

## 2011 SASKATCHEWAN COW-CALF COST OF PRODUCTION BY HERD SIZE

**By: Kathy Larson MSc, WBDC Economist**

### 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. Annual COP study results are published in WBDC Fact Sheets which are available on our website ([www.wbdc.sk.ca](http://www.wbdc.sk.ca)) under Publications & Information. The most recent studies cover the 2010 and 2011 production years.

The 2011 study involved 30 producers across Saskatchewan. In an earlier fact sheet, the low-cost cow-calf producers in the COP study were compared to the remaining study participants, and showed that low-cost producers tended to have larger cow herds. In this fact sheet, the findings are presented by herd size to give some indication of how costs change with herd size. The results are summarized in Table 1.

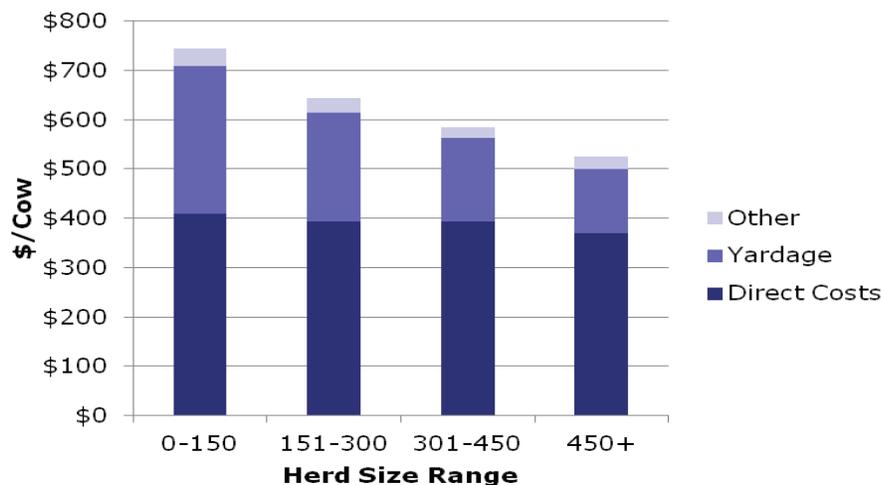
### Results

The 30 operations were categorized into one of four herd size ranges: 0-149 cows, 150-299 cows, 300-449 cows, or 450+ cows. The average total costs ranged from \$744 per cow for the smallest herd size range (0-149 cows), to \$525 per cow for the largest herd size range (450+ cows), a difference of \$219 per cow (Table 1). Nearly 80 percent of that difference was due to lower yardage costs; 18 percent was due to lower direct costs and 4 percent was due to lower interest, freight, and trucking ("Other") costs.

**Table 1. COP by Herd Size Range, 2011**

Herd Size Range	0-149	150-299	300-449	450+
# of Operations	<b>6</b>	<b>11</b>	<b>7</b>	<b>6</b>
Herd Size (# cows)	<b>96</b>	<b>211</b>	<b>356</b>	<b>635</b>
Winter Feedings Days	<b>178</b>	<b>167</b>	<b>154</b>	<b>163</b>
	-----\$/cow-----			
Direct Costs	<b>\$409</b>	<b>\$393</b>	<b>\$394</b>	<b>\$370</b>
Yardage	<b>\$300</b>	<b>\$221</b>	<b>\$169</b>	<b>\$130</b>
Other	<b>\$35</b>	<b>\$29</b>	<b>\$21</b>	<b>\$25</b>
Total Costs	<b>\$744</b>	<b>\$643</b>	<b>\$584</b>	<b>\$525</b>

There was a \$100 per-cow difference between average total costs of herds with 0-149 cows and herds with 150-299 cows. The difference decreased to \$60 per cow between the next two herd size ranges, suggesting that the gains from economies of scale may be greatest when expanding beyond 150 cows. It is important to note that the current average herd size (cattle and calves) in Saskatchewan is around 200 head, and the 2006 Census reported that 52 percent of Canadian herds had 123 cows or less (Statistics Canada). Winter feeding days did vary across the herd size groups. The smallest herds (0-149 cows) had the highest average winter feeding days with 178 days, while the herds with 300-449 cows had the least amount, with 154 days.



**Figure 1. Production Costs by Herd Size Range, 2011**  
(Source: WBDC Cost of Production Study, 2011)

Figure 1 shows the direct, yardage, and other cost categories for each herd size range. The middle segment of each column represents the yardage costs for each herd size range and visually demonstrates that decreases in total production costs with an increased herd size come mainly from yardage costs being “spread out” over more cows. Yardage costs include fixed costs which do not change with increases in herd size, resulting in decreases in the per-cow cost as herd size increases. Direct costs, on the other hand, are variable, and stay relatively constant as herd size increases. As both Table 1 and Figure 1 show, direct costs (i.e. winter feed, pasture, herd health, and breeding stock depreciation) averaged around \$400 per cow for all herd sizes. It is important to note that per-cow direct costs for the largest herd size range (+450) were 6 to 9 percent lower than the other herd size ranges, suggesting that producers with larger herd sizes may be able to negotiate prices and rates for feed, pasture, and livestock supplies.

## Conclusions

Presenting the 2011 COP results by herd size range shows how having more cows can result in lower costs per cow, with most of the savings coming from spreading fixed costs over more cows. Note that having a large herd size does not guarantee an operation will be low-cost, and being low-cost does not mean an operation will be profitable. Lower costs certainly increase profit potential, but a producer needs to also have fertile and productive females that are weaning marketable calves. As always, we strongly encourage producers to determine their own COP and compare it against WBDC’s benchmarks. This can be done either by joining WBDC’s COP study, or by working with an accountant or financial consultant.

For further information regarding cost of production, contact the WBDC at [www.wbdc.sk.ca](http://www.wbdc.sk.ca) or 306-682-3139 in Humboldt. Be sure to watch our YouTube videos at: <http://www.youtube.com/user/WSTRNBEEF>

## 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.