

BISON BENCHMARK PROJECT YEAR FOUR - Gerard Woynarski Project Consultant

INTRODUCTION

The Saskatchewan Bison Association (SBA) continues to support the need to update bison cost of production and herd performance information. Updated information provides producers an opportunity to compare their bison business performance with the performance of others in the industry and identify areas where they could improve and enhance profitability. Current production and financial performance information is important to assist new entrants plan entry into the industry and is helpful for financial institutions involved in capitalizing the bison industry.

This report summarizes the results of the fourth year of the project, provides suggestions as to how the information can be used, how more producers can get involved and outlines next steps. In addition, it contains a special section on specific benchmark performance measures which were validated by bison producers who participated in producer focus groups during 2014.

The SBA acknowledges the continued financial support from Saskatchewan Agriculture. Without their contribution this ongoing project would not be possible.

The SBA also wishes to recognize the Bison Producers of Alberta who have provided resources to have Alberta producers participate in this benchmark project.

THE PROCESS

Under the continued guidance of an advisory committee an updated plan was established for 2014, the data collection format was enhanced, bison producers to provide data were identified, and data was collected through farm visits from January 1, 2014 to June 30, 2014. The data was analyzed and participants had their information compared to data collected. To preserve the confidentiality of individual producer data, the results of at least three producers were required in each data set.

THE RESULTS & DATA COLLECTED

In 2014, the benchmark project experienced a continued growth in participation from bison producers who provided data for the 2012/13 production cycle. In 2013, 130 bison enterprise categories contributed to the benchmark study while in 2014, 142 bison enterprise categories contributed to the study.

Data was collected from 45 enterprises involved in bison cow-calf operations, 51 enterprises were backgrounding operations, and 46 enterprises were finishing operations. The data included herd profile, production costs and investment requirements.

With four years of data now being collected, a 4-year average comparison provides a longer-term perspective of the production costs and performance measures.

COW-CALF ENTERPRISES

Herd profile data for the cow-calf enterprise includes items such as: breeding herd size (cows and bulls), breeding herd death loss, culled animals, replacements, calving and weaning dates, number of calves weaned and weights, average calf sale prices and weights, and whether or not a producer pregnancy tests.

KEY PERFORMANCE MEASURES:

Category (No. of Cows)	<100	4-Yr Av	>100	4-Yr Av
Number of Farms:	20	17	25	18
Av # of Cows	52	51	256	241
Weaning Rate %	87.8	88.7	85.2	86.3
Av Wean Weight – Bulls	475	491	471	487
Av Wean Weight – Heifers	433	442	427	440
Av Days from Birth to Wean	293	291	268	272
Mortality % in Cow Herd	2.31	1.85	3.08	2.13
Av Cash Return Per Cow	\$181	n/a	\$198	n/a
Av Net Return Per Cow	\$30	\$188	\$111	\$274
Av Capital costs per head	\$2741	\$3173	\$1148	\$1348

BACKGROUNDING ENTERPRISES

Herd profile data for the backgrounding enterprise includes: number of acres pastured, number and average weight of backgrounders purchased or retained from own herd, average backgrounder purchase/retained price, days on grass, number of backgrounders sold and retained, average shipping weight, and selling price.

KEY PERFORMANCE MEASURES:

Category (No. of Backgrounders)	Bulls				Heifers			
	<100	4-Yr Av	>100	4-Yr Av	<100	4-Yr Av	>100	4-Yr Av
Number of Farms:	19	13	6	7	20	13	6	6
Av # of Backgrounders	67	64	197	173	60	59	148	149
Av Wt of Purchased & Retained	509	533	485	466	459	457	455	439
Av Shipping Weight (lbs)	822	822	832	781	700	691	761	727
Mortality Rate %	0.34	0.32	0.89	0.43	0.28	0.38	0.12	0.35
Days on Grass &/or Feeders	225	199	250	216	232	205	301	244
Av Daily Gain (lb/day)	1.47	1.50	1.36	1.46	1.10	1.21	1.03	1.20
Av Total Cost per lb Gained	\$1.23	\$1.13	\$0.89	\$1.01	\$1.26	\$1.29	\$0.99	\$1.01
Av Feed Cost per lb Gained	\$0.73	\$0.62	\$0.56	\$0.63	\$0.65	\$0.69	\$0.58	\$0.59
Av Cash Return Per Head	\$153	n/a	\$264	n/a	\$124	n/a	\$166	n/a
Av Net Return Per Head	\$111	\$241	\$213	\$267	\$79	\$173	\$107	\$188
Av Capital Costs Per Head	\$785	\$814	\$521	\$531	\$804	\$894	\$497	\$501

FINISHING ENTERPRISES

Herd profile data for the finishing enterprise consists of: number of feeders purchased and placed on feed, average weight of feeders purchased, feeder purchase price, days on feed, number of head sold and retained, average finish/shipping weight at farm, selling price, weight at plant (if available), hot hanging weight, carcass grade, and slaughter age (birth date to slaughter date).

KEY PERFORMANCE MEASURES:

Category (No. of Finishing Animals)	Bulls				Heifers			
	<100	4-Yr Av	>100	4-Yr Av	<100	4-Yr Av	>100	3-Yr Av
Number of Farms:	19	12	5	6	18	12	4	5
Av # of Feeders	54	59	297	294	51	55	344	293
Av Wt of Feeders Purchased	791	711	828	763	687	612	718	704
Av Shipping Wt at Farm (lbs)	1158	1110	1114	1082	946	925	927	918
Mortality Rate %	0.13	0.45	0.11	0.62	0.36	0.38	0.29	0.13

Shrinkage %	6.39	6.35	5.29	5.27	6.87	7.26	5.97	5.94
Dressing % at Plant	59.30	60.82	58.75	59.62	61.60	62.25	59.72	60.96
Dressing % Feedlot to Carcass	55.11	56.62	55.95	56.30	56.54	57.19	57.07	57.45
Days on Feed	206	221	159	179	202	228	181	180
Av Daily Gain (lb/day)	1.81	1.87	1.84	1.79	1.31	1.43	1.16	1.21
Av Total Cost per lb Gained	\$2.07	\$1.73	\$2.29	\$1.75	\$2.64	\$1.99	\$3.24	\$2.46
Av Feed Cost per lb Gained	\$1.11	\$0.90	\$1.46	\$1.11	\$1.35	\$0.99	\$1.58	\$1.33
Av Cash Return Per Head	\$264	n/a	\$266	n/a	\$184	n/a	\$197	n/a
Av Net Return Per Head	\$173	\$257	\$192	\$225	\$96	\$174	\$125	\$195
Av Capital Costs Per Head	\$1505	\$1833	\$651	\$769	\$1378	\$1963	\$652	\$596

SYNTHESIS

The performance measures above reflect the averages in each class. As a producer you are able to compare your bison business results to the averages in this report. By doing this you will be able to identify areas where you can improve your operations. For instance, if you have a feeder operation, you can compare your daily gains with the averages. This comparison will give you an indication as to how well you are doing. You can compare other variables as well. Be cautious when comparing cost data to ensure that you are comparing costs from the same time periods.

BENCHMARK PRODUCER FOCUS GROUPS

In August 2013, a decision to enhance the benchmark program by holding producer focus groups was approved by the Advisory Committee. The purpose of this action was to obtain direct input from bison producers to validate and improve the benchmark findings. Three benchmark producer focus groups between January 1st & March 31, 2014 were arranged through invitation in which 11 producers from Alberta, Manitoba and Saskatchewan participated. The focus groups were held in Vegreville, AB, Virden, MB and Prince Albert, SK.

The producer focus groups validated the following key benchmark performance measures in the cow-calf and finishing bison enterprise categories:

Cow-Calf Operations:

Weaning Rates: a **minimum 85%** weaning rate should be attained for an acceptable or typical performance target. Top performance weaning rate targets should be in the 85 to 90% range. The higher the weaning rates, the greater the profitability.

Weaning Dates: An **early weaning** date performance target is mid-December. A **late weaning** date performance target is beginning of March. This suggests a three-month window for weaning. The time selected must best suit your operation.

Weaning Weights: **Bull** weaning weight performance target ranges are **450 to 500 lbs.** **Heifer** weaning weight performance target ranges are **400 to 450 lbs.** If weaning weights are below these ranges, producers should evaluate variables including their genetics, their feeding program, their mineral program or their grazing program.

Finishing Operations:

Days on Feed: Performance target is **120 to 150 days** for bulls and heifers (from day placed on finishing feed ration).

Daily Gains: Performance target range for **finishing bulls** is **1.8 to 2.0 lbs per day** (from day placed on finishing feed ration). For **finishing heifers** the performance target range is **1.5 to 1.6 lbs per day**.

Shipping & Carcass Weights: For **bulls**, performance target of **shipping weights** at farm is an **average of 1100 lbs**, with an **average HHW (Hot Hanging Weight)** target of **650 lbs**. For **heifers**, performance target of **shipping weights** at farm is an **average of 900 lbs**, with an **average HHW** target of **550 lbs**.

Dressing%: For **bulls**, the minimum performance target ranges from **56 – 57%**. For **heifers**, the minimum performance target ranges from **59 - 60%**.

Days Birth to Slaughter: For **bulls**, the optimum performance target of birth to slaughter is **20 months**. For **heifers**, the optimum performance target is **22 months**.

It is suggested that bison producers need to work towards achieving and maintaining the above key performance targets in either of the cow-calf or finishing enterprises of their bison operations.

Next Steps

The benchmarking program will continue to become stronger as more producers participate. To this end, in 2015, the Saskatchewan Bison Association (SBA) will continue to partner with the Bison Producers of Alberta Association to enhance the benchmark project. In addition, we will be looking for increased participation in Saskatchewan and Manitoba. The more producers that contribute to the program, the more reliable the information will become.

Thank you to all those producers who have contributed to the benchmark program over the past three years. We look forward to working with you again in 2015.

For those interested in participating in the benchmark program, please contact Gerard Woynarski at 306-536-9841 in Saskatchewan or Pierre Cormier at 780-922-3211 in Alberta.