

NGUNI

BREEDING VALUE REPORT

September 2026



TWENTY 60 THINK FUTURE HOLD.

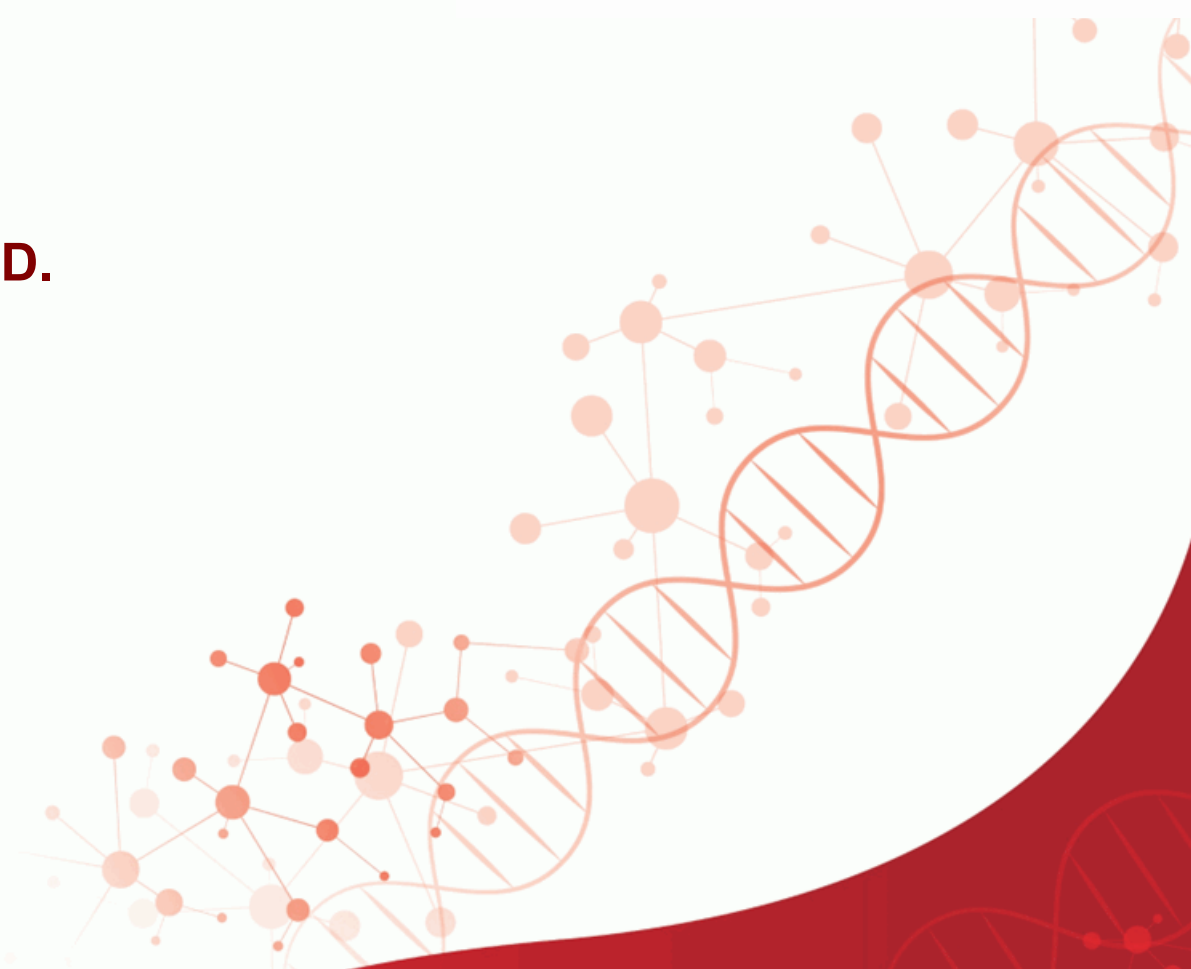
Herd Number: 649144

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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



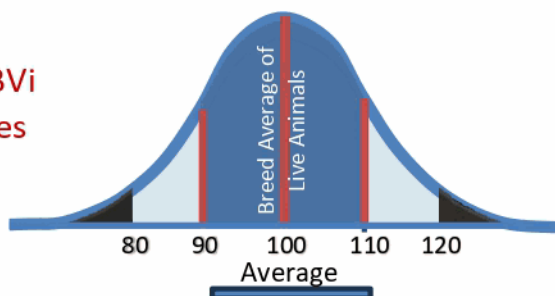
80% LOGIX Cow Value +
20% LOGIX Growth Value

LOGIX Carcass Value

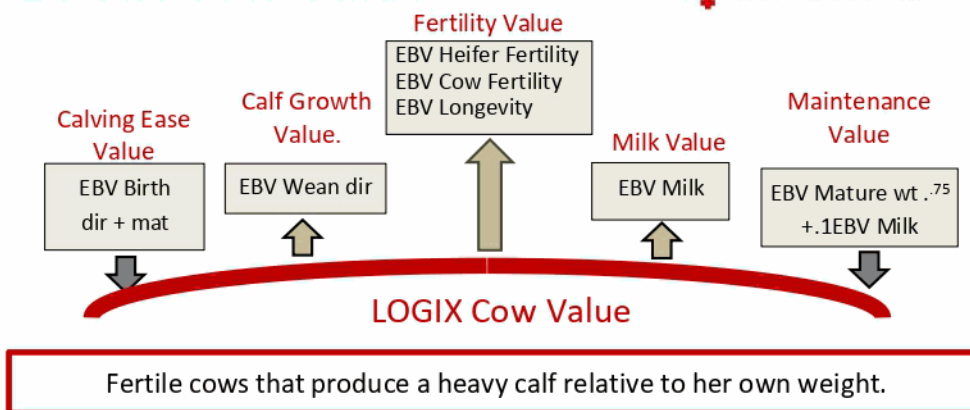


Select for more meat on the carcass as measured from end weight in Phase C and D Growth Tests and RTU scanning.

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

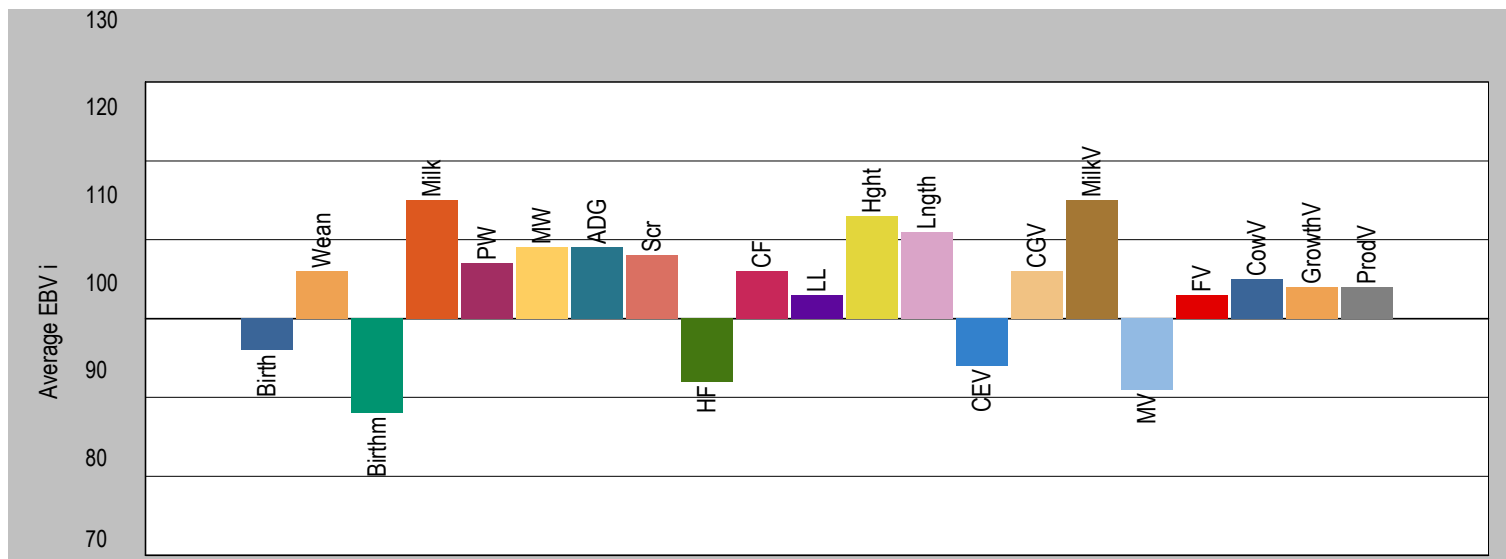
(HARSH ENVIRONMENT)

- 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	0.34	96	0.12
	Wean Weight	4.9	106	2.6
	Birth Mat.	0.40	88	0.05
	Milk (Wn.Mat.)	4.5	115	1.0
Postwean Growth	Postwean Wt	7.1	107	3.7
	Mature Weight	13	109	5
	ADG	31	109	12
Fertility	Scrotal Circumf.	6.8	108	3.8
	Heifer Fertility	0.1	92	-6.2
	Cow Fertility	-4.3	106	-2.9
	Longevity	24.5	103	23.2
Frame	Height	9	113	2
	Length	13	111	5

Selection Value	Ave. Herd
Calving Ease	94
Calf Growth	106
Milk	115
Maintenance	91
Fertility	103
Cow Value	105
Growth Value	104
Production Value	104

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

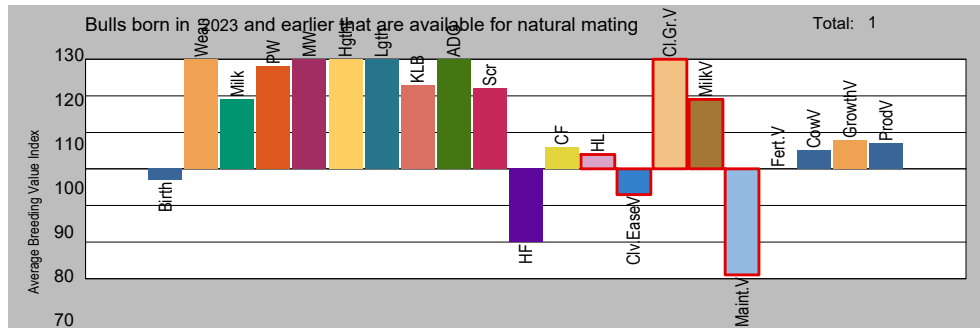
What does a sub-selection value above breed average (100) mean?:

Calving ease:	Smaller calf at birth - easier calving
Calf growth:	Heavier calves at wean due to growth potential of the calf
Milk:	Cows with more milk and better mothering ability
Maintenance:	Animals with low maintenance requirements (lower mature weight).
Fertility:	Cows/daughters that calve

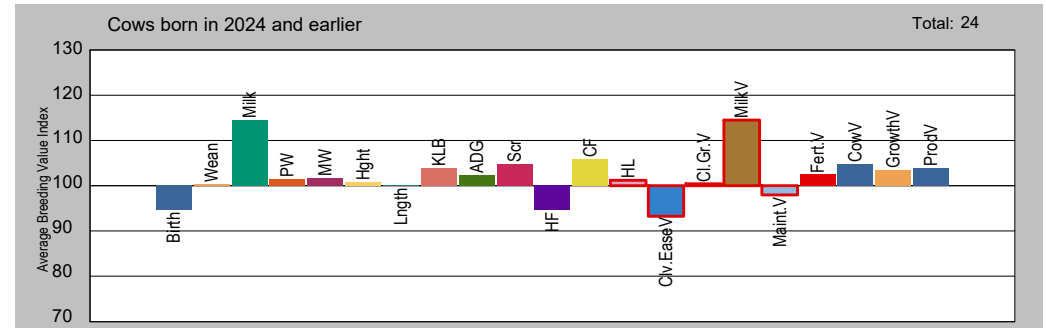
Genetic Windows

Animals available for breeding

Bulls on the farm

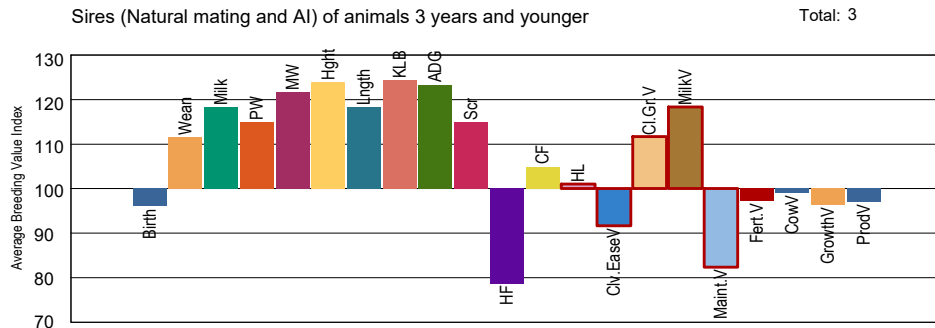


Cow Herd

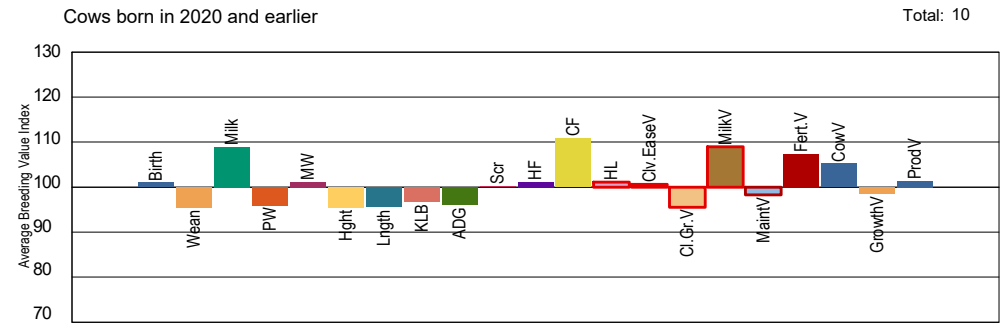


Results of previous selection decisions

Sires of young animals



Cows older than 6 years

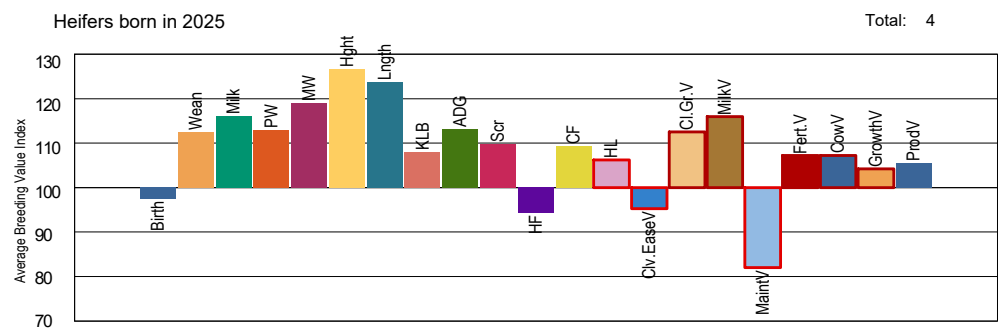


Selection possibilities

Bull calves



Heifer calves

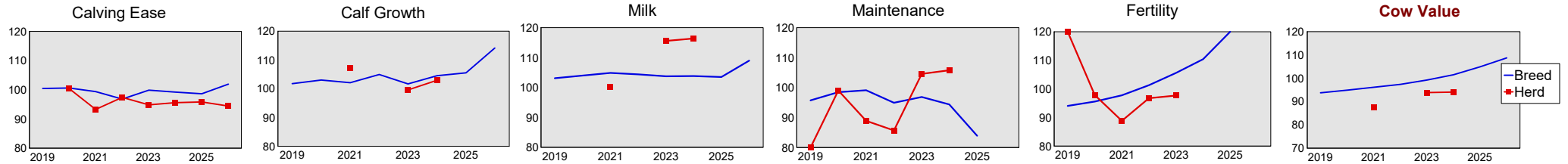


Summary of Cow Herd

			Selection Values (SV)								Calf Weight		Dam		Growth & Efficiency				Fertiity				Frame		
Birth Year	No. Cows	Average Cow Value	Calving Ease	Calf Grwth	Milk	Maint.	Fertility	Cow Value	Growth Value	Prod Value	Birth Weight	Wean Weight	Birth Mat.	Milk (Wn.Mat)	Postwn Weight	Mature Weight	ADG	Kleiber	Scrotal Circumf.	Heifer Fertility	Cow Fertility	Longevity	Height	Length	
Cows in Breed Average:			100	100	100	101	100	100	100	100	100	100	100	100	100	100	99	99	99	99	100	100	100	99	99
2012	1	★★★★★	121	87	128	116	123	134	122	129	120	87	99	128	97	84	95	96	100	128	119	106	83	92	
2015	2	★★★★	94	107	88	92	105	95	96	95	95	107	96	88	98	107	100	105	91	96	107	103	96	91	
2016	3	★★★☆☆	111	88	96	105	96	89	83	85	111	88	99	96	88	97	91	93	98	89	102	96	93	90	
2017	1	★★★★★☆☆	76	97	124	100	117	121	114	117	80	97	85	124	99	97	84	82	89	108	120	106	94	93	
2018	1	★★★★★	120	82	148	95	105	113	100	106	123	82	80	148	91	100	102	101	129	89	119	95	98	103	
2019	1	★★★★★	61	119	126	77	129	130	118	124	62	119	76	126	119	125	103	97	103	111	131	113	104	113	
2020	1	★★★★	107	93	101	97	103	96	91	93	103	93	116	101	93	101	104	104	105	117	100	97	104	103	
2021	2	★★★★★☆☆	76	114	122	74	101	100	93	96	81	114	75	122	115	130	111	109	107	93	108	98	113	113	
2022	1	★★★★	109	80	117	117	95	99	95	97	107	80	109	117	84	84	88	88	92	94	91	103	85	87	
2023	3	★★★★★	69	112	124	101	105	117	125	122	67	112	89	124	112	98	107	109	111	92	106	107	103	104	
2024	8	★★★★★☆☆	96	102	116	100	97	102	105	103	99	102	84	116	103	99	108	112	109	88	101	100	105	102	
2025	4	★★★★★☆☆	95	113	116	82	107	107	104	106	98	113	88	116	113	119	113	108	110	94	109	106	127	124	
2026	7	★★★★★☆☆	93	114	116	81	100	102	103	102	96	114	83	116	114	119	116	112	114	84	106	104	129	125	
Cows in Herd Average:			94	101	117	95	106	108	104	106	96	101	91	117	102	105	102	101	104	99	109	103	103	103	

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.



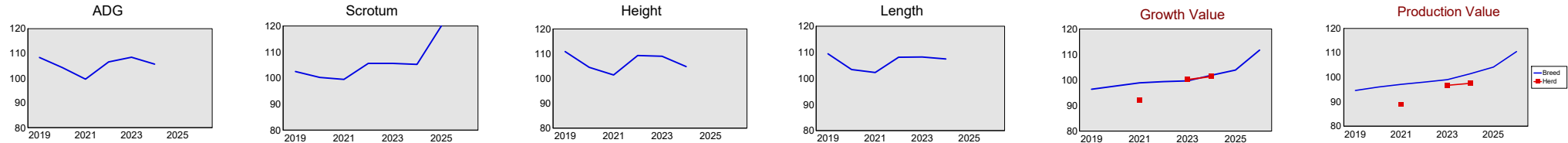
Herd

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance						Fertility						Cow Value
	Birth Weight		Calv. Ease	Dir EBV	Mat EBV	Weaning Weight		Calf Growth	Milk (Wn.Mat.)		Postwean Weight	Mature Weight		Maintenance	Heifer Fert.		Cow Fert.		Longevity		Ferti- lity		
	Number	EBV				Number	EBV		Number	EBV		Milk	Number		EBV	Number	EBV	Number	EBV	Number		EBV	
2019																							
2020	11	0.01	0.34	100																			
2021	29	0.40	0.24	93	9	5.2	107	9	1.04	100	6	6.2	14	16	89	18	9.3	11	-2.9	29	17.3	89	87
2022	25	0.19	0.26	97									3	18	86	9	-0.3	2	-3.8	15	16.9	97	
2023	45	0.23	0.46	95	27	2.5	100	27	4.60	116	11	5.3			105	6	6.1					98	94
2024	44	0.19	0.51	96	28	3.6	103	28	4.81	116	10	0.9			106								94
2025	41	0.24	0.45	96																			
2026	13	0.26	0.47	94																			

Breed

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance					Fertility							Cow Value					
	Birth Weight		Calv. Ease	Dir EBV	Mat EBV	Weaning Weight		Calf Growth	Milk (Wn.Mat.)		Postwean Weight		Mature Weight		Mainte-nance	Heifer Fert.		Cow Fert.		Longevity		Ferti-lity						
	Number	EBV				Number	EBV		Number	EBV	Milk	Number	EBV	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		
2019														
2020														
2021													92	89
2022														
2023													100	97
2024													101	98
2025														

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	
AVM 050348		LEB 970949 AVM 980086	94	77	108	115	115	110	98	103	154	77	107	108	86	87	92	105	133	116	91	77	92	103	17	35	60	
AVM 05 348			91	78	81	47	65	54	71	62	-2.57	-5.6	-0.13	3.0	-3.5	-7	-6	5.8	-33.7	-6.6	18.3	-10	-1					
AZ 110054		CS 020092 AZ 040053	81	106	105	109	98	104	113	109	87	106	73	105	96	92	107	70	107	105	88	94	88	19	110	20	76	6
AZ 11.54 K			74	93	86	74	76	65	84	74	0.75	4.7	0.83	2.2	1.6	-2	27	-7.8	-12.3	-4.0	16.5	-1	-4					
EX 100036		EX 050001 EX 070212	113	87	89	119	120	116	105	110	110	87	108	89	78	83	103	108	115	127	98	118	110		33	6	28	
10.36			52	88	78	63	65	57	75	66	-0.38	-1.9	-0.18	-1.6	-7.5	-11	19	6.9	-18.8	-9.2	22.2	11	13					
EX 120209		CS 020092 EX 020009	91	100	111	69	113	98	71	82	95	100	82	111	110	138	118	100	82	120	112	110	102	2	287	55	176	8
12.209 GEITE			78	95	91	72	81	67	86	76	0.36	2.7	0.57	3.5	8.9	39	51	3.7	8.6	-7.6	29.4	7	6					
EX 130216		CS 020092 EX 070323	89	116	89	83	78	71	83	76	91	116	92	89	111	119	117	101	78	93	80	120	114	55	50	23	34	
13.216			72	91	81	64	67	59	78	68	0.58	8.4	0.29	-1.5	9.5	22	49	4.0	12.4	-1.2	12.6	12	16					
EX 150302		AZ 110057 EX 070508	114	92	141	116	101	121	122	122	117	92	82	141	95	84	94	150	103	122	76	98	110	1	59	9	16	8
DONKIE			65	90	74	58	66	57	76	66	-0.70	-0.2	0.55	10.5	1.3	-10	0	22.9	-9.1	-8.0	10.1	1	12					
EX 180022		SW 100012 EX 100276	91	105	125	107	79	94	110	102	96	105	75	125	107	93	119	123	74	89	87	112	107	83	84			
EX 180022			51	75	59	46	56	47	62	54	0.30	4.4	0.76	6.7	7.2	-2	53	12.4	15.5	-0.4	16.3	8	10					
EX 220027		JF 130054 EX 110215	93	130	119	71	100	105	108	107	97	130	79	119	128	134	133	122	80	106	104	150	146	54				
onyx			41	74	61	46	47	44	59	52	0.28	13.2	0.65	5.5	17.7	36	84	12.1	10.5	-4.4	25.5	27	40					
ISF 060022		FF 010136 ISF 040012	94	102	76	95	105	90	88	88	96	102	88	76	100	105	82	98	111	108	93	84	81	12		8	15	
ISF0622			84	72	77	49	81	58	72	65	0.32	3.5	0.39	-4.6	3.9	9	-29	3.1	-15.7	-4.9	19.5	-6	-9					
JF 130054		FF 080166 JF 070063	110	124	118	65	89	90	87	87	109	124	101	118	113	144	127	125	74	94	101	148	146	17	171	31	60	32
JF130054			69	94	84	66	70	61	81	71	-0.31	11.2	0.03	5.3	10.4	45	71	13.5	15.7	-1.4	24.0	26	40					
NRF 090303		FF 000108 CS 030121	70	109	72	92	103	87	90	87	67	109	128	72	102	108	107	113	134	109	76	101	98	95	53	19	35	
NRF 090303			92	89	82	60	72	61	79	70	1.78	5.8	-0.75	-5.5	4.5	12	27	8.6	-34.4	-5.0	10.3	2	4					

Sires

Bull		Selection Values								Calf		Dam		Growth			Fertility				Frame		Measured Progeny			
ID	Index EBV Acc	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
	Sire ID Name																									
NRF 180057	NRF 140734 NRF 150769	119	56	129	129	85	91	85	86	131	56	113	129	65	67	71	80	84	86	96	65	71	34	22	6	6
NRF 180057		86	84	60	36	52	46	64	55	-1.44	-12.8	-0.33	7.7	-13.9	-26	-52	-3.9	6.8	0.3	21.1	-16	-17				
										90	84	67	60	60	36	25	28	64	29	64	28	28				
Q 160029	Q 070062 Q 090037	63	132	117	65	117	116	106	111	56	132	86	117	129	144	114	111	100	126	103	108	126	52	141	12	19
Q 160029		88	93	77	54	65	57	77	67	2.30	13.9	0.44	5.0	18.1	45	44	7.8	-6.3	-9.0	24.8	6	25				
										91	93	73	77	81	54	37	45	73	44	79	43	41				
SK 060038	SK 980010 SK 020004	63	95	131	96	108	111	105	108	65	95	84	131	98	100	89	94	96	128	86	98	99	50	110	29	121
SK 060038		88	93	90	71	76	65	84	74	1.87	0.8	0.49	8.1	2.7	5	-13	1.6	-3.3	-9.4	15.9	1	4				
										91	93	70	90	84	71	14	16	83	55	90	17	16				
SS 110056	CS 060021 SS 010004	120	72	122	85	100	87	60	71	122	72	87	122	76	114	103	108	69	133	81	80	83		185	33	92
FLAKE		68	91	88	74	77	65	83	74	-0.95	-7.2	0.43	6.1	-8.1	17	18	6.9	19.9	-10.6	12.7	-8	-8				
										68	91	70	88	74	74	40	68	84	55	92	47	45				

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

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/ Height	Scrotum	ADG	Growth	
Test station		ID	Dam ID	Value	dir	weight							Value	
202301 D11 M				0568331NGI										
EXSTEEN NGUNI'S & SANGA'S		EX 220027	JF 130054	105	130	141		146	150	111	122	133	108	
		93263465	EX 110215	44	74	67		40	27	1.11	12.1	84		
								66	70	68	67	58	59	

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
EX 220027 93263465 onyx	1	JF 130054 EX 110215	93 41	130 74	119 61	71 46	100 47	105 44	108 59	107 52	97 0.28 42	79 0.65 34	134 36 46	130 13.2 74	119 5.5 61	121 64 60	128 17.7 56	133 84 58	122 12.1 67	80 10.5 52	106 -4.4 33	104 25.5 56	150 27 70	146 40 66	
TX 260004 6020227499 TX 260004	2	EX 220027 NRF 200155	101 55	111 51	110 42	83 28	102 33	100 30	99 41	99 36	101 0.05 58	97 0.13 40	117 21 28	111 6.4 51	110 3.3 42	108 35 40	110 8.8 34	118 52 32	113 8.8 37	98 -4.8 36	103 -3.6 23	101 23.5 40	132 18 39	128 26 37	
TX 260005 6020349020 TX 260005	6	EX 220027 EX 150125	84 49	126 54	106 51	81 37	104 34	106 34	113 45	110 40	88 0.72 53	81 0.60 30	120 23 37	126 11.8 54	106 2.4 51	114 50 47	119 13.4 38	120 56 29	104 5.3 33	94 -1.3 40	107 -4.5 18	104 25.3 44	132 18 38	123 23 36	
TX 260007 6020438286 TX 260007	2	EX 220027 TX 220025	96 54	107 46	118 37	89 25	97 31	100 28	104 37	102 32	97 0.27 58	95 0.19 35	109 13 25	107 5.0 46	118 5.3 37	116 53 36	107 7.4 32	110 34 30	107 6.5 34	87 4.5 37	99 -2.5 19	104 25.2 37	123 13 36	120 20 34	
TX 260008 6020467806 TX 260008	1	EX 220027 TX 190001	82 55	122 49	122 45	74 29	114 34	116 31	110 41	113 36	87 0.75 58	76 0.74 40	129 32 29	122 10.2 49	122 6.2 45	119 61 41	121 14.4 37	118 51 30	112 8.5 35	95 -2.4 39	119 -7.2 23	109 27.8 41	132 18 36	133 30 34	
TX 260010 6020612260 TX 260010	5	EX 220027 EX 160005	104 53	109 49	105 45	91 31	98 33	97 31	102 41	100 36	105 -0.12 56	92 0.27 37	107 12 31	109 5.8 49	105 2.1 45	107 33 42	106 6.6 32	110 34 24	109 7.1 31	85 6.2 39	103 -3.6 17	100 23.4 42	128 16 33	122 21 30	
TX 260012 6020744592 JOHN GORDON	1	EX 220027 VA 120008	110 56	107 49	124 47	88 27	112 35	116 31	114 42	115 36	112 -0.47 58	88 0.38 45	109 13 27	107 5.1 49	124 6.5 47	120 62 41	111 9.4 33	114 42 31	111 8.0 36	104 -9.3 38	113 -5.9 22	105 25.9 44	122 13 37	122 22 35	

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																								
VA 120008 74811753 VA120008	2	AVM 050348 UM 060104	121 85	87 63	128 72	116 30	123 52	134 44	122 57	129 50	120 -0.85 85	99 0.07 84	84 -10 30	87 -2.1 63	128 7.6 72	122 66 55	97 2.1 38	95 0 24	100 3.8 27	128 -29.2 57	119 -7.4 33	106 26.4 67	83 -7 27	92 -1 26
EX 150125 81633190 BOS 404	6	AZ 110054 EX 130004	79 53	120 80	93 82	92 63	109 57	107 54	116 70	112 62	83 0.95 53	82 0.57 54	106 11 63	120 9.8 80	93 -0.7 82	106 32 75	110 8.6 56	107 28 37	86 -1.6 31	108 -13.1 64	107 -4.6 38	104 25.2 68	103 4 46	94 1 43
EX 150401 81305229 PEDI ASVAAL		SS 110056 EX 010008	109 73	93 77	82 77	92 57	100 57	83 52	75 68	77 60	107 -0.21 72	109 -0.20 76	107 11 57	93 0.1 77	82 -3.1 77	76 -35 70	85 -4.0 52	92 -7 21	95 1.8 34	84 7.1 66	107 -4.4 38	101 23.9 67	89 -4 25	88 -4 24
EX 160005 83767574 EX 160005	6	EX 100036 EX 130265	113 65	89 65	90 68	121 49	95 53	95 46	98 60	96 53	111 -0.40 64	106 -0.13 69	81 -13 49	89 -1.2 65	90 -1.3 68	90 -3 61	84 -4.2 40	88 -16 14	96 2.1 22	90 1.8 61	100 -2.8 33	96 21.2 64	96 0 21	91 -2 19
EX 160414 83366302 SANGA WITLIES		SS 110056 EX 080343	109 66	88 75	113 72	82 49	91 50	80 48	66 64	71 56	112 -0.45 65	85 0.47 70	119 22 49	88 -1.6 75	113 4.1 72	93 3 65	92 -0.5 45	107 27 34	105 5.6 47	68 20.1 52	103 -3.6 31	97 21.6 66	106 5 42	99 4 39
RV 160064 84720408 RV 160064	1	ISF 060022 RV 070008	111 74	87 56	85 64	111 30	102 54	93 42	86 53	88 48	109 -0.32 74	106 -0.11 75	92 -3 30	87 -1.9 56	85 -2.5 64	79 -27 50	89 -1.6 40	78 -36 15	94 1.5 17	109 -13.5 58	102 -3.4 39	96 20.9 64	78 -9 17	80 -10 16
Q 170012 85316701 Q 170012		SK 060038 ED 090019	76 75	97 77	124 75	100 47	117 54	121 50	114 66	117 58	80 1.14 75	85 0.48 76	97 2 47	97 1.4 77	124 6.6 75	119 59 66	99 3.0 60	84 -23 9	89 -0.3 11	108 -13.1 57	120 -7.5 40	106 26.4 65	94 -1 11	93 0 11
EX 180138 87146072 EX 180138	3	EX 150302 EX 160430	120 70	82 73	148 62	95 39	105 49	113 44	100 59	106 52	123 -1.03 69	80 0.61 73	100 5 39	82 -3.8 73	148 12.3 62	126 75 58	91 -0.5 58	102 16 29	129 14.8 38	89 2.8 56	119 -7.4 30	95 20.3 60	98 1 35	103 7 33
TX 190001 90064346 TX 190001	1	Q 160029 Q 170012	61 73	119 67	126 68	77 37	129 51	130 44	118 58	124 51	62 2.00 73	76 0.73 74	125 28 37	119 9.2 67	126 7.0 68	122 67 57	119 13.1 50	103 18 18	103 4.9 21	111 -15.3 60	131 -10.1 36	113 30.1 58	104 4 21	113 15 20
NRF 200155 90978321 NRF 200155		NRF 090303 LCK 100065	107 79	93 72	101 58	97 34	103 48	96 42	91 58	93 50	103 -0.02 80	116 -0.40 74	101 5 34	93 0.1 72	101 1.2 58	94 5 55	93 0.3 39	104 20 31	105 5.5 35	117 -20.1 51	100 -2.8 37	97 21.5 56	104 4 36	103 7 34
TX 210013 92120625 UDAKA		EX 130216 RV 170014	85 69	109 56	114 57	67 42	99 48	89 41	73 52	79 46	86 0.81 70	98 0.11 65	142 43 42	109 5.9 56	114 4.2 57	99 17 52	108 7.8 36	115 45 18	106 6.2 18	91 1.3 55	108 -4.8 33	95 20.3 56	117 11 21	116 17 20
TX 210034 92874197 PAVLOVA		EX 130216 Q 170005	67 71	118 72	129 61	81 45	103 49	110 45	113 60	112 52	75 1.35 72	51 1.44 65	118 21 45	118 8.8 72	129 7.8 61	128 79 59	121 14.5 50	107 26 19	107 6.3 19	94 -1.0 57	108 -4.6 34	101 24.0 57	108 6 22	109 12 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																									
TX 220025 94631306 VELVET	2	NRF 180057 NRF 200155	109 73	80 55	117 41	117 21	95 41	99 33	95 44	97 38	107 -0.21 75	109 -0.20 61	84 -10 21	80 -4.4 55	117 5.1 41	107 33 39	84 -4.1 34	88 -16 18	92 0.8 21	94 -1.6 53	91 -0.7 24	103 25.0 47	85 -6 22	87 -5 21	
TX 230022 95461802 SAKURA		EX 180022 TX 190001	65 63	121 64	120 45	88 29	110 41	117 36	124 49	122 42	52 2.50 65	94 0.22 53	110 14 29	121 10.2 64	120 5.6 45	128 79 46	117 12.5 37	113 41 30	114 9.3 35	89 2.7 49	111 -5.4 25	113 30.0 49	109 7 36	112 14 34	
TX 230038 96041249 TRUFFLE		EX 180022 VA 120008	82 65	102 60	127 47	113 27	109 42	124 36	128 48	127 42	84 0.93 67	93 0.25 55	88 -6 27	102 3.5 60	127 7.4 47	133 90 45	106 6.8 39	106 25 31	111 7.9 36	107 -12.5 49	106 -4.3 24	105 25.9 52	97 0 37	99 4 35	
TX 230039 96059340 CORNETTO		EX 180022 Q 170012	61 63	113 63	124 47	102 33	97 42	110 37	124 50	118 44	66 1.82 65	79 0.66 52	96 1 33	113 7.2 63	124 6.7 47	134 92 48	113 10.2 46	103 18 29	107 6.4 34	79 10.8 49	102 -3.3 26	103 25.0 51	104 4 35	101 6 33	
TX 240004 96355565 CAPUCHINI	2	EX 180022 EX 180138	117 58	95 66	137 42	100 28	96 37	108 34	109 49	109 42	124 -1.05 61	67 1.00 43	96 2 28	95 0.8 66	137 9.6 42	129 82 45	104 6.0 44	110 35 28	126 13.6 35	81 9.7 40	105 -4.0 22	97 21.7 49	105 4 35	105 9 33	
TX 240012 96928478 CARMEL	1	EX 180022 NRF 200155	98 62	100 52	114 41	101 28	95 37	99 32	104 43	101 38	99 0.17 64	92 0.28 51	97 2 28	100 2.6 52	114 4.2 41	113 47 40	101 4.4 33	111 37 32	114 9.0 38	95 -2.3 39	95 -1.6 25	99 22.5 48	108 6 39	105 9 37	
TX 240018 97103980 MARZIPAN	9	EX 120209 EX 150125	85 46	110 61	102 61	80 45	112 46	103 41	94 54	98 48	89 0.65 47	82 0.57 44	122 25 45	110 6.3 61	102 1.4 61	99 16 56	110 8.7 46	112 39 30	93 1.1 32	95 -2.3 54	114 -6.1 27	110 28.5 58	106 5 38	98 3 36	
TX 240020 97187520 CASSATA		EX 180022 RV 170014	88 43	103 46	126 41	90 28	94 38	98 31	101 40	99 36	90 0.59 43	88 0.38 43	107 11 28	103 3.5 46	126 7.0 41	119 61 38	105 6.1 33	112 38 30	114 9.2 34	82 8.6 40	101 -3.1 24	98 21.8 50	110 7 36	109 12 34	
TX 240021 97187538 TIGGER		EX 180022 WT 140097	104 34	96 43	113 38	113 26	95 40	104 30	109 39	106 34	106 -0.19 34	88 0.40 33	88 -6 26	96 1.2 43	113 4.1 38	114 49 36	98 2.5 30	106 26 29	102 4.6 34	93 -0.3 42	96 -1.9 27	100 23.2 51	100 2 35	99 4 33	
TX 240025 97258180 STROOPWAVEL	1	EX 180022 TX 220003	90 55	106 45	106 38	99 28	89 37	92 30	102 39	97 34	93 0.48 59	87 0.43 36	99 4 28	106 4.6 45	106 2.5 38	110 40 37	105 6.5 32	108 30 28	110 7.6 33	85 5.9 40	94 -1.5 22	95 20.4 48	105 5 35	102 7 33	
TX 240027 97258206 CUPETA	2	EX 180022 EX 160005	100 57	98 49	107 45	115 32	89 38	97 33	106 43	101 38	102 0.03 60	91 0.31 41	87 -7 32	98 1.8 49	107 2.7 45	111 42 42	96 1.7 32	103 19 27	109 7.3 33	82 8.7 42	95 -1.6 22	96 21.1 51	104 4 34	99 4 32	
TX 240045 97547418 CHAI		EX 180022 Q 170012	82 60	104 65	123 47	102 33	102 39	111 36	117 51	114 44	87 0.77 63	78 0.67 45	96 1 33	104 4.2 65	123 6.3 47	125 73 48	106 6.6 40	103 19 29	107 6.5 34	91 1.6 41	105 -4.0 26	103 24.9 51	104 4 35	101 6 33	

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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
TX 250026 99048027 CHAI	1	EX 220027 VA 120008	103 59	110 49	124 47	88 27	113 35	118 31	117 42	118 36	104 -0.09 62	90 0.34 45	109 13 27	110 6.1 49	124 6.5 47	122 67 41	113 10.4 33	114 42 31	111 8.0 36	104 -9.3 38	113 -5.9 22	107 27.1 45	122 13 37	122 22 35	
TX 250029 99143240 KHEER	2	EX 220027 RV 160064	100 58	109 46	102 44	87 27	103 36	99 31	99 40	99 36	101 0.06 61	93 0.26 41	113 17 27	109 5.9 46	102 1.5 44	102 24 39	109 8.3 34	106 24 29	108 6.8 34	94 -1.5 39	104 -3.9 25	105 25.6 44	119 12 35	116 17 33	
TX 250039 99444564 MIGNON	3	EX 220027 TX 210013	92 55	118 46	116 41	69 29	102 32	99 29	90 39	93 34	95 0.39 59	88 0.40 35	138 40 29	118 9.1 46	116 4.8 41	109 38 39	117 12.3 31	124 65 27	114 9.2 32	85 5.9 37	107 -4.6 17	104 25.2 41	139 22 34	134 31 32	
TX 250043 99784464 CANNELLI		EX 220027 Q 170012	86 55	113 53	122 48	84 33	111 36	113 33	111 45	112 39	90 0.61 58	81 0.58 41	116 19 33	113 7.0 53	122 6.0 48	119 60 45	113 10.1 41	109 31 29	106 5.9 34	94 -1.3 38	113 -5.9 25	109 28.1 44	127 16 35	123 22 33	
TX 260001 6020029754 ECLAIRE	1	EX 220027 EX 150401	98 55	113 53	101 49	81 36	102 37	96 34	94 45	94 40	98 0.20 58	95 0.20 42	121 24 36	113 7.1 53	101 1.2 49	100 19 46	107 7.3 38	112 39 30	108 7.0 36	82 8.8 42	106 -4.4 24	107 26.9 45	125 14 36	120 20 34	
TX 260002 6020189731 NOIR	1	EX 220027 EX 160414	102 52	109 52	116 47	76 33	98 34	94 32	88 43	90 38	105 -0.13 55	82 0.56 39	126 29 33	109 5.7 52	116 4.8 47	107 34 44	109 8.5 35	120 56 32	113 8.8 39	74 15.3 36	105 -4.0 21	105 25.9 44	133 19 39	126 25 37	
TX 260003 6020189749 CANASTA	4	EX 220027 EX 180138	106 53	106 52	134 43	82 28	105 32	111 30	106 42	108 36	110 -0.36 56	80 0.62 40	117 20 28	106 4.7 52	134 9.0 43	124 70 41	110 8.6 38	117 50 29	125 13.5 36	84 6.6 37	113 -5.9 16	104 25.3 42	129 17 36	128 26 34	
TX 260006 6020354897 TIRAMISU	4	EX 220027 TX 210034	80 53	123 51	124 43	76 30	102 32	107 31	110 41	109 36	87 0.75 57	64 1.07 35	126 29 30	123 10.9 51	124 6.6 43	124 70 41	124 15.9 36	120 55 27	114 9.2 32	87 4.8 38	107 -4.5 17	103 24.7 40	134 19 34	131 28 32	
TX 260009 6020467814 DOUCEUR	1	EX 220027 TX 230039	71 52	124 48	122 38	84 27	98 31	107 29	118 39	113 34	76 1.33 56	80 0.62 31	115 18 27	124 10.9 48	122 6.1 38	128 80 38	122 14.7 36	118 51 31	114 9.3 36	80 10.7 35	104 -3.8 20	104 25.3 38	132 18 38	127 25 36	
TX 260011 6020744584 GORDANA	2	EX 220027 TX 240012	90 50	117 45	116 37	84 26	97 29	101 27	108 37	105 32	93 0.49 54	87 0.43 30	115 19 26	117 8.6 45	116 4.8 37	119 59 36	116 11.7 32	122 61 32	118 10.6 37	88 4.1 32	100 -3.0 19	102 24.0 37	134 19 38	129 27 36	
TX 260013 6020839079 BISOUS	2	EX 220027 RV 160064	103 54	108 46	102 44	87 27	101 35	96 30	97 40	96 35	104 -0.10 56	92 0.28 41	113 17 27	108 5.5 46	102 1.5 44	102 22 39	108 7.9 34	106 24 29	108 6.8 34	94 -1.5 39	104 -3.9 25	100 23.2 42	119 12 35	116 17 33	

Selection List on Cow Value

Bulls 2 years and older

ID		Name	Sire ID	Dam ID	% Inbreeding	Calving Ease Value	Calf Growth Value	Milk Value	Maint. Value	Fertility Value	Cow Value	Growth Value	Prod Value	
Sorted on ID						Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	
						★★★★								
1	EX	220027	onyx	JF 130054	EX 110215	1.4	9341	13074	11961	7146	10047	10544	10859	10752

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 TX 190001	TX 190001	Q 160029	Q 170012	0.6	61 73	119 67	126 68	77 37	129 51	130 44	118 58	124 51	
2 VA 120008	VA120008	AVM 050348	UM 060104	2.2	121 85	87 63	128 72	116 30	123 52	134 44	122 57	129 50	
					★★★★★								
1 Q 170012	Q 170012	SK 060038	ED 090019	0.0	76 75	97 77	124 75	100 47	117 54	121 50	114 66	117 58	
2 TX 230038	TRUFFLE	EX 180022	VA 120008	0.5	82 65	102 60	127 47	113 27	109 42	124 36	128 48	127 42	
					★★★★★								
1 EX 180138	EX 180138	EX 150302	EX 160430	2.8	120 70	82 73	148 62	95 39	105 49	113 44	100 59	106 52	
2 TX 210034	PAVLOVA	EX 130216	Q 170005	0.3	67 71	118 72	129 61	81 45	103 49	110 45	113 60	112 52	
3 TX 230022	SAKURA	EX 180022	TX 190001	0.2	65 63	121 64	120 45	88 29	110 41	117 36	124 49	122 42	
4 TX 230039	CORNETTO	EX 180022	Q 170012	0.1	61 63	113 63	124 47	102 33	97 42	110 37	124 50	118 44	
5 TX 240045	CHAI	EX 180022	Q 170012	0.1	82 60	104 65	123 47	102 33	102 39	111 36	117 51	114 44	
					★★★★								
1 EX 150125	BOS 404	AZ 110054	EX 130004	6.4	79 53	120 80	93 82	92 63	109 57	107 54	116 70	112 62	
2 TX 240004	CAPUCHINI	EX 180022	EX 180138	1.7	117 58	95 66	137 42	100 28	96 37	108 34	109 49	109 42	
3 TX 240018	MARZIPAN	EX 120209	EX 150125	9.4	85 46	110 61	102 61	80 45	112 46	103 41	94 54	98 48	
4 TX 240021	TIGGER	EX 180022	WT 140097	0.1	104 34	96 43	113 38	113 26	95 40	104 30	109 39	106 34	
					★★★★								
1 EX 160005	EX 160005	EX 100036	EX 130265	6.4	113 65	89 65	90 68	121 49	95 53	95 46	98 60	96 53	
2 NRF 200155	NRF 200155	NRF 090303	LCK 100065	0.0	107 79	93 72	101 58	97 34	103 48	96 42	91 58	93 50	
3 RV 160064	RV 160064	ISF 060022	RV 070008	0.9	111 74	87 56	85 64	111 30	102 54	93 42	86 53	88 48	
4 TX 220025	VELVET	NRF 180057	NRF 200155	2.3	109 73	80 55	117 41	117 21	95 41	99 33	95 44	97 38	
5 TX 240012	CARMEL	EX 180022	NRF 200155	1.0	98 62	100 52	114 41	101 28	95 37	99 32	104 43	101 38	
6 TX 240020	CASSATA	EX 180022	RV 170014	0.0	88 43	103 46	126 41	90 28	94 38	98 31	101 40	99 36	

Selection List on Cow Value

Cows 2 years and older

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
					★★★★☆							
7 TX 240025	STROOPWAVEL	EX 180022	TX 220003	1.3	90 55	106 45	106 38	99 28	89 37	92 30	102 39	97 34
8 TX 240027	CUPETA	EX 180022	EX 160005	2.3	100 57	98 49	107 45	115 32	89 38	97 33	106 43	101 38
					★★★							
1 EX 150401	PEDI ASVAAL	SS 110056	EX 010008	0.0	109 73	93 77	82 77	92 57	100 57	83 52	75 68	77 60
2 EX 160414	SANGA WITLIES	SS 110056	EX 080343	0.0	109 66	88 75	113 72	82 49	91 50	80 48	66 64	71 56
3 TX 210013	UDAKA	EX 130216	RV 170014	0.0	85 69	109 56	114 57	67 42	99 48	89 41	73 52	79 46

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	TX 260008	TX 260008	EX 220027	TX 190001	0.7	82 55	122 49	122 45	74 29	114 34	116 31	110 41	113 36
2	TX 260012	JOHN GORDON	EX 220027	VA 120008	0.7	110 56	107 49	124 47	88 27	112 35	116 31	114 42	115 36
					★★★★								
1	TX 260004	TX 260004	EX 220027	NRF 200155	1.9	101 55	111 51	110 42	83 28	102 33	100 30	99 41	99 36
2	TX 260005	TX 260005	EX 220027	EX 150125	6.1	84 49	126 54	106 51	81 37	104 34	106 34	113 45	110 40
3	TX 260007	TX 260007	EX 220027	TX 220025	1.8	96 54	107 46	118 37	89 25	97 31	100 28	104 37	102 32
					★★★★☆								
1	TX 260010	TX 260010	EX 220027	EX 160005	5.2	104 53	109 49	105 45	91 31	98 33	97 31	102 41	100 36

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 TX 250026	CHAI	EX 220027	VA 120008	0.7	103 59	110 49	124 47	88 27	113 35	118 31	117 42	118 36	
2 TX 250043	CANNELLI	EX 220027	Q 170012	0.0	86 55	113 53	122 48	84 33	111 36	113 33	111 45	112 39	
3 TX 260003	CANASTA	EX 220027	EX 180138	4.0	106 53	106 52	134 43	82 28	105 32	111 30	106 42	108 36	
					★★★★								
1 TX 260006	TIRAMISU	EX 220027	TX 210034	4.0	80 53	123 51	124 43	76 30	102 32	107 31	110 41	109 36	
2 TX 260009	DOUCEUR	EX 220027	TX 230039	0.9	71 52	124 48	122 38	84 27	98 31	107 29	118 39	113 34	
3 TX 260011	GORDANA	EX 220027	TX 240012	1.8	90 50	117 45	116 37	84 26	97 29	101 27	108 37	105 32	
					★★★★☆								
1 TX 250029	KHEER	EX 220027	RV 160064	1.8	100 58	109 46	102 44	87 27	103 36	99 31	99 40	99 36	
2 TX 250039	MIGNON	EX 220027	TX 210013	3.5	92 55	118 46	116 41	69 29	102 32	99 29	90 39	93 34	
3 TX 260001	ECLAIRE	EX 220027	EX 150401	1.3	98 55	113 53	101 49	81 36	102 37	96 34	94 45	94 40	
4 TX 260002	NOIR	EX 220027	EX 160414	1.3	102 52	109 52	116 47	76 33	98 34	94 32	88 43	90 38	
5 TX 260013	BISOUS	EX 220027	RV 160064	1.8	103 54	108 46	102 44	87 27	101 35	96 30	97 40	96 35	

	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.

