

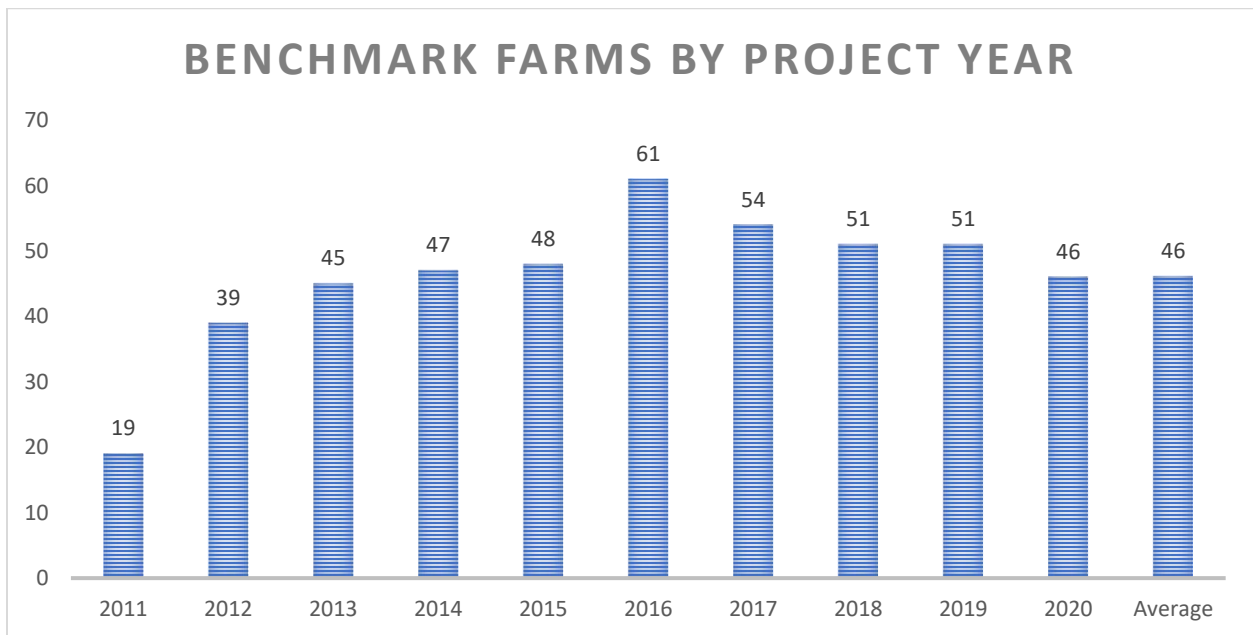
EXECUTIVE SUMMARY FOR SPECIAL BENCHMARK PROJECT 10-YEAR REPORT

Introduction

In 2009, the Saskatchewan Bison Association (SBA), along with support from the Canadian Bison Association (CBA), identified a need for current production and financial performance information to support industry growth and prosperity. This resulted in discussions with the Saskatchewan Ministry of Agriculture that resulted in an application to the Industry Development Fund to support a special project to address this need. The application was approved to address a number of objectives.

After five successful years of the benchmark project, in 2014 the SBA (along with CBA) sought to extend the project. The financial support from the Saskatchewan Ministry of Agriculture, as well as the SBA and CBA, and two years of financial support from Alberta Agriculture and Forestry provided the basis for the bison benchmark project to be successfully extended for another 5 years.

The benchmarking project was successful because of the participation of many bison producers in the Saskatchewan, Alberta, and Manitoba. The contribution of producers in the categories of cow-calf, backgrounding and finishing enterprises over the benchmark project's 10 years is part of the detailed Special Benchmark Project Report, which can be found on the CBA's website.



Participation in the benchmark project over the 10-year period is presented in the chart above. The benchmark farms over the project time frame provided the following components of contributing bison enterprises: 442 total entities for cow-calf operations (average of 44 per year), 461 total backgrounding entities (average of 46 per year), and, 368 total finishing entities (average of 37 per year). From these entities, key production performance and financial performance factors of the cow-calf, backgrounding and finish enterprises were obtained from the 10-year benchmark project.

Several production performance and financial performance factors for the cow-calf, backgrounding and finish enterprises were obtained from the 10-year benchmark project. Participants were provided feedback on the financial and production performance of their operations to assist in improving decision making.

Below are some key production and financial performance factors for the cow-calf and finishing enterprises. More detail is available on these enterprises as well as backgrounding enterprises in the complete Special 10-Year Benchmark Project report on the CBA website.

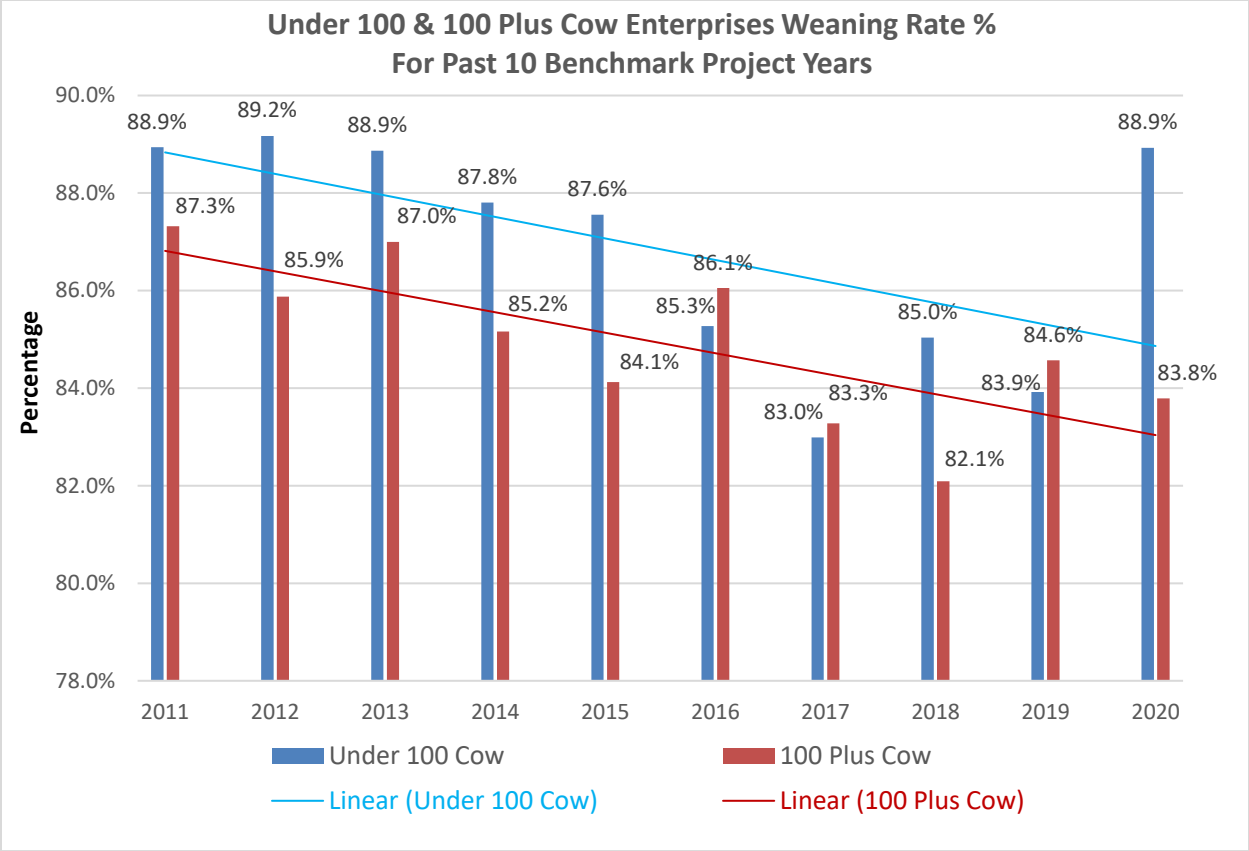
Cow-calf Enterprises

Production Performance Factors

Weaning Rate Percentage

Weaning rate percentage is an important production performance factor to manage in a bison cow-calf enterprise.

Weaning rates over the 10-year benchmark project period decreased in both the Under 100 and 100 Plus cow-calf enterprises. Despite this trend, the overall average weaning rates were higher in the Under 100 cow-calf enterprise (87%) compared to the 100 Plus cow-calf enterprise (85%).



Weaning Weights

Weaning weights are another very important production performance factor in the bison industry. Overall, average weaning weights for bulls and heifers in the Under 100 cow-calf enterprises category were slightly higher than for those in the 100 Plus cow-calf enterprises category over the 10-year benchmark project period.

**Under 100 & 100 Plus Cow Enterprises Bull & Heifer Calf Weaning Weights
For Past 10 Benchmark Project Years**

Benchmark Project Yr	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Under 100 Cow-Bull Wt	517	488	484	475	473	481	471	476	507	523	487
100 Plus Cow-Bull Wt	496	491	490	471	481	464	465	486	483	493	482
Under 100 Cow-Heif Wt	466	438	432	433	424	421	429	430	457	474	440
100 Plus Cow-Heif Wt	449	444	439	427	438	424	417	443	440	447	437

Finishing Enterprises

Production Performance Factors

Average Purchase and Shipping Weights – Finish Bulls & Heifers

This production performance factor reflects the relationship of average purchase or transfer weights from background enterprises moving into the finish enterprises, as well as finishing shipping weights of a finishing bison operation.

Over the 10-year project period, the average purchase and shipping weights increased for the Under 100 bull and Over 100 bull categories. Like the finishing bull enterprises, the average purchase and shipping weights increased for the Under 100 and Over 100 heifer enterprises.

These trends suggest that the producers in the benchmark project demonstrated improved production performance for the finishing enterprises of their bison operations.

Under 100 Finish Bull Enterprise Purchase/Transfer & Shipping Weights (Lbs) For Past 10 Benchmark Project Years

Benchmark Project Yr	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Purchase/ Transfer Wt	636	688	780	791	799	758	782	797	786	792	756
Shipping Wt	1066	1092	1125	1158	1120	1123	1176	1183	1203	1224	1147

Over 100 Finish Bull Enterprises Purchase/Transfer & Shipping Weights (Lbs) For Past 10 Benchmark Project Years

Benchmark Project Yr	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Purchase/ Transfer Wt	685	761	779	828	824	814	816	894	808	821	803
Shipping Wt	1037	1088	1088	1114	1129	1157	1179	1248	1194	1188	1142

Under 100 Finish Heifer Enterprise Purchase/Transfer & Shipping Weights (Lbs) For Past 10 Benchmark Project Years

Benchmark Project Yr	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Purchase/ Transfer Wt	566	625	633	687	663	633	669	700	701	702	658
Shipping Wt	874	933	934	946	920	908	932	967	998	1013	942

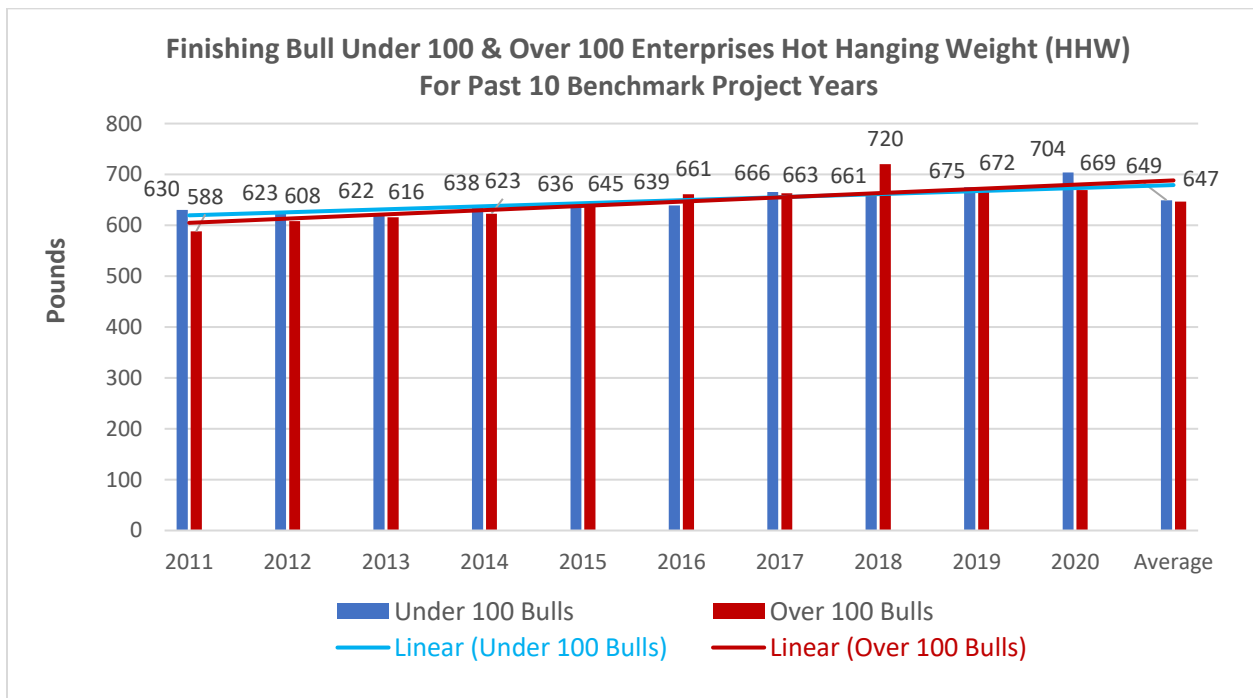
**Over 100 Finish Heifer Enterprises Purchase/Transfer & Shipping Weights (Lbs)
For Past 10 Benchmark Project Years**

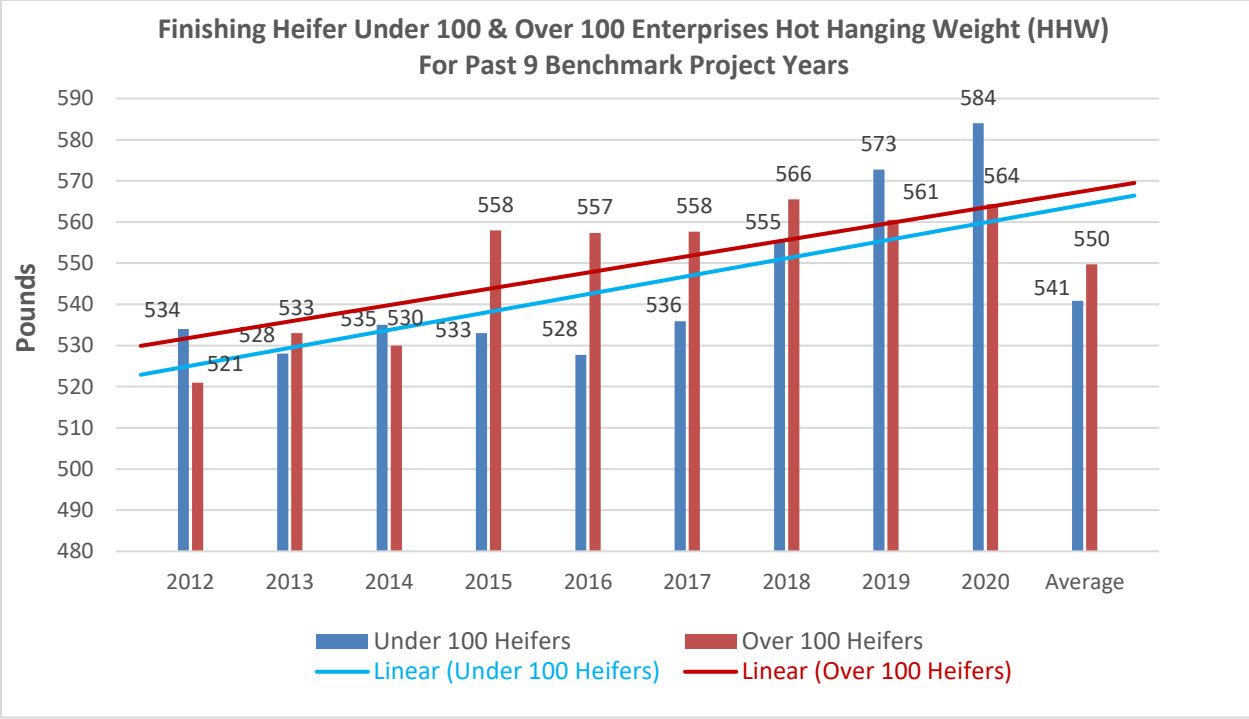
Benchmark Project Yr	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Purchase/Transfer Wt	n/a	681	713	718	751	714	708	664	669	708	703
Shipping Wt	n/a	917	910	927	962	968	962	974	954	985	951

Hot Hanging Weight (HHW)

This is an important production performance factor in finishing enterprises, as it supports success in financial performance of finishing components of bison operations. Over the 10-year benchmark project period, the hot hanging weights increased for all finishing bull and finishing heifer enterprises. For the Under 100 bulls category, HHW increased by 12%, while in the Over 100 bulls category HHW increased 14%.

For the Under 100 heifers category, HHW increased by 9%, whereas in the Over 100 heifers category HHW increased 8% (2012 to 2020 project period). The increases of hot hanging weights over the benchmark project suggested that the production performance of finishing operations improved through the years.





Average Total Cost Per Lb. Gained

Similar to the trends of the average feed cost per lb. gain, the average total cost per lb. gain increased in all finishing bull and heifer enterprises over the 10-year project period. This should be no surprise as the feed costs for the bull enterprises represent a range of 51 to 57% of total cost of production. In comparison, for the heifer enterprises, the average feed costs represented 48 to 51% of total cost of production.

**Under 100 Finishing Bulls Enterprises Feed Cost Per Lb. Gain & Total Cost Per Lb. Gain
For Past 10-Year Benchmarking Project**

Benchmark Project Yr	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Feed Cost Per Lb Gain	\$0.84	\$0.77	\$0.87	\$1.11	\$1.10	\$1.02	\$1.05	\$0.96	\$1.19	\$1.35	\$1.03
Total Cost Per Lb Gain	\$1.51	\$1.53	\$1.80	\$2.07	\$2.36	\$2.24	\$2.02	\$2.10	\$2.37	\$2.35	\$2.03

**Over 100 Finishing Bulls Enterprises Feed Cost Per Lb. Gain & Total Cost Per Lb. Gain
For Past 10-Year Benchmarking Project**

Benchmark Project Yr	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Feed Cost Per Lb Gain	\$0.92	\$0.79	\$1.27	\$1.46	\$1.14	\$1.29	\$1.13	\$0.98	\$1.09	\$1.21	\$1.13
Total Cost Per Lb Gain	\$1.45	\$1.40	\$1.86	\$2.29	\$2.20	\$2.32	\$2.13	\$1.91	\$2.05	\$2.26	\$1.99

Conclusion

The benchmark project provided benefits for bison producers and, ultimately, the bison industry. The information provided by the project is not only used by producers, but also by input suppliers, financial institutions, policy makers and academia.

Cow-calf, backgrounding and finish bison operations are the backbone of the industry. Understanding and knowing how production and financial factors impact performance is key to bison operation's success. To properly assess the performance factors, it is important for producers to maintain good records. With good records producers can readily identify areas where they can improve production and financial performance.

It is recognized that the data collected can be improved. As producers add precision to the data they collect, the analytical tools that are developed will improve and contribute to the success of the bison industry.