

2012 SASKATCHEWAN COW-CALF COST OF PRODUCTION ANALYSIS

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Introduction

The Western Beef Development Centre (WBDC) has been working with cow-calf producers across Saskatchewan to calculate their cow-calf cost of production (COP) since 2001. COP benchmark results are published in WBDC Fact Sheets available on the WBDC website (www.wbdc.sk.ca) under Publications & Information.

The 2012 cow-calf cost of production data provided in **Table 1** was generated from 22 producers situated across Saskatchewan with an **average herd size of 354 cows**. For the first time, producers submitted their data by email or fax.¹ Total cost of production and margins earned are expressed in both dollars per cow (\$/cow) as well as dollars per pound of calf weaned (\$/lb).

Results

Income (A)

Cow-calf operations generate their income from the sale of weaned calves. Revenue from the sale of cull breeding stock is used to offset breeding stock purchases and is factored into the breeding stock depreciation expense. Producers that retain their calves after weaning are required to provide a "sale price" for those calves as if they had been sold to their backgrounding operation. Average weaning weight was **510 lbs** and average income was **\$677/cow** or **\$1.51/lb** of weaned calf.

Direct Costs (B)

Direct costs include winter feed, grazing, salt/mineral, vet expenses, vaccinations, livestock supplies (e.g. RFID tags), and breeding stock depreciation. Grazing includes owned pasture, rented or leased land, community pasture, grazing co-ops, and aftermath grazing. Producers were asked to value their homegrown feed, straw, and pasture at fair market value. Grazing days were valued assuming they were supervised (i.e. the cost of the grazing day included someone checking the cattle, fences, water, etc). All production costs associated with the bulls (feed, bedding, grazing, etc.) have been included and paid by the cowherd. Mineral and salt expenses were tracked separately from winter feed for the first time.² Veterinary and medicine covers vaccination, antibiotics, preg checking, semen testing, and general livestock expenses. Breeding stock depreciation is a charge to the cowherd for the cost in maintaining a breeding herd – the calculation involves the beginning and ending values of the breeding animals, as well as any cull sales and purchases of herd sires and breeding females.

¹In previous years, on-farm visits were conducted to collect the necessary production and financial information.

²In previous years, salt and mineral expenses were included in the winter feed and bedding expense category.

Feed and bedding costs averaged \$1.18/cow per feeding day during the winter feeding period of 2011-12. The average winter feeding period was 160 days. The average cost per grazing day was \$0.53/pair/day (\$109/cow divided by 205 d). Total direct costs for 2012 are **\$393/cow or \$0.88/lb of weaned calf.**

Yardage Costs (C)

Total cowherd yardage costs for 2012 (i.e. all overhead costs including unpaid labour and depreciation) were **\$213/cow**. Unpaid labour (a non-cash cost) averaged \$72/cow.

Other Costs (D)

Interest payments (for both capital and operating loans) related to the cowherd are included as a production cost. Principal debt payments are not included. Trucking and marketing expenses are also included under "Other Costs." Total other costs averaged **\$25 per cow**.

Summary (E)

Total costs for the 2012 calf crop averaged **\$630 per cow** or **\$1.42/lb** on weaned calves. The average net margin in 2012 for the cow-calf enterprise was a **profit of \$46.54/cow** (\$0.09/lb of calf x 510 lb = \$45.90/calf).

Net margin (excluding unpaid labour) is what a producer has available to cover personal living expenses, principal debt payments, and equity growth in the business.

Management Style and Demographics

A producer's management style impacts their production costs. Providing details on the management practices of the cow-calf producers involved in this study offers insight into the interpretation of the results.

Feeding Information

Days on feed depends on a number of factors including where a producer's operation is located, pasture availability in a given year, pasture rotation management, time of calving, etc. Study participants fed their cattle an average of 160 days over the 2011-12 winter feeding period. The range among participants was a low of 130 days to a high of 219 days. The average pasture turnout date was May 8, 2012.

Calving/Retained Ownership Information

The average weaning weight was 513 lb. When it comes to calving start date, close to 60% of study participants started calving in April. Every study participant kept at least some of their 2012 calves (both steers and heifers) to background or heifer calves for replacements. Fifty percent of the study participants retained their entire 2012 calf crop (i.e. no calves sold at weaning).

With a large percentage of participants retaining their calves, it is important to note that the value of weaned calves (i.e. revenue) reported in this analysis is not entirely derived from actual market sales, but includes weaned calf values based on what producers feel their calves could have brought had they sold their calves at time of weaning. Calf values are determined from the going market prices for their particular weight class for the week their calves were weaned.

Culling Rate/Herd Size Changes

The Canadian beef cow culling rate in 2012 was just over 10%; the 20-yr average is 11%. The average cow culling rate for producers in the COP Study was 9.8%. On average, the participants in the study expanded their herds 9% in 2012, with an average ending inventory of 380 females.

Table 1. 2012 Saskatchewan Cow-Calf Cost of Production Analysis

# of Herds	22		
Average Herd Size	354		
Number of Calves Weaned	310		
Total Pounds of Weaned Calves	158,100		
Average Weaning Weight	510		
Average Winter Feeding Days/Cow	160		
Income (A)		\$/Cow	\$/lb
Weaned Calves		\$677.01	\$1.51
Direct Costs (B)		\$/Cow	\$/lb
Winter Feed/Bedding		\$189.14	\$0.42
Grazing		\$109.10	\$0.24
Salt & Mineral		\$16.63	\$0.04
Veterinary & Medicine		\$25.46	\$0.06
Breeding Stock Depreciation		\$52.47	\$0.12
Total Direct Costs		\$ 392.80	\$0.88
Yardage Costs (C)		\$/Cow	\$/lb
Fuel		\$25.62	\$0.06
Machinery Repairs		\$17.71	\$0.04
Building Repairs		\$9.58	\$0.02
Utilities & Misc.		\$21.04	\$0.05
Custom Work		\$8.75	\$0.02
Paid Labour		\$11.23	\$0.03
Unpaid Labour		\$71.70	\$0.16
Taxes/Lic./H2O		\$8.86	\$0.02
Depreciation		\$37.20	\$0.08
Lease Payments		\$1.21	\$0.003
Total Yardage Costs		\$ 212.90	\$0.48
Other Costs (D)		\$/Cow	\$/lb
Capital Interest		\$6.00	\$0.01
Operating Interest		\$7.46	\$0.02
Trucking/Marketing Costs		\$11.32	\$0.03
Total Other Costs		\$ 24.78	\$0.06
Summary (E)		\$/Cow	\$/lb
Total Costs (B+C+D)		\$ 630.48	\$1.42
Total Costs - Unpaid Labour		\$ 558.78	\$1.26
Margin (A-B-C-D)		\$ 46.53	\$0.09
Margin + Unpaid Labour		\$ 118.23	\$0.25

Conclusions

The 2012 COP study's break-even price on weaned calves averaged \$1.42/lb. This break-even price is based on average total costs of \$630/cow, with 88% of cows weaning a calf averaging 510 lb. The average price in Saskatchewan for 500 lb calves (steers and heifers) in Fall 2012 was \$1.50/lb.

It is extremely important for producers to calculate their break-even price on weaned calves and to not just calculate total production costs per cow. Changes in the percent of cows weaning a calf and weaning weight will change the break-even price even if total costs stay the same. For example, if 90% of the cows weaned a calf and average weaning weight was 550 lb, the break-even price drops to \$1.26/lb even though the cost per cow is still \$630.

Bear in mind that this study involves a small sample of the province's 7,300 beef operations. For planning purposes, it is important for producers to calculate their own cost of production using their own financial and production numbers.

To obtain further information regarding cost of production, contact the WBDC at www.wbdc.sk.ca or 306-682-3139 in Humboldt.