



Western Beef Development Centre

What Are The Overhead Costs Associated With Producing An Animal Unit Month of Grazing in Saskatchewan?

By: Tim Highmoor, WBDC Economist

Introduction

The Western Beef Development Centre (WBDC) has collected pasture cost of production data for 2002, 2003, and 2004 from numerous farms and ranches across Saskatchewan. This article discusses the “overhead costs” associated with producing an Animal Unit Month of grazing on owned and leased land during this study. Rented pasture has not been included in this particular analysis.

Background

In this analysis, “overhead costs” include fuel, machinery repairs, building and fence repairs, utilities, custom work, paid labour, unpaid labour, taxes, licenses, water rates, machinery lease payments and depreciation of machinery, buildings, fences, and dugouts and watering systems. Business overhead costs such as office supplies and accounting are also included. Costs not included in the overhead category include seed, fertilizer, chemical, capital and operating interest, supplemental minerals and feed, grazing lease payments, and rainfall insurance. Principal debt payments to lending institutions were also not considered to be an overhead cost.

All overhead grazing costs are presented as \$ per Animal Unit Month. An **Animal Unit (AU)** is considered to be one mature cow of approximately 1,000 pounds, either dry or with calf up to 6 months of age, or their equivalent, based on a standardized amount of forage consumed. An **Animal Unit Month (AUM)** is the amount of dry forage required by one animal unit for one month based on a forage allowance of 26 pounds per day (Jacoby, 1989).

The methodology of calculating an Animal Unit Equivalent (AUE) for beef animals of different weight based on metabolic weight is as follows:

$$\frac{(\text{Live Animal Weight})^{0.75}}{1000^{0.75}} = \text{Animal Unit Equivalent (AUE)}$$

The above calculation was used to determine the AUE of the various cattle grazing the pastures analyzed within this study.

Results

Table 1 displays the observed overhead costs of producing an AUM of grazing during this analysis. As one would normally assume, the dry weather conditions in 2002 resulted in the most expensive grazing costs/AUM of any year of the study. The range of overhead costs incurred per AUM produced, ranged from \$11.29/AUM in 2004 to \$13.00/AUM in 2002.

Conclusion

This fact sheet outlined the “overhead costs” associated with producing an AUM among participants in this study. If the additional pasture costs associated with seed, fertilizer, chemical, capital and operating interest, supplemental minerals and feed, grazing lease payments, and rainfall insurance, not to mention principal debt payments, are accounted for, it is obvious that producing a Saskatchewan AUM of grazing is not as cheap as one would expect.

Table 1. 2002 - 2004 Overhead Pasture Costs

Year	2002	2003	2004
# of Observations	28	21	10
AUM's/Observation	1,371	1,913	2,342
Overhead Pasture Expenses	\$/AUM	\$/AUM	\$/AUM
Fuel	\$0.50	\$0.49	\$0.64
Machinery Repairs	\$0.42	\$0.47	\$0.48
Fence and Building Repairs	\$1.20	\$0.81	\$0.36
Utilities	\$0.57	\$0.60	\$0.93
Custom Work	\$0.19	\$0.28	\$0.66
Paid Labour	\$1.39	\$1.12	\$0.56
Unpaid Labour	\$2.98	\$3.02	\$2.36
Taxes/Licenses/Water Purchases	\$4.05	\$3.96	\$3.90
Depreciation: Machinery, Fences, Buildings and Water Systems	\$1.69	\$1.30	\$1.39
Machinery Lease Payments	\$0.01	\$0.01	\$0.01
Total Overhead Pasture Expenses	\$13.00	\$12.06	\$11.29

Reference

Jacoby, P.W. 1989. A glossary of terms used in range management. Society For Range Management. Denver, CO.

This study was funded by the Saskatchewan Cattle Marketing Deductions Fund and Ducks Unlimited Canada.

