

NGUNI

BREEDING VALUE REPORT

September 2026



ORALOR (PTY) LTD

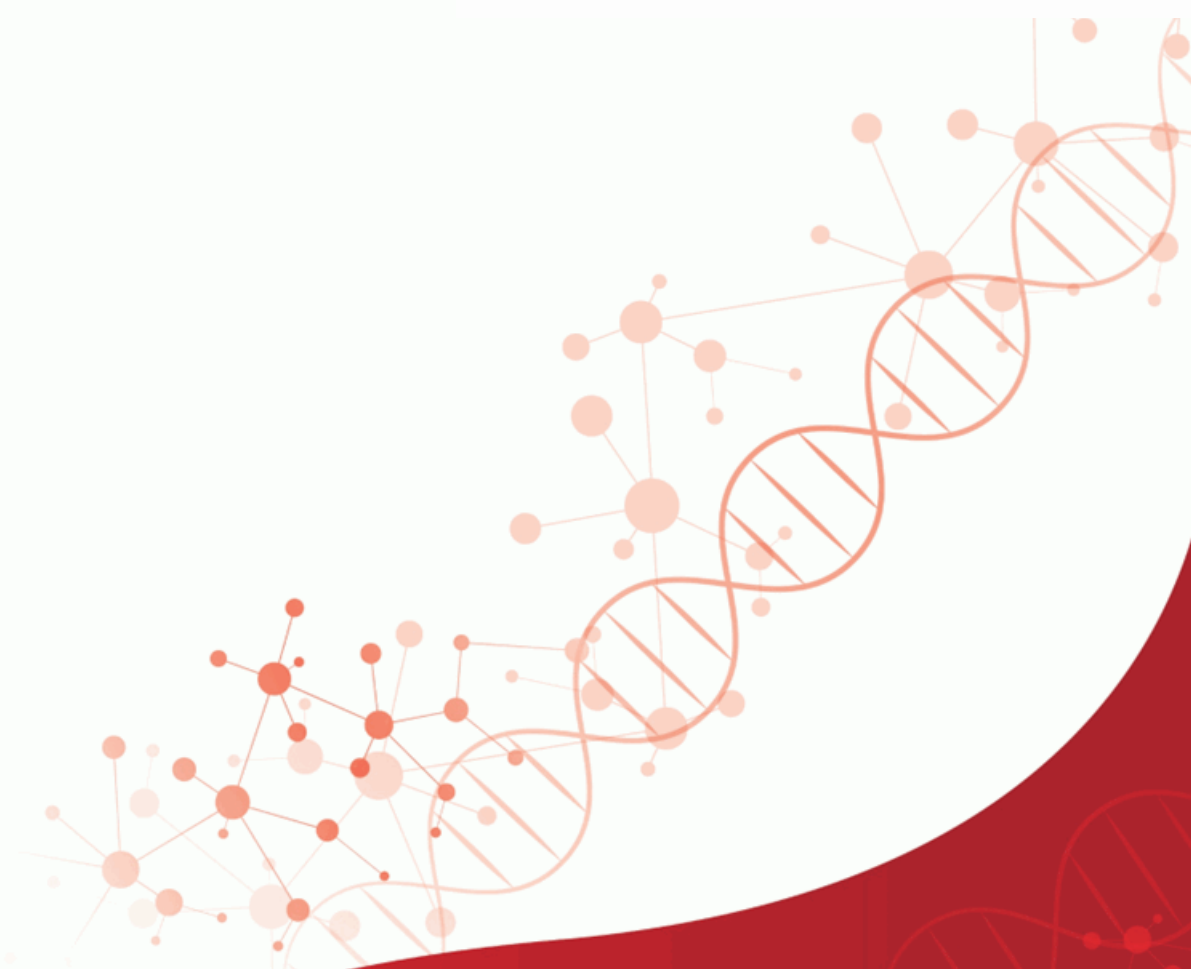
Herd Number: 712953

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NGUNI Cattle Breeders' Society
Beestelersgenootskap



LOGIX



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



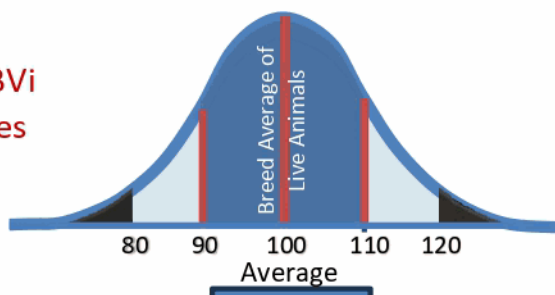
80% LOGIX Cow Value +
20% LOGIX Growth Value

LOGIX Carcass Value

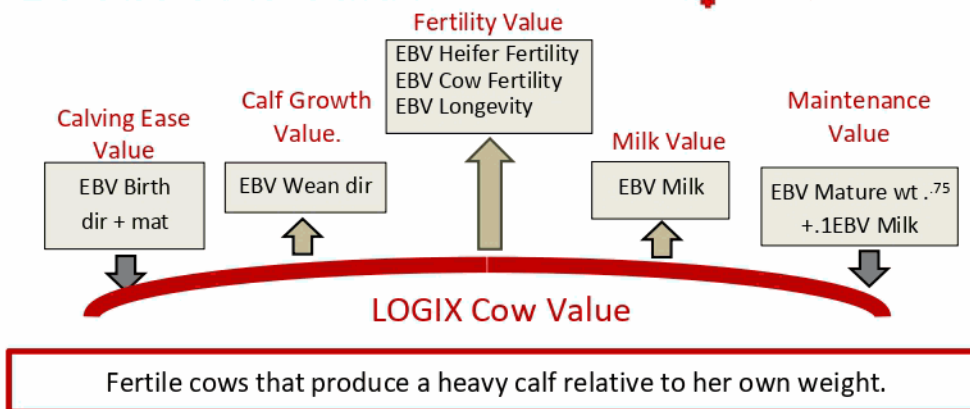


Select for more meat on the carcass as measured from end weight in Phase C and D Growth Tests and RTU scanning.

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

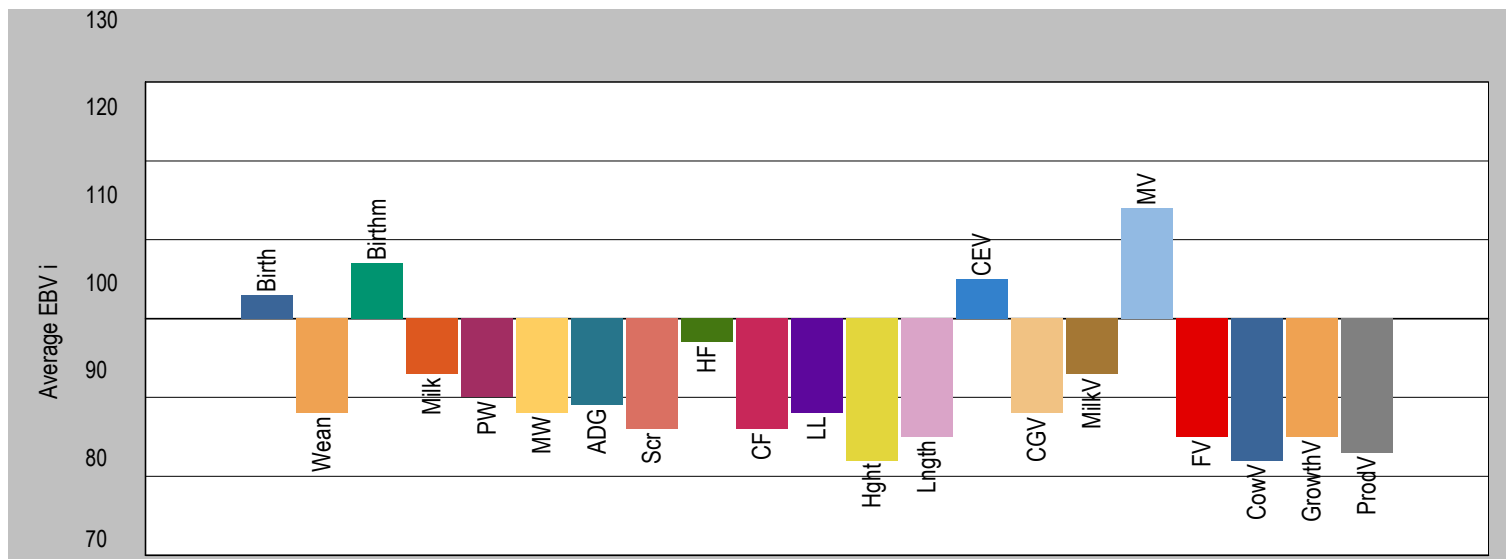
(HARSH ENVIRONMENT)

- 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		

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	EBVIndex	EBV Breed
Prewean Growth	Birth Weight	-0.02	103	0.12
	Wean Weight	-1.7	88	2.6
	Birth Mat.	-0.14	107	0.05
	Milk (Wn.Mat.)	-0.7	93	1.0
Postwean Growth	Postwean Wt	-1.4	90	3.7
	Mature Weight	-6	88	5
	ADG	-14	89	12
Fertility	Scrotal Circumf.	-1.7	86	3.8
	Heifer Fertility	-4.1	97	-6.2
	Cow Fertility	0.5	86	-2.9
	Longevity	16.5	88	23.2
Frame	Height	-7	82	2
	Length	-6	85	5

Selection Value	Ave. Herd
Calving Ease	105
Calf Growth	88
Milk	93
Maintenance	114
Fertility	85
Cow Value	82
Growth Value	85
Production Value	83

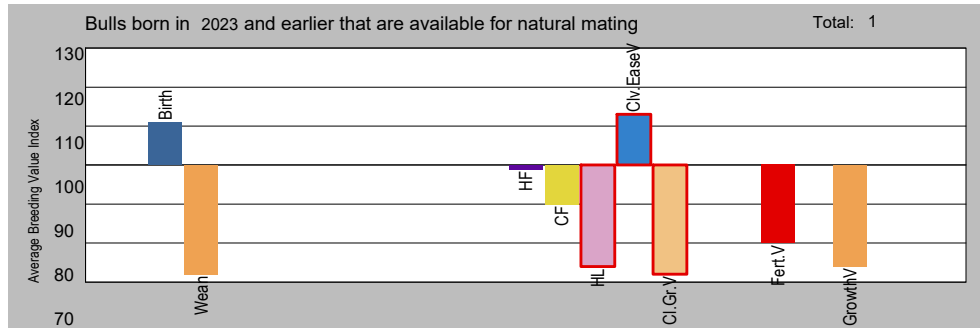
- Average of live animals in the breed: 100
- Above 100: **more favourable**,
- Below 100: **less favourable**

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

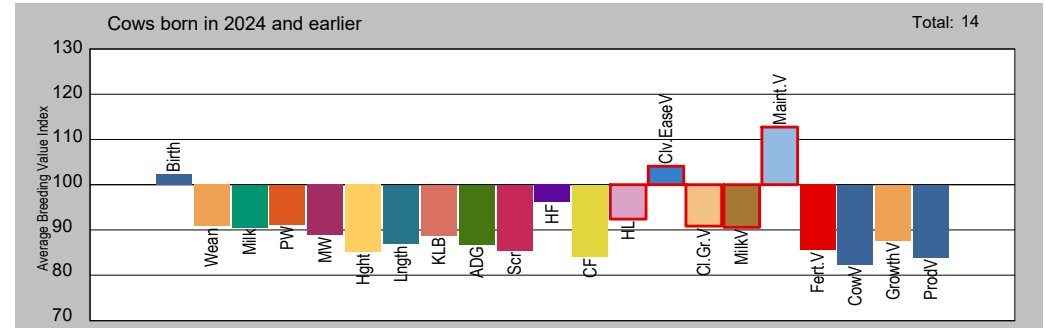
Genetic Windows

Bulls on the farm



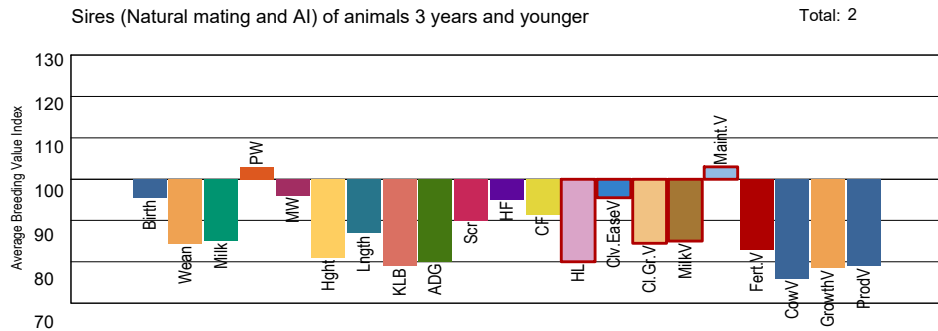
Animals available for breeding

Cow Herd

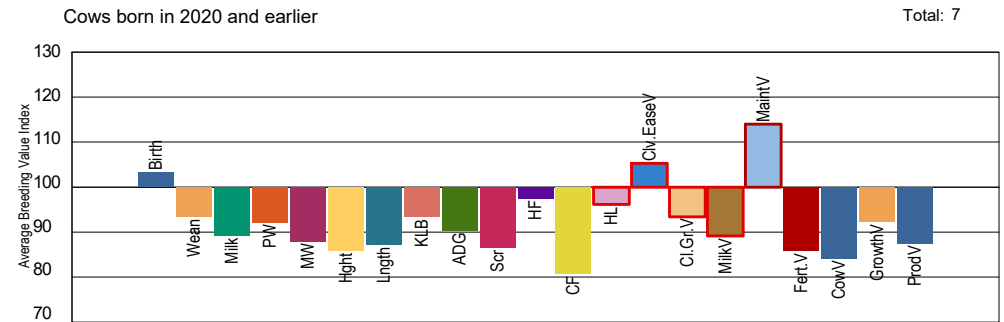


Results of previous selection decisions

Sires of young animals

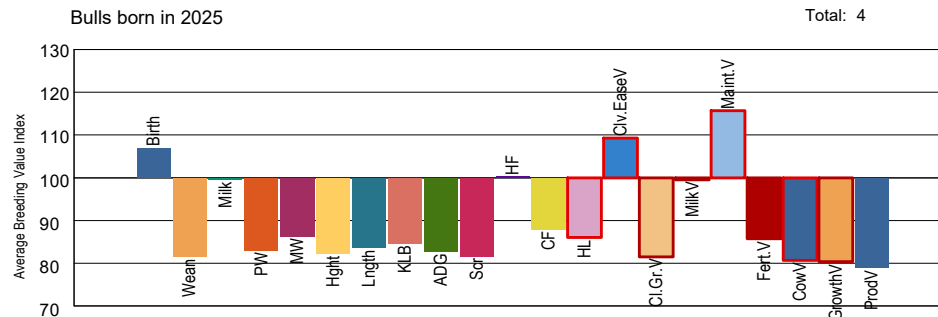


Cows older than 6 years

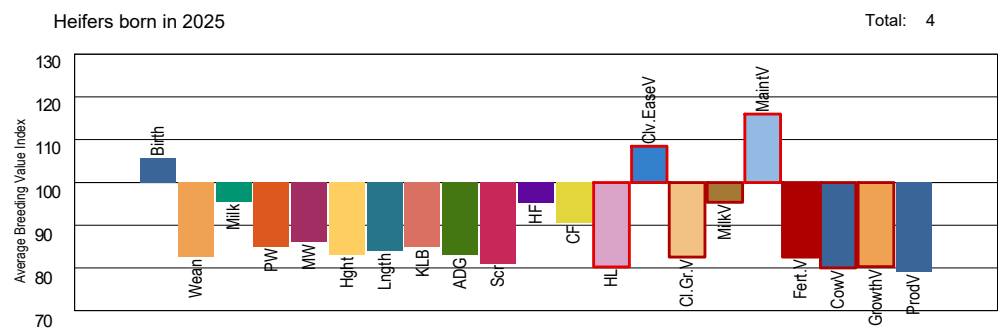


Selection possibilities

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	100	100	100	100	100	100	100	99
2014	1	★★★☆☆	109	78	96	119	88	84	82	81	105	78	117	96	76	82	85	93	85	119	88	80	68	70
2015	1		96	97	88	110	71				94	97	108	88	95	92	89	88	88	75	89	73	96	97
2017	2		109	90	89	102	100				105	90	117	89	87	97	93	91	94	98	97	104	98	99
2018	3	★★★☆☆	98	100	91	114	86	88	99	93	97	100	99	91	99	87	91	92	87	98	78	99	91	91
2019	2	★★★	111	96	87	111	82	79	87	83	109	96	108	87	95	92	93	95	87	90	76	99	88	91
2020	1		99	93	95		90				96	93	114	95						103	99	81		
2023	4	★★★★☆☆	95	92	88	109	88	83	85	84	94	92	108	88	93	92	85	87	89	98	93	86	83	87
2024	4	★★★	111	84	97	115	82	79	82	79	109	84	105	97	86	87	84	85	82	95	84	86	85	86
2025	4	★★★★☆☆	109	83	95	116	83	80	80	79	106	83	108	95	85	86	83	85	81	95	91	80	83	84
Cows in Herd Average:			104	90	92	112	86	82	86	83	102	90	109	92	90	89	88	90	87	97	88	88	87	88

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		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		

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		Maine- 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
2016	2062	0.06	-0.03	101	1340	2.9	101	1339	0.64	98	355	6.3	223	5	97	1339	-2.4	868	-1.9	10845	12.2	90	87
2017	1692	0.05	0.03	100	1223	3.5	102	1223	1.02	100	536	7.3	266	7	95	1431	-2.1	859	-1.9	8766	13.2	91	90
2018	1623	0.00	0.02	101	961	4.1	104	961	1.83	104	525	6.9	260	8	95	1317	-2.9	764	-2.0	7360	13.8	93	93
2019	1476	0.03	0.01	100	1204	3.3	102	1202	1.73	103	501	6.3	314	7	96	1273	-3.5	775	-2.6	6887	14.6	94	94
2020	1577	0.05	0.01	101	1147	3.7	103	1147	1.93	104	561	5.4	352	6	98	1269	-4.3	672	-2.5	6779	15.4	96	95
2021	1538	0.08	0.06	99	1397	3.4	102	1397	2.14	105	770	4.9	292	5	99	1218	-5.0	585	-2.9	6379	16.8	98	96
2022	1327	0.25	0.06	97	1681	4.4	105	1681	2.02	104	780	6.7	261	10	95	962	-4.7	240	-4.2	2616	17.4	101	97
2023	1221	0.08	0.12	100	1478	3.2	102	1478	1.87	104	509	6.2	62	12	97	379	-5.9	45	-5.3			106	99
2024	1380	0.08	0.12	99	1392	4.2	105	1392	1.90	104	510	7.3	1	-6	94	128	-6.5					110	102
2025	1033	0.14	0.10	99	1054	4.6	106	1052	1.82	103	173	12.0			84	7	-42.1					133	105
2026	191	0.05	0.02	102	23	7.6	114	23	3.11	109													109

Genetic Trends for Growth Test Traits

Herd

Birth Year	Growth						Frame						Selection Values	
	ADG			Scrotal Circumf.			Height			Length			Growth Value	Prod Value
	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi		

Breed

Birth Year	Growth						Frame						Selection Values	
	ADG			Scrotal Circumf.			Height			Length			Growth Value	Prod Value
	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi	Number	EBV	EBVi		
2016	61	31	109	66	6.6	107	61	10	115	61	15	114	92	89
2017	53	27	107	52	7.3	109	52	7	110	52	15	113	94	92
2018	78	28	107	78	7.5	110	78	6	108	78	10	107	98	95
2019	66	30	108	66	4.7	103	66	7	111	66	12	109	96	95
2020	78	21	104	77	3.9	100	78	4	105	78	8	103	98	96
2021	84	11	100	83	3.6	99	84	3	101	84	7	102	99	97
2022	171	26	107	95	5.9	106	162	7	109	162	11	108	99	98
2023	65	30	108	64	5.9	106	65	6	109	65	11	108	100	99
2024	64	24	106	63	5.8	105	64	4	105	64	11	107	102	101
2025				21	13.2	125							104	104

Sires

Bull			Selection Values								Calf		Dam		Growth			Fertility				Frame		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	Scrotal	Heifer	Cow	Long-	Height	Length	Birth	Wean	Dgt/Calvs.	Grwth	
			Ease	Grwth	Value	Value	Value	Value	Value	Value	Dir	Dir	Mat.	Mat.	wt	weight		Circ.	Fertility	Fertility	evity			wt	wt		Test	
BOX120590 SNV050312 SNV010451 MZONDO BOXER BOX120590			113	72			80		74		111	72	103						99	90	74			22	26			
			75	76			40		44		-0.43	-7.3	-0.03						-5.6	-0.5	9.4							
											83	76	33						40	7	72							
CVL 160019 CS 030038 LT 050012			78	97	85	103	86	76	83	79	80	97	96	85	103	96	80	90	91	93	86	81	87					
			70	59	54	43	46	40	53	46	1.13	1.6	0.16	-2.5	5.4	1	-32	0.0	1.4	-1.4	15.5	-7	-5					
											74	59	53	54	52	43	17	19	47	33	58	19	19					
FB 070124 HAS 910128 FB 010029			109	100	80	115	57	58	81	68	108	100	101	80	100	88	93	79	73	59	81	79	85	1	1			
			60	59	55	44	72	48	60	54	-0.28	2.5	0.02	-3.5	3.7	-6	-4	-4.4	16.1	6.7	12.9	-9	-7					
											61	59	56	55	49	44	31	35	77	55	84	36	34					
LEB 010209 LEB 970096 LEB 950200			116	55	105	128	54	51	54	50	111	55	128	105	56	70	77	80	102	53	65	41	46	5	11	14	20	4
			80	83	78	57	81	61	78	70	-0.42	-13.1	-0.73	2.2	-18.3	-22	-39	-4.0	-8.1	8.1	4.1	-28	-36					
											81	83	76	78	66	57	71	79	89	61	94	81	78					
SB 080207 LEB 010209 LT 030029			109	73	84	124	55	48	59	51	105	73	132	84	70	77	76	79	74	60	76	62	63	2				
			58	51	52	30	66	42	52	47	-0.14	-6.9	-0.86	-2.8	-11.4	-16	-41	-4.2	15.7	6.6	10.3	-17	-23					
											60	51	47	52	40	30	36	40	75	39	83	40	39					
SNV050312 02-0466SNV			106	83			77		78		104	83	107						99		64							
			37	38			21		22		-0.06	-3.4	-0.14						-5.2		3.9							
											41	38	17						20		40							
T 120292 T 090008 T 090185			62	114	104	118	77	91	119	106	64	114	82	104	110	84	95	99	111	72	81	104	97					
											1.90	7.5	0.55	2.0	8.9	-10	2	3.2	-15.1	3.6	12.9	4	3	143	19			
			88	81	37	23	70	46	63	54	90	81	79	37	19	23	16	18	80	45	86	18	17					

Breeding Values and Accuracies: Bulls

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	
Index EBV Acc	ID Number Name	% 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	Scrotal Circ.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
BOX120590 SNV050312 82336850 SNV010451 MZONDO BOXER BOX120590			113 75	72 76			80 40		74 44		111 -0.43 83	103 -0.03 33		72 -7.3 76		89 -6 26				99 -5.6 40	90 -0.5 7	74 9.4 72		
LH 240019 BOX120590 98047103 PH 180040 LH 240019			97 44	90 46	100 16	119 10	86 30	89 22	97 32	92 27	97 0.26 47	96 0.16 26	82 -12 10	90 -1.1 46	100 1.0 16	100 18 24	91 -0.9 13		85 -1.9 5	105 -10.6 30	83 1.1 15	90 17.7 45	89 -3 5	86 -5 5
LH 250002 BOX120590 98757933 HC 170023 LH 250002			108 39	82 39	101 8		94 25		85 25		105 -0.13 43	109 -0.20 22		82 -3.6 39	101 1.2 8	90 -3 17				103 -8.9 25	95 -1.8 8	91 18.6 43		
LH 250003 BOX120590 98930472 HC 140089 LH 250003			111 45	75 44	101 21	119 15	84 35	81 24	78 34	78 29	108 -0.28 48	110 -0.23 28	83 -11 15	75 -6.3 44	101 1.2 21	87 -10 27	76 -8.1 18	80 -33 18	82 -3.2 20	109 -13.7 38	89 -0.3 20	77 10.9 48	75 -11 21	76 -13 20
LH 250012 BOX120590 99750762 HC 180004 LH 250012			109 40	85 41	99 14	114 11	80 30	79 21	82 30	79 26	108 -0.28 44	102 0.01 22	88 -6 11	85 -2.8 41	99 0.8 14	92 0 22	87 -2.7 12	84 -24 8	81 -3.3 9	92 0.5 28	82 1.4 15	88 16.6 46	87 -4 9	88 -4 9
LH 250015 BOX120590 99750796 HC 190044 LH 250015			109 40	84 41	97 15	114 11	85 30	82 21	83 30	81 26	107 -0.24 44	105 -0.10 23	88 -7 11	84 -3.0 41	97 0.3 15	89 -5 22	86 -3.2 12	84 -24 8	82 -3.0 9	97 -3.9 32	86 0.5 15	88 16.9 44	85 -5 9	87 -5 9

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		
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	Scrotal Circ.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
ID Number Name																									
HC 140089 81404634 HC 140089		LEB 010209 HC 110026		109 48	78 44	96 41	119 30	88 56	84 36	82 45	81 40	105 -0.12 48	117 -0.43 45	82 -12 30	78 -5.3 44	96 0.0 41	85 -15 38	76 -8.3 35	85 -22 37	85 -1.8 41	119 -21.8 64	88 0.0 39	80 12.4 65	68 -14 41	70 -18 40
HC 150036 82219197 HC 150036		HC 100053		96 22	97 12	88 14	110 7	71 34				94 0.43 23	108 -0.17 17	92 -2 7	97 1.7 12	88 -1.8 14	90 -3 11	95 1.3 9	89 -13 7	88 -0.6 7	75 14.6 35	89 -0.3 17	73 8.6 50	96 0 8	97 3 7
HC 170023 85878635 HC 170023		VOR 040112		103 27	93 14	96 17	102 7	107 29				99 0.17 27	115 -0.36 30	97 2 7	93 0.1 14	96 0.1 17	92 0 13	91 -0.6 8	93 -4 5	94 1.4 5	107 -12.2 29	101 -3.1 13	108 27.8 46	98 1 5	99 4 5
HC 170036 86438066 HC 170036		SB 080207 HC 100062		114 40	86 21	82 22		92 46				110 -0.35 41	118 -0.45 32		86 -2.3 21	82 -3.3 22		83 -4.9 7			89 2.8 58	92 -1.1 19	100 23.4 60		
HC 180004 86598711 HC 180004		FB 070124 HC 090720		106 30	97 30	93 28	109 22	80 40	80 25	90 32	84 28	105 -0.12 31	100 0.04 28	93 -2 22	97 1.6 30	93 -0.6 28	94 6 27	97 2.5 25	93 -3 16	85 -2.1 18	84 6.6 38	74 3.3 27	101 23.8 56	92 -2 18	94 0 17
HC 180054 87765723 HC 180054		FB 070124 HC 150072		106 31	95 31	85 29	113 22	85 45	82 27	89 33	84 30	103 -0.05 32	109 -0.21 29	89 -5 22	95 0.8 31	85 -2.5 29	87 -11 27	94 0.5 25	91 -9 16	84 -2.3 18	99 -5.6 54	84 1.0 29	90 17.9 52	84 -6 19	87 -5 18
PH 180040 87912572 VUYISEKA		T 120292 PH 150070		81 49	107 53	95 31	121 20	92 45	101 31	119 42	111 36	83 0.95 50	89 0.36 43	80 -13 20	107 5.1 53	95 -0.2 31	111 43 35	105 6.2 26	88 -14 9	92 0.8 10	111 -15.7 49	76 2.8 29	105 26.1 56	96 0 10	91 -2 10
HC 190044 89040893 HC 190044		FB 070124 HC 170023		106 33	96 30	88 29	110 22	89 44	86 27	91 32	88 30	104 -0.05 33	108 -0.17 32	92 -2 22	96 1.3 30	88 -1.7 29	90 -4 27	96 1.5 25	93 -4 16	86 -1.5 18	95 -2.3 51	81 1.5 28	102 24.5 53	88 -4 18	92 -1 17
HC 190048 89040935 HC 190048		FB 070124 HC 120025		115 37	95 31	85 30	112 22	75 47	72 28	83 34	77 31	113 -0.50 38	108 -0.18 33	91 -4 22	95 0.8 31	85 -2.5 30	86 -12 28	94 0.9 26	92 -6 17	87 -1.3 19	85 6.0 55	70 4.2 31	95 20.7 55	88 -4 19	90 -3 18
LH 200007 95750469 LH 200007		HC 170023		99 14	93 7	95 8		90 16				96 0.32 14	114 -0.35 15		93 0.3 7	95 -0.3 8	91 -1 6				103 -8.6 15	99 -2.7 7	81 12.9 25		
LH 230003 96564190 LH 230003		CVL 160019 HC 180054		92 38	96 33	85 31	109 24	85 32	80 25	86 31	82 28	92 0.54 40	103 -0.03 30	93 -2 24	96 1.2 33	85 -2.5 31	86 -12 29	98 3.0 29	85 -20 12	87 -1.2 13	95 -2.1 36	89 -0.2 22	88 16.7 39	82 -7 13	87 -5 13
LH 230004 97091250 LH 230004		CVL 160019 HC 170023		90 38	95 30	90 28	102 22	97 28	88 22	89 28	88 25	89 0.65 39	105 -0.10 31	97 2 22	95 0.9 30	90 -1.2 28	89 -7 27	97 2.4 26	86 -18 9	92 0.7 10	99 -5.4 28	97 -2.2 18	97 21.6 38	90 -3 10	93 0 10

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	
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	Scrotal Circ.	Heifer Fertility	Cow Fertility	Longevity	Height	Length
ID Number Name																								
LH 230005 95717914 LH 230005		HC 140089	103 24	86 22	94 21	114 15	80 28		80 22		99 0.17 24	115 -0.38 22	89 -6 15	86 -2.4 22	94 -0.3 21	88 -8 19	84 -4.4 18	89 -13 18	89 -0.4 20	109 -13.4 32	93 -1.2 20	66 5.1 32	82 -7 21	84 -7 20
LH 230013 97091268 LH 230013		CVL 160019 HC 170036	96 40	92 31	83 29	112 20	89 33	82 24	85 30	82 27	95 0.39 42	107 -0.15 31	90 -4 20	92 -0.4 31	83 -2.9 29	82 -21 27	93 0.2 26	81 -30 6	87 -1.3 9	90 2.1 37	93 -1.2 19	93 19.5 42	79 -9 10	82 -9 9
LH 240004 97111330 LH 240004		BOX120590 HC 190044	109 40	84 41	97 15	114 11	85 30	82 21	83 30	81 26	107 -0.24 44	105 -0.10 23	88 -7 11	84 -3.0 41	97 0.3 15	89 -5 22	86 -3.2 12	84 -24 8	82 -3.0 9	97 -3.9 32	86 0.5 15	88 16.9 44	85 -5 9	87 -5 9
LH 240006 97215420 LH 240006		BOX120590 HC 180004	109 40	85 41	99 14	114 11	80 30	79 21	82 30	79 26	108 -0.28 44	102 0.01 22	88 -6 11	85 -2.8 41	99 0.8 14	92 0 22	87 -2.7 12	84 -24 8	81 -3.3 9	92 0.5 28	82 1.4 15	88 16.6 46	87 -4 9	88 -4 9
LH 240007 97453872 LH 240007		BOX120590 HC 180054	110 40	83 41	95 14	116 11	83 31	80 21	82 30	79 26	107 -0.24 44	106 -0.12 22	86 -8 11	83 -3.2 41	95 -0.1 14	88 -9 22	85 -3.7 12	83 -27 8	81 -3.5 9	99 -5.6 34	87 0.2 15	82 13.6 44	83 -7 9	84 -7 9
LH 240011 97755045 LH 240011		BOX120590 HC 190048	114 41	83 41	95 15	115 11	78 32	75 21	79 30	76 26	112 -0.47 45	105 -0.10 23	87 -7 11	83 -3.2 41	95 -0.1 15	87 -9 22	86 -3.5 12	83 -25 8	82 -3.0 9	92 0.2 34	80 1.8 16	85 15.1 45	85 -5 9	86 -6 9
LH 250005 99295958 LH 250005		BOX120590 LH 200007	106 38	83 38			85 21		81 23		104 -0.05 42	109 -0.19 18		83 -3.5 38		90 -4 15				101 -7.1 21	95 -1.6 5	78 11.1 38		
LH 250006 99750770 LH 250006		BOX120590 HC 170036	114 42	79 39	94 11		86 31				110 -0.39 46	110 -0.24 23		79 -4.8 39	94 -0.5 11					94 -1.4 35	91 -0.8 10	87 16.4 47		
LH 250009 99750788 LH 250009		BOX120590 HC 180054	110 40	83 41	95 14	116 11	83 31	80 21	82 30	79 26	107 -0.24 44	106 -0.12 22	86 -8 11	83 -3.2 41	95 -0.1 14	88 -9 22	85 -3.7 12	83 -27 8	81 -3.5 9	99 -5.6 34	87 0.2 15	82 13.6 44	83 -7 9	84 -7 9
LH 250016 99969958 LH 250016		BOX120590 HC 150036	104 39	85 38	97 7		76 27		78 25		102 0.00 43	105 -0.10 19		85 -2.8 38	97 0.2 7	90 -5 16				87 4.5 27	89 -0.4 10	74 9.0 44		

Selection List on Cow Value

Bulls 2 years and older

ID Name Sorted on ID		Sire ID	Dam ID	% Inbreeding	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	LH 240019	LH 240019	BOX120590	PH 180040	0.0	9744	9046	10016	11910	8630	8922	9732	9227

Selection List on Cow Value

Cows 2 years and older

ID Sorted on ID	Name	Sire ID	Dam ID	% Inbreeding	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 PH 180040	VUYISEKA	T 120292	PH 150070	0.0	81 49	107 53	95 31	121 20	92 45	101 31	119 42	111 36	
					★★★								
1 HC 140089	HC 140089	LEB 010209	HC 110026	0.2	109 48	78 44	96 41	119 30	88 56	84 36	82 45	81 40	
2 HC 180004	HC 180004	FB 070124	HC 090720	0.0	106 30	97 30	93 28	109 22	80 40	80 25	90 32	84 28	
3 HC 180054	HC 180054	FB 070124	HC 150072	0.0	106 31	95 31	85 29	113 22	85 45	82 27	89 33	84 30	
4 HC 190044	HC 190044	FB 070124	HC 170023	0.0	106 33	96 30	88 29	110 22	89 44	86 27	91 32	88 30	
5 LH 230003	LH 230003	CVL 160019	HC 180054	0.0	92 38	96 33	85 31	109 24	85 32	80 25	86 31	82 28	
6 LH 230004	LH 230004	CVL 160019	HC 170023	0.0	90 38	95 30	90 28	102 22	97 28	88 22	89 28	88 25	
7 LH 230013	LH 230013	CVL 160019	HC 170036	0.0	96 40	92 31	83 29	112 20	89 33	82 24	85 30	82 27	
8 LH 240004	LH 240004	BOX120590	HC 190044	0.0	109 40	84 41	97 15	114 11	85 30	82 21	83 30	81 26	
9 LH 240007	LH 240007	BOX120590	HC 180054	0.0	110 40	83 41	95 14	116 11	83 31	80 21	82 30	79 26	
					★★★								
1 HC 190048	HC 190048	FB 070124	HC 120025	0.0	115 37	95 31	85 30	112 22	75 47	72 28	83 34	77 31	
2 LH 240006	LH 240006	BOX120590	HC 180004	0.0	109 40	85 41	99 14	114 11	80 30	79 21	82 30	79 26	
3 LH 240011	LH 240011	BOX120590	HC 190048	0.0	114 41	83 41	95 15	115 11	78 32	75 21	79 30	76 26	

Selection List on Cow Value
Bull Calves younger than 2 years

ID Sorted on ID		Name	Sire ID	Dam ID	% Inbreeding	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	LH 250003	LH 250003	BOX120590	HC 140089	0.0	111 45	75 44	101 21	119 15	84 35	81 24	78 34	78 29	
2	LH 250015	LH 250015	BOX120590	HC 190044	0.0	109 40	84 41	97 15	114 11	85 30	82 21	83 30	81 26	
						★★☆								
1	LH 250012	LH 250012	BOX120590	HC 180004	0.0	109 40	85 41	99 14	114 11	80 30	79 21	82 30	79 26	

Selection List on Cow Value
Heifers younger than 2 years

ID Name Sorted on ID		Sire ID	Dam ID	% Inbreeding	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	LH 250009	LH 250009	BOX120590	HC 180054	0.0	11040	8341	9514	11611	8331	8021	8230	7926

	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 18mnth 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.

