

SANTA GERTRUDIS

GENOMIC BREEDING VALUE REPORT

July 2026



GEFFERT PRETORIUS BOERDERY PTY

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EBVs, EBVi's and GEBVs

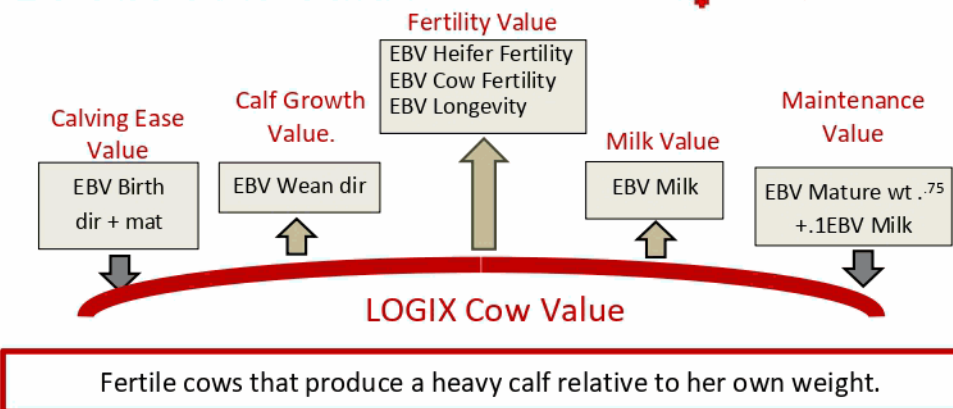
EBVi (Breeding Value Index): Genetic potential relative to the average (100) of the live (active) animals in the breed. Roughly 50% of the animals have values between 90 and 110. Values above 100, depending on the trait, tend to be in the more favourable direction.

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.

LOGIX Cow 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.

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)

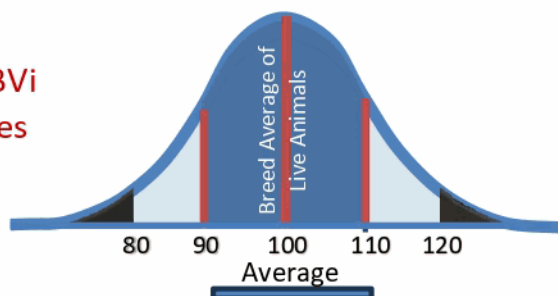
- WeanerCalf / Growth Value > 120
 - Cow Value and Fertility Value average to high
- Growers are usually heavier at birth (lower Calving Ease Value), and maturity (lower Maintenance Value).

LOW- MAINTENANCE ANIMALS

(HARSH ENVIRONMENT)

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

Interpretation of EBVi and Selection Values



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

Contemporary Groups

The correct composition of contemporary groups is one of the cornerstones of BLUP breeding value estimation. Breeding values are estimated from the differences between animals exposed to the same environment, ***as these differences are caused by genetics***. The following aspects are important:

1. Animals at the same time, place and treatment

A contemporary group is a comparable group of animals measured at the same time in the same environment. It is therefore a comparable group of animals that were together on the same farm or camp in the same year and season. If there are animals in the group that were treated differently, they should be given a separate treatment code because their performance is influenced by other environmental influences than the rest of the group. Examples of possible different treatments are when some animals received supplements or creep feed, sale or show animals, embryo donors, sick or foster calves or even purchased cows and calves. If bull and heifer calves or older cows and young heifers were in the same camp, they should be placed in the same group – corrections for sex, age and first calving of cows are automatically made during breeding value estimation.

2. Progeny of at least two sires, of which one is a link sire

The progeny of different sires needs to be compared in the same group in order to determine the sires' genetic merit relative to each other. At least one sire should be a link sire with progeny in other herds. Genetic links between herds are used to determine the position of sires in the breed. All sires are good link sires. Smaller herds could artificially inseminate some cows or allow some cows to be covered by another herd's bull.

3. Larger groups stabilise Breeding Values

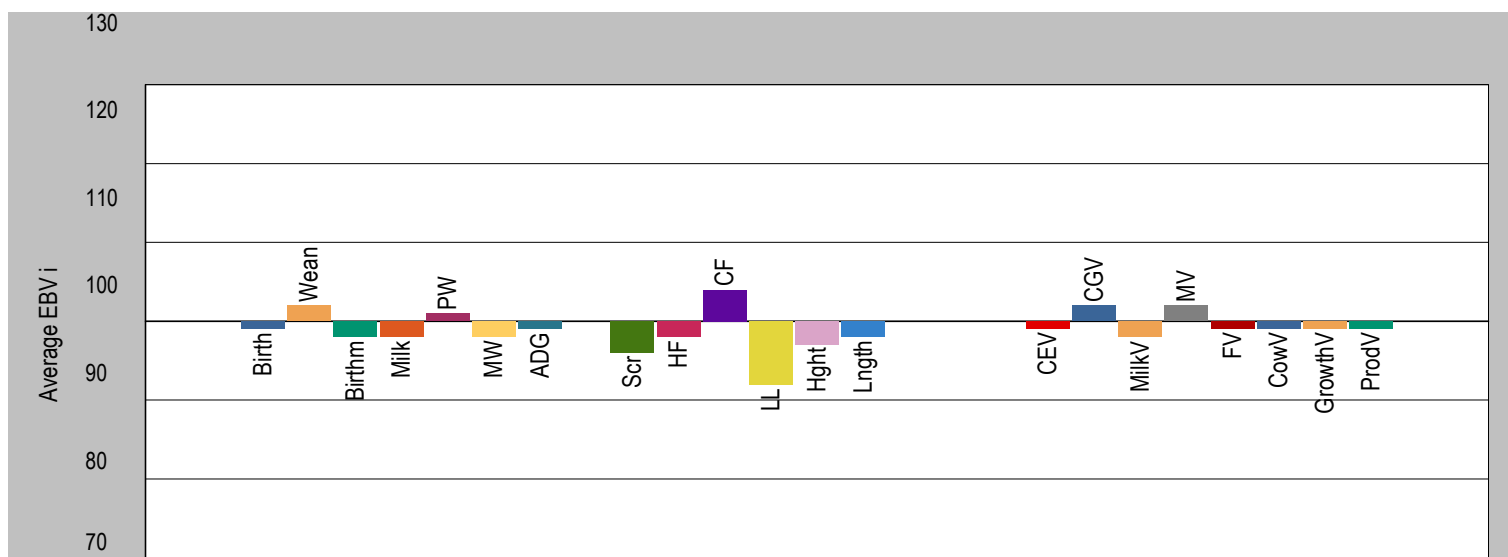
Larger groups result in more accurate and stable breeding values, as the mean and distribution of the group can be more accurately determined and are thus more representative. Groups should preferably have more than 5 animals. Weigh all the animals in the same group on the same day, as corrections for age differences are made during genetic evaluation. The use of breeding seasons rather than through the year calving will also increase contemporary group size. Groups with less than 3 animals are not included in breeding value estimation. An accidental mistake in a small group affects the animal itself, its family, all the other animals in the group and their families. The effect could be much less in large groups.

4. Measure all animals in the contemporary group

Weigh ALL the animals in the contemporary group, the good as well as the poor performers. Weigh animals before they are culled, so their parents can be penalized for their poor breeding.



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	Dr%:	Dressing%
FCR:	Feed Conversion Ratio	RMV:	Red Meat Yield
		Marb:	Marbling

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	1.26	99	1.13
	Wean Weight	15.7	102	14.7
	Birth Mat.	0.00	98	-0.08
	Milk (Wn.Mat.)	0.1	98	0.6
Postwean Growth	Postwean Wt	24.3	101	23.5
	Mature Weight	17	98	19
	ADG	91	99	95
	FCR			
Fertility	Scrotal Circumf.	8.0	96	10.2
	Heifer Fertility	-2.2	98	-3.8
	Cow Fertility	-6.4	104	-5.7
	Longevity	28.2	92	33.3
Frame	Height	10	97	12
	Length	22	98	25
Carcass	Dressing%			
	RedMeatYield			
	Marbling			

Selection Value	Ave. Herd
Calving Ease	99
Calf Growth	102
Milk	98
Maintenance	102
Fertility	99
Cow Value	99
Growth Value	99
Production Value	99

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

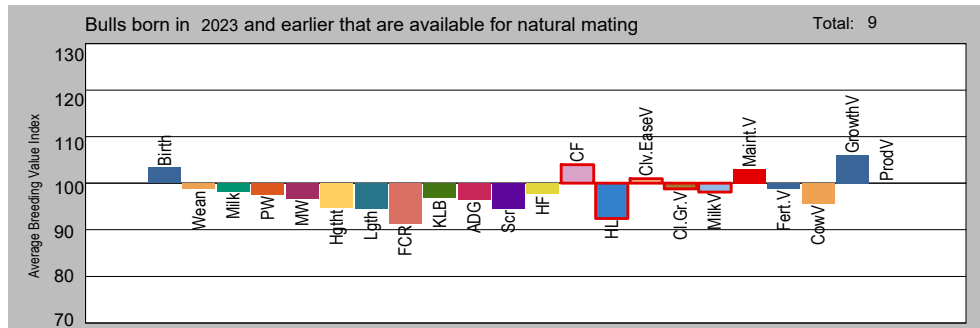
What does a sub-selection value above breed average (100) mean?:

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

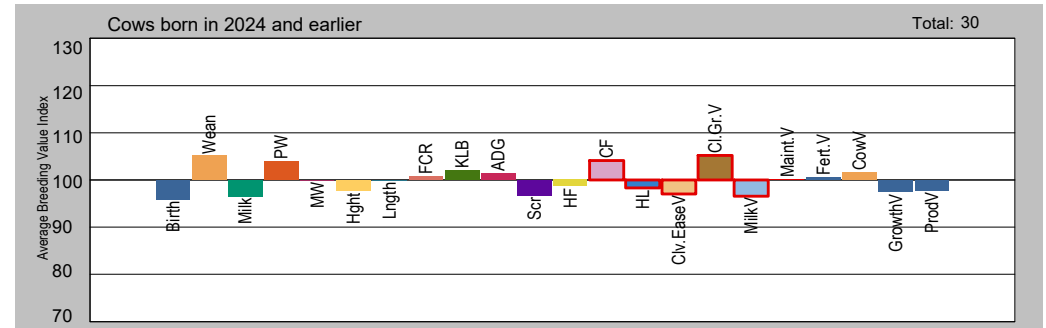
Genetic Windows

Animals available for breeding

Bulls on the farm

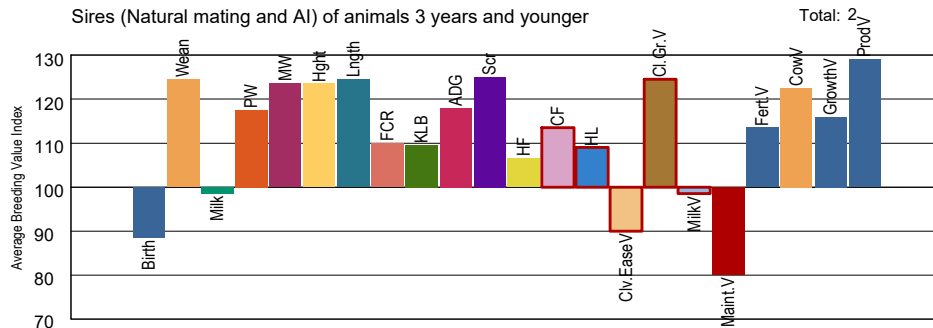


Cow Herd

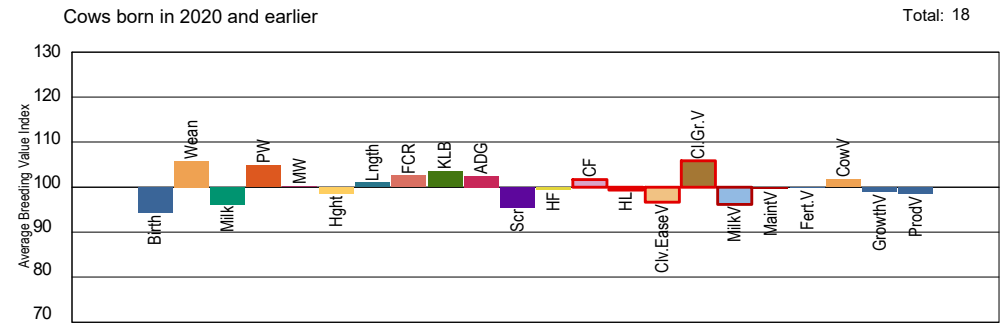


Results of previous selection decisions

Sires of young animals



Cows older than 6 years

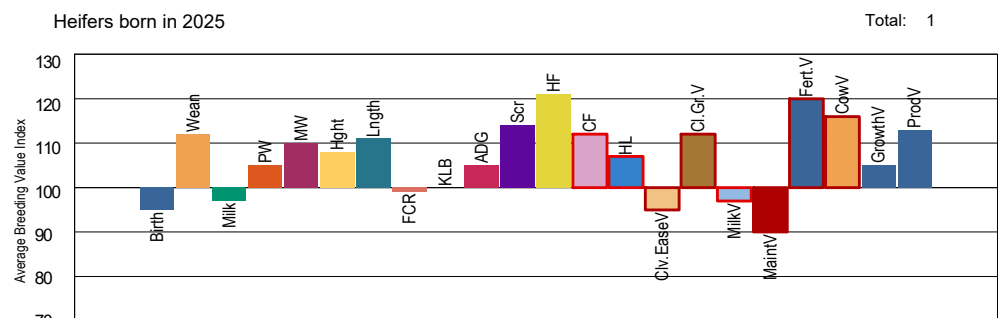


Selection possibilities

Bull calves



Heifer calves

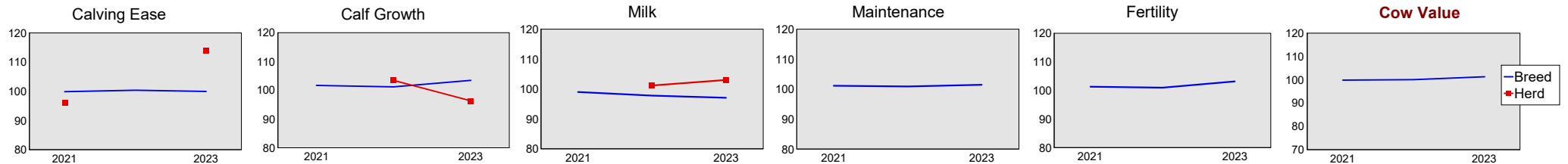


Summary of Cow Herd

			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	100	100	101	100	100	99	99	100	100	100	100	100	99	99	99	99	99	100	100	100	99	99
2013	2																		76						
2015	5			87	126						87			126					87						
2016	5	★★	105	87	79	135	80	75	83	72	101	87	112	79	87	73	84	93	85	89	79	91	71	75	
2017	5	★★★★☆	110	97	104	90	94	109			110	97	95	104	114	110	112	110	94	92	102	87	110	116	
2018	6	★★★★☆	104	107	95	99	95	103	106	101	105	107	97	95	108	101	107	109	92	95	99	93	103	103	
2019	9	★★★★☆	95	106	97	100	105	104	99	101	91	106	101	97	105	99	102	103	98	104	104	101	96	100	
2020	4	★★★★☆	91	107	99	94	102	101	95	98	88	107	106	99	104	106	102	101	98	99	106	99	102	105	
2021	4	★★★★☆	96	104	94	98	107	102	102	104	96	104	101	94	101	102	105	106	100	101	114	98	98	100	
2022	8	★★★★☆	98	104	97	103	100	101	92	95	98	104	100	97	103	98	98	98	96	97	106	96	95	97	
2023	5	★★★★	97	98	105	104	91	93			99	98	93	105	92	94	94	94	97	92	104	82	97	93	
2024	2	★★★★	103	94	103	110	89	91			104	94	96	103	90	92	91	91	100	93	97	86	94	91	
2025	1	★★★★★	95	112	97	90	120	116	105	113	95	112	101	97	105	110	105	100	114	121	112	107	108	111	
Cows in Herd Average:			99	100	100	102	98	100	97	98	99	100	100	100	100	101	99	100	101	97	98	102	92	97	99

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.



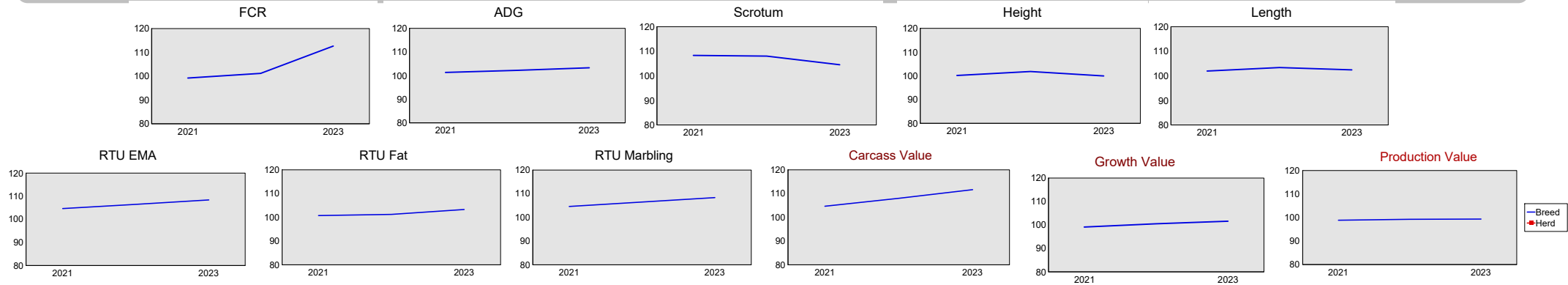
Herd

Birth Year	Calving Ease				Calf Growth			Milk		Maintenance				Fertility						Cow Value	
	Birth Weight		Mat EBV	Calv. Ease	Weaning Weight		Calf Growth	Milk (Wn.Mat.)		Postwean Weight	Mature Weight		Maine- nance	Heifer Fert.		Cow Fert.		Longevity			Ferti- lity
	Number	Dir EBV			Number	EBV		Number	EBV		Number	EBV		Number	EBV	Number	EBV	Number	EBV		
2021	1	1.45	-0.17	96																	
2022					7	16.5	103	7	0.98	101							3	25.9			
2023	2	-0.16	0.27	114	3	12.7	96	3	1.51	103											

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		Maintenance	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	
2016	2689	1.08	-0.07	101	1903	13.7	98	1903	-0.24	97	513	20.1	171	13	105	1216	-3.2	899	-4.6	5845	24.4	94	93
2017	2776	1.12	-0.09	100	2154	14.4	99	2154	-0.24	97	642	20.5	214	14	106	1173	-4.0	866	-4.8	5747	25.8	96	93
2018	2956	1.03	-0.08	101	2127	15.3	101	2127	-0.59	96	545	22.8	259	13	105	1233	-3.8	825	-5.4	5940	26.4	97	98
2019	3205	1.13	-0.08	100	2828	14.6	100	2828	-0.07	98	800	23.9	299	15	102	1183	-3.8	838	-5.7	5930	27.6	98	97
2020	3447	1.13	-0.10	100	3076	15.0	101	3076	-0.03	98	695	24.3	286	17	102	1175	-3.4	680	-5.7	5953	28.1	99	98
2021	3337	1.20	-0.16	100	3401	15.6	102	3401	0.32	99	732	23.3	268	17	101	1046	-4.0	578	-6.0	5335	29.9	101	100
2022	3474	1.16	-0.14	100	3743	15.4	101	3743	-0.02	98	748	23.8	219	18	101	787	-3.6	195	-6.3	1873	29.6	101	100
2023	3301	1.22	-0.16	100	3199	16.6	103	3199	-0.25	97	700	24.6	35	23	101	291	-2.1	3	-9.2			103	101
2024	3305	1.16	-0.16	101	3297	16.2	103	3297	0.50	100	660	25.3			101	4	-4.8					113	103
2025	2867	1.10	-0.12	101	1783	15.9	102	1783	0.91	101	297	16.3			107								103
2026	820	1.06	-0.09	101	9	11.0	93	9	1.61	103													93

Genetic Trends for Growth Test Traits



Herd

Birth Year	Growth									Frame						Carcass						Selection Values			
	FCR			ADG			Scrotum			Height			Length			EMA			Fat		Marbling		Carcass Value	Growth Value	Prod Value
	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	RTU Number	EBV	EBVi	EBV	EBVi	EBV	EBVi			
2021																									
2022																									
2023																									

Breed

Birth Year	Growth									Frame						Carcass								Selection Values		
	FCR			ADG			Scrotum			Height			Length			RTU Number	EMA		Fat		Marbling		Cracss Value	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	73	-23	102	285	93	99	299	9.3	99	288	11	98	285	24	100	202	0.45	97	-0.06	98	0.60	101	99	97	94	
2018	47	-22	102	220	85	98	275	9.1	98	248	11	98	220	22	97	123	0.83	101	0.07	99	0.77	104	103	95	101	
2019	55	-26	105	256	101	101	338	10.2	100	253	13	101	183	27	103	206	0.96	103	-0.42	95	0.49	100	102	99	96	
2020	30	-25	104	229	95	100	292	10.6	101	170	14	103	138	32	107	206	0.64	99	0.25	100	0.85	105	103	98	100	
2021	35	-19	99	271	101	101	299	14.7	108	278	12	100	271	27	102	196	1.02	103	0.29	101	0.84	105	105	99	99	
2022	22	-21	101	198	105	102	198	14.6	108	198	13	102	198	28	103	83	1.37	108	0.35	101	0.98	106	108	100	99	
2023	28	-35	113	154	110	103	154	12.6	105	154	12	100	154	27	102	99	1.38	108	0.63	103	1.13	108	112	102	99	
2024	28	-28	107	96	147	112	95	14.8	109	135	15	105	135	36	111	104	1.50	109	0.64	103	0.98	106	114	111	108	
2025				7	81	97	7	16.0	110	19	10	97	19	20	96	2	1.76	113	1.52	110	2.99	133		95	107	
2026																										

Sires

Bull			Selection Values							Calf		Dam		Growth				Fertility				Frame		Carcass			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	EMA	Fat	Marbling	Birth Grwth Test	Wean Dgt/Calvs.	
BR 180020		VV 140208 VV 160011	102	89	87	120	95	84	92	82	104	89	94	87	88	81	94	98	94	89	104	97	81	83	86	99	89	55	40	
BRINK			96	96	93	92	93	89	92	90	0.76	8.8	0.16	-3.3	14.2	2	71	-18	7.1	4.6	-6.5	31.4	0	6	-0.45	0.02	-0.32		3	3
DJW 180053		SP 150013 DJW 120070	83	131	77	90	103	114	123	115	78	131	98	77	125	113	125	127	74	89	120	99	96	113	156	74	106	125	97	
180053DJW			97	97	93	92	93	89	93	90	98	97	93	93	95	92	94	91	95	93	91	94	96	96	95	95	94	25	5	5
JC 120092		JC 060070 JC 090096	111	113	106	92	93	116	118	115	109	113	105	106	115	107	121	112	101	94	102	86	119	121	101	114	94	2	26	
12 092			68	87	69	32	67	68	25	59	69	87	66	69	44	32	23	24	28	73	44	84	32	30	33	30	29		7	13
JC 150154		PV 070052 JC 100114	120	76	102	132	89	83	73	78	116	76	108	102	77	74	76	83	70	97	87	94	90	78	71	115	77	20	15	
15 154 PIETER			77	80	61	26	56	64	39	59	83	80	51	61	6.0	-6	-6	0	-6.4	-1.6	-2.9	29.1	6	1	-1.72	2.15	-1.29	1	4	4
JL 110044		HN 050046 JL 040233	116	118	120	74	108	132	127	131	122	118	77	120	129	130	132	114	76	110	111	92	156	133	128	82	98	155	105	
JL110044			95	96	89	67	79	84	78	83	97	96	88	89	45.6	48	231	-36	-2.7	-11.3	-7.9	27.9	46	60	3.06	-2.15	0.32	10	29	62
JR 110035		JR 060037 XY 040085	87	97	104	87	93	86	80	81	75	97	110	104	98	114	75	70	90	107	84	93	96	99	106	79	108	14	65	
JR110035			85	93	84	55	74	78	35	69	87	93	79	84	21.8	32	-9	15	4.6	-9.2	-2.3	28.6	10	23	1.25	-2.52	1.13		20	44
KT 110020		VV 040074 KT 000033	96	105	86	110	49	76	93	75	100	105	88	86	120	90	97	97	96	58	51	91	83	92	98	72	71	208	195	
TOMBSTONE			99	98	97	95	97	91	96	92	99	98	97	97	96	95	96	95	96	97	96	98	96	96	96	-3.47	-1.75	1	44	96
KT 130023		AT 860042 KT 040011	98	91	112	122	66	82	104	82	94	91	120	112	93	79	103	102	104	79	61	93	95	98	90	82	78	47	19	
KT130023			89	85	79	38	66	73	36	66	1.65	9.8	-0.86	4.1	18.1	0	109	-22	12.3	12.5	2.4	28.7	9	22	-0.09	-2.16	-1.23		9	26
M 130034		DT 090106 M 100045	109	99	100	90	93	96	120	99	113	99	84	100	106	110	121	115	86	96	93	96	121	113	107	89	104	22	19	
HEPZIBAH ESAI M1334			82	84	65	52	56	69	30	61	0.03	14.1	0.52	0.6	28.2	29	184	-37	2.5	-0.3	-4.2	30.7	25	38	1.34	-1.20	0.82		3	7
SP 150013		JO 080028 SP 110081	79	123	95	96	99	111	123	112	72	123	87	95	120	103	126	123	86	94	107	96	109	115	127	95	108	33	23	
GAZEBO			92	92	90	83	88	84	86	84	93	92	87	90	38.6	22	206	-47	2.4	1.1	-7.2	30.8	18	41	3.01	-0.40	1.13	5	12	21
VV 120148		VV 020194 VV 060068	93	107	96	87	111	104	114	104	93	107	104	96	95	115	118	111	107	95	130	99	99	106	109	78	81	218	218	
VV120148			99	99	98	96	97	92	96	93	99	99	98	98	96	96	96	96	96	97	96	98	96	96	96	96	96		48	138

Sires

Bull				Selection Values							Calf		Dam		Growth				Fertility				Frame		Carcass			Measured Progeny		
ID	Index EBV Acc	Sire ID	Dam ID	Calv.	Calf	Milk	Maint.	Fertility	Cow	Growth	Prod	Birth	Wean	Birth	Wean	Post wn	Mature	ADG	FCR	Scrotal	Heifer	Cow	Long-evi	Height	Length	EMA	Fat	Marbling	Birth	Wean
				Ease	Grwth	Value	Value	Value	Value	Value	Value	Value	Dir	Dir	Mat.	Mat.	wt	weight					Fertility	Fertility	ty					
Name				Value	Value	Value	Value	Value	Value	Value	Value																		Test	
VV 130073		VV 020194	VV 060003	81	124	102	76	103	115	129	117	86	124	91	102	113	129	128	120	131	96	111	100	115	125	139	68	88	171	71
VV130073				97	97	95	91	94	90	91	90	2.33	28.0	0.27	1.3	33.6	47	212	-43	27.0	-0.3	-8.0	33.6	21	52	3.96	-4.03	-0.45	1	39 78
VV 140112		JL 050119	VV 120051	113	105	95	99	110	111	91	106	109	105	109	95	102	101	93	98	101	95	118	112	96	104	89	149	113	153	124
VV140112				97	97	94	90	93	89	90	89	0.39	17.2	-0.44	-0.8	24.7	20	64	-17	10.4	0.3	-9.4	41.3	10	28	-0.20	6.61	1.50	15	35 62
VV 140165		JL 050119	VV 070061	83	115	96	97	106	107	104	105	73	115	98	96	114	103	115	123	102	95	118	100	101	105	102	120	113	27	3
VV140165 KANONKOP				92	89	87	84	87	83	84	83	3.45	22.6	0.00	-0.5	34.4	22	157	-47	11.2	0.5	-9.4	33.2	12	30	0.85	2.75	1.49	27	2
VV 140196		VV 020194	VV 080056	108	106	99	92	101	108	106	106	107	106	101	99	103	108	108	103	105	101	102	100	88	99	103	92	78	71	24
VV140196				95	93	91	87	90	86	87	86	0.53	18.1	-0.10	0.4	25.4	27	130	-24	13.0	-4.8	-6.0	33.2	5	23	0.96	-0.88	-1.20	9	15
VV 140208	JL 050119	VV 060126		99	110	80	104	123	112	111	110	99	110	101	80	107	96	112	116	109	110	130	107	103	105	105	105	105	104	78
VV140208				93	94	84	34	74	79	34	70	1.25	20.3	-0.13	-5.3	29.0	16	145	-39	15.2	-11.8	-11.8	37.8	14	30	1.11	0.81	0.86	20	43
VV 160059	VV 120148	VV 130090		92	110	93	87	102	101	109	100	89	110	112	93	103	114	111	108	97	94	120	87	105	108	104	91	90	5	8
VV160059				75	79	63	22	58	64	24	56	2.05	19.9	-0.53	-1.5	25.7	33	141	-29	8.6	1.1	-9.7	24.6	15	33	1.05	-1.03	-0.31		
VV 170183	KT 110020	VV 120179		75	145	95	87	94	129	118	127	74	145	74	95	156	115	121	111	119	85	93	117	113	120	119	82	81	52	46
VV170183				87	90	69	20	58	71	22	61	3.35	39.3	0.90	-0.8	65.5	34	183	-33	20.7	7.8	-4.2	44.7	20	46	2.28	-2.12	-0.97	4	6
VV 190034		SS 130031	VV 160040	84	128	104	75	129	132	116	129	83	128	101	104	120	130	117	106	129	125	123	110	134	132	100	122	107	61	47
VV190034				95	95	91	89	90	87	89	87	2.60	30.1	-0.13	1.7	38.3	48	165	-26	26.1	-23.6	-10.4	39.9	32	59	0.75	3.05	1.01		
VV 210017	VV 160012	VV 170147		96	121	93	85	98	113			94	121	109	93	115	117	119	114	121	88	104	108	113	117	116	92	96		
VV210017				67	68	52	14	44	54			1.66	26.1	-0.42	-1.5	34.8	35	174	-36	21.7	5.6	-6.5	38.9	20	43	2.04	-0.82	0.20		
												71	68	50	52	22	14	17	13	19	47	30	55	19	18	16	15	15		

Breeding Values and Accuracies: Bulls

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White: 80-120 Average
Orange: <80 Low

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Value <80 Value >120

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Animal			Selection Values								Birth		Wean				Growth			Fertility				Frame		Carcass				
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	Carcass 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	EMA	Fat	Marbling	
ID Number Name																														
VY 200162 291392991 20 162		KT 160037	105 35	83 34	95 27	127 11	81 24	77 28			73 8	105 0.72 37	99 -0.04 28	78 -2 11	83 5.6 34	95 -0.9 27	87 21 24		80 8.6 14	82 18 13	77 6 10	87 3.0 15	88 6.1 21	87 -2.9 16	86 23.8 34	82 1 13	78 1 12	83 -0.68 9	88 -1.42 8	71 -1.75 8
VY 210037 98922909 21 37		VV 160059 VY 170081	102 37	96 39	104 32	96 11	102 30	97 32			96 12	103 0.83 39	95 0.12 30	103 23 11	96 12.7 39	104 1.7 32	98 48 27		92 17.3 16	95 73 13	85 -3 10	99 9.6 14	101 -4.8 28	114 -8.7 20	85 23.2 42	99 11 15	97 22 14	100 0.71 13	106 1.03 12	105 0.85 12
VY 210053 291393528 21 53	13	DJW 180053 DJW 190005	82 56	125 59	85 47	94 25	106 38	112 47	116 34	112 44	114 49	81 2.78 60	96 0.07 42	107 26 25	125 28.0 59	85 -4.0 47	107 70 44		120 38.5 48	119 173 48	120 -43 18	87 2.8 52	92 2.3 44	114 -8.5 22	110 39.7 49	100 12 52	109 35 52	133 3.49 50	79 -2.59 48	101 0.54 48
KT 220037 291415925 ERAGON	2 	BR 180020 K 170034	98 86	95 85	95 82	102 79	99 81	90 78	96 79	88 78	90 79	104 0.82 87	82 0.61 82	97 16 79	95 11.7 85	95 -1.0 82	91 32 82		99 22.4 80	99 90 79	104 -24 79	83 0.9 79	98 -2.4 81	97 -5.0 80	106 37.5 82	90 6 79	94 18 79	93 0.15 79	91 -0.93 79	93 -0.09 79
VY 220004 98343296 22 04		VV 160059 VY 160056	102 37	96 39	104 32	96 11	108 31	99 32			96 12	104 0.83 39	95 0.12 30	103 23 11	96 12.7 39	104 1.7 32	98 48 27		92 17.3 16	95 73 13	85 -3 10	99 9.6 14	101 -4.8 28	114 -8.7 20	100 33.1 44	99 11 15	97 22 14	100 0.71 13	106 1.03 12	105 0.85 12
VY 220012 291395580 22 12		VV 170183 VY 170097	93 43	108 61	101 41	98 10	101 30	105 42			99 12	102 1.00 46	76 0.85 33	101 20 10	108 19.0 61	101 1.0 41	107 71 37		121 39.0 24	97 83 12	86 -3 9	107 14.2 14	99 -3.2 31	99 -5.5 19	106 37.2 41	100 12 14	100 25 13	104 1.10 12	102 0.45 11	100 0.46 10
VY 230021 99966574 VY 230021		VY 170101	121 49									123 -0.85 57	85 0.49 16											71 13.8 18						
VY 230022 98930480 VY 230022		OT 190013	107 58	93 28	99 26	106 10	97 26	93 30			83 12	107 0.53 65	97 0.04 31	92 12 10	93 10.8 28	99 0.4 26	95 41 21		88 14.5 14	90 53 12	83 0 10	93 6.2 14	104 -7.1 30	104 -6.6 18	79 19.0 29	91 7 14	88 12 13	92 0.08 12	89 -1.29 11	71 -1.74 10
VY 230023 98578008 VY 230023		VV 190205	99 34	94 61	102 34	105 11	97 28	92 39			90 12	101 1.04 36	93 0.17 28	93 13 11	94 11.5 61	102 1.2 34	98 49 35		89 14.9 16	95 75 13	91 -9 10	101 10.6 14	99 -3.4 31	103 -6.3 19	89 26.1 33	97 10 14	93 18 14	96 0.44 12	92 -0.81 11	76 -1.37 11
VY 240004 98930456 VY 240004		OT 190019	105 35	93 30	100 27	109 15	84 26	87 27			84 20	107 0.57 37	95 0.12 27	90 10 15	93 10.7 30	100 0.5 27	96 44 24		91 16.3 21	87 39 20	81 2 8	92 6.0 22	87 6.7 31	98 -5.3 18	79 19.2 29	93 8 22	90 14 22	90 -0.13 21	101 0.27 19	78 -1.24 19

Breeding Values and Accuracies: Cows

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Orange: <80 Low

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Animal				Selection Values								Birth		Wean				Growth			Fertility				Frame		Carcass		
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	Carcass 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	EMA	Fat	Marbling
ID Number Name																													
KT 160037 291073971 KT160037	3	KT 130023 VV 110155	105 70	87 69	79 53	135 22	80 45	75 55	83 24	72 49	75 18	101 1.06 73	112 -0.53 56	73 -6 22	87 7.5 69	79 -5.8 53	77 -2 48	87 13.6 28	84 30 27	90 -8 19	85 2.2 29	89 4.9 42	79 -1.4 32	90 26.7 62	71 -6 25	75 -2 25	77 -1.15 18	90 -1.16 17	84 -0.72 16
JC 170061 291112480 17 061	3	JC 120092 JC 140159	99 39	113 67	103 49	90 18	94 45	109 48			110 18	98 1.33 39	105 -0.27 37	110 29 18	113 22.0 67	103 1.5 49	110 78 45	114 33.8 24	112 146 18	107 -28 15	94 7.1 20	92 2.4 46	102 -6.0 29	94 29.4 59	110 18 22	116 41 21	102 0.89 19	108 1.20 17	94 -0.01 17
VY 170101 97106629 VY 170101			120 25									122 -0.79 23	85 0.50 32											84 22.8 36					
JH 180009 291134419 1809	1	M 130034 JH 120142	116 68	94 69	84 53	106 35	102 42	94 55	100 25	92 49	93 26	115 -0.17 72	97 0.05 50	93 13 35	94 11.3 69	84 -4.2 53	82 10 52	94 18.6 54	101 99 30	100 -20 18	77 -2.3 38	108 -10.4 42	96 -4.9 28	97 31.6 56	95 9 34	94 18 32	88 -0.24 26	94 -0.60 26	95 0.12 24
VV 180074 291158673 VV180074	1	JL 110044 VV 150033	121 67	108 68	94 54	92 35	91 48	108 56	112 42	107 53	102 41	121 -0.68 71	94 0.17 51	109 28 35	108 18.8 68	94 -1.1 54	99 50 52	114 33.9 44	112 145 42	101 -22 39	75 -3.4 46	97 -1.4 52	94 -4.4 34	89 26.0 59	122 26 45	111 37 44	105 1.15 42	94 -0.63 40	97 0.24 39
VV 180113 291170751 VV180113	2	KT 110020 VV 140174	91 71	110 73	102 67	107 23	80 53	98 60	98 25	96 53	97 25	93 1.76 74	99 -0.05 60	91 11 23	110 20.0 73	102 1.3 67	114 87 54	116 35.6 36	100 96 29	103 -24 19	102 11.1 31	75 16.1 57	85 -2.7 40	104 36.2 62	92 7 32	97 21 31	96 0.38 26	97 -0.21 24	93 -0.05 24
VY 180125 291319853 RUBY ROYALE VY180125	5	VV 130073 VV 130175	86 61	115 60	101 58	90 26	106 49	110 52	112 28	109 47	110 28	89 2.12 62	98 -0.02 56	111 30 26	115 22.9 60	101 1.0 58	110 78 48	109 30.4 36	113 150 31	114 -36 22	113 17.4 34	98 -2.0 54	120 -9.7 34	94 29.2 59	104 14 34	110 35 33	114 1.91 29	94 -0.63 27	98 0.32 26
DJW 190005 291209468 190005DJW	1	SP 150013 DJW 100021	81 69	119 71	92 64	98 27	104 48	109 58	109 38	107 54	103 42	84 2.48 73	94 0.15 51	101 21 27	119 24.8 71	92 -1.8 64	110 77 54	115 34.8 45	112 146 45	113 -34 28	99 9.7 49	96 -0.4 51	108 -7.2 33	109 39.6 59	103 14 49	105 30 48	100 0.71 44	83 -2.05 41	95 0.10 40
JC 190081 291245629 19 081	4	JC 150154 JC 140166	103 48	101 68	109 49	100 15	105 40	107 49	98 26	103 44	99 28	98 1.26 50	114 -0.61 38	98 18 15	101 15.4 68	109 3.2 49	108 74 44	99 22.7 26	100 95 24	99 -18 25	92 5.8 28	109 -10.5 42	97 -5.1 25	107 37.8 52	115 21 33	108 33 27	102 0.88 30	110 1.51 27	94 0.05 26
OT 190019 291241453 OT190019	3	VV 140112 VV 170091	106 69	105 60	88 53	103 30	94 53	100 54	93 30	96 49	97 40	104 0.77 73	104 -0.21 55	97 16 30	105 17.7 60	88 -2.8 53	96 44 48	107 29.1 42	95 73 40	97 -17 16	96 8.2 44	87 6.1 63	102 -6.1 36	100 33.5 59	93 8 44	99 23 43	91 -0.05 41	115 2.21 39	97 0.29 38
OT 190020 291241461 OT190020	3	VV 140112 VV 170028	97 69	101 59	97 53	108 30	94 52	96 53	88 30	91 48	91 40	98 1.27 73	98 0.01 54	91 10 30	101 15.1 59	97 -0.3 53	101 56 47	100 23.5 40	91 57 40	95 -14 17	89 4.2 43	100 -3.7 64	91 -3.8 36	98 31.6 56	91 7 44	94 18 43	81 -0.86 41	123 3.21 38	100 0.48 37
OT 190022 291241487 OT190022		VV 140165 XX 170023	79 66	118 44	100 39	100 19	111 39	114 42	102 24	110 38	102 23	56 4.91 71	86 0.44 47	99 18 19	118 24.6 44	100 0.5 39	116 93 34	119 38.0 28	106 122 25	111 -32 21	105 12.8 27	109 -10.7 41	111 -7.9 28	103 35.6 48	100 12 27	104 29 26	92 0.06 24	104 0.66 22	103 0.74 22

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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	Carcass 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	EMA	Fat	Marbling
ID Number Name																													
OT 190023 291241495 OT190023	1	VV 140196 VB 170104	107 64	99 55	92 45	96 21	100 41	96 47	96 23	94 42	91 26	104 0.76 69	107 -0.34 45	104 23 21	99 14.1 55	92 -1.6 45	91 32 40	97 21.1 26	100 94 28	99 -19 16	94 6.7 30	109 -11.3 43	91 -3.7 29	97 31.5 51	86 4 30	94 18 30	95 0.33 26	85 -1.80 25	86 -0.62 24
VV 190140 291231249 VV190140	4	VV 120148 VV 130032	93 71	101 71	102 63	95 23	114 53	103 59	100 26	100 52	96 25	93 1.73 74	104 -0.23 61	104 23 23	101 15.0 71	102 1.3 63	101 55 52	97 21.4 33	103 110 29	101 -21 21	100 10.4 32	110 -11.8 57	117 -9.1 41	102 34.7 61	89 6 32	95 20 31	98 0.55 26	92 -0.79 24	91 -0.20 24
VV 190205 291256675 VV190205	6	VV 140208 VV 150039	93 70	107 71	94 64	101 23	115 53	107 59	103 24	105 52	101 24	94 1.63 73	101 -0.10 56	98 18 23	107 18.4 71	94 -1.3 64	101 57 53	103 25.5 31	106 120 26	111 -32 20	107 14.1 29	113 -14.0 63	112 -8.1 38	107 37.9 59	94 9 28	98 23 28	98 0.55 24	98 -0.01 23	92 -0.10 22
JC 200076 291301992 20 76	1	JR 110035 JC 130157	98 52	92 61	106 58	95 30	107 47	94 50	86 27	90 45	84 34	96 1.51 53	111 -0.50 50	103 22 30	92 10.4 61	106 2.3 58	96 43 50	94 18.8 37	83 23 28	75 9 23	84 1.7 39	111 -12.4 50	101 -5.8 32	103 35.2 58	98 11 35	102 26 31	104 1.09 35	87 -1.44 32	101 0.54 31
OT 200005 291322196 2005	5	VV 140165 VV 170120	84 67	114 51	103 44	93 19	103 40	108 46	104 28	105 42	107 26	74 3.39 72	102 -0.17 46	107 26 19	114 22.1 51	103 1.6 44	112 83 38	110 30.8 29	112 147 27	117 -40 25	104 12.5 30	102 -5.4 39	107 -7.2 30	95 30.3 50	102 13 30	105 30 29	100 0.71 27	108 1.20 25	104 0.81 24
VY 200170 291393080 20 170	4	VV 160059 TC 160024	91 51	113 53	96 42	92 16	100 38	106 43			104 14	91 1.89 54	104 -0.22 41	108 27 16	113 21.8 53	96 -0.6 42	105 66 37	107 28.8 19	107 125 17	103 -23 12	102 11.0 19	93 2.2 37	105 -6.8 26	106 37.2 51	105 15 19	108 34 18	103 1.00 15	94 -0.56 14	93 -0.09 13
VY 200175 291393098 20 175		VV 160059 DG 120087	90 50	109 52	89 40	94 18	98 38	97 42			100 16	89 2.08 53	108 -0.37 39	107 26 18	109 19.3 52	89 -2.7 40	96 44 37	106 28.3 28	107 125 20	109 -31 16	100 9.9 22	91 3.6 37	112 -8.1 26	93 28.9 52	104 14 22	103 28 21	99 0.63 17	92 -0.86 15	92 -0.17 15
VY 210035 291393379 21 35		VV 160059 DG 120092	91 50	110 52	88 40	99 19	100 38	100 42			104 17	90 1.98 53	107 -0.35 38	101 20 19	110 20.2 52	88 -2.9 40	99 51 37	106 28.2 28	111 142 20	111 -32 15	102 11.0 23	92 2.2 37	112 -8.2 25	94 29.2 52	100 12 23	103 28 22	103 0.98 18	97 -0.24 16	95 0.11 16
VY 210049 98342850 VY 210049		VV 160059 VY 150062	102 37	96 39	104 32	96 11	108 31	100 32			96 12	103 0.83 39	95 0.12 30	103 23 11	96 12.7 39	104 1.7 32	98 48 27	92 17.3 16	95 73 13	85 -3 10	99 9.6 14	101 -4.8 28	114 -8.7 20	101 33.7 45	99 11 15	97 22 14	100 0.71 13	106 1.03 12	105 0.85 12
VY 210063 98930175 VY 210063	7	VV 140165 OT 190013	96 67	107 47	91 42	98 18	113 40	106 44	102 22	104 40	102 22	96 1.45 72	102 -0.17 45	102 21 18	107 18.7 47	91 -1.9 42	99 50 36	106 28.0 26	108 129 23	112 -34 19	100 9.9 25	109 -10.5 42	116 -9.0 30	100 33.2 47	95 9 26	100 25 25	99 0.61 23	106 0.93 21	99 0.39 21
FF 220093 94759925 DALIAH	1	JC 150154 JC 140115	136 62	81 68	88 48	131 15	87 40	89 51	71 20	81 45	69 26	128 -1.31 68	113 -0.58 38	76 -4 15	81 4.4 68	88 -3.1 48	78 1 44	79 7.6 23	74 -15 20	80 3 19	68 -7.1 23	93 1.8 42	84 -2.3 26	98 32.0 52	82 1 28	75 -2 22	71 -1.66 27	111 1.57 24	84 -0.77 23
MS 220012 291393924 LULLU	1	VV 130073 MAE 170004	111 62	96 69	90 59	108 28	112 50	101 56	95 24	98 50	86 23	110 0.30 62	101 -0.13 60	91 11 28	96 12.4 69	90 -2.3 59	90 30 52	90 15.8 32	94 70 26	92 -10 19	99 9.8 29	117 -17.3 62	102 -6.1 29	104 36.1 58	81 1 29	90 14 28	97 0.47 24	80 -2.38 22	85 -0.64 21

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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	Carcass 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	EMA	Fat	Marbling
ID Number Name																													
VY 220011 291395572 22 11	5	VV 160059 VV 180113	91 52	110 68	97 47	98 16	91 40	100 49			100 18	91 1.92 54	106 -0.29 43	102 21 16	110 20.1 68	97 -0.1 47	106 68 44	110 30.8 24	104 113 19	104 -25 14	98 9.1 21	84 8.6 40	102 -6.2 28	95 30.0 51	97 10 22	101 25 21	98 0.59 19	94 -0.63 17	91 -0.21 17
VY 220014 291395606 22 14	4	VV 160059 VV 130175	91 53	109 68	96 50	97 18	106 43	104 51	101 21	102 45	100 21	90 2.03 55	109 -0.42 46	103 22 18	109 19.4 68	96 -0.5 50	103 62 45	105 27.0 27	104 111 23	107 -28 17	96 7.7 25	97 -1.2 44	124 -10.6 31	88 25.2 54	97 11 25	100 25 25	96 0.37 22	105 0.86 20	99 0.38 20
VY 220015 291395614 22 15		VV 160059 VY 150004	94 37	104 59	108 38	91 11	103 31	103 40			102 12	97 1.43 39	95 0.11 30	109 27 11	104 16.9 59	108 3.0 38	106 69 36	98 22.3 16	100 96 13	90 -8 10	104 12.6 14	98 -2.6 28	117 -9.1 20	87 24.7 46	106 16 15	104 29 14	106 1.22 13	107 1.09 12	106 0.97 12
VY 220016 98337215 VY 220016	10	VV 140165 OT 190020	83 55	108 48	97 42	102 21	100 40	98 42	96 24	95 38	100 28	86 2.36 58	98 0.00 42	97 16 21	108 18.9 48	97 -0.4 42	105 66 37	107 28.9 30	103 107 28	109 -31 18	95 7.7 31	97 -1.6 44	104 -6.6 29	98 31.8 48	96 10 31	100 24 30	91 0.00 28	121 2.98 27	106 0.98 26
VY 220017 98342751 VY 220017	9	VV 140165 OT 190019	87 55	110 48	92 42	100 22	100 40	100 42	98 24	98 38	104 28	89 2.11 58	101 -0.11 43	100 19 22	110 20.1 48	92 -1.7 42	103 60 37	111 31.7 31	105 115 28	111 -32 18	99 9.7 31	91 3.3 43	110 -7.7 29	100 33.4 47	97 10 31	102 27 30	96 0.40 29	118 2.48 27	105 0.89 26
VY 220022 98337298 VY 220022		VV 170183 VY 170093	87 43	114 45	105 35	95 10	99 30	109 35			102 12	96 1.49 46	76 0.84 33	104 23 10	114 22.4 45	105 2.0 35	115 90 30	126 43.1 24	100 94 12	88 -6 9	110 15.6 14	97 -1.5 31	101 -5.9 19	100 33.0 41	103 14 14	103 28 13	107 1.33 12	102 0.48 11	100 0.52 10
VY 230024 98577992 VY 230024		DJW 190005	97 34	94 61	103 33	111 14	91 25	89 39			81 21	101 1.06 36	89 0.35 26	87 7 14	94 11.2 61	103 1.5 33	101 55 36	90 15.8 22	90 52 22	85 -3 14	88 3.8 24	92 2.2 26	100 -5.6 17	86 24.1 33	91 7 24	86 10 24	88 -0.24 22	84 -1.93 20	75 -1.45 20
VY 230031 98578180 VY 230031		VV 190158	95 34	101 61	104 32	100 7	99 26	99 38			92 8	96 1.44 36	98 -0.02 26	98 17 7	101 15.3 61	104 1.7 32	104 64 33	96 20.7 12	97 82 11	89 -8 7	103 11.8 12	95 -0.1 30	116 -8.9 17	83 22.1 32	101 13 10	96 21 10	102 0.90 8	91 -0.94 7	83 -0.85 7
VY 230037 98922883 VY 230037		VY 180125	96 30	97 30	106 29	101 13	90 25	92 26			91 14	99 1.25 31	92 0.22 28	97 16 13	97 13.3 30	106 2.4 29	103 61 24	91 17.0 18	96 78 15	90 -9 11	101 10.6 17	92 2.6 27	107 -7.1 17	76 17.0 30	98 11 17	95 20 16	101 0.85 14	90 -1.15 13	78 -1.22 13
VY 230038 98578198 VY 230038		TC 160024	98 34	98 35	105 28	105 11	85 24	92 28			87 6	101 1.05 36	91 0.27 27	93 12 11	98 13.8 35	105 2.1 28	105 65 25	92 17.8 10	91 57 11	82 1 6	97 8.6 12	89 5.2 24	93 -4.2 16	86 24.2 31	99 11 12	95 19 12	96 0.37 7	92 -0.89 6	77 -1.32 6
VY 240006 98934144 VY 240006		VV 210017 VY 150004	101 34	104 37	110 33	93 7	101 25	106 29			104 8	103 0.87 36	93 0.21 25	106 25 7	104 16.9 37	110 3.5 33	108 74 26	100 23.5 11	100 97 8	90 -9 6	113 17.2 9	97 -1.8 24	107 -7.2 15	97 31.4 35	105 15 9	104 29 9	108 1.39 8	107 1.16 7	109 1.15 7
VY 240010 98930464 VY 240010		KT 160037	105 35	83 34	95 27	127 11	77 23	75 28			73 8	105 0.72 37	99 -0.04 28	78 -2 11	83 5.6 34	95 -0.9 27	87 21 24	80 8.6 14	82 18 13	77 6 10	87 3.0 15	88 6.1 21	87 -2.9 16	74 15.7 31	82 1 13	78 1 12	83 -0.68 9	88 -1.42 8	71 -1.75 8

Breeding Values and Accuracies: Cows

Green: >120 High
White: 80-120 Average
Orange: <80 Low

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		Carcass			
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	Carcass 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	EMA	Fat	Marbling
ID																													
Number Name																													
MS 250033		VV 190034	95	112	97	90	120	116	105	113	106	95	101	110	112	97	105	105	105	99	114	121	112	107	108	111	99	101	96
98919111	2	MS 220012	64	57	44	24	36	47	24	42	26	1.53	-0.13	29	21.4	-0.3	65	27.3	118	-19	18.0	-20.4	-8.2	38.0	17	36	0.61	0.33	0.19
MS 250033												69	43	24	57	44	42	25	25	23	27	42	23	44	28	26	26	25	25

Selection List on Cow Value

Bulls 2 years and older

ID Sorted on ID	Name	Sire ID	Dam ID	% Inbreeding	Horned / Polled	Myostatin				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	VY 210053	21 53	DJW 180053	DJW 190005	13.1													
1	VY 220012	22 12	VV 170183	VY 170097	0.0													
1	KT 220037	ERAGON	BR 180020	K 170034	1.9	HH	1	0	0									
2	VY 210037	21 37	VV 160059	VY 170081	0.0													
3	VY 220004	22 04	VV 160059	VY 160056	0.0													
4	VY 230022	VY 230022		OT 190013	0.0													
5	VY 230023	VY 230023		VV 190205	0.0													
1	VY 240004	VY 240004		OT 190019	0.0													
1	VY 200162	20 162		KT 160037	0.0													

Selection List on Cow Value

Cows 2 years and older

ID Sorted on ID	Name	Sire ID	Dam ID	% Inbreeding	Horned / Polled	Myostatin nt821 Q204X F94L 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	OT 190022	OT190022	VV 140165	XX 170023	0.3		79 66	118 44	100 39	100 19	111 39	114 42	102 24	110 38	
2	VY 180125	RUBY ROYALE VY180125	VV 130073	VV 130175	5.1		86 61	115 60	101 58	90 26	106 49	110 52	112 28	109 47	
											★★★★☆				
1	DJW 190005	190005DJW	SP 150013	DJW 100021	0.6		81 69	119 71	92 64	98 27	104 48	109 58	109 38	107 54	
2	JC 170061	17 061	JC 120092	JC 140159	2.6		99 39	113 67	103 49	90 18	94 45	109 48			
3	JC 190081	19 081	JC 150154	JC 140166	4.4		103 48	101 68	109 49	100 15	105 40	107 49	98 26	103 44	
4	MS 220012	LULLU	VV 130073	MAE 170004	1.1		111 62	96 69	90 59	108 28	112 50	101 56	95 24	98 50	
5	OT 190019	OT190019	VV 140112	VV 170091	2.6		106 69	105 60	88 53	103 30	94 53	100 54	93 30	96 49	
6	OT 200005	2005	VV 140165	VV 170120	5.0		84 67	114 51	103 44	93 19	103 40	108 46	104 28	105 42	
7	VV 180074	VV180074	JL 110044	VV 150033	0.6		121 67	108 68	94 54	92 35	91 48	108 56	112 42	107 53	
8	VV 190140	VV190140	VV 120148	VV 130032	3.6		93 71	101 71	102 63	95 23	114 53	103 59	100 26	100 52	
9	VV 190205	VV190205	VV 140208	VV 150039	6.1		93 70	107 71	94 64	101 23	115 53	107 59	103 24	105 52	
10	VY 200170	20 170	VV 160059	TC 160024	3.9		91 51	113 53	96 42	92 16	100 38	106 43			
11	VY 210035	21 35	VV 160059	DG 120092	0.2		91 50	110 52	88 40	99 19	100 38	100 42			
12	VY 210049	VY 210049	VV 160059	VY 150062	0.0		102 37	96 39	104 32	96 11	108 31	100 32			
13	VY 210063	VY 210063	VV 140165	OT 190013	6.6		96 67	107 47	91 42	98 18	113 40	106 44	102 22	104 40	
14	VY 220011	22 11	VV 160059	VV 180113	4.7		91 52	110 68	97 47	98 16	91 40	100 49			
15	VY 220014	22 14	VV 160059	VV 130175	4.2		91 53	109 68	96 50	97 18	106 43	104 51	101 21	102 45	
16	VY 220015	22 15	VV 160059	VY 150004	0.0		94 37	104 59	108 38	91 11	103 31	103 40			
17	VY 220017	VY 220017	VV 140165	OT 190019	8.9		87 55	110 48	92 42	100 22	100 40	100 42	98 24	98 38	
18	VY 220022	VY 220022	VV 170183	VY 170093	0.0		87 43	114 45	105 35	95 10	99 30	109 35			
19	VY 240006	VY 240006	VV 210017	VY 150004	0.0		101 34	104 37	110 33	93 7	101 25	106 29			
											★★★★				
1	JC 200076	20 76	JR 110035	JC 130157	0.7		98 52	92 61	106 58	95 30	107 47	94 50	86 27	90 45	
2	JH 180009	1809	M 130034	JH 120142	1.1		116 68	94 69	84 53	106 35	102 42	94 55	100 25	92 49	
3	OT 190020	OT190020	VV 140112	VV 170028	3.1		97 69	101 59	97 53	108 30	94 52	96 53	88 30	91 48	
4	OT 190023	OT190023	VV 140196	VB 170104	0.7		107 64	99 55	92 45	96 21	100 41	96 47	96 23	94 42	
5	VV 180113	VV180113	KT 110020	VV 140174	1.8		91 71	110 73	102 67	107 23	80 53	98 60	98 25	96 53	

Selection List on Cow Value

Cows 2 years and older

ID Sorted on ID	Name	Sire ID	Dam ID	% Inbreeding	Horned / Polled	Myostatin nt821 Q204X F94L 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	
6	VY 200175	20 175	VV 160059	DG 120087	0.4		90 50	109 52	89 40	94 18	98 38	97 42			
7	VY 220016	VY 220016	VV 140165	OT 190020	9.6		83 55	108 48	97 42	102 21	100 40	98 42	96 24	95 38	
8	VY 230031	VY 230031		VV 190158	0.0		95 34	101 61	104 32	100 7	99 26	99 38			
9	VY 230037	VY 230037		VY 180125	0.0		96 30	97 30	106 29	101 13	90 25	92 26			
10	VY 230038	VY 230038		TC 160024	0.0		98 34	98 35	105 28	105 11	85 24	92 28			
1	FF 220093	DALIAH	JC 150154	JC 140115	0.9		136 62	81 68	88 48	131 15	87 40	89 51	71 20	81 45	
2	VY 230024	VY 230024		DJW 190005	0.0		97 34	94 61	103 33	111 14	91 25	89 39			
1	KT 160037	KT160037	KT 130023	VV 110155	3.2		105 70	87 69	79 53	135 22	80 45	75 55	83 24	72 49	
2	VY 240010	VY 240010		KT 160037	0.0		105 35	83 34	95 27	127 11	77 23	75 28			

Selection List on Cow Value

Heifers younger than 2 years

ID Sorted on ID	Name	Sire ID	Dam ID	% Inbreeding	Horned / Polled	Myostatin nt821 Q204X F94L 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	MS 250033	MS 250033	VV 190034	MS 220012	2.4		95 64	112 57	97 44	90 24	120 36	116 47	105 24	113 42	

	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.

