

NGUNI

BREEDING VALUE REPORT

September 2026



SPARKS NGUNI'S

Herd Number: 725690

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NGUNI Cattle Breeders' Society
Beestelersgenootskap



LOGIX



EBVs, EBVi's and GEBVs

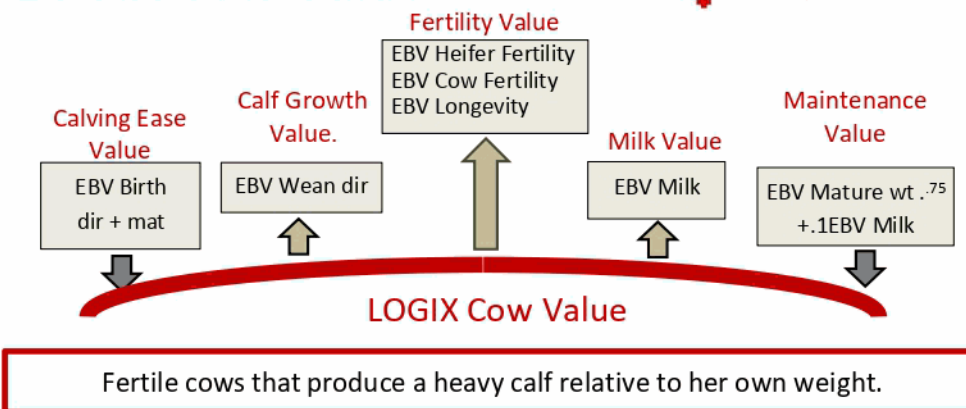
EBVi (Breeding Value Index): Genetic potential relative to the average (100) of the live (active) animals in the breed. Roughly 50% of the animals have values between 90 and 110. Values above 100, depending on the trait, tend to be in the more favourable direction.

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.

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)

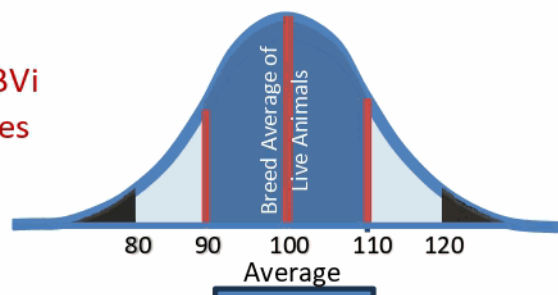
- WeanerCalf / Growth Value > 120
 - Cow Value and Fertility Value average to high
- Growers are usually heavier at birth (lower Calving Ease Value), and maturity (lower Maintenance Value).

LOW- MAINTENANCE ANIMALS

(HARSH ENVIRONMENT)

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

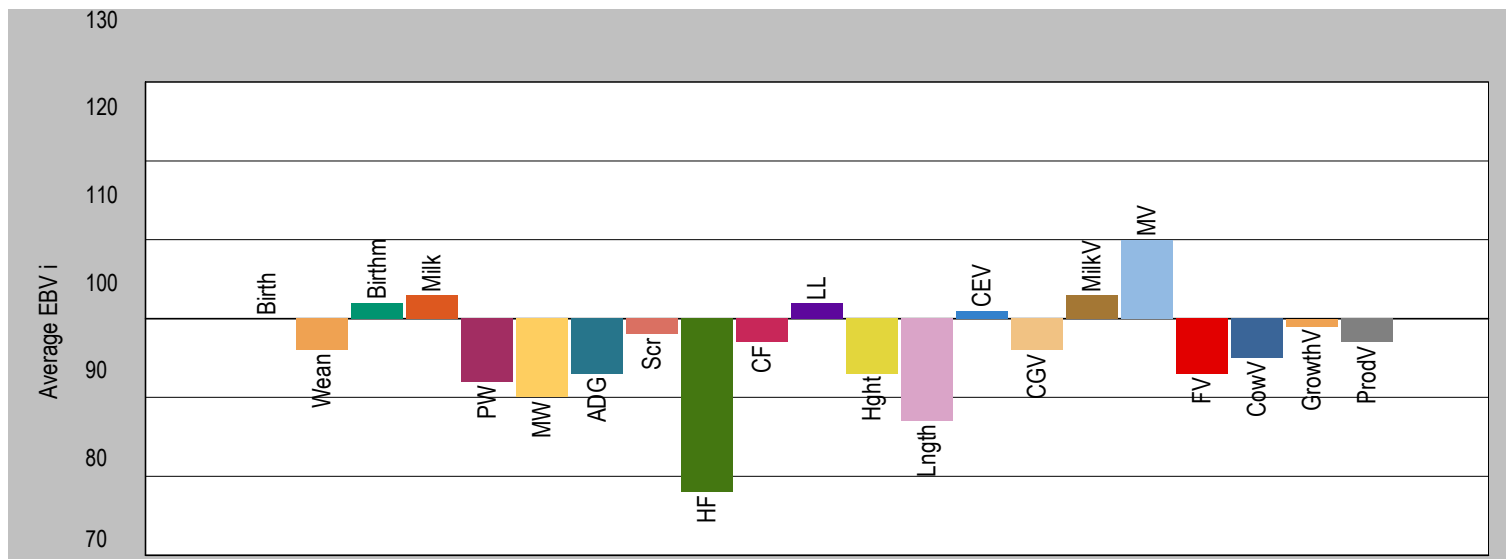
Interpretation of EBVi and Selection Values



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

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	EBV Index	EBV Breed
Prewean Growth	Birth Weight	0.13	100	0.12
	Wean Weight	1.1	96	2.6
	Birth Mat.	-0.01	102	0.05
	Milk (Wn.Mat.)	1.6	103	1.0
Postwean Growth	Postwean Wt	-0.2	92	3.7
	Mature Weight	-4	90	5
	ADG	-3	93	12
Fertility	Scrotal Circumf.	3.1	98	3.8
	Heifer Fertility	11.6	78	-6.2
	Cow Fertility	-2.2	97	-2.9
	Longevity	24.0	102	23.2
Frame	Height	-1	93	2
	Length	-5	87	5

Selection Value	Ave. Herd
Calving Ease	101
Calf Growth	96
Milk	103
Maintenance	110
Fertility	93
Cow Value	95
Growth Value	99
Production Value	97

- 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

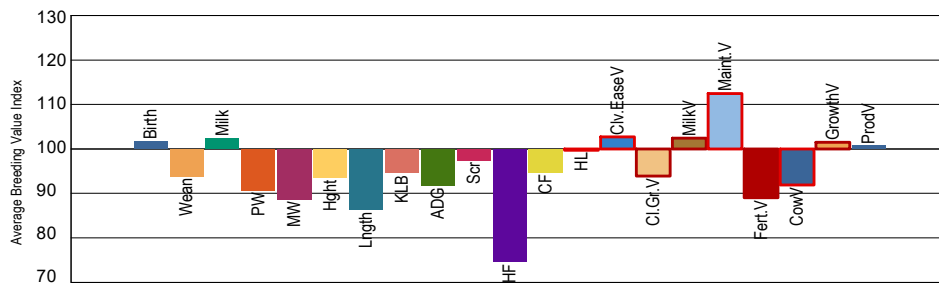
Total:

Selection possibilities

Bull calves

Bulls born in 2025

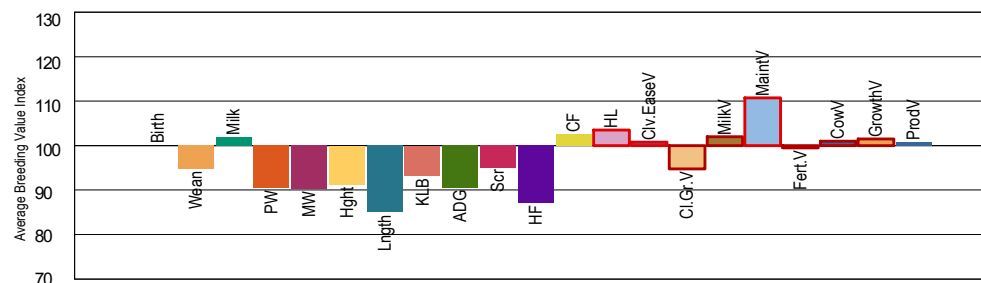
Total: 11



Heifer calves

Heifers born in 2025

Total: 4



Summary of Cow Herd

			Selection Values (SV)								Calf Weight		Dam		Growth & Efficiency				Fertility				Frame		
Birth Year	No. Cows	Average Cow Value	Calving Ease	Calf Grwth	Milk	Maint.	Fertility	Cow Value	Growth Value	Prod Value	Birth Weight	Wean Weight	Birth Mat.	Milk (Wn.Mat)	Postwn Weight	Mature Weight	ADG	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	99	99	99	99	100	100	100	99	99
2023	13	★★★★	102	94	103	110	94	95	98	96	101	94	103	103	91	91	92	95	98	80	97	103	91	86	
2024	7	★★★★	101	96	100	114	94	97	102	99	100	96	103	100	93	88	90	93	95	81	100	100	91	84	
2025	4	★★★★☆	101	95	102	111	100	101	102	101	100	95	102	102	91	90	91	93	95	87	103	104	91	85	
Cows in Herd Average:			101	95	102	112	96	98	101	99	100	95	103	102	92	90	91	94	96	83	100	102	91	85	

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	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	Value	Dir	Dir	Mat.	Mat.	wt	weight		Circ.	Fertility	Fertility	evity			wt	wt		Test
			Value	Value																								
SW 160244		SW 100012	95	92	119	106	96	100	99	99	96	92	97	119	90	94	98	104	69	106	104	95	88	36	75			
	SW 110244	0.33																										-0.4
SW160244			80	71	50	38	62	46	60	53	88	71	39	50	42	38	34	37	75	35	75	39	38					

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	% 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																									
NS 230114	SW 160244	NS 130059	98	105	109	101	93	98	107	102	99	94	97	105	109	113	106	107	110	76	98	103	99	96	
95917068			45	64	42	23	40	34	47	40	0.19	0.21	2	4.3	3.2	47	6.5	27	7.7	13.8	-2.4	24.8	2	2	
NS 230114											49	26	23	64	42	43	37	21	23	47	24	50	23	23	
NS 240103	SW 160244	NS 160075	92	106	99	99	81	81	95	87	92	102	99	106	99	104	98	106	107	60	86	102	101	97	
97763981	1		42	62	41	20	38	32	45	38	0.53	-0.01	4	4.8	0.8	27	2.9	25	6.6	26.7	0.5	24.3	3	3	
NS 240103											46	21	20	62	41	41	21	13	17	46	20	49	18	17	
NS 240106	SW 160244	NS 140091	86	110	101	98	92	93	105	99	87	97	100	110	101	109	104	108	109	74	96	103	104	102	
97763932			42	62	42	23	38	33	46	40	0.79	0.15	5	6.1	1.3	37	5.6	30	7.2	15.0	-2.0	25.0	4	6	
NS 240106											46	22	23	62	42	42	24	18	20	43	22	48	21	20	
NS 240115	SW 160244	NS 180055	98	96	116	107	96	102	104	103	99	95	94	96	116	113	95	105	104	82	102	101	104	100	
97764039			41	62	42	23	34	31	45	38	0.19	0.19	-1	1.2	4.8	48	1.2	22	5.4	8.4	-3.3	23.5	4	5	
NS 240115											45	21	23	62	42	42	22	17	18	39	19	45	19	18	
NS 240119	SW 160244	NS 160072	91	105	104	98	88	89	99	94	92	99	99	105	104	107	99	108	109	71	93	102	102	98	
97763973			42	63	42	19	38	32	46	39	0.54	0.08	4	4.3	1.9	33	3.4	29	7.3	17.9	-1.3	24.4	3	4	
NS 240119											46	21	19	63	42	41	22	15	18	45	20	48	18	17	
NS 250135	SW 160244	NS 200040	103	93	102	115	88	92	98	95	102	102	86	93	102	103	90	90	96	78	95	96	96	88	
99102535			42	43	38	22	36	28	37	32	0.02	0.00	-8	0.2	1.6	24	-1.2	-9	2.2	11.8	-1.6	21.1	0	-4	
NS 250135											46	24	22	43	38	34	24	19	20	41	20	47	21	21	
NS 250136	SW 160244	NS 220069	105	92	101	114	99	101	101	101	104	102	88	92	101	100	89	88	93	87	103	103	92	84	
99102543			42	47	35	23	37	29	39	34	-0.06	-0.01	-6	-0.1	1.3	19	-1.8	-14	1.2	4.7	-3.7	24.6	-2	-7	
NS 250136											46	24	23	47	35	35	27	19	21	45	21	46	21	20	
NS 250138	SW 160244	NS 220073	107	93	98	116	88	91	97	93	105	107	86	93	98	99	89	90	96	77	96	95	91	83	
99102550			44	47	35	22	38	29	39	34	-0.13	-0.14	-8	0.2	0.6	16	-1.6	-11	2.3	12.7	-1.8	20.4	-2	-8	
NS 250138											48	25	22	47	35	35	28	19	21	46	22	46	22	21	
NS 250139	SW 160244	NS 220072	105	95	101	115	90	93	99	96	104	104	87	95	101	102	91	93	100	77	95	99	93	86	
99111270			43	47	35	22	38	29	39	34	-0.06	-0.07	-7	0.7	1.2	23	-1.0	-5	3.7	12.8	-1.8	22.5	-1	-6	
NS 250139											47	25	22	47	35	35	28	19	21	46	22	46	22	21	
NS 250141	SW 160244	NS 220058	100	93	102	116	88	92	99	95	99	100	85	93	102	103	91	87	95	70	94	101	91	83	
99291221			47	47	35	22	38	29	39	34	0.15	0.05	-9	0.2	1.4	25	-0.9	-17	1.7	19.0	-1.5	23.6	-2	-8	
NS 250141											51	25	22	47	35	35	28	19	21	46	22	46	22	21	
NS 250142	SW 160244	NS 220076	107	91	99	115	96	97	98	97	105	106	86	91	99	97	88	88	94	89	100	99	91	83	
99291247			42	46	35	23	37	29	38	34	-0.11	-0.11	-8	-0.6	0.7	12	-2.5	-14	1.5	3.2	-2.8	22.4	-2	-8	
NS 250142											46	24	23	46	35	35	26	18	20	45	21	46	21	20	
NS 250146	SW 160244	NS 220055	108	96	98	114	89	92	99	95	106	104	88	96	98	101	93	93	97	69	97	99	96	88	
99291205			47	47	35	22	38	29	39	34	-0.20	-0.05	-6	1.3	0.6	20	0.2	-3	2.8	19.4	-2.2	22.8	0	-4	
NS 250146											51	26	22	47	35	35	28	19	21	45	22	46	22	21	

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	% 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																									
NS 250151		SW 160244	96	95	106	108	92	94	97	95	96	101	93	95	106	104	92	97	100	77	95	104	96	92	
99291163		NS 140091	42	45	42	23	37	30	39	34	0.34	0.03	-2	1.0	2.3	27	-0.3	6	4.0	13.2	-1.7	25.2	0	-1	
NS 250151											46	22	23	45	42	37	24	18	20	43	22	47	21	20	
NS 250152		SW 160244	92	100	115	99	84	88	97	92	94	93	98	100	115	113	96	102	107	69	89	99	99	95	
99518284		NS 170018	43	45	38	22	38	29	38	34	0.44	0.24	3	2.6	4.5	47	1.8	17	6.3	19.2	-0.4	22.8	1	1	
NS 250152											47	24	22	45	38	35	26	19	21	44	24	47	21	20	
NS 250154	1	SW 160244	100	95	102	108	80	82	90	85	98	105	93	95	102	101	90	96	100	62	84	102	93	88	
99764920		NS 160075	42	45	41	20	38	29	38	34	0.20	-0.10	-1	1.0	1.5	20	-1.4	4	3.7	25.3	0.8	24.4	-1	-4	
NS 250154												46	21	20	45	41	35	21	13	17	46	20	48	18	17
NS 250155		SW 160244	107	90	103	117	85	89	95	91	105	103	84	90	103	101	89	86	94	66	93	100	90	81	
99904534		NS 220065	43	47	35	22	38	29	39	34	-0.14	-0.03	-10	-1.0	1.7	21	-2.0	-18	1.3	22.1	-1.1	23.2	-3	-9	
NS 250155											47	25	22	47	35	35	28	19	21	46	22	47	22	21	

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		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
NS 230079	SW 160244	112	83	103	118	78	80	85	81	110	105	83	83	103	96	81	78	92	74	83	93	85	76
95710133	NS 200039	43	63	38	21	39	32	46	39	-0.38	-0.10	-11	-3.4	1.6	9	-5.9	-36	0.6	15.4	1.1	19.4	-5	-13
NS 230079										47	25	21	63	38	41	24	20	22	45	23	48	22	21
NS 230081	SW 160244	109	88	91	120	93	92	95	93	106	111	81	88	91	91	84	79	88	86	95	100	83	75
95710257	NS 200025	44	62	40	22	39	32	46	39	-0.19	-0.25	-13	-1.6	-1.0	-2	-4.5	-35	-0.7	5.8	-1.7	23.4	-6	-14
NS 230081										48	25	22	62	40	41	24	20	23	46	23	48	22	21
NS 230082	SW 160244	103	92	99	117	97	99	101	100	102	103	85	92	99	99	87	84	93	88	99	103	88	80
95710265	NS 200038	43	62	41	22	39	33	46	40	0.02	-0.04	-9	-0.3	0.7	16	-2.6	-23	1.2	3.4	-2.6	24.6	-4	-10
NS 230082										47	25	22	62	41	42	24	19	21	45	23	48	22	21
NS 230096	SW 160244	109	91	103	113	90	91	94	92	106	110	89	91	103	99	88	92	96	77	98	95	89	83
95710315	NS 130065	46	64	43	23	40	34	48	41	-0.19	-0.22	-5	-0.6	1.6	17	-2.1	-6	2.3	12.5	-2.4	20.7	-3	-8
NS 230096										50	26	23	64	43	43	28	20	22	47	24	50	23	22
NS 230098	SW 160244	95	103	104	107	93	97	106	101	94	99	94	103	104	109	100	98	100	70	99	105	95	90
95710349	NS 150055	44	64	44	22	41	34	48	41	0.39	0.07	-1	3.8	1.9	38	3.9	7	4.0	18.7	-2.6	25.7	-1	-3
NS 230098										48	25	22	64	44	43	26	20	22	47	25	50	22	22
NS 230099	SW 160244	106	90	100	114	93	93	94	93	103	110	88	90	100	97	88	93	100	84	95	101	88	84
95710356	NS 150065	44	64	44	22	40	34	47	40	-0.02	-0.24	-6	-1.1	1.1	11	-2.1	-3	3.7	7.0	-1.8	23.7	-4	-7
NS 230099										48	24	22	64	44	43	26	24	27	46	24	50	23	22
NS 230100	SW 160244	91	102	99	106	99	100	105	102	92	99	94	102	99	103	96	93	100	86	100	106	91	88
95710364	NS 170024	46	63	43	24	40	34	47	40	0.54	0.08	0	3.4	0.8	25	1.6	-3	3.7	5.0	-2.8	26.3	-2	-4
NS 230100										50	27	24	63	43	43	24	19	21	46	24	49	21	20
NS 230102	SW 160244	95	96	105	109	93	96	100	98	95	101	92	96	105	105	93	96	99	76	95	106	94	90
95710372	NS 140091	42	63	42	23	38	33	46	40	0.37	0.04	-3	1.3	2.3	30	0.1	2	3.4	13.3	-1.7	26.4	-1	-2
NS 230102										46	22	23	63	42	43	24	18	20	43	22	48	21	20
NS 230105	SW 160244	105	96	118	99	97	100	101	100	106	90	98	96	118	113	96	102	103	73	102	108	100	96
95917092	NS 180059	42	63	43	23	38	33	46	40	-0.18	0.34	3	1.0	5.3	46	1.7	15	5.0	15.9	-3.3	27.6	2	2
NS 230105										46	23	23	63	43	43	23	18	20	44	22	48	19	19
NS 230111	SW 160244	103	91	109	108	114	113	104	108	102	100	93	91	109	103	89	90	91	97	114	112	90	85
95917118	NS 180050	41	63	43	26	38	33	47	40	0.00	0.06	-2	-0.6	3.0	24	-1.6	-10	0.3	-3.5	-6.1	29.6	-3	-7
NS 230111										45	22	26	63	43	44	24	18	20	45	22	47	19	19
NS 230113	SW 160244	98	98	102	108	82	84	93	88	97	105	93	98	102	102	92	96	100	62	85	105	93	88
95917126	NS 160075	42	63	41	20	38	32	46	39	0.27	-0.08	-2	1.8	1.4	23	-0.5	3	3.7	25.6	0.7	25.7	-1	-4
NS 230113										46	21	20	63	41	41	21	13	17	46	20	49	18	17
NS 230120	SW 160244	104	87	110	110	97	99	94	95	103	103	91	87	110	102	87	94	106	89	100	101	91	89
96263686	WC 110170	44	47	43	23	38	30	40	35	-0.01	-0.04	-4	-2.1	3.4	22	-2.6	-1	6.2	2.7	-2.9	23.9	-3	-3
NS 230120										48	25	23	47	43	38	26	24	27	43	23	48	22	21

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																									
NS 230186 95710273 NS 230186		SW 160244 NS 180061	96 42	104 62	99 40	102 18	92 38	93 31	102 45	97 38	95 0.35 46	101 0.01 21	96 1 18	104 4.1 62	99 0.8 40	104 27 40	99 3.4 22	100 12 16	102 4.5 18	75 14.8 44	94 -1.4 21	107 27.0 48	96 0 19	91 -2 18	
NS 240107 97763940 NS 240107		SW 160244 NS 150035	113 46	81 63	108 44	115 22	95 39	95 33	89 47	91 40	109 -0.35 49	114 -0.33 29	87 -7 22	81 -4.2 63	108 3.0 44	97 12 43	81 -5.9 26	89 -13 20	91 0.2 22	75 14.7 45	103 -3.5 23	102 24.4 50	89 -3 22	83 -7 21	
NS 240113 97763916 NS 240113	1	SW 160244 NS 120050	98 44	96 63	102 41	106 23	91 41	91 34	95 47	93 40	97 0.25 48	103 -0.04 24	94 -1 23	96 1.4 63	102 1.6 41	101 21 42	95 1.2 26	97 4 19	96 2.3 22	80 10.0 47	98 -2.3 24	96 21.2 51	93 -1 22	87 -5 21	
NS 240116 97764088 NS 240116		SW 160244 NS 210020	97 43	104 63	100 38	114 22	90 39	97 32	109 46	103 39	96 0.30 47	99 0.07 25	88 -7 22	103 3.9 63	100 1.0 38	109 37 41	99 3.2 24	92 -7 19	98 2.9 21	73 16.1 46	97 -2.1 22	100 23.0 48	94 -1 22	86 -6 21	
NS 240117 97764120 NS 240117		SW 160244 NS 210027	101 43	96 63	103 38	116 22	92 38	98 32	104 46	101 39	100 0.12 47	101 0.02 25	86 -8 22	96 1.1 63	103 1.8 38	106 32 41	93 0.2 24	89 -12 20	100 3.8 23	82 9.0 45	97 -2.2 22	99 22.8 47	91 -2 22	85 -7 21	
NS 240127 97866776 NS 240127		SW 160244 NS 200038	99 43	98 62	97 41	115 22	97 39	100 33	106 46	103 40	98 0.23 47	101 0.01 25	87 -7 22	98 2.0 62	97 0.3 41	102 23 42	93 0.0 24	87 -17 19	96 2.1 21	87 4.5 45	100 -2.9 23	101 23.6 48	90 -3 22	83 -8 21	
NS 240128 97866792 NS 240128		SW 160244 NS 210001	96 42	103 63	101 38	111 23	102 38	107 32	113 46	110 39	96 0.30 46	97 0.13 24	90 -4 23	103 3.8 63	101 1.2 38	108 36 41	99 3.0 24	92 -5 19	96 2.4 21	89 3.3 46	109 -4.9 22	101 23.8 46	95 -1 21	87 -5 20	
NS 240131 97981088 NS 240131		SW 160244 NS 200025	105 44	93 62	90 40	119 22	92 39	93 32	99 46	95 39	103 -0.02 48	109 -0.21 25	83 -11 22	93 0.3 62	90 -1.4 40	93 3 41	88 -2.3 24	81 -31 20	90 0.0 23	84 6.7 46	96 -1.9 23	99 22.4 48	85 -5 22	77 -13 21	
NS 250140 99111262 NS 250140		SW 160244 NS 180050	102 41	92 46	108 43	107 26	113 37	113 30	104 40	108 35	102 0.03 45	99 0.07 22	93 -1 26	92 -0.3 46	108 3.0 43	103 25 38	90 -1.2 24	90 -9 18	91 0.3 20	97 -3.6 45	114 -6.1 22	110 28.6 45	90 -3 19	85 -7 19	
NS 250143 99291213 NS 250143		SW 160244 NS 220074	105 42	93 47	96 35	116 21	86 38	88 29	95 38	91 34	103 -0.01 46	107 -0.14 24	86 -8 21	93 0.2 47	96 0.1 35	97 12 34	87 -2.6 26	89 -13 18	96 2.2 20	74 15.2 46	89 -0.4 21	100 23.4 46	91 -2 21	83 -8 20	
NS 250150 99291189 NS 250150		SW 160244 NS 170024	96 46	96 46	101 43	108 24	97 39	97 31	99 40	97 36	95 0.35 50	101 0.02 27	93 -2 24	96 1.2 46	101 1.2 43	100 19 38	91 -1.0 24	92 -7 19	98 3.2 21	87 4.3 46	99 -2.7 24	103 25.0 47	90 -3 21	86 -5 20	
NS 250153 99764938 NS 250153		SW 160244 NS 210001	100 42	98 47	103 38	112 23	102 38	106 30	108 39	107 34	100 0.14 46	99 0.08 24	89 -5 23	98 2.0 47	103 1.6 38	106 31 36	94 0.9 24	91 -8 19	95 1.9 21	90 2.5 46	108 -4.7 22	101 23.7 45	94 -1 21	86 -6 20	

Selection List on Cow Value

Bulls 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	NS 240115	NS 240115	SW 160244	NS 180055	0.3	98 41	96 62	116 42	107 23	96 34	102 31	104 45	103 38
					★★★★☆								
1	NS 230114	NS 230114	SW 160244	NS 130059	0.4	98 45	105 64	109 42	101 23	93 40	98 34	107 47	102 40
2	NS 240106	NS 240106	SW 160244	NS 140091	0.3	86 42	110 62	101 42	98 23	92 38	93 33	105 46	99 40
					★★								
1	NS 240103	NS 240103	SW 160244	NS 160075	0.6	92 42	106 62	99 41	99 20	81 38	81 32	95 45	87 38
2	NS 240119	NS 240119	SW 160244	NS 160072	0.4	91 42	105 63	104 42	98 19	88 38	89 32	99 46	94 39

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	NS 230111	NS 230111	SW 160244	NS 180050	0.4	103 41	91 63	109 43	108 26	114 38	113 33	104 47	108 40
					★★★★								
1	NS 230100	NS 230100	SW 160244	NS 170024	0.5	91 46	102 63	99 43	106 24	99 40	100 34	105 47	102 40
2	NS 230105	NS 230105	SW 160244	NS 180059	0.4	105 42	96 63	118 43	99 23	97 38	100 33	101 46	100 40
3	NS 240127	NS 240127	SW 160244	NS 200038	0.2	99 43	98 62	97 41	115 22	97 39	100 33	106 46	103 40
4	NS 240128	NS 240128	SW 160244	NS 210001	0.2	96 42	103 63	101 38	111 23	102 38	107 32	113 46	110 39
					★★★★☆								
1	NS 230081	NS 230081	SW 160244	NS 200025	0.2	109 44	88 62	91 40	120 22	93 39	92 32	95 46	93 39
2	NS 230082	NS 230082	SW 160244	NS 200038	0.2	103 43	92 62	99 41	117 22	97 39	99 33	101 46	100 40
3	NS 230096	NS 230096	SW 160244	NS 130065	0.3	109 46	91 64	103 43	113 23	90 40	91 34	94 48	92 41
4	NS 230098	NS 230098	SW 160244	NS 150055	0.4	95 44	103 64	104 44	107 22	93 41	97 34	106 48	101 41
5	NS 230099	NS 230099	SW 160244	NS 150065	0.3	106 44	90 64	100 44	114 22	93 40	93 34	94 47	93 40
6	NS 230102	NS 230102	SW 160244	NS 140091	0.3	95 42	96 63	105 42	109 23	93 38	96 33	100 46	98 40
7	NS 230120	NS 230120	SW 160244	WC 110170	0.1	104 44	87 47	110 43	110 23	97 38	99 30	94 40	95 35
8	NS 230186	NS 230186	SW 160244	NS 180061	0.4	96 42	104 62	99 40	102 18	92 38	93 31	102 45	97 38
9	NS 240107	NS 240107	SW 160244	NS 150035	0.2	113 46	81 63	108 44	115 22	95 39	95 33	89 47	91 40
10	NS 240113	NS 240113	SW 160244	NS 120050	0.6	98 44	96 63	102 41	106 23	91 41	91 34	95 47	93 40
11	NS 240116	NS 240116	SW 160244	NS 210020	0.2	97 43	104 63	100 38	114 22	90 39	97 32	109 46	103 39
12	NS 240117	NS 240117	SW 160244	NS 210027	0.1	101 43	96 63	103 38	116 22	92 38	98 32	104 46	101 39
13	NS 240131	NS 240131	SW 160244	NS 200025	0.2	105 44	93 62	90 40	119 22	92 39	93 32	99 46	95 39
					★★								
1	NS 230079	NS 230079	SW 160244	NS 200039	0.2	112 43	83 63	103 38	118 21	78 39	80 32	85 46	81 39
2	NS 230113	NS 230113	SW 160244	NS 160075	0.6	98 42	98 63	102 41	108 20	82 38	84 32	93 46	88 39

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	NS 250136	NS 250136	SW 160244	NS 220069	0.2	105 42	92 47	101 35	114 23	99 37	101 29	101 39	101 34
					★★★★☆								
1	NS 250135	NS 250135	SW 160244	NS 200040	0.0	103 42	93 43	102 38	115 22	88 36	92 28	98 37	95 32
2	NS 250138	NS 250138	SW 160244	NS 220073	0.2	107 44	93 47	98 35	116 22	88 38	91 29	97 39	93 34
3	NS 250139	NS 250139	SW 160244	NS 220072	0.2	105 43	95 47	101 35	115 22	90 38	93 29	99 39	96 34
4	NS 250141	NS 250141	SW 160244	NS 220058	0.2	100 47	93 47	102 35	116 22	88 38	92 29	99 39	95 34
5	NS 250142	NS 250142	SW 160244	NS 220076	0.2	107 42	91 46	99 35	115 23	96 37	97 29	98 38	97 34
6	NS 250146	NS 250146	SW 160244	NS 220055	0.1	108 47	96 47	98 35	114 22	89 38	92 29	99 39	95 34
7	NS 250151	NS 250151	SW 160244	NS 140091	0.3	96 42	95 45	106 42	108 23	92 37	94 30	97 39	95 34
					★★★								
1	NS 250152	NS 250152	SW 160244	NS 170018	0.4	92 43	100 45	115 38	99 22	84 38	88 29	97 38	92 34
2	NS 250154	NS 250154	SW 160244	NS 160075	0.6	100 42	95 45	102 41	108 20	80 38	82 29	90 38	85 34
3	NS 250155	NS 250155	SW 160244	NS 220065	0.2	107 43	90 47	103 35	117 22	85 38	89 29	95 39	91 34

Selection List on Cow Value
Heifers 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	NS 250140	NS 250140	SW 160244	NS 180050	0.4	102 41	92 46	108 43	107 26	113 37	113 30	104 40	108 35
					★★★★								
1	NS 250153	NS 250153	SW 160244	NS 210001	0.2	100 42	98 47	103 38	112 23	102 38	106 30	108 39	107 34
					★★★☆☆								
1	NS 250150	NS 250150	SW 160244	NS 170024	0.5	96 46	96 46	101 43	108 24	97 39	97 31	99 40	97 36
					★★★								
1	NS 250143	NS 250143	SW 160244	NS 220074	0.3	105 42	93 47	96 35	116 21	86 38	88 29	95 38	91 34

	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.

