



# Western Beef Development Centre

## What Does it Cost to Raise a Calf in Saskatchewan?

### Introduction

The Western Beef Development Centre coordinates a program for the collection of cowherd cost of production data from Saskatchewan farmers and ranchers. This work is done with the intention of providing benchmarks for the industry to compare itself against. PART I of this report details the average costs and returns from the 2001 fiscal year for Saskatchewan cow-calf producers participating in this study. PART II then segregates producers into an “east vs. central” regional analysis in order to display how some of the cowherd costs of production appear to differ depending on your location in Saskatchewan.

### PART I

#### Value of Production

Table 1 represents 2001 fiscal year data (typically January 1 – December 31, 2001) from thirty Saskatchewan cow-calf enterprises. On average these producers wintered 173 cows and weaned 162 calves weighing 510 lbs/head. Section A of Table 1 details the accrual value of production generated in the cow-calf enterprise. Value of production is represented by the value of calves when weaned from the cow, breeding stock sales and/or purchases and accrual adjustments to herd size. In this analysis the value of production was \$684/cow wintered or \$1.43/lb. of calf weaned.

#### Variable Costs

In Section B it is noteworthy that the weaned calves required a market value of \$0.99/lb. in order to cover all variable costs. The average variable cost per cow wintered totaled \$477.32 during the 2001 fiscal year. Please note this analysis has assumed all costs at market value. This means items such as grazing or winterfeed have been charged to the cowherd at the price they would have traded for in the market.

A few of the categories listed in this section should be discussed as there may be some questions concerning them. First, note the fuel cost is stated to be \$15.64 per cow wintered. This cost is comprised of fuel used when feeding the cows, hauling calves to the auction mart or pasture, traveling to town to pick-up parts, going to bull sales, meeting with the banker, etc. The fuel costs involved with producing feed or straw have not been included in this analysis given these items have been allocated to the cowherd at their market value.

The next category to focus on is the trucking and marketing charges associated with the cowherd. This category is intended to detail the costs of marketing and having calves and cows custom-hauled to and from pastures, auction marts, etc. However often times the commission and trucking costs of selling through an auction mart were not included in this category for two reasons. First, these deductions were often

subtracted from calf and breeding sales before they were presented in the value of production section. Second, in many instances producers retained ownership of their calves past the point of weaning and therefore did not incur the costs associated with selling calves directly off the cow.

### Fixed Costs

Section C denotes the “fixed costs” involved with the cowherds included in this study. Depreciation has been calculated assuming there is an annual market depreciation rate of 8 % on powered machinery (eg. tractors, trucks), 11.5% on non-powered machinery (eg. roller mill, auger or stock trailer) and 5% on facilities and buildings. **Please note principal debt payments were not taken into consideration in this analysis.**

The total fixed costs per cow wintered were approximately \$63 or \$0.13/lb. of calf weaned. Combining both fixed and variable costs resulted in an expense of \$540/cow wintered. Therefore, on average these producers needed \$1.13/lb. from the weaned calves, weighing 510 lbs/head, in order to cover all cowherd variable and fixed costs.

### Returns

The “gross margin” in this analysis was \$233/cow wintered or \$0.49/lb. of calf weaned. Gross margin is calculated by subtracting all production costs (excluding depreciation and unpaid labour) from the value of production. This number is often of great interest to producers as this is the amount left over for personal draw, depreciation and principal payments on enterprise debt.

“Return to equity” is the return the cowherd is contributing to the equity of the ranch/farm after all production costs have been considered (with the exception of principal payments on enterprise debt). The average return to equity of the 30

producers included in this study was \$143/cow wintered or \$0.30/lb of calf weaned.

**Table 1 - 2001 Saskatchewan Cow-Calf Report**

<b>Average Pounds of Calf Produced</b>	<b>82903</b>	
<b>Number of Cows</b>	<b>172.8</b>	
<b>Number of Producers</b>	<b>30</b>	
<b>Section A</b>		
<b>Category</b>	<b>\$/Cow</b>	<b>\$/lb.</b>
Value of Calves at Weaning (162.4 head @ 510 lbs/head)	744.88	1.55
Cull Breeding Stock Sales	156.06	0.33
Inventory Adjustment/Miscellaneous Revenue/Purchases	-216.72	-0.45
<b>Value of Production</b>	<b>684.21</b>	<b>1.43</b>
<b>Section B</b>		
Winter feed	174.89	0.36
Bedding	11.49	0.02
Pasture	116.19	0.24
Veterinary & Medicine	18.51	0.04
Breeding Fees / Bull Rental	4.23	0.01
Trucking & Marketing	6.09	0.01
Fuel	15.64	0.03
Repairs - Machinery	15.44	0.03
Repairs - Buildings /Corrals	4.68	0.01
Utilities & Miscellaneous	16.78	0.03
Custom Work & Spec. Labour	13.36	0.03
Operating Interest Paid	3.46	0.01
Paid Labour & Benefits	18.54	0.04
Unpaid Labour	58.02	0.12
<b>Total Variable Costs</b>	<b>477.32</b>	<b>0.99</b>
<b>Section C</b>		
Livestock Share Payments	13.14	0.03
Taxes, Water Rates, License & Insurance	6.36	0.01
Equipment and Building		
a) Depreciation	32.10	0.07
b) Lease Payments	1.98	0.00
Capital Interest	9.60	0.02
<b>Total Fixed Costs</b>	<b>63.18</b>	<b>0.13</b>
<b>Total Production Costs</b>	<b>540.50</b>	<b>1.13</b>
<b>Gross Margin *</b>	<b>233.83</b>	<b>0.49</b>
<b>Return to Equity</b>	<b>143.71</b>	<b>0.30</b>

## **PART II**

### **Regional Analysis**

Looking at Tables 2 and 3 it appears the cowherd costs of production may differ depending on where you are located in Saskatchewan. Table 2 represents data from cow-calf producers located 90 miles south, east and west of Saskatoon. These producers will be classified as “central producers” for the duration of this report. Table 3 represents data from southeast and northeast Saskatchewan cow-calf producers, who will be titled as “eastern producers” for the remainder of this report. There were very few producers from western Saskatchewan who provided 2001 fiscal year data and consequently there is no Western Beef Development Centre report detailing cowherd costs and returns from that region of the province.

### **Value of Production**

Central producers had a lower value of production than did eastern producers on a \$/cow basis. However, from a \$/lb. of calf weaned standpoint, the central producers earned more than the eastern producers.

### **Variable Costs**

The bottom line of the variable costs section is central producers were able to sustain the cowherd for approximately \$43/cow less than eastern producers. However, on a \$/lb. of calf produced analysis, it was found the central producers required \$0.99/lb. of weaned calf in order to cover all cowherd variable costs, while eastern producers only needed \$0.95/lb.

### **Fixed Costs**

The major difference in fixed costs associated with the central and eastern producers was the category “livestock share payments.” These payments involve cow-calf producers who lease cows from another individual and then have to give a portion of the value of the calf back to the owner of the cow as the lease payment on the cow. In this analysis lease payments are higher among eastern producers because a higher proportion of the producers in this group were leasing cows in 2001.

After combining fixed and variable costs it was found central producers could raise a calf for \$1.10/lb. or \$520/cow wintered. This compares to the eastern producers who could raise a calf for \$1.09/lb. or \$581/cow wintered. **However, please note this analysis does not include principal debt payments.**

### **Returns**

The gross margin among the central producers was \$226/cow wintered or \$0.48/lb. of calf weaned. Those numbers are very comparable with the eastern producers who had a gross margin of \$228/cow wintered or \$0.43/lb. of calf weaned. The return to equity of the producers in the central group (\$140/cow wintered or \$0.30/lb. of calf weaned) was also very similar to that of the eastern group (\$144/cow wintered or \$0.27/lb. of calf weaned). If you are interested in calculating what it costs your cowherd to produce a calf contact Tim Highmoor at the Western Beef Development Centre in Saskatoon at (306) 966-2627 or [thighmoor@wbdc.sk.ca](mailto:thighmoor@wbdc.sk.ca).

**Table 2 - 2001 Cow-calf Report  
90 Miles South, West & East of Saskatoon**

<b>Average Pounds of Calf Produced</b>	<b>81,815</b>	
<b>Number of Cows</b>	<b>174</b>	
<b>Number of Producers</b>	<b>15</b>	
<b>Section A</b>		
<b>Category</b>	<b>\$/Cow</b>	<b>\$/Lb.</b>
Value of Calves at Weaning (158.5 head @ 516 lbs/head)	700.64	1.49
Cull Breeding Stock Sales	140.14	0.30
Inventory Adjustment/Miscellaneous Revenue/Purchases	-181.11	-0.39
<b>Value of Production</b>	<b>659.67</b>	<b>1.40</b>
<b>Section B</b>		
Winter feed	154.35	0.33
Bedding	8.78	0.02
Pasture	122.69	0.26
Veterinary & Medicine	16.87	0.04
Breeding Fees / Bull Rental	5.53	0.01
Trucking & Marketing	8.24	0.02
Fuel	16.21	0.03
Repairs - Machinery	18.23	0.04
Repairs - Buildings /Corrals	4.55	0.01
Utilities & Miscellaneous	15.46	0.03
Custom Work & Spec. Labour	14.19	0.03
Operating Interest Paid	3.04	0.01
Paid Labour & Benefits	20.49	0.04
Unpaid Labour	56.54	0.12
<b>Total Variable Costs</b>	<b>465.94</b>	<b>0.99</b>
<b>Section C</b>		
Livestock Share Payments	5.82	0.01
Taxes, Water Rates, License & Insurance	7.80	0.02
Equipment and Building		
a) Depreciation	29.60	0.06
b) Lease Payments	1.56	0.00
Capital Interest	8.47	0.02
<b>Total Fixed Costs</b>	<b>53.25</b>	<b>0.11</b>
<b>Total Production Costs</b>	<b>519.20</b>	<b>1.10</b>
<b>Gross Margin *</b>	<b>226.61</b>	<b>0.48</b>
<b>Return to Equity</b>	<b>140.47</b>	<b>0.30</b>

\* Value of Production - Total Production Costs (excluding unpaid labour and depreciation)

**Table 3 - 2001 Cow-Calf Report  
Southeast and Northeast Saskatchewan**

<b>Average Pounds of Calf Produced</b>	<b>67,267</b>	
<b>Number of Cows</b>	<b>125.75</b>	
<b>Number of Producers</b>	<b>12</b>	
<b>Section A</b>		
<b>Category</b>	<b>\$/Cow</b>	<b>\$/Lb.</b>
Value of Calves at Weaning (123 head @ 547 lbs/head)	830.41	1.55
Cull Breeding Stock Sales	132.79	0.25
Inventory Adjustment/Miscellaneous Revenue/Purchases	-238.02	-0.44
<b>Value of Production</b>	<b>725.18</b>	<b>1.36</b>
<b>Section B</b>		
Winter feed	197.62	0.37
Bedding	15.80	0.03
Pasture	117.53	0.22
Veterinary & Medicine	20.84	0.04
Breeding Fees / Bull Rental	3.66	0.01
Trucking & Marketing	4.16	0.01
Fuel	13.92	0.03
Repairs – Machinery	14.47	0.03
Repairs - Buildings /Corrals	3.65	0.01
Utilities & Miscellaneous	19.12	0.04
Custom Work & Spec. Labour	14.87	0.03
Operating Interest Paid	4.85	0.01
Paid Labour & Benefits	19.29	0.04
Unpaid Labour	58.24	0.11
<b>Total Variable Costs</b>	<b>508.54</b>	<b>0.95</b>
<b>Section C</b>		
Livestock Share Payments	25.22	0.05
Taxes, Water Rates, License & Insurance	5.79	0.01
Equipment and Building		
a) Depreciation	26.13	0.05
b) Lease Payments	3.01	0.01
Capital Interest	12.24	0.02
<b>Total Fixed Costs</b>	<b>72.38</b>	<b>0.14</b>
<b>Total Production Costs</b>	<b>580.92</b>	<b>1.09</b>
<b>Gross Margin *</b>	<b>228.63</b>	<b>0.43</b>
<b>Return to Equity</b>	<b>144.26</b>	<b>0.27</b>

\* Value of Production - Total Production Costs (excluding unpaid labour and depreciation)