

CHAROLAIS

GENOMIC BREEDING VALUE REPORT

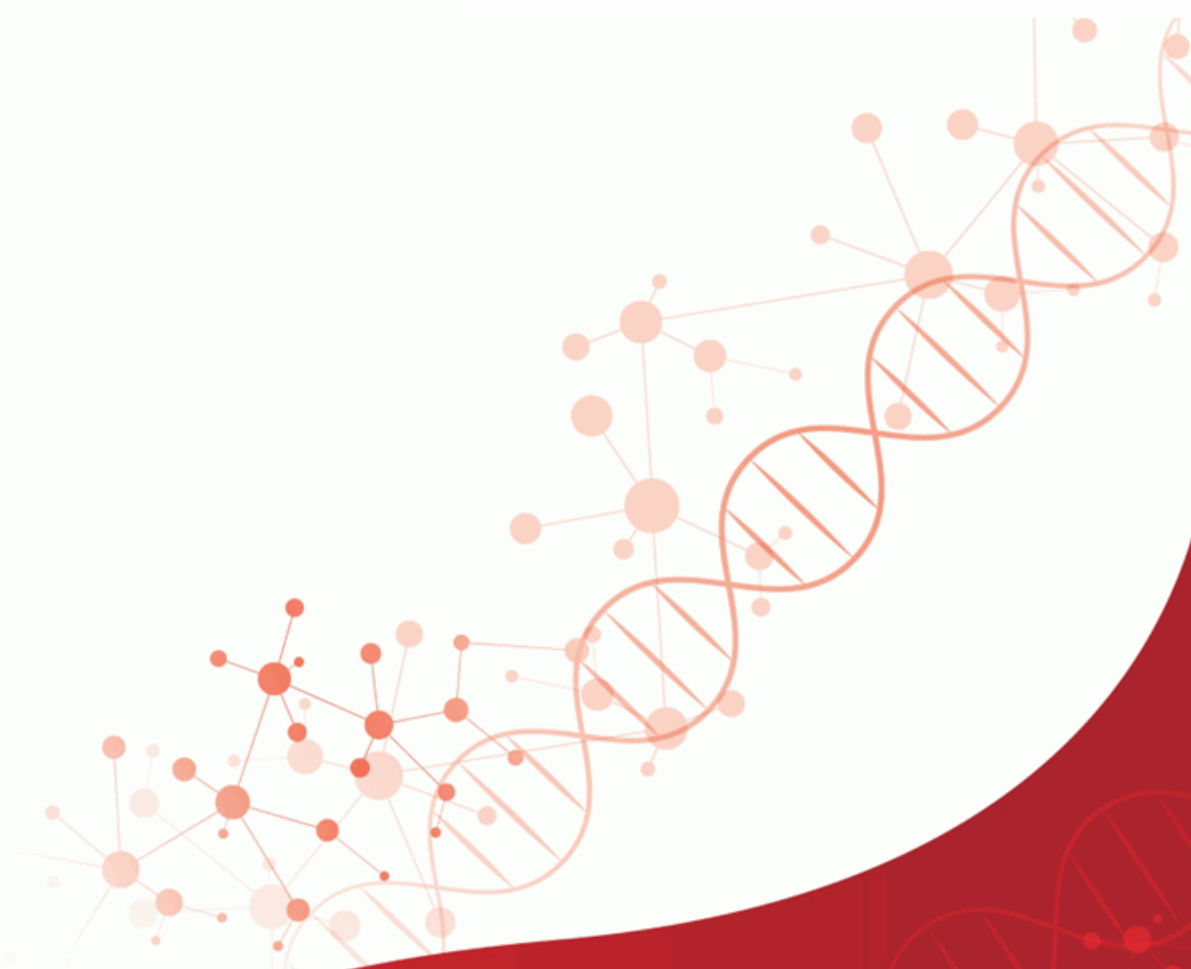
September 2026



N. DATNOW

Herd Number: 17146

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EBVs, EBVi's and GEBVs

EBVi (Breeding Value Index): Genetic potential relative to the average (100) of the live (active) animals in the breed. Roughly 50% of the animals have values between 90 and 110. Values above 100, depending on the trait, tend to be in the more favourable direction.

EBV (Breeding Value): Genetic potential relative to the average of the animals born in the base year (1990), expressed in the unit of measurement.

GEBV (Genomic Breeding Value) Interpreted like the EBVi. (GEBV = EBV + Genomic information)

LOGIX Selection values combine different breeding values in a logical way. For example, Heifer Fertility (how early a heifer starts calving), Cow Fertility (how regular she calves) and Longevity (retention within the family) are combined to form the Fertility Value.

Selection Values

LOGIX Cow Value



Selecting for:

- fertile,
- low maintenance,
- easy calving cows
- with heavy weaners

LOGIX Growth Value



Select for efficient growers on veld and in feedlot, as measured in Phase C and D Growth Tests.

LOGIX Production Value



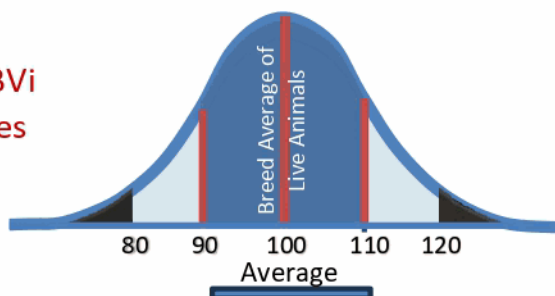
80% LOGIX Cow Value +
20% LOGIX Growth Value

LOGIX Carcass Value

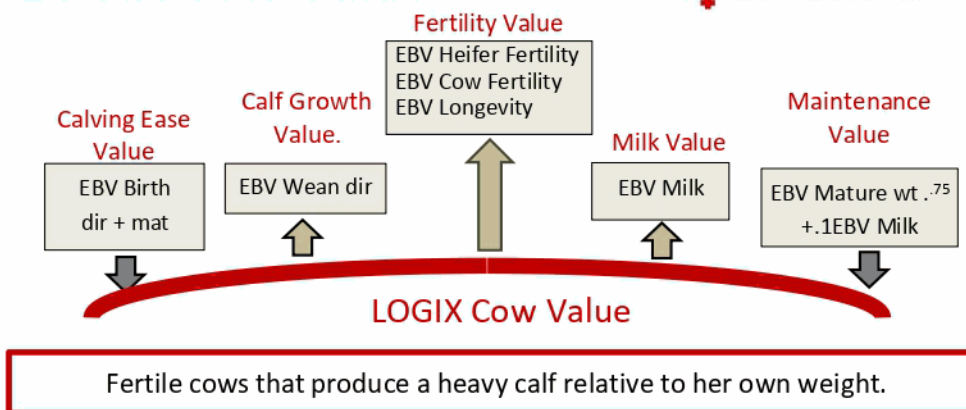


Select for more meat on the carcass as measured from end weight in Phase C and D Growth Tests and RTU scanning.

Interpretation of EBVi and Selection Values



LOGIX Cow Value



How to use the Cow Value

Selection values should be compatible with your selection goal.

AVERAGE ANIMALS

(NO GROWTH EXTREMES)

- Selection Values 90 to 110
 - Cow Value and Fertility Value average to high
- A safe choice, as animals are profitable in most environments.

GROWERS

(GOOD ENVIRONMENT)

- WeanerCalf / Growth Value > 120
 - Cow Value and Fertility Value average to high
- Growers are usually heavier at birth (lower Calving Ease Value), and maturity (lower Maintenance Value).

LOW- MAINTENANCE ANIMALS

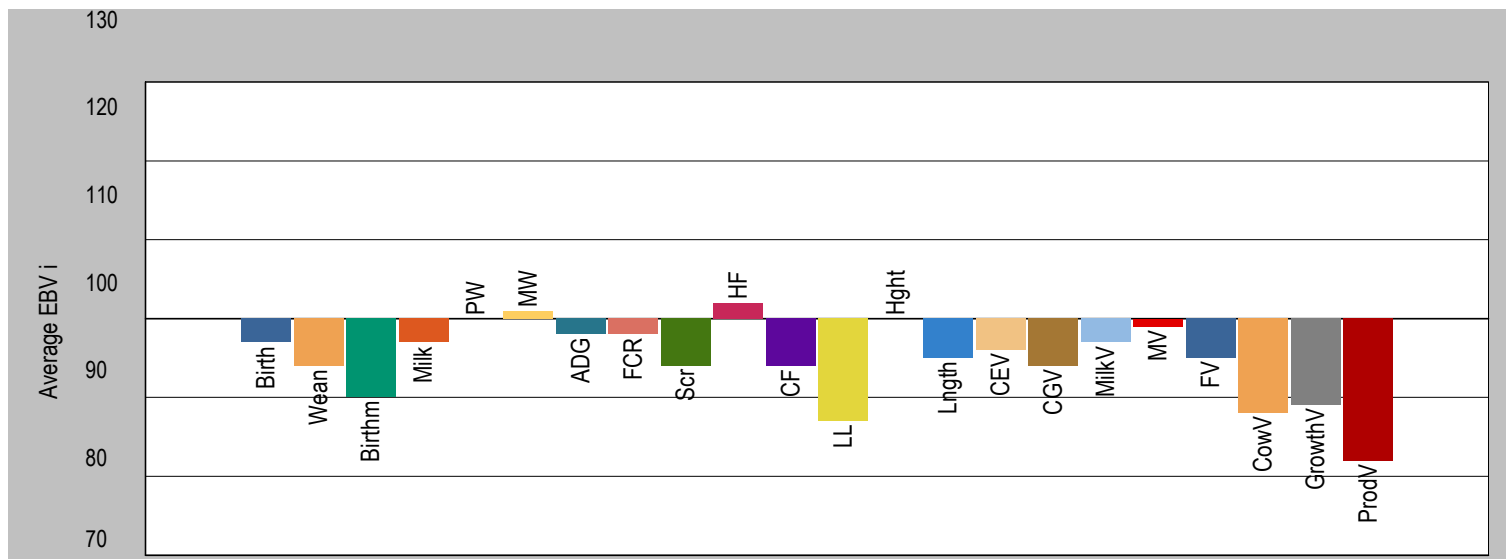
(HARSH ENVIRONMENT)

- Maintenance Value >110
 - Cow Value and Fertility Value average to high
- Lighter cows have a lower maintenance.

Examples

Type of Animal	Cow Value	Calving Ease V	Weaner Calf V	Milk Value	Maint. Value	Fertility Value
Average	Med-High	Avg	Avg	Avg	Avg	Med-High
Grower	Med-High		High			Med-High
Low Maintenance	Med-High				High	Med-High

Herd and Breed Averages



Breeding Values:

Birth:	Birth weight	Scr:	Scrotal circumf.
Wean:	Weaning weight	HF:	Heifer Fertility
Birthm:	Birth maternal	CF:	Cow Fertility
Milk:	Milk	LL:	Longevity
PW:	Post-wean weight	Hght:	Height
MW:	Mature weight	Lngth:	Length
ADG:	Average Daily Gain		
FCR:	Feed Conversion Ratio		

Selection Values:

CEV:	Calving Ease Value
CGV:	Calf Growth Value
MilkV:	Milk Value
MV:	Maintenance Value
FV:	Fertility Value
CowV:	Cow Value (CV)
GrowthV:	Growth Value (GV)
ProdV:	Production Value (PV)

	Trait	EBV Herd	EBV Index	EBV Breed
Prewean Growth	Birth Weight	0.91	97	0.55
	Wean Weight	8.2	94	10.9
	Birth Mat.	0.25	90	-0.18
	Milk (Wn.Mat.)	0.1	97	0.9
Postwean Growth	Postwean Wt	18.0	100	18.2
	Mature Weight	14	101	13
	ADG	26	98	35
	FCR	-18	98	-19
Fertility	Scrotal Circumf.	3.2	94	6.1
	Heifer Fertility	0.7	102	1.7
	Cow Fertility	-0.9	94	-2.1
	Longevity	8.3	87	14.4
Frame	Height	2	100	3
	Length	4	95	9

Selection Value	Ave. Herd
Calving Ease	96
Calf Growth	94
Milk	97
Maintenance	99
Fertility	95
Cow Value	88
Growth Value	89
Production Value	82

- 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

Genetic Windows

Bulls on the farm

Bulls born in and earlier that are available for natural mating

130
120
110
100
90
80
70

Animals available for breeding

Total:

Cows born in and earlier

130
120
110
100
90
80
70

Cow Herd

Total:

Results of previous selection decisions

Sires of young animals

Sires (Natural mating and AI) of animals 3 years and younger

130
120
110
100
90
80
70

Total:

Cows born in and earlier

130
120
110
100
90
80
70

Cows older than 6 years

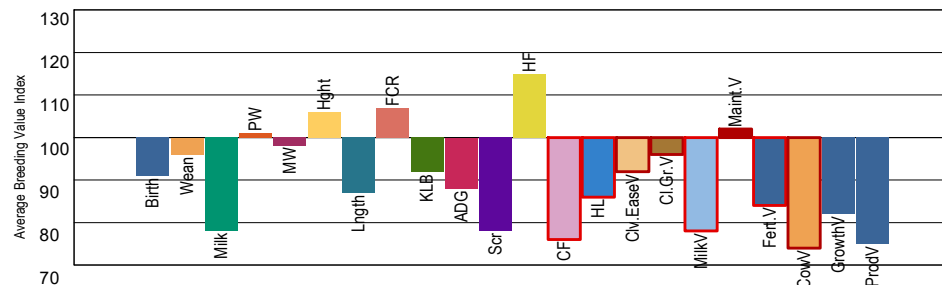
Total:

Selection possibilities

Bull calves

Bulls born in 2025

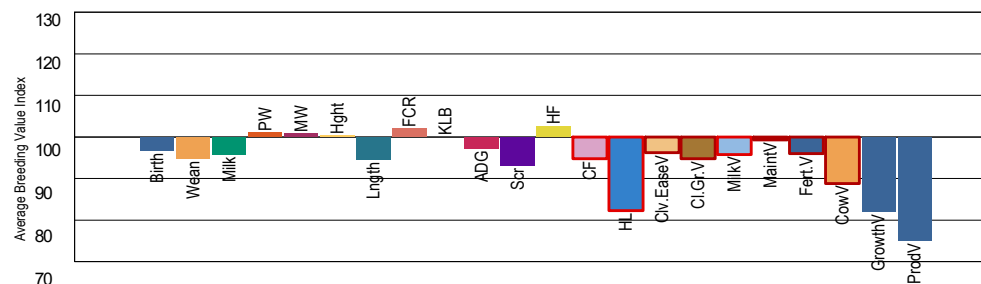
Total: 1



Heifer calves

Heifers born in 2025

Total: 4

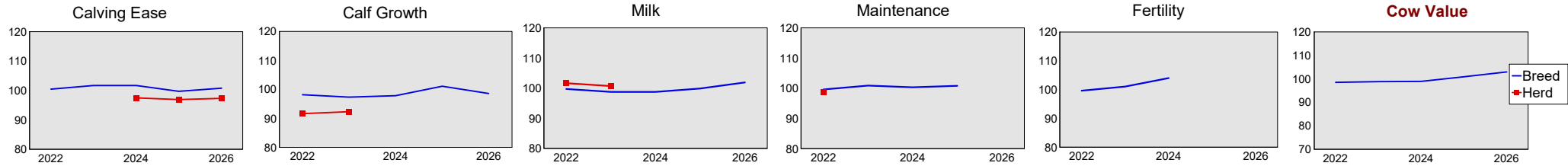


Summary of Cow Herd

			Selection Values (SV)								Calf Weight		Dam		Growth & Efficiency				Fertiity				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	Kleiber	Scrotal Circumf.	Heifer Fertility	Cow Fertility	Longevity	Height	Length	
Cows in Breed Average:			100	99	100	101	100	100	99	99	100	99	100	100	100	99	99	99	99	99	100	100	100	99	99
2014	1	★★★★	92	94	103	106	96	91	100	91	95	94	83	103	103	94	100	103	95	102	95	111	95	95	
2015	4	★★★★	96	94	102	97	98	90	103	91	96	94	93	102	99	104	103	107	100	99	97	98	98	100	
2017	2		102								102		94					80							
2018	1	★★★★☆	82	100	97	100	92	82	102	85	85	100	81	97	104	100	102	103	100	91	94	91	105	102	
2022	3	★★★★	102	93	100	99	100	94			102	93	94	100	98	101	100	103	97	99	100	84	97	97	
2023	9	★★★★☆	95	93	98	99	97	87	77	75	97	93	84	98	100	101	98	100	95	101	96	84	99	95	
2024	5	★★★★	93	97	105	95	99	91			95	97	82	105	103	105	105	108	102	96	99	90	102	102	
2025	4	★★★★☆	96	95	96	99	96	89	82	75	97	95	94	96	101	101	97	100	93	103	95	82	100	95	
2026	3	★★★★☆	96	97	89	100	94	87	92	86	95	97	102	89	102	100	96	98	88	110	90	93	103	94	
Cows in Herd Average:			95	95	99	99	97	89	93	84	96	95	90	99	101	101	100	103	96	100	96	90	100	98	

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.



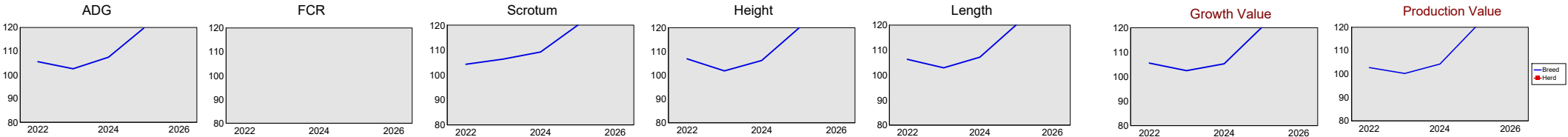
Herd

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance				Fertility						Cow Value			
	Birth Weight		Mat EBV	Calv. Ease	Weaning Weight		Calf Growth	Milk (Wn.Mat.)		Milk	Postwean Weight		Mature Weight		Mainte- nance	Heifer Fert.		Cow Fert.		Longevity		Ferti- lity		
	Number	Dir EBV			Number	EBV		Number	EBV		Number	EBV	Number	EBV		Number	EBV	Number	EBV	Number			EBV	Number
2022					3	7.0	92	3	1.45	102	3	17.0	99											
2023					3	7.3	92	3	1.10	101														
2024	7	0.65	0.51	97																				
2025	8	0.69	0.57	97																				
2026	10	0.58	-0.09	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.)		Milk	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	EBV		
2016	1099	0.56	-0.08	100	863	7.7	93	863	0.18	98	663	13.6	137	5	104	240	1.0	197	-2.1	1108	9.4	99	93
2017	1299	0.62	-0.11	99	1029	8.2	94	1029	0.34	98	796	13.9	155	8	103	257	1.9	224	-1.7	1213	9.5	98	93
2018	1392	0.55	-0.12	100	1050	9.0	96	1050	-0.70	95	857	15.6	182	10	102	287	2.1	251	-1.4	1378	10.2	96	93
2019	1431	0.42	-0.16	101	1078	8.9	96	1078	0.16	98	821	15.3	174	9	103	276	1.5	227	-2.1	1375	10.9	99	96
2020	1636	0.46	-0.16	101	1150	8.9	96	1150	0.10	97	894	15.0	189	8	103	260	1.7	225	-2.3	1544	10.3	99	95
2021	1590	0.35	-0.15	102	1209	9.2	96	1209	0.56	99	928	17.0	162	10	101	216	1.7	164	-2.3	1390	10.0	99	98
2022	1585	0.53	-0.24	100	1189	10.1	98	1189	0.80	100	898	18.0	147	11	100	236	2.4	80	-2.8	497	7.7	100	99
2023	1641	0.37	-0.24	102	1310	9.7	97	1310	0.50	99	969	17.0	36	6	101	152	1.8					101	99
2024	1541	0.33	-0.17	102	1239	9.9	98	1239	0.50	99	896	18.5			100	1	1.0					104	99
2025	1470	0.57	-0.18	100	971	11.5	101	971	0.87	100	141	17.5			101								101
2026	517	0.43	-0.13	101	25	10.3	99	25	1.46	102													103

Genetic Trends for Growth Test Traits



Herd

Birth Year	Growth									Frame						Selection Values	
	FCR			ADG			Scrotal Circumf.			Height			Length			Growth Value	Prod Value
	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi		
2022																	
2023																	
2024																	
2025																	

Breed

Birth Year	Growth									Frame						Selection Values	
	FCR			ADG			Scrotal Circumf.			Height			Length			Growth Value	Prod Value
	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi		
2016				21	-26	84	21	-3.0	82	21	-9	85	21	-12	80	82	79
2017							3	-3.8	81								
2018				60	26	97	58	5.0	98	58	3	100	58	6	97	97	93
2019	15	-26	108	40	29	98	40	5.7	99	40	4	102	40	7	97	95	92
2020	15	-20	101	79	19	96	83	4.4	97	83	0	96	83	3	94	94	92
2021				52	84	113	52	10.2	108	52	9	108	52	21	111	111	107
2022				64	57	106	70	8.3	104	70	8	107	70	16	106	106	103
2023				85	45	103	88	9.3	106	88	4	102	88	13	103	102	100
2024				78	64	107	77	10.8	109	78	7	106	78	17	107	105	104
2025				21	111	120	21	20.0	127	21	17	120	21	41	129	121	125

Percentile Table for Bulls (based on live animals)

%	Calf weight			Growth & efficiency				Fertility				Frame	
	Birth weight	Weaning weight	Milk (WW.Mat.)	Post wean	Mature weight	ADG	Kleiber	Scrotal circum.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
Mean	0.54	11.4	0.9	18.9	15	43	34	7.2	2.3	-2.1	14.1	4	12
Top	-5.29	30.5	14.2	48.9	57	212	116	28.5	-28.1	-9.7	33.0	36	56
1	-3.36	27.5	10.7	43.3	45	187	94	28.5	-16.3	-7.2	30.1	27	51
2	-2.72	25.8	9.4	39.7	41	158	82	24.7	-14.2	-6.5	27.8	24	44
3	-2.37	24.1	8.3	37.2	39	146	78	22.7	-13.4	-6.0	26.1	23	42
4	-2.10	23.0	7.4	35.9	37	137	75	21.2	-12.0	-5.8	24.7	21	40
5	-1.94	22.3	6.9	34.7	36	132	71	19.5	-10.9	-5.5	23.8	20	38
6	-1.78	21.6	6.5	33.6	35	127	69	18.6	-10.1	-5.4	23.3	19	36
7	-1.66	21.0	6.1	32.7	33	120	67	17.8	-9.5	-5.2	22.8	19	35
8	-1.55	20.5	5.9	32.1	32	116	65	16.7	-8.7	-5.1	22.4	18	34
9	-1.45	20.1	5.7	31.4	31	113	63	16.4	-8.0	-5.0	21.7	17	32
10	-1.29	19.8	5.4	30.7	30	110	62	15.9	-7.4	-4.9	21.4	16	31
20	-0.67	16.6	3.5	26.4	25	84	51	12.0	-3.8	-3.8	18.7	12	23
30	-0.22	14.6	2.5	22.9	20	67	44	9.8	-1.5	-3.2	16.8	9	19
40	0.14	12.6	1.6	20.3	17	53	39	8.1	0.4	-2.6	15.3	6	15
50	0.45	10.9	0.8	18.2	14	39	33	6.5	2.4	-2.0	13.9	3	11
60	0.79	9.4	0.0	16.3	11	28	27	5.0	4.2	-1.5	12.6	1	7
70	1.21	7.9	-0.9	14.2	8	15	23	3.5	6.2	-1.0	10.9	-2	4
80	1.72	6.2	-1.9	11.6	4	3	17	1.9	8.5	-0.3	9.0	-4	0
90	2.60	3.8	-3.3	8.0	-1	-15	7	-0.3	12.2	0.6	6.6	-8	-5
91	2.74	3.5	-3.5	7.5	-1	-18	6	-0.5	12.5	0.7	6.3	-9	-6
92	2.90	3.2	-3.7	6.8	-2	-21	4	-0.7	13.1	0.8	6.1	-9	-7
93	3.01	2.9	-4.1	6.3	-3	-23	3	-1.3	13.8	1.0	5.8	-10	-8
94	3.18	2.4	-4.4	5.6	-4	-26	1	-1.8	14.5	1.1	5.6	-10	-8
95	3.44	1.7	-4.8	5.1	-6	-32	-1	-2.2	15.2	1.3	5.3	-11	-9
96	3.63	0.8	-5.1	4.1	-7	-36	-5	-2.8	16.2	1.5	4.8	-12	-10
97	3.92	0.3	-5.6	3.3	-8	-43	-9	-3.4	17.6	1.8	4.2	-13	-12
98	4.18	-0.9	-6.1	2.0	-10	-54	-13	-4.6	18.5	2.2	3.4	-14	-14
99	4.76	-2.1	-6.9	-0.7	-14	-69	-20	-6.5	20.0	2.7	1.8	-18	-18
Bottom	5.79	-12.6	-9.3	-10.1	-26	-226	-102	-15.8	26.0	5.6	-3.7	-35	-48

Percentile Table for Cows (based on live animals)

%	Calf weight			Growth & efficiency				Fertility				Frame	
	Birth weight	Weaning weight	Milk (WW.Mat.)	Post wean	Mature weight	ADG	Kleiber	Scrotal circum.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
Mean	0.56	10.7	0.9	17.9	12	31	30	5.5	1.4	-2.1	14.5	2	8
Top	-4.87	30.5	17.0	48.7	58	212	108	28.5	-38.3	-11.5	33.0	36	56
1	-3.07	25.4	12.0	39.0	45	152	83	24.8	-23.1	-8.4	30.7	23	43
2	-2.54	23.3	10.4	36.3	41	141	77	21.7	-19.2	-7.6	28.6	21	39
3	-2.18	22.3	9.4	34.4	38	133	73	19.8	-17.6	-7.1	27.0	20	35
4	-1.95	21.5	8.6	32.9	36	124	70	18.3	-16.2	-6.7	26.0	18	34
5	-1.78	20.7	7.9	32.1	34	115	66	17.1	-14.8	-6.5	25.3	18	32
6	-1.64	20.0	7.4	31.3	32	109	64	16.3	-13.8	-6.1	24.5	17	30
7	-1.53	19.5	7.0	30.7	31	104	62	15.6	-12.9	-6.0	23.9	16	29
8	-1.38	18.9	6.6	30.0	30	101	61	15.0	-12.2	-5.7	23.5	15	28
9	-1.27	18.6	6.3	29.5	29	98	59	14.4	-11.5	-5.5	22.9	15	27
10	-1.19	18.2	6.0	29.0	28	95	58	13.9	-10.8	-5.3	22.5	14	27
20	-0.49	15.8	4.0	25.1	22	73	48	10.4	-6.1	-4.1	19.6	10	20
30	-0.10	13.8	2.7	22.2	18	55	41	8.2	-3.1	-3.3	17.6	7	15
40	0.24	12.1	1.7	19.8	15	42	35	6.6	-0.7	-2.7	15.8	4	11
50	0.54	10.4	0.8	17.5	12	29	29	5.2	1.5	-2.1	14.3	2	8
60	0.86	9.0	-0.1	15.6	9	18	24	3.6	3.9	-1.5	12.9	0	4
70	1.21	7.4	-1.2	13.2	6	5	18	2.1	6.1	-0.8	11.4	-3	1
80	1.64	5.7	-2.4	10.8	2	-8	12	0.3	9.0	0.0	9.5	-6	-3
90	2.32	3.4	-4.2	7.5	-5	-29	2	-2.2	13.4	1.1	6.8	-10	-9
91	2.42	3.2	-4.4	6.9	-6	-31	1	-2.5	14.0	1.3	6.5	-10	-10
92	2.53	2.7	-4.7	6.3	-7	-34	0	-3.0	14.7	1.4	6.2	-11	-10
93	2.67	2.3	-5.0	5.9	-8	-38	-2	-3.4	15.6	1.6	5.8	-12	-11
94	2.82	1.8	-5.4	5.2	-9	-42	-4	-3.9	16.2	1.8	5.4	-13	-12
95	2.96	1.3	-5.8	4.3	-11	-47	-6	-4.4	17.3	2.1	5.0	-13	-14
96	3.12	0.8	-6.2	3.3	-13	-53	-9	-5.0	18.4	2.4	4.3	-14	-15
97	3.37	-0.2	-6.8	2.2	-16	-60	-12	-5.8	19.7	2.7	3.6	-16	-17
98	3.60	-1.2	-7.6	0.9	-19	-69	-17	-6.6	21.8	3.3	2.4	-18	-19
99	4.22	-2.6	-9.2	-1.4	-22	-82	-28	-8.5	24.5	4.3	0.1	-21	-23
Bottom	5.79	-11.0	-16.4	-13.2	-41	-137	-69	-18.3	33.3	9.8	-24.3	-32	-36

Sires

Bull				Selection Values							Calf		Dam		Growth				Fertility				Frame		Measured Progeny					
ID	Index EBV Acc	Sire ID	Dam ID	Calv. Ease Value	Calf Grwth Value	Milk Value	Maint. Value	Fertility Value	Cow Value	Growth Value	Prod Value	Birth Dir	Wean Dir	Birth Mat.	Wean Mat.	Post wn wt	Mature weight	ADG	FCR	Scrotal	Heifer Fertility	Cow Fertility	Long-evi ty	Height	Length	Birth	Wean	Dgt/Calvs.	Grwth Test	
BGND12FOT	DEI26 FF0011910	MAERDY DIRECTOR		81	98	48	96	62	46	87	53	81	98	108	48	101	104	89	120	78	90	59	78	125	83	240	74	88	326	3
				99	97	97	79	84	89	76	86	99	97	97	97	94	79	83	65	87	95	74	98	87	86					
EASA1	MFI0007127 13347	ESCOTT ALEXANDER		92	82	88	106	75	67	89	71	94	82	90	88	90	94	92	69	124	72	80	69	86	84	240	106	75	238	28
				99	97	96	70	84	87	75	85	99	97	97	96	94	70	90	57	93	94	73	97	93	92					
FR0120308082	108CHL JENNY1	PANDORE P		106	98	100	98	102				104	98	107	100	92	102				104		81			1				
				47	34	21	7	8				0.08	10.1	-0.47	0.8	12.8	14				-0.9		5.4							
HNV170029	 WV 140025 DP 130019	HNV170029		95	94	106	91	101	92	104	93	99	94	72	106	106	109	108	107	103	96	103	78	104	103	15	6			
				89	87	81	77	76	80	77	79	90	87	82	81	74	77	77	76	78	77	76	82	78	78					
KRU20	BPM6 FF0008898	NIBHEATH UNIQUE		107	63	67	116	82	53	67	55	110	63	74	67	61	84	60	35	85	98	79	71	75	63	72	5	29	100	
				97	89	91	55	72	77	46	71	-0.58	-6.1	0.98	-9.3	-7.5	-4	-117	34	-1.8	3.0	1.8	0.4	-16	-31					
ND 230015	 BGND12FOT AV H 0279	SELWYN		103	96	72	102	90	82	83	81	100	96	117	72	100	98	89	108	76	122	81	94	107	89	8				
				86	81	81	77	79	80	78	80	0.56	9.1	-0.95	-7.6	18.2	10	-8	-26	-6.1	-13.6	1.4	11.6	8	-3					

Breeding Values and Accuracies: Bulls

Inbreeding in red is high

Value <80 Value >120

Breeding values with an accuracy < 5% are not printed

Animal			Selection Values									Birth		Wean				Growth			Fertility				Frame	
Index EBV Acc	% Inbreeding	Sire ID Dam ID	Calv. Ease V	Calf Growth V	Milk V	Maint. V	Fertility V	Cow Value	Growth Value	Prod. Value	Birth wt dir	Birth mat	Mature wt	Wean wt	Wean mat	Cow-Calf Ratio (Wean)	Postwean wt	ADG	FCR	Scrotal Circ.	Heifer Fertility	Cow Fertility	Longevity	Height	Length	
ID Number Name																										
ND 230015 98720055 SELWYN		BGND12FOT AV H 0279	103 86	96 81	72 81	102 77	90 79	82 80	83 78	81 80	100 0.56 86	117 -0.95 81	98 10 77	96 9.1 81	72 -7.6 81	77 -20 80	100 18.2 67	89 -8 78	108 -26 77	76 -6.1 79	122 -13.6 80	81 1.4 78	94 11.6 82	107 8 79	89 -3 79	
ND 230016 98867419 JAYDEN ND 23 16		EASA1 GVR B 0111	109 65	66 62	105 64	107 44	67 56	75 57	70 44	73 54	109 -0.47 65	90 0.26 64	93 6 44	66 -4.8 62	105 2.4 64	81 -11 57	65 -5.2 58	70 -80 52	61 13 35	97 4.6 54	80 15.5 60	69 3.8 51	71 0.6 66	73 -17 54	66 -27 53	
ND 250013 99841082 ND 250013		BGND12FOT AV H 0279	92 65	96 61	78 62	102 44	84 55	74 56	82 46	75 54	91 1.62 65	110 -0.63 64	98 11 44	96 8.9 61	78 -6.0 62	80 -12 56	101 18.7 57	88 -10 50	107 -25 39	78 -5.3 53	115 -8.6 60	76 2.4 50	86 7.5 65	106 7 53	87 -4 52	
ND 260005 6020321854 CALEB		ND 230008	96 60	94 19	101 14	102 7	100 7				97 0.91 64	90 0.28 25	98 10 7	94 8.3 19	101 1.2 14	98 24 13	98 16.6 17	96 18 8		95 3.6 9	100 1.6 8	99 -2.0 6	72 1.3 18	96 -1 9	94 3 9	
ND 260008 6020321870 CASPER	2	ND 230015 ND 230014	90 66	100 38	90 35	99 24	95 28	84 32	92 24	84 30	91 1.60 69	93 0.12 40	101 14 24	100 10.8 38	90 -2.2 35	92 12 32	106 22.3 34	96 21 26	106 -24 20	88 0.2 28	110 -5.0 31	92 -0.5 25	87 8.4 39	104 6 28	95 4 28	

Breeding Values and Accuracies: Cows

Inbreeding in red is high

Value <80 Value >120

Breeding values with an accuracy < 5% are not printed

Animal			Selection Values									Birth		Wean				Growth			Fertility				Frame	
Index EBV Acc	% Inbreeding	Sire ID Dam ID	Calv. Ease V	Calf Growth V		Milk V	Maint. V	Fertility V	Cow Value	Growth Value	Prod. Value	Birth wt dir	Birth mat	Mature wt	Wean wt	Wean mat	Cow-Calf Ratio (Wean)	Postwean wt	ADG	FCR	Scrotal Circ.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
ID Number Name																										
ND 140002 89627103 ND 140002			92 77	94 76	103 79	106 74	96 74	91 75	100 74	91 75		95 1.16 77	83 0.59 78	94 7 74	94 8.3 76	103 1.9 79	100 30 76	103 20.2 49	100 34 74	100 -19 74	95 3.7 74	102 0.0 74	95 -1.1 74	111 19.6 77	95 -1 74	95 4 74
ND 150001 89627129 ND 150001			99 79	91 76	103 76	99 75	97 75	91 76	97 75	91 76		100 0.59 79	90 0.26 79	101 14 75	91 6.7 76	103 1.7 76	95 19 76	96 15.5 38	97 25 75	96 -15 75	95 3.6 75	100 2.0 75	96 -1.4 75	102 15.1 78	94 -1 75	95 4 75
ND 150006 89627178 ND 150006			103 41	91 26	100 40							103 0.21 41	97 -0.05 45		91 6.7 26	100 0.9 40	95 19 22							96 12.5 41		
ND 150007 89627186 ND 150007			85 75	100 73	103 73	94 73	98 73	88 73	109 72	90 73		86 2.09 75	92 0.20 76	106 19 73	100 11.0 73	103 1.7 73	101 31 73	102 19.8 36	109 71 73	105 -23 72	104 8.1 73	98 3.2 73	98 -1.7 73	104 16.2 76	102 4 73	105 15 73
ND 170001 89627202 ND 170001			101 27									102 0.37 27	94 0.09 31											76 3.2 37		
ND 170003 89627228 ND 170003			102 47									102 0.34 47	94 0.07 51											83 6.2 37		
ND 180001 89627244 ND 180001			82 75	100 73	97 73	100 72	92 72	82 73	102 72	85 73		85 2.23 75	81 0.65 75	100 13 72	100 11.0 73	97 0.0 73	98 25 73	104 20.8 36	102 42 72	98 -18 72	100 6.0 72	91 8.0 72	94 -1.0 72	91 10.2 73	105 7 72	102 11 72
ND 220001 93858983 ADRIANA		HMV 170029 ND 150007	88 51	98 39	105 28	93 15	100 14	89 24				91 1.54 52	80 0.74 46	107 20 15	98 9.9 39	105 2.3 28	100 29 27	105 21.5 34	108 68 16	106 -24 6	104 7.9 18	97 3.9 17	100 -2.2 12	91 10.2 36	103 5 19	104 14 18
ND 220002 93858991 ALANA		HMV 170029 ND 170003	94 56	94 39	104 28	99 15	100 14	92 24				97 0.89 56	78 0.82 51	101 14 15	94 8.2 39	104 2.0 28	98 26 27	101 18.8 34	100 34 16	100 -19 6	98 5.0 18	99 2.6 17	101 -2.2 12	81 5.6 37	98 2 19	97 7 18
ND 220005 96155890 ALICE		HMV 170029 ND 170004	123 57	86 59	92 39	105 15	99 14	102 31				119 -1.61 57	124 -1.27 53	95 8 15	86 4.3 59	92 -1.7 39	85 -3 38	88 10.4 54	92 3 16	94 -14 6	90 1.2 18	101 1.1 17	99 -1.9 12	81 5.2 35	91 -4 19	89 -3 18
ND 230003 96155882 ALLISON		HMV 170029 ND 180001	89 46	97 39	101 28	95 15	97 14	87 24				92 1.47 47	77 0.86 37	105 17 15	97 9.7 39	101 1.3 28	98 25 27	105 21.5 34	105 54 16	103 -21 6	102 6.9 18	93 6.3 17	99 -1.8 12	85 7.1 30	105 6 19	102 12 18
ND 230005 96155957 AMANDA		HMV 170029 ND 170001	98 44	93 39	102 28	99 15	100 14	93 24				100 0.54 45	83 0.59 35	101 14 15	93 7.5 39	102 1.6 28	96 22 27	99 17.6 34	100 34 16	100 -19 6	98 5.0 18	99 2.6 17	101 -2.2 12	77 3.6 35	98 2 19	97 7 18

Breeding Values and Accuracies: Cows

Inbreeding in red is high

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Animal			Selection Values								Birth		Wean				Growth			Fertility				Frame		
Index EBV Acc	% Inbreeding	Sire ID Dam ID	Calv. Ease V	Calf Growth V	Milk V	Maint. V	Fertility V	Cow Value	Growth Value	Prod. Value	Birth wt dir	Birth mat	Mature wt	Wean wt	Wean mat	Cow-Calf Ratio (Wean)	Postwean wt	ADG	FCR	Scrotal Circ.	Heifer Fertility	Cow Fertility	Longevity	Height	Length	
ID Number Name																										
ND 230008 96155908 ANNA		HMV 170029 ND 170003	96 54	93 39	103 28	99 15	100 14	92 24			99 0.69 54	81 0.69 50	101 14 15	93 7.8 39	103 1.8 28	97 23 27		100 18.1 34	100 34 16	100 -19 6	98 5.0 18	99 2.6 17	101 -2.2 12	81 5.1 35	98 2 19	97 7 18
ND 230010 96659131 ASTRID		HMV 170029 ND 140002	93 54	96 59	104 39	99 15	99 14	92 31			96 1.00 54	78 0.81 49	101 14 15	96 8.9 59	104 2.1 39	100 29 38		106 21.9 36	103 47 16	103 -21 6	99 5.4 18	99 2.7 17	99 -2.0 12	94 11.5 40	99 2 19	98 8 18
ND 230012 96970298 AVA		HMV 170029 ND 150003	100 42	92 39	102 28	99 15	100 14	93 24			102 0.38 43	85 0.48 31	101 14 15	92 7.2 39	102 1.5 28	95 20 27		98 17.1 34	100 34 16	100 -19 6	98 5.0 18	99 2.6 17	101 -2.2 12	84 6.9 40	98 2 19	97 7 18
ND 230013 96342787 AVRIL		HMV 170029 ND 180001	89 46	97 39	101 28	95 15	97 14	87 24			92 1.47 47	77 0.86 37	105 17 15	97 9.7 39	101 1.3 28	98 25 27		105 21.5 34	105 54 16	103 -21 6	102 6.9 18	93 6.3 17	99 -1.8 12	85 7.3 34	105 6 19	102 12 18
ND 230014 96351523 AZRIELA	25	HMV 170029 ND 220002	90 56	96 44	106 31	95 17	101 16	90 27			94 1.19 57	69 1.21 50	105 18 17	96 9.0 44	106 2.7 31	100 30 31		105 21.9 38	104 50 18	104 -22 7	101 6.4 21	97 3.6 19	102 -2.4 13	81 5.3 38	101 4 21	100 10 20
ND 230017 98867401 CANDICE ND 23 17		KRU20 AV H 0279	105 64	78 58	87 59	112 33	93 49	77 50	72 34	75 47	105 -0.02 64	93 0.13 62	88 1 33	78 0.9 58	87 -3.2 59	77 -19 50		81 5.3 50	74 -65 39	66 9 26	81 -3.7 43	119 -11.6 57	86 0.5 41	81 5.5 64	81 -11 43	77 -15 41
ND 230018 98866866 CANDY ND 23 18		BGND12FOT AV H 0279	92 65	96 61	78 62	102 44	84 55	74 56	82 46	75 54	91 1.62 65	110 -0.63 64	98 11 44	96 8.9 61	78 -6.0 62	80 -12 56		101 18.7 57	88 -10 50	107 -25 39	78 -5.3 53	115 -8.6 60	76 2.4 50	85 7.1 66	106 7 53	87 -4 52
ND 240002 96576624 BAILEY		HMV 170029 ND 150007	87 52	98 39	105 28	93 15	100 14	89 24			91 1.63 53	78 0.79 48	107 20 15	98 10.1 39	105 2.4 28	100 30 27		105 21.8 34	108 68 16	106 -24 6	104 7.9 18	97 3.9 17	100 -2.2 12	91 9.9 40	103 5 19	104 14 18
ND 240005 97186027 BABSIE		HMV 170029 ND 150001	97 62	93 39	104 28	95 15	99 14	92 25			99 0.63 64	81 0.67 41	105 18 15	93 7.5 39	104 2.1 28	96 22 27		101 18.9 34	103 45 16	101 -20 6	99 5.7 18	98 3.3 17	100 -2.0 12	90 9.6 36	99 2 19	99 8 18
ND 240006 97164370 BEATRICE		HMV 170029 ND 140003	95 63	96 41	111 34	97 15	96 14	97 26			97 0.84 65	80 0.72 47	103 16 15	96 8.9 41	111 4.3 34	105 39 30		103 20.4 36	107 64 16	106 -24 6	104 8.3 18	93 6.5 17	97 -1.6 12	96 12.3 36	102 4 19	103 13 18
ND 240008 97530687 BELLE		FR012030808 ND 220001	96 58	98 26	102 17	95 8	101 8				97 0.88 62	93 0.13 25	105 17 8	98 10.0 26	102 1.6 17	100 29 17		100 18.1 19	103 48 8		101 6.8 9	100 1.5 11	101 -2.2 6	86 7.8 24	101 3 9	101 10 9
ND 240011 97768113 BIANCA		HMV 170029 ND 180001	88 60	98 39	101 28	95 15	97 14	87 24			91 1.55 63	77 0.86 37	105 17 15	98 9.9 39	101 1.3 28	98 25 27		105 21.8 34	105 54 16	103 -21 6	102 6.9 18	93 6.3 17	99 -1.8 12	85 7.1 30	105 6 19	102 12 18

Breeding Values and Accuracies: Cows

Inbreeding in red is high

Value <80 Value >120

Breeding values with an accuracy < 5% are not printed

Animal			Selection Values								Birth		Wean				Growth			Fertility				Frame	
Index EBV Acc	% Inbreeding	Sire ID Dam ID	Calv. Ease V	Calf Growth V	Milk V	Maint. V	Fertility V	Cow Value	Growth Value	Prod. Value	Birth wt dir	Birth mat	Mature wt	Wean wt	Wean mat	Cow-Calf Ratio (Wean)	Postwean wt	ADG	FCR	Scrotal Circ.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
ID Number Name																									
ND 250004 98879836 BELINDA	25	HMV 170029 ND 220005	102 65	94 49	99 34	98 17	100 16	96 29			101 0.39 68	99 -0.11 41	102 15 17	94 8.3 49	99 0.7 34	95 19 33	101 18.9 43	100 34 18	100 -19 7	97 4.5 21	98 2.9 19	101 -2.3 13	79 4.6 34	98 1 21	96 5 20
ND 250005 99058471 BELLE		HMV 170029 ND 150006	96 63	95 41	103 34	98 15	100 14	93 26			98 0.83 66	85 0.51 38	102 15 15	95 8.4 41	103 1.9 34	98 25 30	101 18.6 34	101 38 16	101 -20 6	99 5.5 18	98 2.8 17	101 -2.2 12	87 8.3 36	99 2 19	98 8 18
ND 250010 99728339 ND 250010		HMV 170029 ND 170001	95 59	94 39	103 28	99 15	100 14	92 24			97 0.87 62	83 0.58 35	101 14 15	94 8.3 39	103 1.7 28	98 25 27	101 18.6 34	100 34 16	100 -19 6	98 5.0 18	99 2.6 17	101 -2.2 12	77 3.6 35	98 2 19	97 7 18
ND 250012 99840928 BETTY		BGND12FOT AV H 0279	92 65	96 61	78 62	102 44	84 55	74 56	82 46	75 54	91 1.62 65	110 -0.63 64	98 11 44	96 8.9 61	78 -6.0 62	80 -12 56	101 18.7 57	88 -10 50	107 -25 39	78 -5.3 53	115 -8.6 60	76 2.4 50	86 7.5 65	106 7 53	87 -4 52
ND 260003 6020238546 ND 260003	1	ND 230015 ND 240002	91 66	100 36	89 34	97 23	95 28	84 32	95 24	85 30	91 1.57 69	98 -0.09 40	103 15 23	100 10.7 36	89 -2.4 34	91 10 31	105 21.5 34	99 30 26	107 -25 20	90 0.9 28	109 -4.8 31	91 -0.4 25	92 10.7 39	105 7 28	96 6 27
ND 260006 6020321862 BROOKE	1	ND 230015 ND 240006	93 67	99 37	92 35	100 23	93 28	88 32	93 24	87 30	93 1.37 70	99 -0.13 39	100 13 23	99 10.6 37	92 -1.4 35	94 16 32	105 21.4 34	98 28 26	107 -25 20	90 1.1 28	108 -3.5 31	89 -0.1 25	95 11.9 38	105 6 28	96 5 27
ND 260018 6020770290 26 0018		ND 230015 ND 150003	104 38	93 31	85 31	104 22	94 28	88 28	87 22	87 27	102 0.31 39	108 -0.53 32	96 8 22	93 7.6 31	85 -3.6 31	85 -3 28	95 15.0 28	90 -3 25	100 -19 19	84 -1.9 26	112 -6.5 30	90 -0.2 25	91 10.3 39	100 3 26	90 -1 26

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 Acc	Calf Growth Value Acc	Milk Value Acc	Maint. Value Acc	Fertility Value Acc	Cow Value Acc	Growth Value Acc	Prod Value Acc	
1	ND 230015	SELWYN	BGND12FOT	AV H 0279	0.0	HH	0	0	0		10386	9681	7281	10277	9079	8280	8378	8180	
1	ND 230016	JAYDEN ND 23 16	EASA1	GVR B 0111	0.0						10965	6662	10564	10744	6756	7557	7044	7354	

Selection List on Cow Value

Cows 2 years and older

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								
Sorted on ID							Q204X	nt821	F94L		Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc								
										★★★★																
1	ND 220005	ALICE	HMV 170029	ND 170004	0.0						123	57	86	59	92	39	105	15	99	14	102	31				
										★★★★☆																
1	ND 140002	ND 140002			0.0	HH	0	0	0	🇬🇪	92	77	94	76	103	79	106	74	96	74	91	75	100	74	91	75
2	ND 150001	ND 150001			0.0	HH	0	0	0	🇬🇪	99	79	91	76	103	76	99	75	97	75	91	76	97	75	91	76
3	ND 220002	ALANA	HMV 170029	ND 170003	0.0						94	56	94	39	104	28	99	15	100	14	92	24				
4	ND 230005	AMANDA	HMV 170029	ND 170001	0.0						98	44	93	39	102	28	99	15	100	14	93	24				
5	ND 230008	ANNA	HMV 170029	ND 170003	0.0						96	54	93	39	103	28	99	15	100	14	92	24				
6	ND 230010	ASTRID	HMV 170029	ND 140002	0.0						93	54	96	59	104	39	99	15	99	14	92	31				
7	ND 230012	AVA	HMV 170029	ND 150003	0.0						100	42	92	39	102	28	99	15	100	14	93	24				
8	ND 230014	AZRIELA	HMV 170029	ND 220002	25.3						90	56	96	44	106	31	95	17	101	16	90	27				
9	ND 240005	BABSIE	HMV 170029	ND 150001	0.0						97	62	93	39	104	28	95	15	99	14	92	25				
10	ND 240006	BEATRICE	HMV 170029	ND 140003	0.0						95	63	96	41	111	34	97	15	96	14	97	26				
										★★★★																
1	ND 150007	ND 150007			0.0	HH	0	0	0	🇬🇪	85	75	100	73	103	73	94	73	98	73	88	73	109	72	90	73
2	ND 180001	ND 180001			0.0	HH	0	0	0	🇬🇪	82	75	100	73	97	73	100	72	92	72	82	73	102	72	85	73
3	ND 220001	ADRIANA	HMV 170029	ND 150007	0.0						88	51	98	39	105	28	93	15	100	14	89	24				
4	ND 230003	ALLISON	HMV 170029	ND 180001	0.0						89	46	97	39	101	28	95	15	97	14	87	24				
5	ND 230013	AVRIL	HMV 170029	ND 180001	0.0						89	46	97	39	101	28	95	15	97	14	87	24				
6	ND 240002	BAILEY	HMV 170029	ND 150007	0.0						87	52	98	39	105	28	93	15	100	14	89	24				
7	ND 240011	BIANCA	HMV 170029	ND 180001	0.0						88	60	98	39	101	28	95	15	97	14	87	24				
										★★★★☆																
1	ND 230017	CANDICE ND 23 17	KRU20	AV H 0279	0.0						105	64	78	58	87	59	112	33	93	49	77	50	72	34	75	47
2	ND 230018	CANDY ND 23 18	BGND12FOT	AV H 0279	0.0						92	65	96	61	78	62	102	44	84	55	74	56	82	46	75	54

Selection List on Cow Value

Bull Calves younger than 2 years

ID Sorted on ID		Name	Sire ID	Dam ID	% Inbreeding	Horned / Polled	Myostatin			Genomic tested	Calving Ease Value Acc	Calf Growth Value Acc	Milk Value Acc	Maint. Value Acc	Fertility Value Acc	Cow Value Acc	Growth Value Acc	Prod Value Acc		
										★★										
1	ND 260008	CASPER	ND 230015	ND 230014	2.2						9066	10038	9035	9924	9528	8432	9224	8430		
										★★☆										
1	ND 250013	ND 250013	BGND12FOT	AV H 0279	0.0						9265	9661	7862	10244	8455	7456	8246	7554		

Selection List on Cow Value

Heifers younger than 2 years

ID		Name	Sire ID	Dam ID	% Inbreeding	Horned / Polled	Myostatin		Calving Ease Value	Calf Growth Value	Milk Value	Maint. Value	Fertility Value	Cow Value	Growth Value	Prod Value										
Sorted on ID							Q204X	nt821	F94L	Genomic tested	Acc	Acc	Acc	Acc	Acc	Acc										
									★★★☆☆																	
1	ND 250004	BELINDA	HMV 170029	ND 220005	25.3						102	65	94	49	99	34	98	17	100	16	96	29				
2	ND 250005	BELLE	HMV 170029	ND 150006	0.0						96	63	95	41	103	34	98	15	100	14	93	26				
3	ND 250010	ND 250010	HMV 170029	ND 170001	0.0						95	59	94	39	103	28	99	15	100	14	92	24				
									★★★☆☆																	
1	ND 260003	ND 260003	ND 230015	ND 240002	1.4						91	66	100	36	89	34	97	23	95	28	84	32	95	24	85	30
2	ND 260006	BROOKE	ND 230015	ND 240006	1.4						93	67	99	37	92	35	100	23	93	28	88	32	93	24	87	30
3	ND 260018	26 0018	ND 230015	ND 150003	0.0						104	38	93	31	85	31	104	22	94	28	88	28	87	22	87	27
									★★★☆☆																	
1	ND 250012	BETTY	BGND12FOT	AV H 0279	0.0						92	65	96	61	78	62	102	44	84	55	74	56	82	46	75	54

	EBVi	Description / Measurement	Goal	Low Value	High Value
Selection Values	Calving Ease Value	Difficult calving due to high birth weight	Average birth weight	High	Low
	Calf Growth Value	Calf's genetic ability for prewean growth	Heavy weaner	Light	Heavy
	Milk Value	Cow's genetic mothering and milking ability	Enough milk for calf	Less	More
	Maintenance Value	Maintenance requirement of cow (weight and milk)	Low cow maintenance	High	Low
	Fertility Value	Fertility and retention of cows and heifers	Fertile cows	Low	High
	Cow Value	Combination of calving ease, calf growth, milk, maintenance and fertility values (Rand-value per Ha)	Profitable cows	Loss	Profit
	Weaner Calf Value	Heavier weaners and more milk, with lower birth and cow weights	Heavy weaner	Light	Heavy
	Growth Value	Efficient growth on veld and in feedlot (Rand-value per animal)	Profitable growth	Loss	Profit
	Production Value	Combination of Cow- and Growth Values (Rand-value)	Profitable animals	Loss	Profit
	Carcass Value	Meat on carcass (Weight and RTU EBVs)	Meat on carcass	Less	More
Birth	Cow weight - birth	Cow weight at birth of calves	Mature cow weight	Light	Heavy
	Birth weight direct	Birth weight (Calf's genetic ability)	Average birth weight	Heavy	Light
	Cow-Calf birth	EBV Birth dir / EBV Mature cow weight	Average	Low	High
Wean	Cow Weight wean	Cow weight at weaning of calves	Mature cow weight	Light	Heavy
	Weaning weight direct	Weaning weight (Calf's genetic ability)	Heavy weaners	Light	Heavy
	Weaning weight mat	Weaning weight (Dam's genetic ability)	Good mothers	Poor	Good
	Cow-Calf Wean	EBV Wean dir / EBV Mature cow weight	High cow-calf ratio	Low	High
Growth & Adaptation	Post-Wean weight	12- and 18mth weights	Post-wean growth	Low	High
	Ave. Daily Gain	Average daily gain in growth test (Phase C and D)	Good growth	Poor	Good
	Veld Growth	ADG on veld (Phase B)	Good adaptation	Poor	Good
	Feed Conversion Ratio	100g feed intake /g weight gain	Feed Efficiency	Poor	Good
	Final Test Weight	Final weight in growth test (Phase C and D)	Heavy Carcasses	Light	Heavy
	Skin Thickness	Measured in growth tests	Thicker skin	Thin	Thick
Fertility	Scrotal Circumference	Scrotal circumference in growth test	Fertile bulls	Less	More
	Heifer Fertility	Age at first calving	Fertile heifers	Less	More
	Cow Fertility	First 3 inter-calving periods (ICPs)	Fertile cows	Less	More
	Longevity	Retention of progeny	Acceptable progeny	Poor	Good
Frame	Height	Shoulder / Hip height in growth test	Average height	Short	Tall
	Length	Length in growth test	Longer (more meat)	Short	Long
	Length:Height	EBV Length / EBV Height	Longer, not higher	Less desirable	More desirable
Carcass	Eye Muscle Area	RTU Eye muscle area	Muscle in carcass	Small	Big
	Fat	RTU P8 Backfat Thickness	Carcass quality & adaptability	Thin	Thick
	Marbling	RTU % Marbling	Juicy meat	Low	High
	Dressing%	Carcass weight / Live weight	High dressing %	Low	High

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.

