture turnout on June 1st the cows were fed a hay diet with some barley supplementation. The cows are then out on grass from June 1 till end of October.

# Females exposed to breeding	186 Cows + 35 Heifers
# Bulls used for breeding season	8
# Females determined bred in Fall	200 (170 Cows; 30 Heifers)
Cows culled	24
Bulls culled	2
Cows died	3

Calf Crop

Number of Calves born in Spring	196 (96 steers; 100 heifers)	
# Calves weaned in Fall		Avg Wt
Steer	93	534 lb
Heifers	96	532 lb
# Calves retained	95 (60 steers @ 525 lb; 45 heifers @ 540 lb)	

Remainder of calves sold shortly after weaning on November 10

Type	Beginning Inventory		Ending Inventory	
	# Head	Value ($/hd)	# Head	Value ($/hd)
Bulls	7	$4000	8	$3500
Cows	170	$1300	173	$1250
Bred Heifers	30	$1300	30	$1450

Sales

	No. Head	Avg Wt., lbs	Price ($/lb)	Total $
Steer Calves	33	550	$1.80	$32,670
Heifer Calves	51	525	$1.60	$42,840
Cull Cows	24	1400	$0.880	$29,568
Cull Bulls	2	2000	$1.07	$4,280

Purchases

	No. Head	Avg Wt.	Price ($/hd)
Herd Bulls	3		$3500 ea.

Breeding Herd Winter Feed

The fall/winter prior to this year's calving start, ABC Ranch bale grazed from November 1st till February 1st. After bale grazing the herd was brought closer to the yard and fed hay and some rolled barley. They were fed 40 lb/d hay and 5 lb/hd/day rolled barley till pasture turnout June 1st (120 days). The homegrown hay was valued at $65/tonne (400 ba) and the barley was bought for $180/tonne. An additional 300 ba had to be purchased for $50/ba and fed to the breeding herd. Free choice salt and mineral was also provided. The cows were given bedding straw from Feb 1 to end of April (75 bales; purchased for $25/ba).

The bulls were fed 45 lb/d hay ($65/tonne) and 8 lb/hd/d barley (for 60 d) (paid $180/tonne) from November 1st till pasture turnout June 1st (212 days).

Breeding Herd Grazing

The cattle were turned out to grass June 1st till November 1st (153 d). Thirty-five pairs were sent to the Community Pasture (breeding field) June 20th until October 25th (total cost: $5400). Fifty pair grazed rented pasture (280 ac) from June 1st to September 30th (rate: $0.67/pair/day); 2 herdsires were put out with these cows from July 1-Sept 1. Grazing on ABC Ranch's pasture land is valued at $1/pair/day ($0.75/hd/d for replacements and $1.10/hd/d for herdsires).

Replacement Heifer Enterprise

Replacements are ranch-raised. There were 35 heifers kept back from the previous calf crop which were weaned Nov 10th. The heifers had a market value of $1390 (525 lb x $2.65) at weaning. During the post-weaning phase the heifers were fed a hay (15 lb/hd/d) and rolled barley (5 lb/hd/d) diet. The hay is homegrown and valued at $65/tonne. The rolled barley was purchased for $180/tonne. The heifers used 25 bedding straw bales (purchased for $25 each). They were turned out to grass on June 1st (grazing valued at $0.75/hd/d). Two bulls were turned out for breeding from June 15th till August 1st.

The heifers were pregnancy checked on November 1st. Five opens were sold November 7th, averaging 900 lbs ($1.35/lb). The 30 bred heifers were transferred to the main herd at a value of $1450 per head.

Backgrounder Enterprise

Each year ABC Ranch keeps back 60 steer calves to background and sell in Spring. The 60 steers were weaned November 10th averaging 550 lb with an estimated market value of $2.80/lb. One steer died and the rest were sold March 10th for $2.10/lb averaging 750 lb (grossing $92,925).

They were fed hay (18 lb/hd/d) and rolled barley (5 lb/hd/d) diet. The hay is homegrown and valued at $65/tonne. The rolled barley was purchased for $180/tonne. The backgrounders also used 30 bedding straw bales that were purchased for $25 per bale.

Grazing Enterprise

ABC Ranch consists of 1900 acres of tame pasture. It also rents 280 ac from a neighbor and sends 35 pairs to the Community Pasture.

Forage Enterprise

ABC Ranch has 1 section of brome-alfalfa hay. They baled 1050 bales (1400 lb) and value them at $65/tonne.

Unpaid Labour

ABC Ranch's owner does not have an off-farm job. He values his ranch as a full-time job (40 hr/week x 50 weeks/yr = 2000 hrs) and he estimates that if he had to hire someone to manage the ranch in his absence he'd have to pay $25/hour. His unpaid labour is valued at $50,000/year. He divides his labour up across his five enterprises with the following percentage allocations:

Cow-Calf	Replacements	Backgrounders	Hay/Forage	Grazing
55%	15%	8%	15%	7%

Expenses

			ALLOCATION OF EXPENSES ACROSS ENTERPRISES				
Item	$ Total	Allocation Total	Cows	Repl Hfr	Bkgrd	Forage	Grazing
Salt & Mineral	5400	100	85	10	5		
Vet & med	6000	100	85	10	5		
Livestock Supplies	800	100	85	10	5		
Fuel	10000	100	40	15	10	30	5
Tractor repairs	2500	100	40	15	10	30	5
Stock trailer	350	100	75	10	15		
Pick up truck repairs	1500	100	40	15	10	30	5
Baler repairs	1100	100				100	
Small tools	2800	100	40	15	10	30	5
Building Repairs	5000	100	40	15	10	30	5
Fence Repairs	1000	100					100
50% Phone/Cell/Internet	1500	100	50	20	10	15	5
Accounting & Legal	800	100	40	15	10	30	5
50% Gas, power	1380	100	50	15	10	20	5
Office expense	400	100	60	15	10	10	5
Entertainment & Travel	1700	100	60	15	10	10	5
Subscriptions	200	100	80	10	10		
Corral cleaning	1500	100	75	10	15		
Capital Interest	27000	100	10	5	5	40	40
Operating interest	900	100	80	10	10		
Bank Charges	400	100	20	20	20	20	20
Property taxes	13970	100				25	75
Insurance	6000	100	20	20	20	20	20
Auto Licenses	2500	100	20	20	20	20	20
Trucking/Hauling	2000	100	70	5	25		
Hauling bales	2500	100				100	
Commissions & Levies	4400	100	65	3	32		
Twine	1300	100				100	

Assets for Depreciation Calculation

As assets age they decrease in value. In cost of production, we use the current value of the assets, not the price paid, to calculate depreciation. Depreciation on machinery is 11.5% for non-powered and 8% on powered. Depreciation on buildings is 5%. These rates were established by the Alberta Government's Production Economics Unit and can be altered, although it is advisable to utilize these rates.

Depreciation on Machinery

					ALLOCATION OF MACHINERY ACROSS ENTERPRISES				
Item	**Current Value**	**Deprec. Rate**	**This Year's Deprec.**	**Allocation Total**	**Cows**	**Repl Hfr**	**Bkgrd**	**Forage**	**Grazing**
Tractor	2000	8%		100				50	50
Auger	500	11.5%		100	75	15	10		
Tractor w FEL	28000	8%		100	50	15	10	20	5
ATV	12000	8%		100	20	20	20	20	20
1/2 ton truck	4500	8%		100	20	20	20	20	20
¾ ton truck	30000	8%		100	20	20	20	20	20
Stock Trailer	10000	11.5%		100	80	5	15		
Haybine	10000	11.5%		100				100	
Rake	2000	11.5%		100				100	
Baler	20000	11.5%		100				100	
Bale trailer	1500	11.5%		100				100	
Post Pounder	1000	11.5%		100					100

Depreciation on Buildings

Item	Current Value	Depreciation Rate	This Year's Deprec.	Allocation Total	ALLOCATION OF BUILDINGS ACROSS ENTERPRISES				
					Cows	Repl Hfr	Bkgrd	Forage	Grazing
Shop	40,000	5%		100	50	15	7	20	8
Chute & Handling System	20,000	5%		100	75	10	15		
Weigh Scale & RFID Reader	4000	5%		100	75	10	15		
Cattle Shelters	25,000	5%		100	60	25	15		
Barn	25,000	5%		100	60	25	15		
Bale feeders	4,000	5%		100	60	25	15		
Troughs	2,500	5%		100	60	25	15		
Portable Windbreaks	3,000	5%		100	80	10	10		
20 mi fencelines	30,000	5%		100					100
Dugouts	7,500	5%		100					100
Watering Bowls	10,000	5%		100	70	15	15		
2 grain bins	4,000	5%		100	75	10	15		
Shop tools	10,000	5%		100	40	5	5	40	10
10% House (office)	12,000	5%		100	45	15	10	25	5