

## **2011 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 cost of production (COP) since 2001. COP study results are published in WBDC Fact Sheets, available on the WBDC website ([www.wbdc.sk.ca](http://www.wbdc.sk.ca)) under Publications and Information.

The fiscal year 2011 cow-calf cost of production data provided in **Table 1** was generated from 30 producers located across Saskatchewan with an **average herd size of 305 cows**. Data was collected through on-farm visits and entered into the CowProfit\$™ program.<sup>1</sup> Total costs of production and margins earned are expressed in both dollars per cow (\$/cow) and as dollars per pound of calf weaned (\$/lb).

### **Results**

#### *Income (A)*

Cow-calf operations generate their income from the sale of weaned calves. Producers who retained their calves after weaning were required to provide a "sale price" for those calves as if they had been sold to their backgrounding operations. Average weaning weight was **549 lbs**, and average income was **\$747/cow** or **\$1.57/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/leased land, community pasture, 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 included in the winter feed and bedding expenses. Veterinary and medicine covered vaccination, preg checking, semen testing, and livestock expenses category. Breeding stock depreciation was a charge to the cowherd for the cost of maintaining a breeding herd—the calculation involved the beginning and ending values of the breeding animals, as well as any sales and purchases of herd sires and breeding females.

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<sup>1</sup>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 \$1.18/cow/feeding day during the winter feeding period of 2010-11. The average winter feeding period was 165 days (typically December to May). The average cost per grazing day was \$0.70/pair/day. Total direct costs in 2011 were **\$392/cow**, or **\$0.82/lb of weaned calf**.

#### *Yardage Costs (C)*

Total cowherd yardage costs for 2011 (i.e. all overhead costs including unpaid labour) were **\$205/cow, or \$0.43/lb of weaned calf**. Unpaid labour (a non-cash cost) averaged \$65/cow.

#### *Other Costs (D)*

Interest payments related to the cowherd were included as a production cost. Principal debt payments were not included. Trucking and marketing expenses were also included under "Other Costs." The interest and trucking/marketing costs averaged **\$28 per cow**.

#### *Summary (E)*

Total costs in 2011 averaged **\$625 per cow**, which works out to a break-even price of **\$1.31/lb** for weaned calves. The average net margin in 2011 for the cow-calf enterprise was a **profit of \$122/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 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, pasture rotation management, time of calving, etc. Study participants fed their cattle an average of 165 days over the 2010-11 winter feeding period (5.5 months, or December to mid-May). The range among participants was a low of 136 days to a high of 221 days. The average pasture turn-out date was May 10. There were producers who were able to graze year round with some hay supplementation during the winter.

Approximately 90 percent of participants used extensive field feeding as part of their winter feeding plan (i.e. aftermath, swath grazing, crop residue grazing straw/chaff piles, bale grazing, corn grazing). Fifty-seven percent of this year's participants own a bale processor.

#### *Calving/Retained Ownership Information*

The average weaning weight was 549 lb with an average age at weaning of 229 days. When it comes to a calving start date, 52 percent of study participants started calving in April. All participants kept all, or a portion of, their weaned calves for backgrounding or replacement heifers. One-third retained their entire 2011 calf crop. Twenty-seven percent retained only the heifers intended

for replacement. The marketing plan of the study participants was mixed—68 percent background and sell in spring, 48 percent keep as grassers and sell in fall, and 24 percent finish.

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 was not entirely derived from actual market sales. Instead, estimated values, based on what a producer felt their calves could have brought had they been sold at weaning, are included in the income calculation. Values were determined from the going market prices for their particular weight class for the week the calves were weaned.

#### *Off-farm Employment/Partnership Information*

Sixty percent of study participants had off-farm employment; typically only one of the owner/operators worked off the farm. Twenty three percent of the 2011 participants were father-son partnerships.

### **Conclusions**

Many consider the 2011 production year to be the start of the "stabilization phase" of the cattle cycle. Beef cow numbers in Saskatchewan have stabilized at around 1.2 million head. While the stabilization phase typically lasts two to three years, some analysts are predicting this phase could last as many as four to five years before expansion occurs.

The break-even price based on the average total costs for the 2011 COP participants is \$1.31/lb. The average price of steers in the 500-600 weight class last fall was in the range of \$155/lb. An average net profit of \$142 per calf (\$122 per cow) was generated amongst the 2011 participants. Profits from the cow-calf enterprise are needed to cover personal draws and principal debt payments, and to build equity.

Bear in mind that this study involved 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 data.

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

### **Acknowledgements**

Appreciation is given to the 30 operations who participated in the 2011 study, and also to Dr. Robert Zentner for assisting in the data collection.

**Table 1. 2011 Saskatchewan Cow-Calf Cost of Production Analysis**

# of Herds	30	
Average Herd Size	305	
Number of Calves Weaned	269	
Total Pounds of Weaned Calves	145582	
Average Weaning Weight	549	
Average Winter Feeding Days/Cow	165	
<b>Income (A)</b>	<b>\$/Cow</b>	<b>\$/lb</b>
Weaned Calves	\$747.22	\$1.57
<b>Direct Costs (B)</b>	<b>\$/Cow</b>	<b>\$/lb</b>
Winter Feed/Bedding	\$194.62	\$0.41
Grazing	\$139.19	\$0.29
Veterinary & Medicine	\$23.90	\$0.05
Breeding Stock Depreciation	\$34.26	\$0.07
<b>Total Direct Costs</b>	<b>\$391.96</b>	<b>\$0.82</b>
<b>Yardage Costs ©</b>	<b>\$/Cow</b>	<b>\$/lb</b>
Fuel	\$28.65	\$0.06
Machinery Repairs	\$20.55	\$0.04
Building Repairs	\$7.29	\$0.02
Utilities & Misc.	\$20.24	\$0.04
Custom Work	\$10.81	\$0.02
Paid Labour	\$7.85	\$0.02
Unpaid Labour	\$65.48	\$0.14
Taxes/Lisc./H2O	\$9.09	\$0.02
Depreciation	\$33.90	\$0.07
Lease Payments	\$1.56	\$0.00
<b>Total Yardage Costs</b>	<b>\$205.42</b>	<b>\$0.43</b>
<b>Other Costs (D)</b>	<b>\$/Cow</b>	<b>\$/lb</b>
Capital Interest	\$13.60	\$0.03
Operating Interest	\$4.37	\$0.01
Trucking/Marketing Costs	\$9.69	\$0.02
<b>Total Other Costs</b>	<b>\$27.66</b>	<b>\$0.06</b>
<b>Summary (E)</b>	<b>\$/Cow</b>	<b>\$/lb</b>
<b>Total Costs (B+C+D)</b>	<b>\$625.04</b>	<b>\$1.31</b>
<b>Total Costs - Unpaid Labour</b>	<b>\$559.56</b>	<b>\$1.17</b>
<b>Margin (A-B-C-D)</b>	<b>\$122.18</b>	<b>\$0.26</b>
<b>Margin + Unpaid Labour</b>	<b>\$187.65</b>	<b>\$0.39</b>

For more information contact:

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