



Western Beef
Development Centre
Division of PAMI

2010 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 study results are published in WBDC Fact Sheets available on the WBDC website (www.wbdc.sk.ca) under Publications & Information).

The fiscal 2010 cow-calf cost of production data provided in **Table 1** was generated from 22 producers situated across Saskatchewan with an **average herd size of 282 cows**. Data was collected through on-farm visits and entered into the CowProfit\$ program.¹ Total costs 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. 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 **542 lbs** and average income was **\$1.27/lb**. The income earned per cow was **\$607/cow**. The average weaning percentage in 2010 was **88%** (248 calves weaned / 282 cows exposed).

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, leased land, community pasture and aftermath grazing. Producers were asked to value their homegrown feed, bedding 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 are included in the winter feed and bedding expense. Veterinary and medicine covers vaccination, preg checking, semen testing, 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 sales and purchases.

¹ There were four producers who did not have an on-farm visit but participated by submitting their data via email and fax.

Feed and bedding costs averaged \$1.32/cow per feeding day during the winter feeding period of 2009-10. The average winter feeding period was 160 days (typically December to May). The average cost per grazing day was \$0.70/pair/day. Total direct costs in 2010 are **\$423/cow or \$0.89/lb of weaned calf**. For comparison, the direct costs from 2001-2005 averaged \$352/cow or \$0.72/lb of weaned calf.

Yardage Costs (C)

Total cowherd yardage costs in 2010 (i.e. all overhead costs including unpaid labour) were **\$170/cow or \$1.07/feeding day**. When unpaid labour was not included as a yardage cost, cowherd yardage costs equalled \$108.61/cow.

Other Costs (D)

Interest payments 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". The interest payments averaged \$10.71/cow and trucking/marketing costs averaged \$10.82/cow for a total of **\$21.52 per cow** in "Other Costs".

Summary (E)

Total costs in 2010 were **\$615 per cow** which works out to a break-even price of **\$1.29/lb** for weaned calves (based on 88% weaning percentage and 542 lb calves). The average net margin in 2010 for the cow-calf enterprise was a **loss of \$9/cow**. When unpaid labour was not included as an expense, the net margin (profit) was **\$52/cow**.

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 is meant to offer further 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, rotation management, time of calving, etc. Study participants fed their cattle an average of 160 days (5.5 months or December to mid-May) over the 2009-10 winter feeding period. The range among participants was a low of 105 days to a high of 205 days. The average pasture turn-out date was May 10th.

Approximately sixty percent (60%) of participants used extensive field feeding as part of their winter feeding plan (i.e. aftermath, swathgrazing, crop residue grazing, straw/chaff piles, bale grazing, corn grazing). The study participants have realized the benefits of field feeding for part of the winter feeding period. Sixty-eight percent (68%) of this year's participants own a bale processor.

Calving/Retained Ownership Information

The average weaning weight was 542 lb with an average age at weaning of 238 days. When it comes to calving start date, 77% of study participants start calving after March 15th. Eighty-two percent (82%) of participants kept all or a portion of their weaned calves for back-grounding. Of the 18 producers that retained their calves, 78% retained their entire 2010 calf

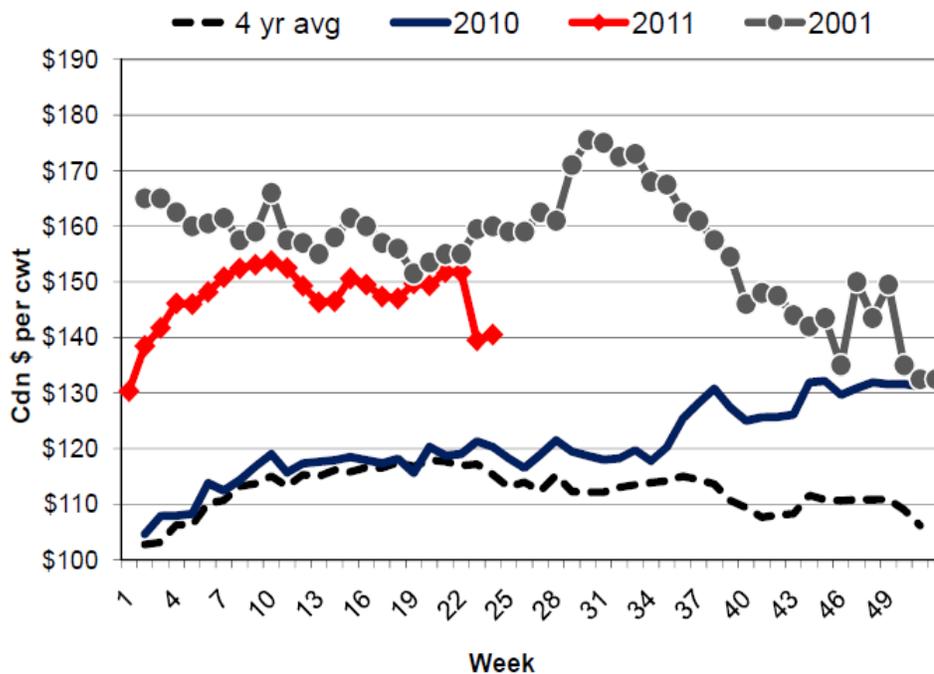
crop. The marketing plan of the study participants was mixed - 61% background and sold the calves in spring, 33% background and then grass and sell in the fall and a very small number finish their calves.

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 a producer feels their calves could have brought had they sold their calves at time of weaning. Values are determined from the going market prices for their particular weight class for the week the calves were weaned.

Off-farm Employment/Partnership Information

Close to sixty percent (60%) of study participants had off-farm employment; typically only one of the owner-operators worked off the farm. Close to one-third (33%) of the 2010 operations were father-son partnerships.

Figure 1. Saskatchewan Weekly 550 lb Steer Price, several years



Source: Canfax & SK Ministry of Agriculture

Conclusions

Fall-run calf prices have been low the last few years as the industry made its way through a downturn in the cattle cycle. Cow numbers have been decreasing since the peak in 2006 and now sit at 1.3 million beef cows (as at January 1, 2011) (Statistics Canada). The decreased herd size has resulted in smaller calf crops and subsequent increases in feeder prices. The Saskatchewan average weekly 550 lb steer price from October to December 2010 was \$1.29/lb with weeks in November and December averaging above \$1.30/lb (\$1.147/lb for 550 lb heifers) (see Figure 1).

The break-even price based on the average total costs for the 2010 COP participants was \$1.29/lb for 542 lb calves. While the price for steers in the 5-600 weight class were at times above \$1.30/lb during the 2010 fall run, the price for heifers was not.

A net loss of \$9 per cow, means that on average returns from the cow-calf enterprise were not large enough to cover production costs. Profits from the cow-calf enterprise are needed to cover personal draws, principal debt payments and to build equity.

It is important to understand that this net loss an averaged number based on the margins of all twenty-two study participants. There were study participants who made a profit in 2010. It cannot be stressed enough that calculating cost of production and break-even price using your own financial and production information is invaluable.

Looking Forward

From February to late June 2011, the weekly 550 lb feeder steer in Saskatchewan tracked closely to 2001 prices (see Figure 1). However, at the time of writing this Fact Sheet the spread is \$20/cwt.

It will be interesting to see if 2011 prices will track closer to 2001 prices during the fall run – which were between \$1.40 and \$1.50/lb for most of October and November 2001 – or more in line with 2010 prices (\$1.25 to \$1.32/lb). Adjusting the U.S. futures prices for exchange and basis can provide some insight into what fall prices may look like; the most recent numbers project \$1.25/lb for 550 lb steers this fall, which would be closer to 2010 price lows.

Western Beef is always looking for new study participants. Data collection for the 2011 Cost of Production study will begin in early 2012. To be a part of next year's study, please contact Kathy Larson at klarson.wbdc@pami.ca or call 306-930-9354.

To obtain further information regarding this and many other articles pertaining to this topic, contact the WBDC at www.wbdc.sk.ca or 306-682-3139 in Humboldt.

Table 1. 2010 Saskatchewan Cow-Calf Cost of Production Analysis

# of Herds	22		
Average Herd Size	282		
Number of Calves Weaned	248		
Total Pounds of Weaned Calves	134300		
Average Weaning Weight	542		
Average Winter Feeding Days/Cow	160		
Income (A)	\$/Cow		\$/lb
Weaned Calves	\$ 606.00		\$ 1.27
Direct Costs (B)	\$/Cow		\$/lb
Winter Feed/Bedding [†]	\$ 209.29		\$ 0.44
Grazing	\$ 144.70		\$ 0.30
Veterinary & Medicine	\$ 18.70		\$ 0.04
Breeding Stock Depreciation	\$ 50.88		\$ 0.11
Total Direct Costs	\$ 423.57		\$ 0.89
Yardage Costs (C)	\$/Cow		\$/lb
Fuel	\$ 17.06		\$ 0.04
Machinery Repairs	\$ 15.37		\$ 0.03
Building Repairs	\$ 4.78		\$ 0.01
Utilities	\$ 14.01		\$ 0.03
Custom Work	\$ 5.75		\$ 0.01
Paid Labour	\$ 13.57		\$ 0.03
Unpaid Labour	\$ 61.81		\$ 0.13
Taxes, Insurance, Licenses	\$ 6.57		\$ 0.01
Depreciation	\$ 26.58		\$ 0.06
Lease Payments	\$ 4.91		\$ 0.01
Total Yardage Costs	\$ 170.42		\$ 0.36
Other Costs (D)	\$/Cow		\$/lb
Capital Interest	\$ 7.32		\$ 0.02
Operating Interest	\$ 3.39		\$ 0.01
Trucking/Marketing Costs	\$ 10.82		\$ 0.02
Total Other Costs	\$ 21.52		\$ 0.05
Summary (E)	\$/Cow		\$/lb
Total Costs (B+C+D)	\$ 615.51		\$ 1.29
Total Costs - Unpaid Labour	\$ 553.71		\$ 1.16
Margin (A-B-C-D)	(\$ 9.29)		\$ (0.02)
Margin + Unpaid Labour	\$ 52.52		\$ 0.11

[†]Includes winter feed and bedding for the cows and herdsires, as well as mineral and salt.