

NGUNI

BREEDING VALUE REPORT

September 2026



SPARKS NGUNI'S

Herd Number: 568615

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NGUNI Cattle Breeders' Society
Beestelersgenootskap



LOGIX



EBVs, EBVi's and GEBVs

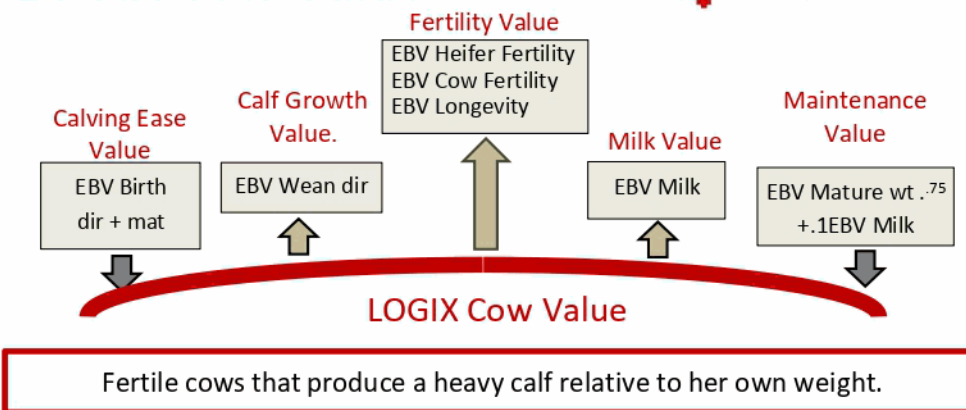
EBVi (Breeding Value Index): Genetic potential relative to the average (100) of the live (active) animals in the breed. Roughly 50% of the animals have values between 90 and 110. Values above 100, depending on the trait, tend to be in the more favourable direction.

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)

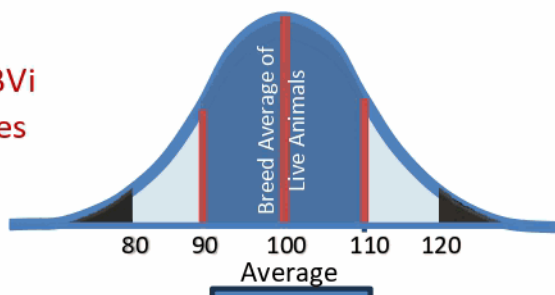
- WeanerCalf / Growth Value > 120
 - Cow Value and Fertility Value average to high
- Growers are usually heavier at birth (lower Calving Ease Value), and maturity (lower Maintenance Value).

LOW- MAINTENANCE ANIMALS

(HARSH ENVIRONMENT)

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

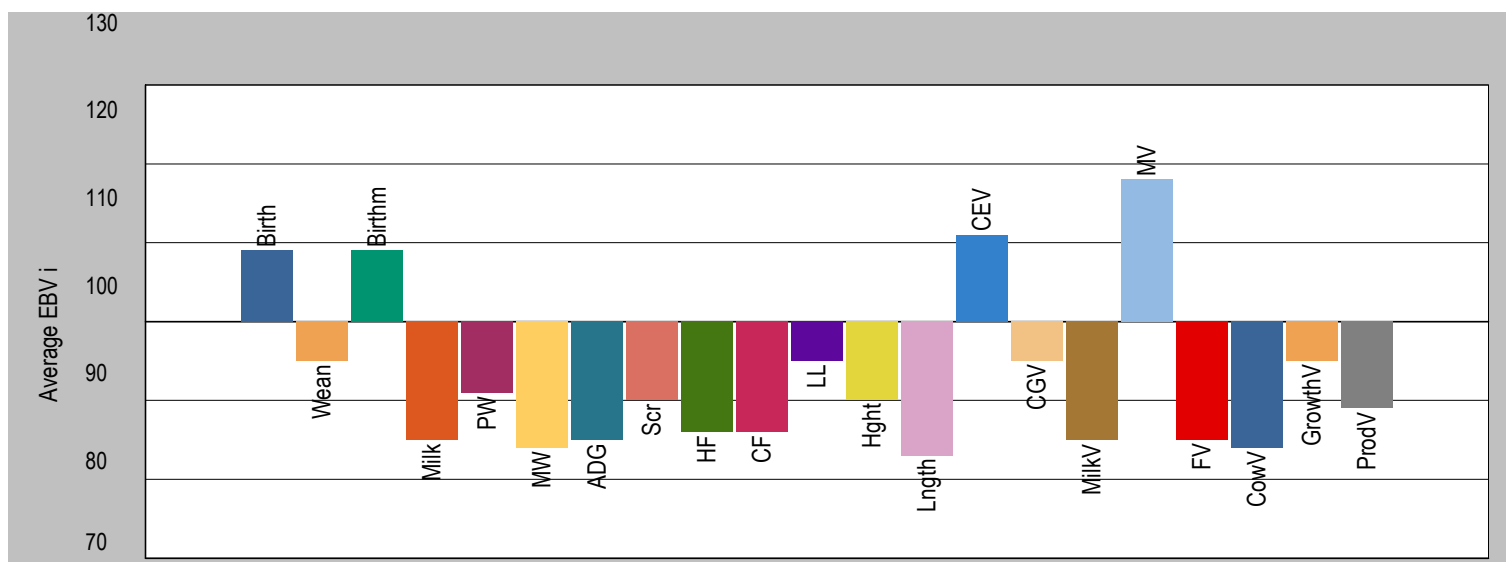
Interpretation of EBVi and Selection Values



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	EBVIndex	EBV Breed
Prewean Growth	Birth Weight	-0.31	109	0.12
	Wean Weight	1.0	95	2.6
	Birth Mat.	-0.20	109	0.05
	Milk (Wn.Mat.)	-2.6	85	1.0
Postwean Growth	Postwean Wt	-0.9	91	3.7
	Mature Weight	-10	84	5
	ADG	-21	85	12
Fertility	Scrotal Circumf.	0.0	90	3.8
	Heifer Fertility	5.7	86	-6.2
	Cow Fertility	0.3	86	-2.9
	Longevity	20.5	95	23.2
Frame	Height	-3	90	2
	Length	-8	83	5

Selection Value	Ave. Herd
Calving Ease	111
Calf Growth	95
Milk	85
Maintenance	118
Fertility	85
Cow Value	84
Growth Value	95
Production Value	89

- 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:

Sires of young animals

Sires (Natural mating and AI) of animals 3 years and younger
130
120
110
100
90
80
70

Results of previous selection decisions

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
130
120
110
100
90
80
70

Total:

Heifers born in
130
120
110
100
90
80
70

Heifer calves

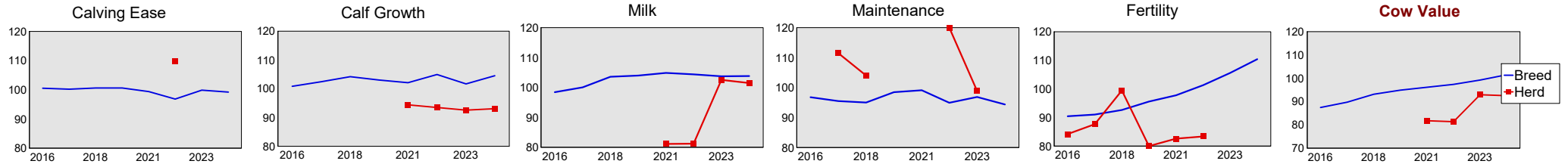
Total:

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	100	100	100	99	99	99	99	100	100
2012	2	★★	105	98	92	106	81	78	89	83	102	98	110	92	97	95	99	104	95	89	86	86	94	89
2015	3	★★★	112	92	90	115	90	88	92	89	108	92	118	90	91	88	93	97	94	83	92	98	90	88
2016	3	★★	108	96	88	108	79	75	85	79	106	96	103	88	91	93	90	91	92	75	76	101	91	89
2017	2	★★★	93	104	98	103	86	86	97	91	93	104	98	98	98	97	96	97	101	88	82	99	94	93
2018	1	★★★★	109	92	98	109	129	125	110	117	108	92	102	98	91	93	82	85	78	125	121	117	85	81
2020	5	★★★	113	95	78	123	83	82	96	88	110	95	110	78	89	79	79	80	87	86	84	94	89	80
2021	9	★★★	112	96	82	122	85	86	99	92	109	96	110	82	91	80	82	84	88	91	86	92	90	81
2022	8	★★★	116	94	78	124	82	81	95	87	113	94	113	78	88	78	80	82	87	81	84	95	88	79
Cows in Herd Average:			109	96	88	114	89	88	95	91	106	96	108	88	92	88	88	90	90	90	89	98	90	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.



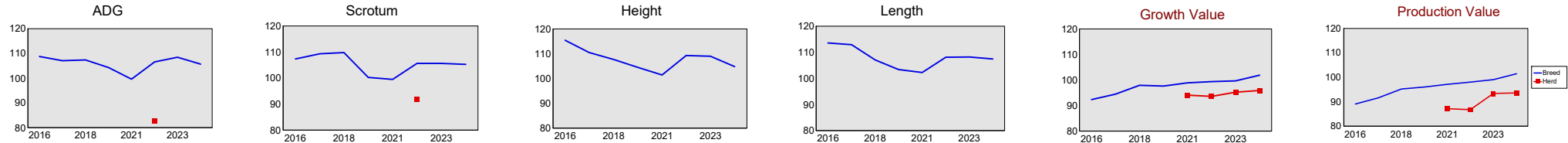
Herd

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance				Fertility								Cow Value		
	Birth Weight		Calv. Ease	Dir	Mat	Weaning Weight	Calf Growth	Milk (Wn.Mat.)	Milk	Postwean Weight	Mature Weight	Maintenance	Heifer Fert.		Cow Fert.		Longevity		Ferti- lity						
	Number	EBV											Number	EBV	Number	EBV	Number	EBV		Number	EBV	Number		EBV	Number
2016															5	9.9	5	1.4	5	24.0	84				
2017															2	-3	112	3	5.7	3	0.4	3	23.5	88	
2018															7	1	104	7	-4.9	7	-1.4	6	27.7	99	
2020															9	8.6	7	2.2	9	19.0	78				
2021					31	0.7	94	31	-3.36	81					12	4.2	3	-2.6	23	18.8	83	82			
2022	4	-0.27	-0.07	110	20	0.4	94	20	-3.37	81	19	-1.5	121	10	6.4					83	81				
2023					33	0.0	93	33	1.59	103	7	2.5	99									93			
2024					34	0.2	93	34	1.38	102													93		

Breed

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance					Fertility							Cow Value
	Birth Weight		Mat EBV	Calv. Ease	Weaning Weight		Calf Growth	Milk (Wn.Mat.)		Postwean Weight		Mature Weight		Mainte-nance	Heifer Fert.		Cow Fert.		Longevity		Ferti-lity		
	Number	Dir EBV			Number	EBV		Number	EBV	Milk	Number	EBV	Number		EBV	Number	EBV	Number	EBV	Number		EBV	
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		
2016														
2017														
2018														
2020														
2021													94	87
2022	9	-26	83	9	0.7	92							94	87
2023													95	93
2024													96	94

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. 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	Scrotal Circ.	Heifer Fertility	Cow Fertility	Long- evity	Height	Length	Birth wt	Wean wt	Dgt/Calvs.	Grwth Test	
NT 100016		T 060117 NT 070009	112	93	107	99	108	105	99	102	111	93	100	107	93	98	95	93	102	102	112	94	90			8	17	
NT 100016			29	56	66	19	42	35	48	42	-0.43	0.3	0.06	2.6	0.1	3	2	1.2	-7.8	-3.2	29.5	-1	-2					
											30	56	26	66	20	19	9	12	42	27	58	12	11					
SW 100012		SW 050028 SW 060146	121	71	148	122	80	98	99	98	122	71	91	148	73	75	92	109	75	82	97	88	74	2	146	26	89	17
SW 100012			74	93	87	72	78	65	84	74	-0.95	-7.7	0.30	12.1	-9.8	-18	-6	7.3	14.5	1.4	21.7	-4	-15					
											77	93	62	87	80	72	70	74	86	55	92	77	75					
T 050257		T 000070 T 030110	116	89	65	120	70	61	73	65	113	89	138	65	85	84	91	84	84	79	76	83	78			17	13	34
T 05 257 - BUMBLEBEE			56	83	75	38	68	53	70	62	-0.53	-1.1	-1.04	-7.1	-3.6	-10	-9	-2.3	6.6	2.0	10.0	-6	-11					
											58	83	47	75	42	38	42	48	72	46	85	44	43					
T 090341		H 990174 T 020143	118	95	70	129	71	72	95	83	114	95	112	70	87	71	75	87	79	78	83	92	77	4	51	21	24	9
madiba			53	66	74	36	63	48	62	55	-0.58	1.0	-0.28	-5.9	-2.6	-22	-44	-1.1	10.8	2.3	13.8	-2	-12					
											53	66	52	74	38	36	31	35	67	40	82	36	35					
T 100091		FF 030018 T 030110	97	104	86	103	69	66	85	74	95	104	105	86	94	96	98	100	71	72	90	94	94			12	32	
T 100091 - HONEYBEE			44	70	74	41	59	48	63	56	0.36	3.9	-0.09	-2.3	0.8	1	8	3.9	17.5	3.6	17.7	-1	0					
											45	70	42	74	38	41	30	34	60	43	74	31	30					

Growth Tests

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

Animal				Weight			Frame				Growth	
Test Code	Sex	Test no	Sire ID	Cow	Wean	End-	Length	Height	Length/	Scrotum	ADG	Growth
Test station		ID	Dam ID	Value	dir	weight			Height			Value
202201 D11 M		0568615NGI										
SPARKS NGUNI'S		NS 220053	T 090341	81	99	93	88	94	83	103	102	96
		94669132	NS 170005	35	62	0	-4	-1	1.06	4.8	17	48
						53	22	23	22	54	45	
		NS 220056	T 090341	84	101	90	90	97	83	94	87	101
		94786852	GMD 090636	35	62	-2	-2	1	1.06	1.6	-16	
						53	22	23	22	54	44	49
		NS 220075	T 090341	83	84	82	84	92	77	86	80	90
		94669124	NS 120035	35	62	-8	-7	-2	1.06	-1.6	-32	
						52	18	19	18	54	44	49

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																									
SW 160244 87123485 SW160244	4	SW 100012 SW 110244	95 80	92 71	119 50	106 38	96 62	100 46	99 60	99 53	96 0.33 88	97 0.14 39	94 -1 38	92 -0.4 71	119 5.3 50	112 44 53	90 -1.4 42	98 8 34	104 5.3 37	69 19.7 75	106 -4.4 35	104 25.1 75	95 0 39	88 -4 38	
NS 220053 94669132 NS 220053		T 090341 NS 170005	116 34	99 62	75 51	121 25	81 40	81 35	96 48	88 42	114 -0.59 34	104 -0.06 32	81 -12 25	99 2.3 62	75 -4.9 51	85 -16 46	94 0.9 37	102 17 45	103 4.8 54	80 10.1 43	85 0.5 26	93 19.1 52	94 -1 23	88 -4 22	
NS 220056 94786852 NS 220056		T 090341 GMD 090636	111 52	101 62	85 49	119 25	80 42	84 35	101 49	92 42	109 -0.33 55	103 -0.04 37	83 -11 25	101 3.0 62	85 -2.6 49	95 7 45	96 1.8 38	87 -16 44	94 1.6 54	84 6.7 43	87 0.1 27	86 15.6 55	97 1 23	90 -2 22	
NS 220075 94669124 NS 220075		T 090341 NS 120035	118 36	84 62	91 51	123 24	82 43	83 35	90 49	86 42	130 -1.36 36	100 0.06 33	77 -16 24	84 -2.9 62	91 -1.2 51	88 -8 46	84 -4.1 35	80 -32 44	86 -1.6 54	85 6.4 46	86 0.5 27	92 18.7 55	92 -2 19	84 -7 18	

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 120050 76525971 NS1250	2	T 050257 JG 060022	105 35	97 62	88 65	105 25	85 52	79 40	87 53	82 46	102 0.04 36	111 -0.25 28	95 0 25	97 1.6 62	88 -1.9 65	89 -7 51	97 2.2 26	97 4 21	90 -0.1 26	93 -0.4 58	88 -0.1 34	89 17.1 65	93 -2 24	87 -5 23	
NS 120052 76525997 NS1252		T 050257 NS 080042	104 34	99 58	96 56	106 20	77 50	77 37	90 49	83 43	102 0.03 35	109 -0.21 29	94 0 20	99 2.4 58	96 0.2 56	99 15 45	96 1.8 27	100 11 23	99 3.3 27	85 6.2 53	83 1.1 34	83 14.2 64	95 -1 25	91 -2 24	
NS 150035 82510215 NS1535		T 050257 TU 030133	116 42	90 65	92 73	112 20	95 47	92 40	91 54	90 47	110 -0.39 42	124 -0.63 41	90 -4 20	90 -0.8 65	92 -0.8 73	89 -6 53	89 -1.9 28	96 4 21	90 0.2 24	78 11.7 51	101 -3.0 28	101 24.0 61	97 1 22	94 1 21	
NS 150055 82693912 NS1555	1	T 050257 NS 100071	104 37	101 67	94 72	114 22	87 51	90 41	101 56	95 48	102 0.01 38	106 -0.12 31	89 -6 22	101 2.9 67	94 -0.5 72	100 18 54	99 3.4 31	90 -9 22	92 0.6 26	73 16.0 57	90 -0.6 34	101 23.8 61	88 -4 24	85 -6 23	
NS 150065 82935859 NS1565		T 050257 WC 110170	117 34	85 65	83 72	118 24	87 49	81 41	83 55	81 48	111 -0.44 35	125 -0.64 28	85 -9 24	85 -2.6 65	83 -2.9 72	79 -28 54	85 -3.6 30	92 -5 34	99 3.3 40	99 -5.6 53	84 0.8 33	93 19.4 61	85 -6 25	84 -7 24	
NS 160075 84596303 NS 160075	13	T 100091 T 090285	105 20	99 56	86 64	110 15	65 45	63 35	81 47	71 41	101 0.07 21	114 -0.34 17	92 -2 15	99 2.3 56	86 -2.3 64	90 -4 45	90 -1.4 9			55 30.9 52	62 5.9 24	101 23.8 59			
NS 160079 84596352 NS 160079	1	T 100091 NS 120035	116 40	92 60	92 69	115 25	91 49	91 40	94 52	91 46	117 -0.71 40	91 0.31 39	87 -7 25	92 -0.3 60	92 -0.8 69	92 0 51	91 -0.8 30	87 -17 20	91 0.4 23	74 15.1 54	90 -0.6 34	108 27.6 59	90 -3 17	88 -4 16	
NS 160085 84595438 NS 160085	3	T 100091 NS 070028	103 28	97 61	86 69	99 23	81 47	72 39	80 52	75 46	101 0.06 29	104 -0.05 25	100 5 23	97 1.6 61	86 -2.3 69	85 -14 51	92 -0.2 28	92 -7 11	93 1.1 15	95 -1.7 51	77 2.4 32	93 19.3 59	91 -3 14	90 -3 13	
NS 170018 92276609 NS 170018		T 100091 NS 080042	89 29	108 54	112 56	95 22	72 45	77 35	96 46	86 40	91 0.55 30	90 0.35 27	102 7 22	108 5.5 54	112 3.7 56	115 50 44	103 5.1 28	106 26 18	109 7.4 20	70 18.7 47	72 3.6 32	95 20.5 56	103 3 19	101 6 18	
NS 170024 92276617 NS 170024		T 100091 BBB 080668	97 43	100 58	83 69	110 29	99 48	94 40	98 52	96 46	95 0.36 44	105 -0.10 38	92 -2 29	100 2.7 58	83 -2.9 69	89 -7 52	92 -0.5 22	85 -21 18	93 1.1 21	106 -11.0 53	92 -0.9 34	103 25.0 58	85 -6 17	84 -7 17	
NS 180050 92279603 NS 180050		NT 100016 NS 090063	109 21	92 58	98 69	109 32	129 42	125 38	110 50	117 44	108 -0.27 21	102 0.00 20	93 -2 32	92 -0.2 58	98 0.6 69	95 7 53	91 -0.9 24	82 -27 15	78 -4.7 18	125 -26.9 50	121 -7.8 27	117 32.1 50	85 -6 9	81 -9 8	
NS 200025 92285998 NS 200025		T 090341 NS 130060	118 35	91 54	62 63	127 21	88 46	81 36	92 48	86 42	112 -0.49 36	123 -0.59 32	74 -19 21	91 -0.5 54	62 -7.8 63	68 -51 46	83 -4.8 24	69 -57 23	80 -3.7 26	100 -6.5 53	85 0.6 28	93 19.4 57	79 -8 21	70 -18 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 200038 92276633 NS 200038		T 090341 NS 170024	107 34	98 53	77 64	122 23	97 45	95 36	105 47	100 42	105 -0.10 35	108 -0.18 32	80 -13 23	98 1.9 53	77 -4.3 64	87 -11 47	90 -1.4 22	78 -38 18	88 -0.7 20	107 -11.7 51	93 -1.2 29	98 22.1 55	86 -5 20	78 -11 19
NS 200040 92286251 NS 200040		T 090341 MII 060033	111 27	94 47	86 57	123 20	80 36	83 31	98 41	90 36	108 -0.30 27	107 -0.14 26	78 -15 20	94 0.7 47	86 -2.2 57	93 3 41	90 -1.0 19	83 -26 16	88 -0.9 18	88 4.0 34	83 1.1 20	89 17.0 55	97 0 18	88 -4 17
NS 200097 92276500 NS 200097		T 090341 NS 150052	109 32	98 51	90 58	117 21	74 46	77 35	94 45	85 40	107 -0.21 32	107 -0.15 30	85 -9 21	98 1.9 51	90 -1.3 58	96 10 43	93 0.4 24	88 -14 23	91 0.3 26	68 20.4 53	77 2.4 29	94 20.1 56	94 -1 22	85 -7 21
NS 200099 92286079 NS 200099		T 090341 NS 160079	120 33	92 49	76 58	124 21	77 45	75 34	89 45	81 40	117 -0.73 33	105 -0.08 32	78 -15 21	92 -0.3 49	76 -4.7 58	80 -25 43	87 -2.9 24	79 -34 18	88 -0.8 21	68 20.3 52	83 1.1 28	94 19.9 56	90 -3 20	81 -9 19
NS 210001 93333557 NS 210001		T 090341 NS 180050	104 28	105 63	86 58	118 25	108 42	111 36	118 50	115 43	103 -0.05 28	101 0.02 28	85 -9 25	105 4.4 63	86 -2.1 58	99 17 49	99 3.2 22	84 -25 17	86 -1.4 20	110 -14.7 52	110 -5.1 26	98 22.4 49	92 -2 19	83 -8 18
NS 210020 92782580 NS 210020		T 090341 NS 150055	104 32	107 64	84 58	121 21	83 44	89 36	109 50	99 43	102 0.01 32	104 -0.07 30	81 -12 21	107 5.0 64	84 -2.8 58	100 19 48	101 4.3 24	85 -21 19	91 0.5 22	79 11.6 53	86 0.4 26	96 21.0 54	92 -2 21	83 -8 21
NS 210021 92782606 NS 210021		T 090341 NS 130065	122 34	92 64	73 58	125 22	79 44	77 37	92 50	84 44	117 -0.71 35	120 -0.51 31	76 -17 22	92 -0.2 64	73 -5.4 58	79 -29 48	86 -3.4 26	78 -37 19	86 -1.5 22	85 5.8 53	84 0.9 25	87 16.4 55	85 -5 22	76 -13 21
NS 210022 92782598 NS 210022		T 090341 NS 120050	119 32	90 63	66 56	124 22	82 45	75 36	86 50	79 43	113 -0.55 32	120 -0.51 30	78 -15 22	90 -0.9 63	66 -6.8 56	70 -48 47	85 -3.8 23	78 -38 19	82 -3.0 22	91 1.5 53	83 1.2 26	91 18.2 55	86 -5 21	75 -14 21
NS 210023 92782630 NS 210023		T 090341 NS 130056	112 31	100 64	68 56	120 20	81 43	78 36	94 49	85 42	108 -0.28 31	116 -0.39 29	83 -11 20	100 2.7 64	68 -6.4 56	79 -27 47	92 -0.1 24	84 -23 19	89 -0.3 21	90 2.1 52	85 0.6 25	87 16.1 53	91 -2 21	82 -8 20
NS 210025 92782614 NS 210025		T 090341 NS 150049	118 32	90 63	70 56	126 22	80 45	75 36	88 50	81 43	113 -0.51 33	121 -0.53 30	76 -18 22	90 -1.1 63	70 -6.0 56	74 -39 47	85 -4.0 22	75 -43 19	80 -3.7 21	90 2.3 53	76 2.7 26	95 20.5 55	84 -6 21	74 -15 20
NS 210027 92782655 NS 210027		T 090341 WC 110170	113 32	90 64	91 58	124 23	88 43	91 36	99 50	95 43	111 -0.40 33	108 -0.18 30	77 -16 23	90 -1.0 64	91 -1.0 58	94 5 48	88 -2.3 25	79 -35 23	95 2.0 27	96 -2.9 51	86 0.3 25	95 20.6 53	86 -5 21	80 -10 20
NS 210036 92782648 NS 210036		T 090341 MII 060033	117 27	88 62	83 56	126 20	80 36	80 33	92 47	85 40	113 -0.54 27	111 -0.26 26	75 -18 20	88 -1.8 62	83 -2.8 56	85 -14 46	84 -4.2 19	76 -40 16	83 -2.7 18	89 3.1 34	82 1.3 20	88 17.0 54	92 -2 18	83 -8 17

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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	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 210038 92782689 NS 210038		T 090341 NS 140023		99 34	104 63	117 57	110 22	85 44	98 36	112 50	105 43	101 0.09 34	92 0.29 32	91 -3 22	104 4.0 63	117 5.0 57	123 68 47	102 4.5 24	96 4 18	100 3.9 20	90 2.1 52	85 0.6 25	94 20.2 54	102 3 20	95 1 19
NS 220051 93310241 NS 220051		T 090341 T 090285		123 35	87 51	53 59	128 27	77 46	66 36	79 47	71 42	119 -0.80 35	132 -0.86 33	74 -19 27	87 -2.0 51	53 -9.8 59	56 -78 46	76 -8.3 27	73 -48 23	82 -3.2 26	87 4.5 54	79 2.1 29	88 16.8 55	83 -7 26	71 -17 25
NS 220055 94669025 NS 220055		T 090341 NS 150035		121 49	101 61	78 50	120 20	81 43	83 35	99 48	91 42	117 -0.73 52	110 -0.24 33	82 -11 20	101 3.0 61	78 -4.1 50	89 -5 44	96 1.8 33	88 -14 19	91 0.4 21	69 19.2 51	88 0.0 24	95 20.6 54	97 0 21	88 -4 20
NS 220058 94684479 NS 220058		T 090341 NS 160079		104 49	95 60	85 49	125 21	79 44	82 35	99 48	90 42	103 -0.02 52	103 -0.04 32	76 -17 21	95 0.8 60	85 -2.5 49	93 4 43	92 -0.3 34	76 -41 18	85 -1.8 21	70 18.4 52	82 1.4 26	98 22.2 53	87 -4 20	78 -11 19
NS 220065 94669041 NS 220065		T 090341 NS 150055		118 32	88 62	87 50	126 21	74 44	77 35	91 48	83 42	115 -0.62 32	109 -0.21 30	75 -18 21	88 -1.7 62	87 -2.0 50	90 -4 44	87 -2.6 34	75 -44 19	83 -2.6 22	63 24.4 53	79 2.1 26	97 21.4 54	84 -6 21	74 -15 21
NS 220069 94669074 NS 220069		T 090341 NS 180050		114 28	93 60	84 49	121 25	103 42	101 34	104 47	102 40	111 -0.44 28	107 -0.16 28	81 -12 25	93 0.2 60	84 -2.7 49	88 -8 45	88 -2.1 33	78 -36 17	82 -3.0 20	105 -10.2 51	100 -3.0 24	102 24.0 51	88 -4 19	79 -11 18
NS 220072 94669082 NS 220072		T 090341 NS 130059		115 33	97 61	83 49	122 22	83 44	85 35	100 48	93 42	112 -0.46 33	112 -0.29 31	80 -13 22	97 1.7 61	83 -2.9 49	92 1 44	91 -0.6 36	87 -17 20	96 2.1 22	85 5.9 52	84 0.8 26	94 20.0 54	91 -3 22	83 -8 22
NS 220073 94669090 NS 220073		T 090341 NS 130065		119 34	95 62	78 50	124 22	79 44	80 35	95 48	87 42	114 -0.58 35	117 -0.42 31	78 -15 22	95 0.8 62	78 -4.2 50	85 -14 45	89 -1.9 36	81 -31 19	88 -0.7 22	86 5.6 52	85 0.7 25	86 15.7 54	88 -4 22	78 -12 21
NS 220074 94669108 NS 220074		T 090341 NS 140007		114 28	95 61	74 49	124 18	76 43	74 34	91 47	82 40	109 -0.35 28	117 -0.42 27	78 -15 18	95 0.8 61	74 -5.1 49	81 -23 43	85 -3.8 29	79 -34 13	88 -0.9 17	80 10.8 52	73 3.5 22	97 21.7 54	88 -4 17	78 -12 16

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	SW 160244	SW160244	SW 100012	SW 110244	3.5	95 80	92 71	119 50	106 38	96 62	100 46	99 60	99 53
					★★								
1	NS 220053	NS 220053	T 090341	NS 170005	0.0	116 34	99 62	75 51	121 25	81 40	81 35	96 48	88 42
2	NS 220056	NS 220056	T 090341	GMD 090636	0.0	111 52	101 62	85 49	119 25	80 42	84 35	101 49	92 42
3	NS 220075	NS 220075	T 090341	NS 120035	0.0	118 36	84 62	91 51	123 24	82 43	83 35	90 49	86 42

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 180050	NS 180050	NT 100016	NS 090063	0.3	109 21	92 58	98 69	109 32	129 42	125 38	110 50	117 44
					★★★★☆								
1	NS 210001	NS 210001	T 090341	NS 180050	0.0	104 28	105 63	86 58	118 25	108 42	111 36	118 50	115 43
					★★★★								
1	NS 220069	NS 220069	T 090341	NS 180050	0.0	114 28	93 60	84 49	121 25	103 42	101 34	104 47	102 40
					★★★☆☆								
1	NS 150035	NS1535	T 050257	TU 030133	0.0	116 42	90 65	92 73	112 20	95 47	92 40	91 54	90 47
2	NS 150055	NS1555	T 050257	NS 100071	0.6	104 37	101 67	94 72	114 22	87 51	90 41	101 56	95 48
3	NS 160079	NS 160079	T 100091	NS 120035	0.7	116 40	92 60	92 69	115 25	91 49	91 40	94 52	91 46
4	NS 170024	NS 170024	T 100091	BBB 080668	0.2	97 43	100 58	83 69	110 29	99 48	94 40	98 52	96 46
5	NS 200038	NS 200038	T 090341	NS 170024	0.0	107 34	98 53	77 64	122 23	97 45	95 36	105 47	100 42
6	NS 210027	NS 210027	T 090341	WC 110170	0.0	113 32	90 64	91 58	124 23	88 43	91 36	99 50	95 43
7	NS 210038	NS 210038	T 090341	NS 140023	0.0	99 34	104 63	117 57	110 22	85 44	98 36	112 50	105 43
					★★★								
1	NS 150065	NS1565	T 050257	WC 110170	0.1	117 34	85 65	83 72	118 24	87 49	81 41	83 55	81 48
2	NS 200025	NS 200025	T 090341	NS 130060	0.0	118 35	91 54	62 63	127 21	88 46	81 36	92 48	86 42
3	NS 200040	NS 200040	T 090341	MII 060033	0.0	111 27	94 47	86 57	123 20	80 36	83 31	98 41	90 36
4	NS 210020	NS 210020	T 090341	NS 150055	0.0	104 32	107 64	84 58	121 21	83 44	89 36	109 50	99 43
5	NS 210036	NS 210036	T 090341	MII 060033	0.0	117 27	88 62	83 56	126 20	80 36	80 33	92 47	85 40
6	NS 220055	NS 220055	T 090341	NS 150035	0.0	121 49	101 61	78 50	120 20	81 43	83 35	99 48	91 42
7	NS 220058	NS 220058	T 090341	NS 160079	0.0	104 49	95 60	85 49	125 21	79 44	82 35	99 48	90 42
8	NS 220072	NS 220072	T 090341	NS 130059	0.0	115 33	97 61	83 49	122 22	83 44	85 35	100 48	93 42
9	NS 220073	NS 220073	T 090341	NS 130065	0.0	119 34	95 62	78 50	124 22	79 44	80 35	95 48	87 42

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 120050	NS1250	T 050257	JG 060022	2.2	105 35	97 62	88 65	105 25	85 52	79 40	87 53	82 46
2	NS 120052	NS1252	T 050257	NS 080042	0.1	104 34	99 58	96 56	106 20	77 50	77 37	90 49	83 43
3	NS 160085	NS 160085	T 100091	NS 070028	3.3	103 28	97 61	86 69	99 23	81 47	72 39	80 52	75 46
4	NS 170018	NS 170018	T 100091	NS 080042	0.3	89 29	108 54	112 56	95 22	72 45	77 35	96 46	86 40
5	NS 200097	NS 200097	T 090341	NS 150052	0.0	109 32	98 51	90 58	117 21	74 46	77 35	94 45	85 40
6	NS 200099	NS 200099	T 090341	NS 160079	0.0	120 33	92 49	76 58	124 21	77 45	75 34	89 45	81 40
7	NS 210021	NS 210021	T 090341	NS 130065	0.0	122 34	92 64	73 58	125 22	79 44	77 37	92 50	84 44
8	NS 210022	NS 210022	T 090341	NS 120050	0.0	119 32	90 63	66 56	124 22	82 45	75 36	86 50	79 43
9	NS 210023	NS 210023	T 090341	NS 130056	0.0	112 31	100 64	68 56	120 20	81 43	78 36	94 49	85 42
10	NS 210025	NS 210025	T 090341	NS 150049	0.0	118 32	90 63	70 56	126 22	80 45	75 36	88 50	81 43
11	NS 220065	NS 220065	T 090341	NS 150055	0.0	118 32	88 62	87 50	126 21	74 44	77 35	91 48	83 42
12	NS 220074	NS 220074	T 090341	NS 140007	0.0	114 28	95 61	74 49	124 18	76 43	74 34	91 47	82 40
						★							
1	NS 160075	NS 160075	T 100091	T 090285	13.3	105 20	99 56	86 64	110 15	65 45	63 35	81 47	71 41
2	NS 220051	NS 220051	T 090341	T 090285	0.0	123 35	87 51	53 59	128 27	77 46	66 36	79 47	71 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 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.

