



Western Beef Development Centre

Division of PAMI

What is the Cost of a Herd Sire?

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Introduction

The breeding field charge for cows in the PFRA community pastures was \$39.00 per cow in 2010 (PFRA 2010). Have you ever penciled out the cost of your herd sires? WBDC estimates the cost to be very similar to the PFRA breeding charge - in the range of \$38 to \$41 per cow. This cost is based on a number of assumptions, including the assumption that one bull will service 25 cows.

While WBDC has been calculating cow-calf cost of production for a number of years, the cost of herd sires – feed, grazing, vet, depreciation, yardage - has been built into the total costs and borne by the cow herd. A recent request about the cost of a bull battery crossed the Beef Economist's desk at WBDC, so a little number crunching and assumption making was done to estimate a cost. This Fact Sheet shares the answer to that request.

Results

Table 1 shows the breakdown of the costs associated with herd sires. The average annual cost for a bull is **\$1026**. Divide \$1026 over 25 cows (# of cows a bull can service) and the per-cow cost of a bull works out to **\$41/cow**.

The average total costs per cow based on the cost of production benchmarks calculated for 2008 is \$574 per cow. A cow's total costs are lower than a bull's for obvious reasons; bulls consume more feed, have a semen test charge, cost more to purchase, and have less productive years which increases the annual depreciation charge.

Assumptions

There are direct costs – feed, pasture, minerals, vet expenses, vaccinations – for herd sires and indirect costs – yardage, depreciation, and interest. For this cost estimation several assumptions had to be made, such as:

- # Days on Feed and Pasture
- Pasture and Feed Costs
- Amount of feed consumed
- Yardage, vaccination, vet costs
- Bull weight, purchase price, cull price and cull age

Table 2 summarizes the assumptions that have been made for this Fact Sheet. For those interested in using their own figures to calculate herd-sire costs, contact Kathy Larson (klarson.wbdc@pami.ca) to receive the Excel spreadsheet tool by email.

References

PFRA. 2010. "Prairie Farm Rehabilitation Administration Community Pastures Current Rate Schedule". Last updated April 1, 2010. Available online: <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1183562683112&lang=eng>



Table 1. Annual Cost of a Herd Sire

| Direct Costs | \$/Bull |
|--|-------------------|
| Hay | \$217.69 |
| Pasture | \$148.50 |
| Bedding | \$15.00 |
| Grain | \$28.57 |
| Minerals/Salt | \$15.00 |
| Vet/Medicine | \$14.87 |
| Semen Testing | \$75.00 |
| Total Direct Costs (A) | \$514.63 |
| Yardage (B) | \$230.00 |
| Interest (C) | \$15.00 |
| Bull Depreciation (D)¹ | \$266.67 |
| TOTAL (A+B+C+D) | \$1,026.30 |
| \$/Cow | \$41.05 |

Table 2. Underlying Assumptions for Herd Sires

| | |
|--|-----------------|
| Days on Pasture | 165 |
| Days on Feed | 200 |
| Yardage (\$/winter feeding day) ² | \$1.15 |
| Winter Feed (lb/day Hay) | 40 |
| Hay (\$/tonne) | \$60.00 |
| Pasture (\$/hd/day) | \$0.90 |
| Barley (\$/tonne) | \$150.00 |
| Barley (lb/day) | 7 |
| Barley (# days fed) | 60 |
| Bedding straw (\$/hd) | \$15.00 |
| Vaccination ³ | \$14.87 |
| Semen Test ⁴ | \$75.00 |
| Purchase Price⁵ | \$3,000 |
| Cull Price (\$/lb) | \$0.7000 |
| Weight (lbs) | 2000 |
| Productive years | 6 |
| # of Cows Serviced/yr | 25 |

¹ Bull Depreciation = (Purchase Price – Cull Value) / # of Productive Years

² Based on per day yardage calculation in WBDC's COP Study (2005, 2008)

³ Assuming bulls receive annual vaccination against BVD, footrot, parasites and Blackleg

⁴ Assumes annual semen test for each herd sire.

⁵ Based on two-year-old bull sale price averages (Source: Canadian Beef Breeds Council)

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