

Beefmaster

Genomic Evaluation

SA Stud Book
January 2026

Herd Number: 695153

NDUTU BUSHVELD BEEFMASTERS
PRIVATE BAG X1
STAND 2255
IRENE FARM VILLAGES
0157



Notes on the interpretation of EBVs, EBVi's, sub-values and selection values

EBVi (EBVindex) is the breeding value index and is easier to interpret than the breeding value, especially for commercial farmers buying from stud farmers. The base of a breeding value index is 100, which is the average of all the live animals in the breed, and all values are expressed relative to this value. Values above 100 are always in a more desirable direction: an index of 105 for AFC indicates a genetic potential to calve earlier. Note that a very high index is not always desirable. For certain traits, such as birth weight, average values can be better.

EBV: (Estimated Breeding Value) indicates the genetic potential of the animal for a specific trait. It is presented in the unit of measurement and relative to the average of animals born in the base year (1990 for most breeds and traits). Higher values for certain traits are better while lower values for other traits are better, for example, an EBV of -2 for AFC (age at first calving) indicates that the animal has the genetic potential to calve 2 days earlier than the average heifer in 1990 (the base year). Earlier calving is better and therefore low breeding values (high breeding value indices) are better. For weaning weight, higher values are better.

Sub-values combine similar breeding values in a scientific manner to simplify the selection of animals. For example, AFC (age at first calving) and ICP (inter-calving period) are combined to form the sub-value Fertility by taking the heritability and economic importance in consideration. The sub-value is expressed in an index format, thus an animal with a sub-value of 110 for Fertility will genetically be above average compared to the live animals in the breed.

Selection Values (Cow Value and Growth Value) combine the sub-values into a single value. This gives a quick and easy indication of the combined genetic value of an animal compared to the breed. It is advised to still look at the sub-values to see where the strengths and weaknesses lie.

How to use breeding values to select animals

Selecting animals on breeding values is easy if you know how. There is a common saying that “good nutrition can mask poor breeding”. This is very true. If an animal that is genetically inferior is fed well, it can appear as a great animal. This great performance will not be passed over to future generations. An animal that is genetically superior can appear to be inferior if its environment did not allow it to reach its true potential. It is best to select animals that are most adapted to the environment and can reach their full potential. To continuously adapt the environment to the animal can be expensive.

The reason why the use of breeding values is such a valuable tool is because it “removes” the environmental effect that contributes to the performance.

Scientific methods are used to determine how much of the performance is due to genetics and to identify genetically superior animals. This involves the measurement of animals under controlled environments, complete record keeping and pedigree information. *If performance recording and pedigree information are not done correctly, breeding values of these animals will not be useful.* Keep in mind that breeding is a long-term option: the effect of a bull selected/bought today will only show much later. If it is a good decision, his daughters will become part of the breeding herd and contribute to overall profitability in future.

Even if a bull is not perfect in all aspects, knowing the shortcomings will allow strategic selection with suitable cows. Traits are genetically correlated, meaning that a change in one trait can lead to a change in another. This change can be favourable or unfavourable. An increase in weaning weight can lead to an increase in birth weight, which can lead to calving difficulty. It is therefore advisable to not only select on a single trait. Take other traits in consideration to avoid negative effects.

How to improve the herd genetically

The first and most important aspect is to know what type of animal will improve the herd genetically. This can be determined through the following factors:

What happens to the calves? For example: used as replacement heifers, sold as stud animals or sold to commercial breeders who sell weaner calves.

How much feed is available? The availability of feed (or the hardness of the environment) determines the optimal frame size. If feed is abundant and the environment is less harsh, larger animals would be ideal. If not, medium framed animals would be ideal.

What is the genetics of the cow herd? Are they the wrong frame type, grow too slowly, do not have enough milk, etc.? Always aim to breed a calf that is superior to its dam.

Conclusion

Different types of bulls are suitable for different types of cows, environments and breeding objectives. Inbreeding should be avoided or limited as much as possible. Mating programs are available to aid in the pairing of bulls and cows.

The data used for this evaluation is pedigree information and performance data found on LOGIX as provided by breeders. All attempts are made to present accurate information. SA Stud Book takes no responsibility for the use and interpretation of information presented in this report.

CV: Cow Value

(Combination of EBVs based on measurements of cows and calves on the farm)

Selection Values	Calving Ease	Calf growth	Milk	Maintenance	Fertility
	Birth Weight: Calf's genetic potential for weight at birth	Wean weight: Calf's genetic potential for growth	Milk (wean maternal): Milk and mothering ability of cow	Mature weight : Heavier cows have higher maintenance requirements	Heifer Fertility: Age at 1 st calving
	Birth Mat: Cow's genetic ability to limit calf 's birth weight			0.1 x Milk: Higher milk increases maintenance requirements	Cow Fertility: ICP (inter-calving period) Longevity: Retention of family
>120 (Green)		Heavier weaner calf	More milk	Lower maintenance (smaller cow)	More fertile and/or good retention
80 - 120 (Grey)	Average birth weight	Average weaner calf	Average milk	Average maintenance (average cow size)	Average
< 80 (Red)	Heavy Birth Weights (More difficult calving)	Lighter weaner calf	Less milk	Higher maintenance (Heavier cow)	Less fertile and/or culled early

Breeding Values (EBVs)	Birth weight	Mat. birth weight	Weaning weight	Milk	Cow weight	Longevity	Heifer Fertility	Cow Fertility
Higher EBV	Heavier weight	Heavier weight	Heavier weight	More milk	Heavier weight	Family remains longer	Later calving	Longer ICP
Lower EBV	Lighter weight	Lower weight	Lighter weight	Less milk	Lighter weight	Family culled earlier	Earlier calving	Shorter ICP
Optimum EBV	Lower intermediate	Lower intermediate	Higher	Higher	Higher intermediate	Higher	Lower	Lower
Optimum EBVindex*	Higher intermediate	Higher intermediate	Higher	Higher	Higher intermediate	Higher	Higher	Higher

*EBV index above 100 is in a more favourable direction and better than breed average (100).

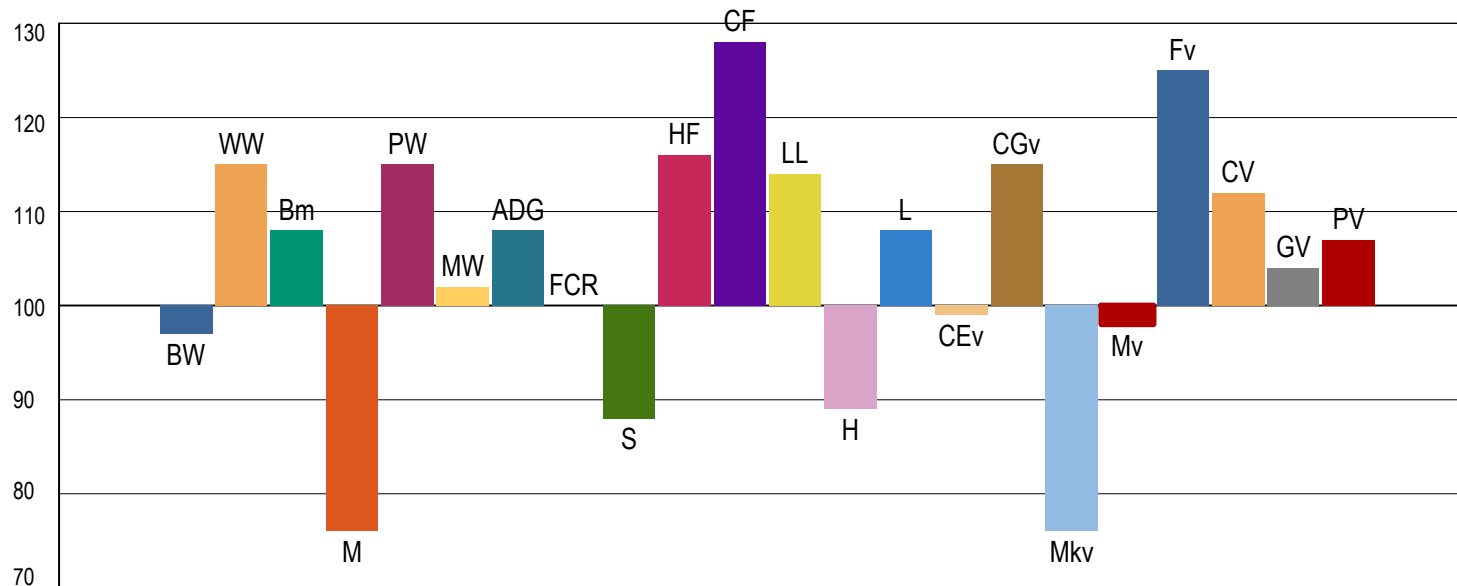
GV: Growth Value

(Combination of EBVs based on bulls measured in growth tests)

Breeding Values (EBVs)	ADG	Kleiber ratio	Feed conversion ratio	Scrotal circumference	Height	Length	Carcass
	Average daily gain	Growth efficiency	Feed conversion ratio	Bull fertility	Shoulder/Hip heigh	Body length	Dressing%, Red Meat Yield and Marbling
Higher EBV	More growth	More efficient on veld	Higher intake per kg gain	Larger scrotum	Taller animal	Longer animal	More
Lower EBV	Less growth	Less efficient on veld	Lower intake per kg gain	Smaller scrotum	Shorter animal	Shorter length	Less
Optimum EBV	Higher	Higher	Lower	Higher	Intermediate	Intermediate/high	Higher
Optimum EBV index	Higher	Higher	High	Higher	Higher intermediate	Higher intermediate	Higher

PV: Production Value is a combination of CV and GV)

Herd and Breed Averages



Breeding Value (EBV) and Breeding Value Index (EBVi):

BW	Birth Weight
WW	Weaning Weight
Bm	Birth maternal
M	Milk
PW	Post-Wean Weight
MW	Mature Weight
ADG	Average Daily Gain
FCR	Feed Conversion Ratio
S	Scrotal Circumference
HF	Heifer Fertility
CF	Cow Fertility
LL	Longevity
H	Height
L	Length

Selection Values

CEv	Calving Ease Value
CGv	Calf Growth Value
Mkv	Milk Value
Mv	Maintenance Value
Fv	Fertility Value
CV	Cow Value
GV	Growth Value
PV	Production Value

- Average of live animals in the breed: 100
- Above 100: **more favourable**,
- Below 100: **less favourable**

What does a sub-selection value above breed average (100) mean?:

Calving ease: Smaller calf at birth - easier calving

Calf growth: Heavier calves at wean due to growth potential of the calf

Milk: Cows with more milk and better mothering ability

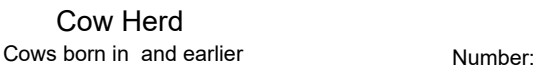
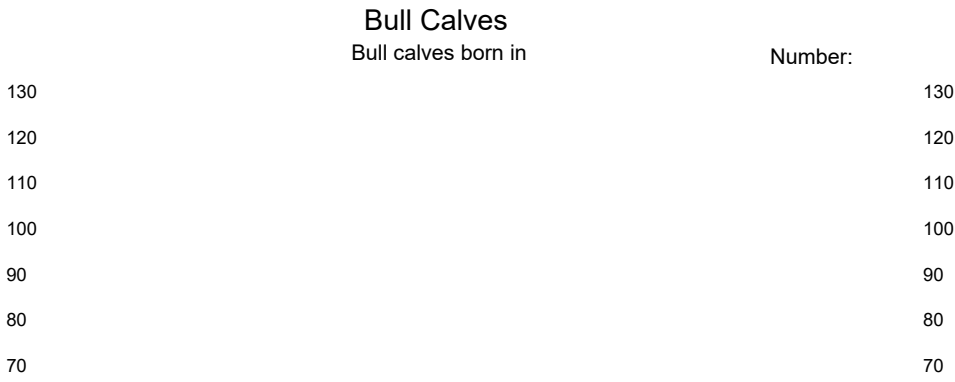
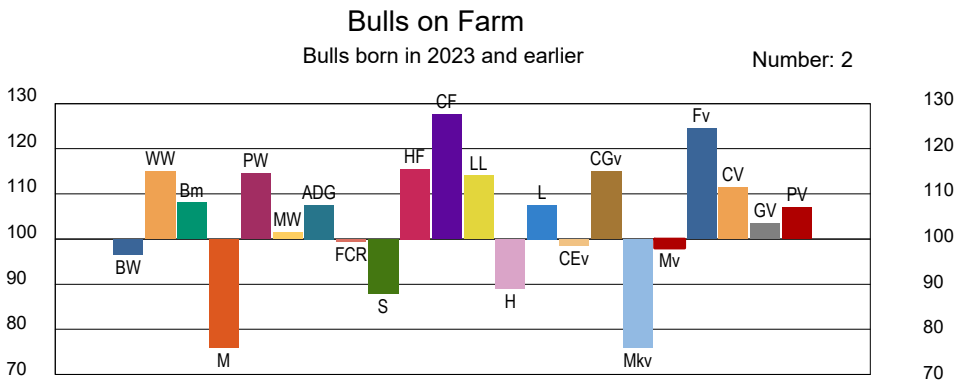
Maintenance: Animals with low maintenance requirements (lower mature weight).

Fertility: Cows/daughters that calve

	Trait	EBV Herd	EBV Index	EBV Breed
Prewrite Growth	Birth Weight	0.62	97	0.35
	Wean Weight	20.5	115	12.1
	Birth Mat.	-0.37	108	-0.07
	Milk (Wn.Mat.)	-8.1	76	-1.6
Postwean Growth	Postwean Wt	29.6	115	18.7
	Mature Weight	9	102	7
	ADG	95	108	69
	FCR	-38	100	-39
Fertility	Scrotal Circumf.	3.7	88	10.5
	Heifer Fertility	-18.7	116	-7.0
	Cow Fertility	-9.4	128	-4.0
	Longevity	22.7	114	14.0
Frame	Height	-5	89	1
	Length	20	108	13
Carcass	Dressing%	0.34	110	0.17
	RedMeatYield	3.0	107	1.4
	Marbling	0.16	101	0.12

Selection Value	Ave. Herd
Calving Ease	99
Calf Growth	115
Milk	76
Maintenance	98
Fertility	125
Cow Value	112
Growth Value	104
Production Value	107

Genetic Window



Abbreviations

BW	Birth Weight
WW	Weaning Weight
Bm	Birth mat
M	Milk
PW	Post-wean Weight
MW	Mature Weight
ADG	Avg. Daily Gain
FCR	Feed Conv. Ratio
S	Scrotal Circumf.
HF	Heifer Fertility
CF	Cow Fertility
LL	Longevity
H	Height
L	Length
CEv	Calving Ease Value
CGv	Calf Growth Value
Mkv	Milk Value
Mv	Maintenance Value
Fv	Fertility Value
CV	Cow Value
GV	Growth Value
PV	Production Value

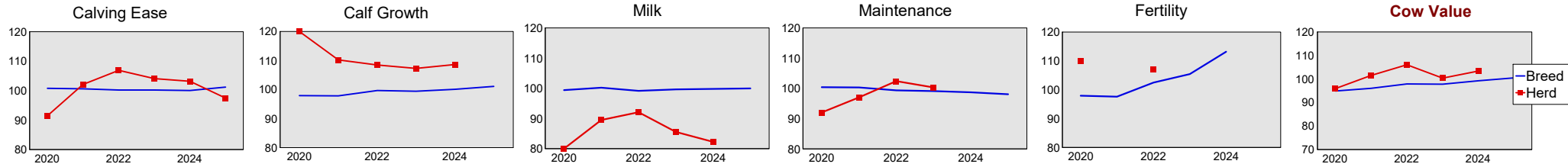
Summary of Cow Herd

			Selection Values (SV)								Calf Weight		Dam		Growth & Efficiency				Fertility				Frame	
Birth Year	No. Cows	Average Cow Value	Calving Ease	Calf Grwth	Milk	Maint.	Fertility	Cow Value	Growth Value	Prod Value	Birth Weight	Wean Weight	Birth Mat.	Milk (Wn.Mat)	Postwn Weight	Mature Weight	ADG	FCR	Scrotal Circumf.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
			Cows in Breed Average:																					

Cows in Herd Average:

Genetic Trends for On-Farm Traits

The graphs show the genetic gain of the herd relative to the breed. Only data of animals with measurements are included.



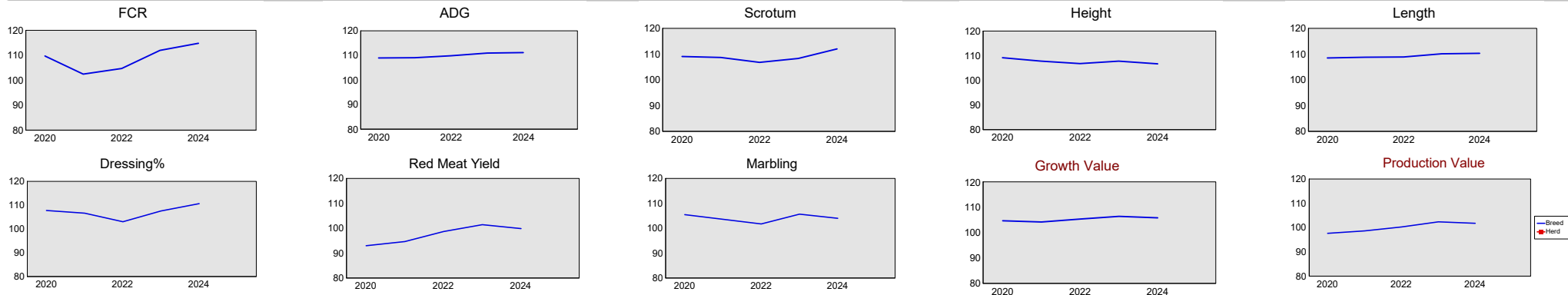
Herd

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance				Fertility						Cow Value	
	Birth Weight		Calv. Ease	Mat EBV	Weaning Weight		Calf Growth	Milk (Wn.Mat.)		Postwean Weight	Mature Weight		Maintenance	Heifer Fert.		Cow Fert.		Longevity		Fertility		
	Number	Dir EBV			Number	EBV		Number	EBV		Number	EBV		Number	EBV	Number	EBV	Number	EBV			Number
2020	7	1.07	-0.34	91	1	24.3	122	1	-13.44	57		2	17	92	1	-7.2			6	19.2	110	96
2021	25	0.24	-0.16	102	8	17.8	110	8	-4.47	90	3	22.6	2	11	97				24	13.1		102
2022	38	-0.07	-0.22	107	29	16.8	109	29	-3.75	92	29	25.0	1	23	102	9	-8.5		1	-0.5	107	106
2023	74	0.10	-0.40	104	59	16.2	107	59	-5.51	86	49	23.5			100							100
2024	52	0.38	-0.59	103	27	16.9	109	27	-6.41	82												103
2025	13	0.75	-0.59	97																		

Breed

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance					Fertility								Cow Value
	Birth Weight		Mat EBV	Calv. Ease	Weaning Weight		Calf Growth	Milk (Wn.Mat.)			Postwean Weight		Mature Weight		Mainte-nance	Heifer Fert.		Cow Fert.		Longevity		Ferti-lity		
	Number	Dir EBV			Number	EBV		Number	EBV	Milk	Number	EBV	Number	EBV		Number	EBV	Number	EBV	Number	EBV		Number	
2017	13995	0.16	0.07	102	13543	9.7	96	13543	-1.51	100	9155	16.1	1876	4	102	3698	-3.8	2609	-3.2	17697	7.6	94	92	
2018	14637	0.21	0.03	101	14085	10.2	97	14085	-1.51	100	9471	17.0	2042	6	101	3742	-5.0	2671	-3.6	18417	8.3	97	94	
2019	14152	0.29	-0.01	101	13892	11.1	98	13892	-1.71	100	9219	18.1	2525	6	101	4470	-5.8	3125	-3.8	18086	9.0	98	95	
2020	15140	0.28	-0.02	101	15375	10.9	98	15375	-1.76	99	10389	18.0	2572	6	100	4473	-5.7	2876	-3.8	18724	9.5	98	95	
2021	16004	0.28	0.01	101	15965	10.9	98	15965	-1.54	100	10817	18.1	2409	6	100	4565	-5.0	2064	-3.9	16331	8.2	98	96	
2022	17592	0.33	-0.04	100	16873	12.0	100	16873	-1.83	99	11510	19.6	1181	10	99	3344	-7.3	540	-4.3	206	10.0	103	98	
2023	18531	0.33	-0.05	100	17997	11.8	99	17997	-1.69	100	11238	19.7	47	24	99	986	-8.7	1	-5.0			105	98	
2024	17909	0.36	-0.07	100	15908	12.2	100	15908	-1.65	100	6410	21.0			99	5	-17.3					113	99	
2025	14267	0.27	-0.06	101	2646	12.8	101	2646	-1.59	100	44	22.1			98								100	
2026	60	0.25	-0.13	102																				

Genetic Trends for Growth Test Traits



Herd

Birth Year	Growth									Frame						Carcass Traits						Selection Values		
	FCR			ADG			Scrotal Circumf.			Height			Length				Dressing%		RMeat Yield		Marbling		Growth Value	Prod Value
	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	EBV	EBVi	EBV	EBVi		
2020																								
2021																								
2022																								
2023																								
2024																								
2025																								

Breed

Birth Year	Growth									Frame						Carcass Traits								Selection Values	
	FCR			ADG			Scrotal Circumf.			Height			Length			Number	Dressing%		RMeat Yield		Marbling		Growth Value	Prod Value	
	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi		EBV	EBVi	EBV	EBVi	EBV	EBVi			
2017	62	-37	100	1015	75	102	979	12.8	104	953	5	106	953	15	102	101	0.00	91	0.00	93	0.000	98	98	92	
2018	16	-50	111	835	92	107	830	14.4	107	830	6	108	830	18	105	33	0.24	104	3.34	109	0.310	104	102	95	
2019	13	-43	104	772	94	107	773	14.3	107	767	7	109	766	20	107	32	0.09	96	1.48	100	0.306	104	102	96	
2020	15	-49	110	1035	100	109	1026	15.5	109	960	7	109	960	21	109	60	0.30	107	3.65	110	0.408	105	105	98	
2021	20	-41	102	1162	101	109	1151	15.3	109	1048	6	108	1048	21	109	148	0.28	106	2.95	107	0.306	104	104	99	
2022	20	-44	105	1222	103	110	1266	14.3	107	1115	5	107	1115	21	109	147	0.22	103	2.25	104	0.207	102	105	100	
2023	10	-52	112	1255	107	111	1241	15.1	108	1112	6	108	1112	22	110	250	0.30	107	3.76	111	0.414	106	106	102	
2024	11	-55	115	678	108	111	667	17.2	112	546	5	107	546	23	110	52	0.35	110	3.58	110	0.326	104	106	102	
2025																									

Sires

Sire		Selection Values (SV / Acc)									Calf Weight		Mother		Growth & Efficiency				Fertility				Frame		Carcass			Measured Progeny																			
ID Name	Sire ID Dam ID	Not tested Verified Conflict	Calf Ease	Calf Grwth	Milk	Maint.	Fertility	Cow Value	Grwth Value	Prod. Value	Birth Weight	Wean Weight	Birth Mat.	Milk Wn.Mat.	Postwn Weight	Mature Weight	ADG	FCR	Scrotal Circumf.	Heifer Fert.	Cow Fert.	Longevity	Height	Length	Dress %	RMeat Yield	Marb-ling	Birth Grwth test	Wean Dght/Calv.																		
	>125		75 - 125	<75	Breed average:				0.35	12.1	-0.07	-1.6	18.7	7	69	-39	10.5	-7.0	-4.0	14.0	1	13	0.17	1.4	0.12																						
BOS 144451	BOS 099110		90	111	85	96	143	130	99	122	1.16	18.2	-1.34	-5.6	27.7	10	98	-39	4.4	-31.3	-13.8	31.3	-14	21	0.51	3.7	0.28	2	266																		
BOS144451	BOS 099053		95	98	97	93	95	87	92	88	95	90	98	111	94	133	97	85	96	112	93	102	93	108	92	101	93	89	96	131	93	150	96	128	93	73	93	109	92	119	92	110	92	103	2	67	173
OKT 180158	BOS 144259		105	121	82	96	101	105	103	100	-0.27	23.6	0.49	-6.5	34.1	10	95	-30	13.2	-9.0	-2.5	17.8	5	31	0.43	4.0	0.71	36	25																		
MADDOX OKT 180158	OKT 130006		91	90	85	83	83	78	81	79	92	108	90	121	86	85	85	82	85	120	83	103	82	107	80	92	83	105	83	103	81	92	86	106	83	106	82	120	81	114	81	112	81	111	4	5	

Bulls

Inbreeding in red is high

EBV
Acc Index

Breeding values with an accuracy < 5% are not printed

Bull		Selection Values (SV / Acc)							Calf Weight		Mother		Growth & Efficiency				Fertility				Frame		Carcass									
ID Name	Sire ID Dam ID % Inbreeding Genomic Parentage: ☐ Not tested ☒ Verified ☒ Conflict	Calf Ease	Calf Grwth	Milk	Maint.	Fertility	Cow Value	Grwth Value	Prod. Value	Birth Weight	Wean Weight	Birth Mat.	Milk Wn.Mat.	Postwn Weight	Mature Weight	ADG	FCR	Scrotal Circumf.	Heifer Fert.	Cow Fert.	Longevity	Height	Length	EMA	Fat	Marb-ling	Dres %	RMV %				
		Breed average:							0.35	12.1	-0.07	-1.6	18.7	7	69	-39	10.5	-7.0	-4.0	14.0	1	13	100	100	100	100	100					
		Bull average:							0.43	99	12.8	101	-0.13	101	-1.8	99	19.6	101	9	101	75	102	-41	103	11.1	101	-6.8	100	-4.1	101	2	101
		>125	75 - 125		<75		Shaded EBVi		90-110	>100	>100	>100	>100	>100	90-110	>100	>100	>100	>100	>100	>100	>100	90-110	90-110	>100	>100	>100	>100	>100			
BOS 200177 7 ☒ BOS 144451 ☒ BOS 177058		81	118	81	99	142	126	101	120	2.06	22.1	-0.75	-6.6	31.0	7	101	-43	4.4	-25.2	-13.8	27.5	-8	22	120	99	103	119	112				
		84	87	85	82	83	77	81	78	84	79	83	118	85	81	84	116	82	100	82	109	80	104	82	89	80	80	80	80			
V8 220693 1 ☒ OKT 180158 ☒ V8 190339		116	112	71	97	107	97	106	94	-0.82	18.9	0.01	-9.6	28.2	10	90	-33	3.0	-12.3	-4.9	17.9	-1	17	100	104	99	100	102				
		85	84	81	79	80	74	78	75	85	114	84	112	82	98	81	71	81	113	79	103	79	106	78	95	80	87	78	78			

Cows

Inbreeding in red is high

EBV
Acc Index

Breeding values with an accuracy < 5% are not printed

Cow			Selection Values (SV / Acc)							Calf Weight		Mother		Growth & Efficiency				Fertility				Frame		Carcass						
ID Name	Sire ID	Dam ID	Calf Ease	Calf Grwth	Milk	Maint.	Fertility	Cow Value	Grwth Value	Prod. Value	Birth Weight	Wean Weight	Birth Mat.	Milk Wn.Mat.	Postwn Weight	Mature Weight	ADG	FCR	Scrotal Circumf.	Heifer Fert.	Cow Fert.	Longevity	Height	Length	EMA	Fat	Marb-ling	Dres %	RMV	
% Inbreeding	Genomic	☐ Not tested ☒ Verified ☒ Conflict	Breed average:																											
			Cow average:																											
			Shaded EBVi								90-110	>100	>100	>100	90-110	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100			

Selection List on Cow Value

Bulls 2 years and older

ID Sorted on ID	Name	Sire ID	Dam ID	% Inbreeding	Horned / Polled	Myostatin				Genomic tested	Calving Ease Value		Calf Growth Value	Milk Value	Maint. Value	Fertility Value	Cow Value	Growth Value	Prod Value								
						Q204X	nt821	F94L	Acc		Acc	Acc	Acc	Acc	Acc	Acc	Acc										
											★★★★★																
1	BOS 200177	BOS200177	BOS 144451	BOS 177058	6.7	PcH	0	0	0		81	84	118	87	81	85	99	82	142	83	126	77	101	81	120	78	
											★★★★																
1	V8 220693	V8220693	OKT 180158	V8 190339	0.8	HH	0	0	0		116	85	112	84	71	81	97	79	107	80	97	74	106	78	94	75	