

NGUNI

BREEDING VALUE REPORT

September 2026



MR E. VAN AS

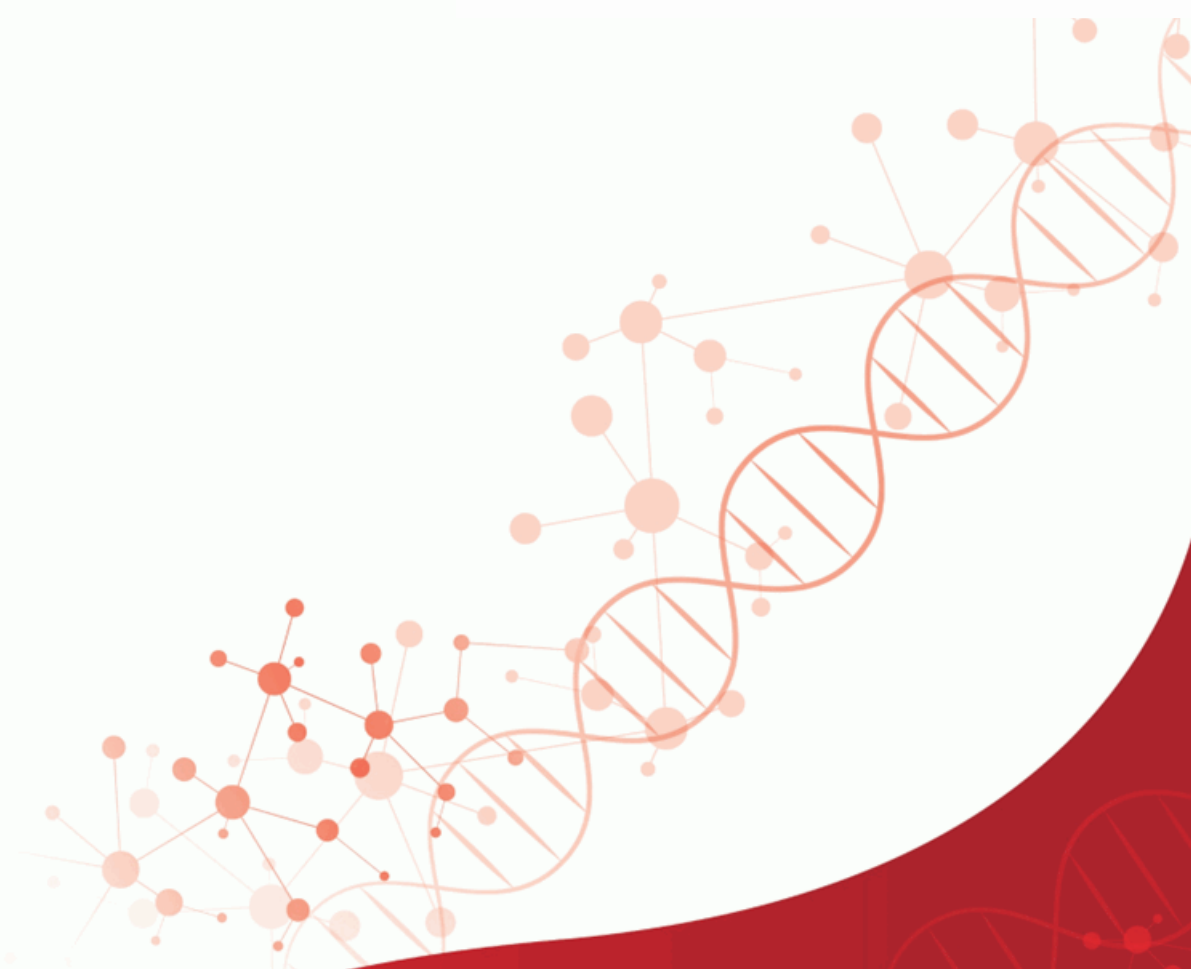
Herd Number: 597663

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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



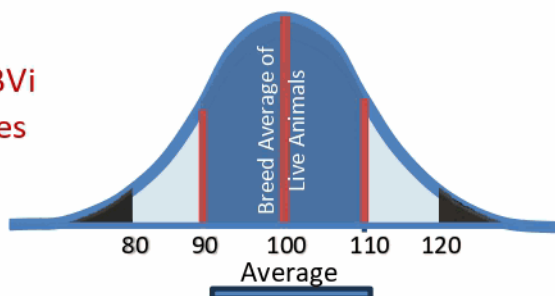
80% LOGIX Cow Value +
20% LOGIX Growth Value

LOGIX Carcass Value

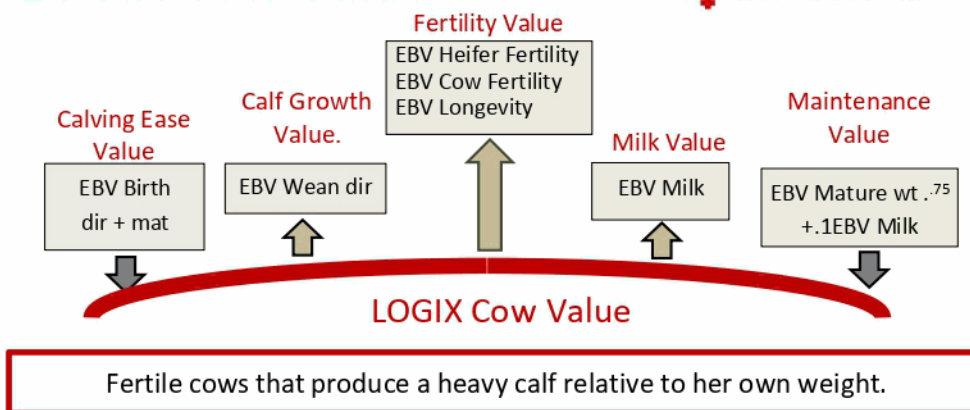


Select for more meat on the carcass as measured from end weight in Phase C and D Growth Tests and RTU scanning.

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

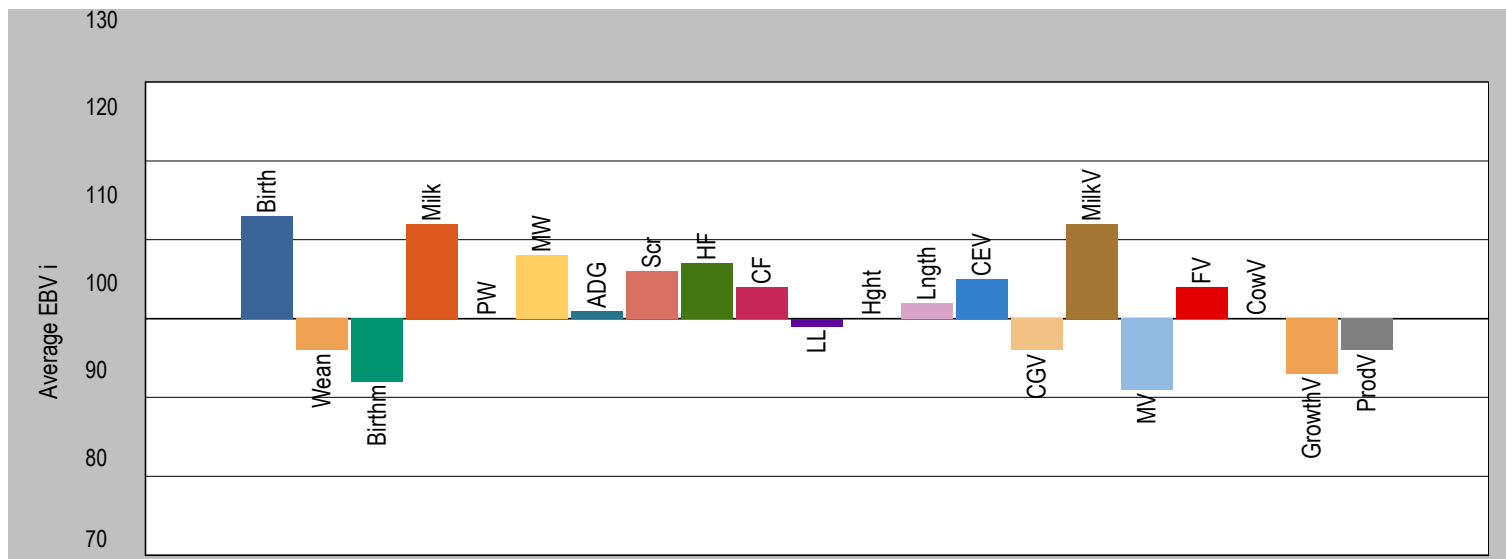
(HARSH ENVIRONMENT)

- 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	-0.55	113	0.12
	Wean Weight	1.2	96	2.6
	Birth Mat.	0.28	92	0.05
	Milk (Wn.Mat.)	3.9	112	1.0
Postwean Growth	Postwean Wt	3.9	100	3.7
	Mature Weight	13	108	5
	ADG	14	101	12
Fertility	Scrotal Circumf.	6.0	106	3.8
	Heifer Fertility	-11.7	107	-6.2
	Cow Fertility	-3.8	104	-2.9
	Longevity	22.8	99	23.2
Frame	Height	2	100	2
	Length	7	102	5

Selection Value	Ave. Herd
Calving Ease	105
Calf Growth	96
Milk	112
Maintenance	91
Fertility	104
Cow Value	100
Growth Value	93
Production Value	96

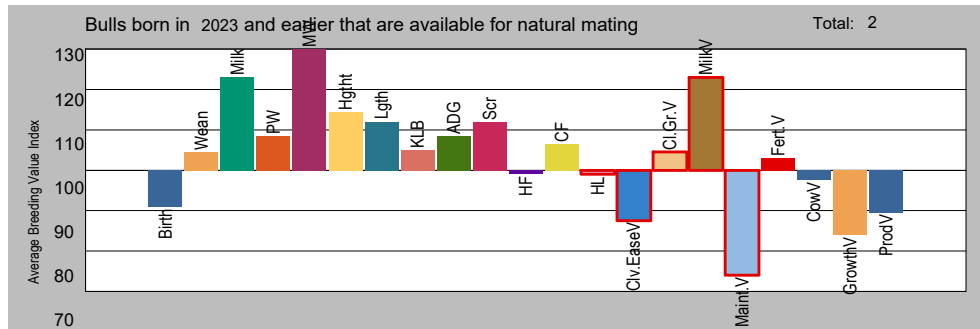
- Average of live animals in the breed: 100
- Above 100: **more favourable**,
- Below 100: **less favourable**

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

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

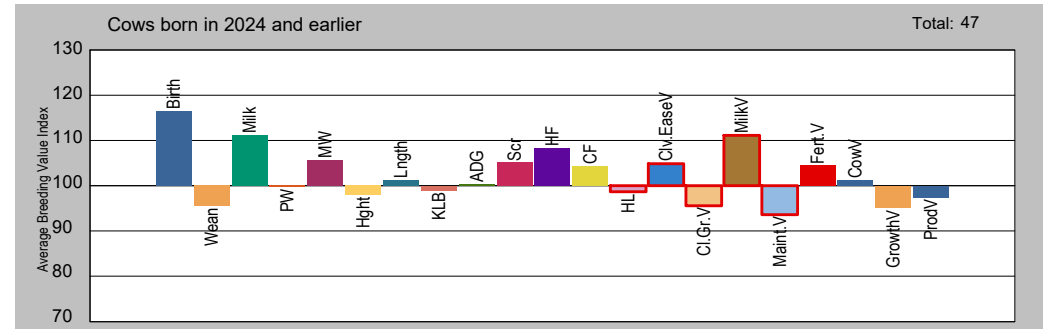
Genetic Windows

Bulls on the farm



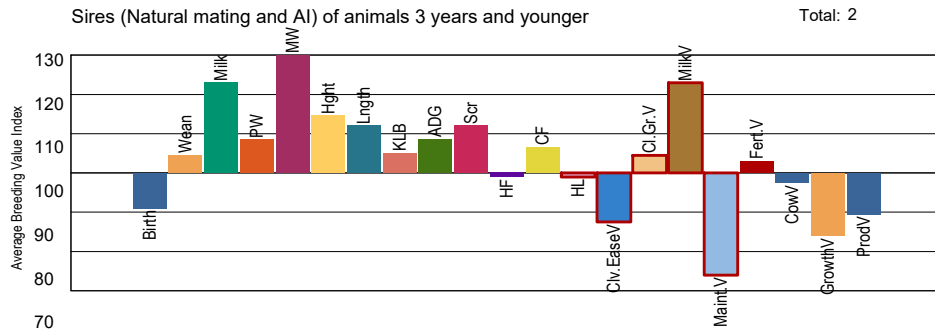
Animals available for breeding

Cow Herd

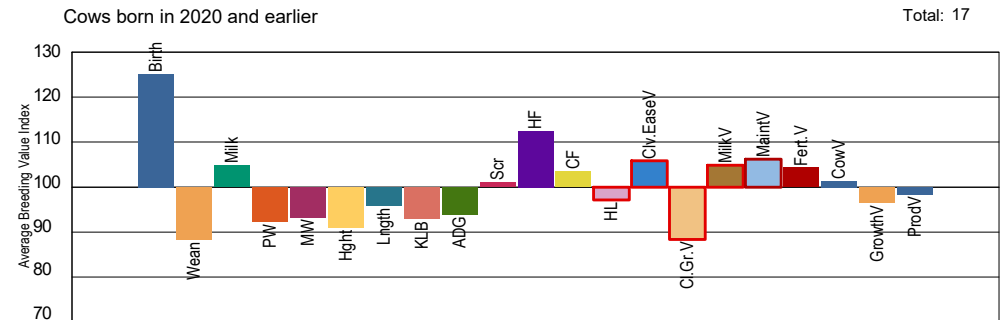


Results of previous selection decisions

Sires of young animals

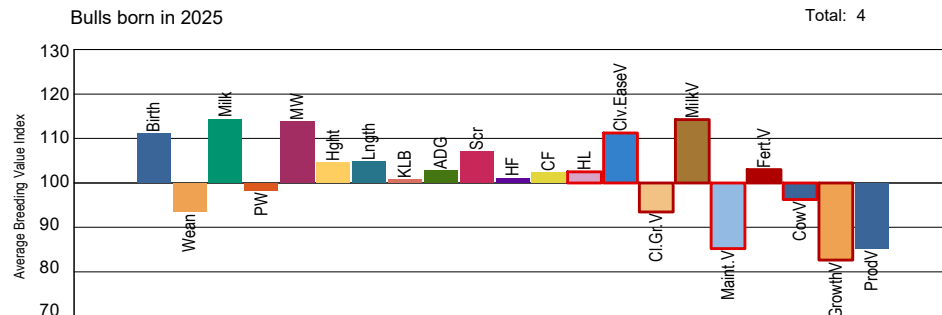


Cows older than 6 years

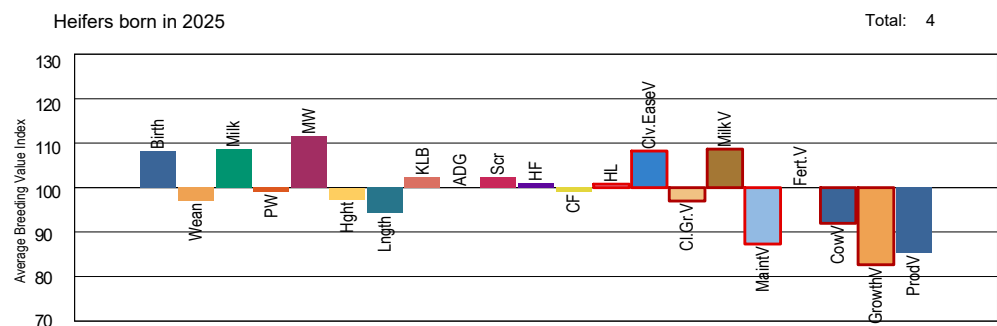


Selection possibilities

Bull calves



Heifer calves

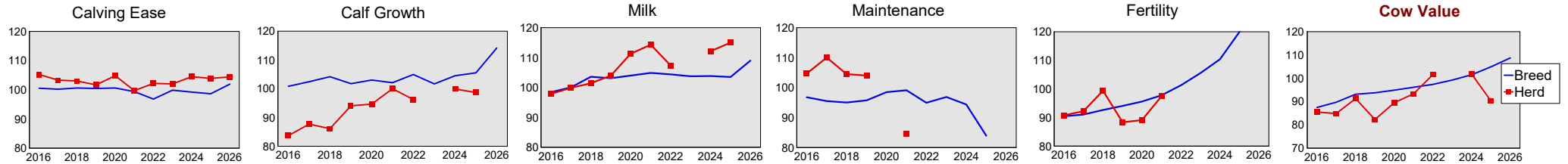


Summary of Cow Herd

			Selection Values (SV)								Calf Weight		Dam		Growth & Efficiency				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	100	100	100	99	99	99	99	100	100	99	99
2013	2	★★★★★	99	107	110	107	103	111	118	115	107	107	93	110	107	94	105	102	109	111	108	91	104	110
2014	2	★★★★☆	104	94	116	98	105	104	100	102	118	94	93	116	98	100	102	103	110	111	108	94	94	99
2015	2	★★★★	106	91	102	109	99	98	99	98	136	91	69	102	100	91	89	88	98	113	97	95	87	92
2016	5	★★★★	108	86	102	104	100	95	87	91	125	86	115	102	88	96	96	96	102	112	99	99	92	96
2017	3	★★★★☆	106	76	99	113	116	108	92	99	142	76	120	99	81	88	89	88	95	127	110	102	88	94
2018	2	★★★★	114	78	103	116	102	98	92	94	119	78	103	103	85	81	78	78	91	108	101	97	74	80
2019	2	★★★★☆	106	96	113	96	102	101	98	99	114	96	89	113	98	102	105	96	107	100	104	99	100	103
2021	7	★★★★☆	101	103	120	86	103	103	100	101	119	103	80	120	108	113	111	112	110	108	104	97	99	104
2022	8	★★★★	102	97	113	87	105	99	92	95	111	97	89	113	102	112	101	99	105	104	103	103	103	104
2023	6	★★★★☆	110	97	107	91	106	101	94	97	110	97	96	107	99	108	96	93	105	111	107	97	101	104
2024	9	★★★★☆	106	101	117	83	104	101	92	96	108	101	86	117	106	117	105	104	109	104	106	100	104	105
2025	4	★★★★	108	97	109	87	100	92	83	85	108	97	95	109	99	112	100	102	102	101	99	101	97	94
2026	3	★★★★☆	113	95	115	86	108	103	91	96	115	95	87	115	100	113	100	98	105	108	107	102	104	104
Cows in Herd Average:			106	94	110	97	104	101	95	98	118	94	93	110	98	102	98	97	104	109	104	98	96	99

Genetic Trends for On-Farm Traits

The graphs show the genetic gain of the herd relative to the breed. Only data of animals with measurements are included.



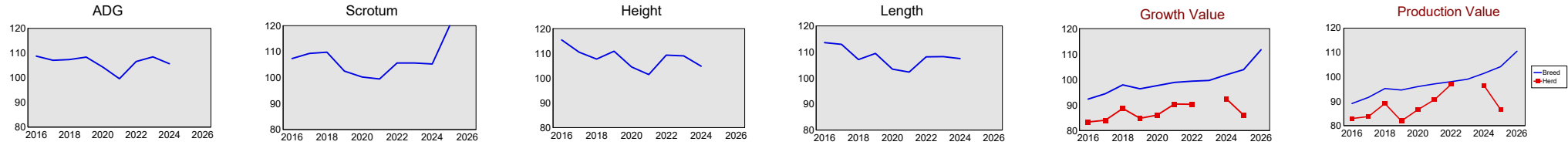
Herd

Birth Year	Calving Ease				Calf Growth			Milk			Maintenance				Fertility								Cow Value	
	Birth Weight		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		Number
2016	31	-1.50	-0.03	105		18	-3.2	84	18	0.50	98			3	0	105	13	-9.1	8	-1.0	45	13.4	91	86
2017	57	-1.14	-0.05	103		16	-1.8	88	16	0.95	100			3	-4	110	11	-10.4	5	-4.0	58	10.7	92	85
2018	66	-1.11	0.04	103		12	-2.3	86	12	1.31	101			4	1	105	10	-15.1	8	-2.5	68	11.5	99	91
2019	69	-0.70	0.05	102		21	0.5	94	21	1.92	104			1	1	104	8	-4.4	4	-0.6	71	10.5	88	82
2020	61	-0.62	0.22	105		14	0.7	95	14	3.66	111						9	-5.5	3	-3.1	61	11.5	89	90
2021	48	-0.46	0.25	100		16	2.6	100	16	4.31	114			3	18	85	13	-7.7	6	-3.5	49	12.8	97	93
2022	39	-0.40	0.09	102		12	1.3	96	12	2.71	107										12	12.9		102
2023	24	-0.25	0.06	102																				
2024	19	-0.22	0.24	104		10	2.6	100	10	3.80	112													102
2025	9	-0.35	0.19	104		3	2.1	99	3	4.51	115													90
2026	8	-0.17	0.34	104																				

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		Maintenance	Heifer Fert.		Cow Fert.		Longevity		Ferti- lity		
	Number	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													83	83
2017													84	84
2018													89	89
2019													85	82
2020													86	87
2021													90	91
2022													90	97
2023														
2024													92	96
2025													86	87

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						
											92	78	89	81	56	47	44	48	66	44	85	49	47						
BN 090561		BN 030090 BN 050355	117	109	128	73	81	83	82	81	124	109	64	128	115	131	120	113	87	95	77	103	106		77	73	29	71	2
BN 090561			93	92	89	59	78	64	83	74	-1.06	5.9	1.06	7.6	11.1	33	56	8.8	5.0	-1.8	10.9	4	10						
											94	92	87	89	70	59	54	61	84	57	92	62	60						
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						
											79	95	75	91	79	72	63	69	89	62	91	71	69						
EX 180217		EX 120209 EX 030012	91	94	129	72	95	87	68	75	95	94	84	129	106	133	112	108	87	97	102	110	101		38	13			
KOFFIE			80	81	63	49	55	49	66	58	0.38	0.3	0.52	7.8	6.6	35	37	6.8	4.8	-2.3	24.1	7	6						
											87	81	42	63	56	49	57	67	60	37	67	69	65						
FF 080166		FF 050052 FF 000006	99	122	120	75	107	110	109	110	100	122	91	120	115	128	104	120	104	117	92	119	127		91	158	62	142	4
VUNDIZA FF08166			92	94	91	73	82	68	87	78	0.10	10.4	0.29	5.7	11.1	30	20	11.4	-9.6	-6.8	19.0	11	25						
											93	94	85	91	74	73	71	77	87	65	94	80	77						
GHB 140495		GHB 110321 CS 110103	104	80	109	97	78	70	68	67	137	80	74	109	90	101	93	95	88	84	83	92	90		36	6	1	1	
GHB 14-495			83	58	43	28	54	39	51	45	-1.74	-4.6	0.78	3.0	-1.5	5	-4	1.8	3.5	0.7	14.1	-2	-3						
											89	58	54	43	28	28	14	17	54	32	75	18	17						
LEB 090648		SB 030021 LUC 060050	70	125	100	101	88	97	123	111	73	125	92	100	118	97	118	112	79	102	86	128	127		7	20	4	11	
LEB 090648			76	81	66	34	64	50	67	58	1.46	11.5	0.29	1.0	12.6	2	51	8.3	11.1	-3.4	15.7	16	25						
											77	81	70	66	55	34	33	38	69	41	83	39	37						
NRF 180025		FF 080166 NRF 040025	84	115	117	76	111	108	100	104	87	115	91	117	111	127	105	116	111	116	96	119	123		36	13			
NRF 180025			85	74	61	43	55	47	63	55	0.78	7.8	0.31	4.9	9.3	30	24	10.0	-15.7	-6.6	20.9	12	22						
											89	74	63	61	48	43	44	48	57	39	68	50	48						
T 100344		H 990174 T 060115	82	119	103	82	58	59	83	70	80	119	111	103	109	118	113	114	63	72	73	99	93		128	147	13	21	
T 100344			89	91	73	50	73	58	77	68	1.11	9.5	-0.26	1.8	8.2	22	41	9.1	24.7	3.6	8.7	2	-1						
											93	91	69	73	50	50	59	70	80	51	89	72	68						
VA 080007		CS 040016 NRF 050057	97	76	72	115	57	42	51	43	151	76	106	72	83	88	87	102	77	75	61	91	96		76	9	9	12	
VA080007			91	74	68	39	67	51	67	59	-2.42	-5.8	-0.12	-5.5	-4.6	-6	-17	4.7	13.0	2.9	1.9	-3	2						
											93	74	82	68	46	39	37	41	70	45	86	41	40						

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/ Height	Scrotum	ADG	Growth Value	
Test station		ID	Dam ID	Value	dir	weight							
201901 D11 M													
0568331NGI													
EXSTEEN NGUNI'S & SANGA'S				EX 120209	87	94	108	101	110	84	108	112	68
EX 180217				EX 030012									
86921780					49	81	66	6	7	1.07	6.8	37	66
								65	69	67	67	57	

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 180217 86921780 KOFFIE		EX 120209 EX 030012	91 80	94 81	129 63	72 49	95 55	87 49	68 66	75 58	95 0.38 87	84 0.52 42	133 35 49	94 0.3 81	129 7.8 63	103 26 64	106 6.6 56	112 37 57	108 6.8 67	87 4.8 60	97 -2.3 37	102 24.1 67	110 7 69	101 6 65
	NRF 180025 88091921 NRF 180025	4	FF 080166 NRF 040025	84 85	115 74	117 61	76 43	111 55	108 47	100 63	104 55	87 0.78 89	91 0.31 63	127 30 43	115 7.8 74	117 4.9 61	111 43 59	111 9.3 48	105 24 44	116 10.0 48	111 -15.7 57	116 -6.6 39	96 20.9 68	119 12 50	123 22 48
	VA 240027 98468077 VA240027	14	NRF 180025 NRF 190119	92 68	110 64	121 45	81 20	110 33	110 32	104 46	107 39	94 0.43 73	91 0.31 46	120 23 20	110 6.2 64	121 5.9 45	115 51 43	106 6.6 24	107 28 16	119 10.9 22	100 -6.3 36	112 -5.8 17	105 25.6 46	118 11 25	123 22 23
	VA 240067 98468028 VA240067		NRF 180025 VA 180096	97 66	103 41	113 34	87 23	105 35	102 28	98 36	99 32	99 0.17 71	90 0.34 44	112 16 23	103 3.7 41	113 4.0 34	107 34 33	104 5.7 26	99 10 22	106 6.2 25	107 -11.9 38	107 -4.5 23	97 21.5 44	105 5 25	108 11 25
	VA 250003 99539827 VA250003	1	NRF 180025 VA 160070	120 53	95 42	108 38	91 19	103 33	98 27	91 36	94 32	120 -0.90 55	89 0.36 44	107 11 19	95 0.7 42	108 2.8 38	99 15 33	97 2.5 22	94 -1 19	104 5.5 22	108 -12.7 37	101 -3.1 18	100 23.2 44	102 3 23	106 10 22
	VA 250035 99487639 VA250035		EX 180217 VA 160047	125 55	85 52	106 43	86 27	100 37	87 32	71 43	77 38	122 -0.96 57	105 -0.10 43	113 16 27	85 -2.8 52	106 2.5 43	87 -9 41	93 0.1 31	103 17 30	105 5.9 35	99 -5.7 39	100 -2.8 24	100 23.1 47	102 3 36	101 6 34
	VA 250036 99483018 VA250036		EX 180217 VA 160051	115 50	89 52	116 43	86 27	109 37	101 32	85 43	91 38	114 -0.57 53	99 0.09 38	112 16 27	89 -1.4 52	116 4.7 43	98 14 41	96 1.9 31	102 16 30	103 4.9 35	109 -14.0 40	105 -4.0 24	107 26.8 47	100 2 36	99 4 34
	VA 250047 99968752 VA250047		EX 180217 NRF 190119	85 67	105 66	127 47	78 33	100 38	99 36	91 51	94 44	88 0.71 72	89 0.37 42	123 26 33	105 4.2 66	127 7.2 47	113 47 49	107 7.2 36	112 38 34	116 9.7 39	88 4.0 40	103 -3.7 28	103 25.0 47	114 9 40	113 15 38
	VA 260007 6020521305 VA260007	1	EX 180217 VA 140037	121 66	86 49	113 44	85 28	97 37	87 32	73 42	78 37	121 -0.94 71	89 0.36 43	114 18 28	86 -2.2 49	113 4.0 44	93 4 40	95 1.5 32	102 17 31	107 6.4 36	98 -4.2 40	99 -2.7 24	97 21.4 46	99 2 37	96 2 35
	VA 260008 6020521313 VA260008		EX 180217 VA 210070	104 66	97 51	121 44	80 31	99 37	94 33	83 43	87 38	107 -0.24 71	83 0.52 40	120 24 31	97 1.5 51	121 5.9 44	105 29 42	105 6.2 34	109 31 32	107 6.4 37	98 -4.3 40	100 -2.8 25	99 22.6 45	102 3 38	100 5 36
	VA 260015 6020521339 VA260015		EX 180217 VA 210039	72 66	107 53	126 42	81 30	96 37	96 33	94 44	95 38	78 1.21 72	77 0.69 39	119 22 30	107 4.9 53	126 7.0 42	116 53 42	114 10.7 34	106 24 32	105 5.9 37	96 -2.8 40	95 -1.7 25	101 23.5 45	101 2 38	98 3 36

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ID Number Name																								
LEB 130366 77965770 LEB 130366		LEB 090648 LEB 030205	79 68	129 52	103 46	108 29	101 53	117 38	138 48	129 43	83 0.94 67	80 0.61 70	93 -1 29	129 12.8 52	103 1.8 46	130 84 42	124 15.8 38	113 40 29	116 9.9 32	109 -13.7 60	113 -5.9 34	83 14.0 64	114 9 33	118 19 32
VA 130021 77294023 VA130021		AVM 050348 VA 070014	119 74	85 46	117 53	105 23	104 39	105 33	97 43	100 38	130 -1.38 74	106 -0.12 77	94 0 23	85 -2.7 46	117 4.8 53	104 27 41	90 -1.1 28	97 4 22	101 4.1 24	112 -15.9 33	102 -3.4 22	98 22.0 63	94 -1 24	101 6 24
VA 140014 79856019 VA140014	1	AVM 050348 NBK 060099	97 75	103 59	135 64	92 27	111 51	119 41	117 53	119 47	99 0.16 75	88 0.39 77	104 8 27	103 3.6 59	135 9.1 64	129 81 50	107 7.3 38	111 36 23	113 8.7 26	113 -17.2 55	115 -6.3 33	96 21.2 64	100 2 26	107 10 26
VA 140037 80172265 VA140037	1	AVM 050348 XK 090017	111 74	84 54	97 62	103 27	99 50	89 39	83 51	85 45	136 -1.68 74	97 0.12 75	96 1 27	84 -3.2 54	97 0.3 62	85 -14 48	88 -2.2 32	93 -4 27	106 6.0 30	108 -13.3 52	101 -3.1 34	92 18.7 63	88 -4 30	91 -2 29
VA 150049 82711409 GLEN FALLOCHVA150049		VA 080007 VA 100002	112 72	90 47	101 51	99 30	89 49	83 37	84 46	82 42	131 -1.42 72	79 0.63 73	99 4 30	90 -1.0 47	101 1.2 51	92 1 43	98 2.6 28	95 0 22	101 4.1 25	108 -12.9 53	94 -1.5 32	81 12.7 62	91 -2 25	98 4 24
VA 150055 83505081 VA150055	1	AVM 050348 ISF 060014	100 80	92 63	102 72	119 37	109 53	112 45	114 58	113 52	140 -1.87 80	58 1.25 78	83 -11 37	92 -0.1 63	102 1.5 72	104 26 57	102 4.6 33	83 -26 26	95 2.0 28	117 -20.4 57	99 -2.6 37	108 27.3 64	82 -7 28	86 -6 28
NRF 160852 83309179 NRF 160852		T 100344 NRF 120540	99 78	96 69	85 73	94 39	85 53	72 46	75 61	72 54	97 0.28 79	136 -0.97 74	105 10 39	96 1.3 69	85 -2.6 73	81 -23 60	90 -1.5 32	95 1 35	99 3.3 40	100 -5.9 61	90 -0.6 36	83 13.8 63	83 -6 41	81 -9 39
VA 160024 88526660 VA160024			115 61	89 46	109 61		92 16		82 35		111 -0.40 60	114 -0.33 67		89 -1.3 46	109 3.1 61	96 10 36						99 22.7 45		
VA 160027 83988964 VA160027		AVM 050348 GHB 080183	106 79	87 52	128 60	104 31	101 49	107 39	103 50	105 44	137 -1.73 80	83 0.53 73	95 0 31	87 -1.9 52	128 7.6 60	116 54 48	96 1.9 30	103 18 25	106 5.9 28	104 -9.3 56	91 -0.7 31	110 28.3 60	100 2 28	105 9 27
VA 160047 84313642 VA160047		VA 080007 VA 090012	102 73	76 65	84 57	109 22	101 49	85 39	74 53	77 46	149 -2.30 73	127 -0.71 74	93 -2 22	76 -5.8 65	84 -2.8 57	68 -51 48	80 -6.4 26	94 -2 21	103 4.9 23	112 -16.2 52	102 -3.3 31	93 19.4 63	94 -1 24	100 5 23
VA 160051 84313675 VA160051		AVM 050348 VEN 040008	118 62	84 65	103 59	109 23	121 49	116 39	100 53	108 46	133 -1.52 62	114 -0.34 64	92 -2 23	84 -3.2 65	103 1.6 59	92 0 49	87 -2.8 28	93 -5 22	98 2.9 24	132 -32.8 52	112 -5.8 32	108 27.2 62	91 -3 24	97 3 24
VA 170023 85649333 VA 170023		AVM 050348 LCK 030011	109 74	73 50	83 58	119 31	118 46	105 38	88 48	95 43	139 -1.82 76	142 -1.14 65	83 -11 31	73 -6.8 50	83 -2.9 58	69 -50 46	74 -9.5 28	87 -18 22	93 1.1 24	131 -32.0 50	113 -5.9 28	102 24.1 59	86 -5 24	92 -1 24

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ID Number Name																								
VA 170054 86126174 VA170054		AVM 050348 VA 080003	111 76	81 63	106 48	109 23	104 38	100 35	91 49	94 42	138 -1.78 77	111 -0.26 69	92 -3 23	81 -4.0 63	106 2.4 48	93 3 45	86 -3.4 28	92 -5 22	98 2.9 24	114 -17.9 33	102 -3.4 22	96 21.0 58	90 -3 24	97 3 24
VA 170060 86126208 VA170060		AVM 050348 VEN 040008	98 78	75 64	108 52	112 23	125 48	118 38	98 52	108 45	150 -2.36 79	106 -0.12 75	89 -5 23	75 -6.2 64	108 2.9 52	91 -2 46	82 -5.4 28	88 -14 22	94 1.7 24	137 -37.2 52	116 -6.5 30	109 28.0 61	87 -4 24	93 0 24
VA 180056 87524500 VA180056	3	AVM 050348 NRF 090260	113 78	70 65	96 51	131 27	104 48	101 39	96 53	98 46	108 -0.28 79	120 -0.50 70	66 -26 27	70 -7.9 65	96 0.0 51	86 -13 48	77 -7.6 35	62 -73 28	85 -2.0 31	113 -16.8 52	103 -3.5 31	96 21.2 61	56 -20 32	65 -21 31
VA 180096 91055574 VA180096	1	GHB 140495 VA 140023	114 65	85 34	109 29	101 17	99 44	94 28	88 34	90 31	130 -1.38 65	85 0.49 63	96 2 17	85 -2.8 34	109 3.2 29	96 10 27	92 -0.2 19	93 -4 12	96 2.4 14	102 -8.0 51	99 -2.5 26	98 22.1 55	91 -2 14	94 0 14
NRF 190119 89502728 NRF 190119		FF 080166 GMD 060092	96 80	109 76	124 71	88 47	102 53	108 49	111 65	110 57	98 0.22 81	90 0.33 74	109 13 47	109 6.0 76	124 6.6 71	122 66 65	104 5.6 48	105 22 39	118 10.5 42	89 3.0 54	109 -5.0 43	100 23.3 63	113 8 44	118 19 43
VA 190058 89117386 GLEN FALLOCH VA19005	3	GHB 140495 VA 130055	115 72	83 41	102 38	104 16	101 43	93 30	85 38	88 34	130 -1.35 76	87 0.43 52	95 1 16	83 -3.4 41	102 1.4 38	89 -6 32	91 -0.7 19		96 2.1 10	110 -14.7 49	98 -2.3 25	98 22.2 56	86 -5 11	88 -4 9
VA 210015 92162031 GLEN FALLOCH VA21001		BN 090561 VA 150041	107 73	99 60	127 66	86 32	101 50	102 42	98 54	100 48	133 -1.53 75	64 1.08 65	112 16 32	99 2.3 60	127 7.4 66	115 52 53	107 7.3 38	108 30 29	107 6.4 33	102 -7.9 57	103 -3.5 32	97 21.3 60	98 1 33	103 8 32
VA 210023 92332584 GLEN FALLOCH VA21002		BN 090561 VA 160027	119 76	109 68	122 53	81 34	102 51	105 42	102 56	103 49	122 -0.97 78	78 0.67 65	119 22 34	109 5.9 68	122 6.2 53	116 53 52	113 10.4 38	122 60 30	118 10.5 33	101 -7.2 59	103 -3.5 34	100 22.9 60	110 7 34	115 16 33
VA 210038 92338672 GLEN FALLOCH VA21003		BN 090561 VA 120008	97 76	96 68	126 57	88 33	111 52	111 43	104 57	107 50	144 -2.06 78	72 0.84 68	109 13 33	96 1.3 68	126 7.1 57	114 49 53	105 6.5 40	110 34 29	109 7.2 33	113 -16.8 59	115 -6.3 35	97 21.5 61	95 0 34	102 6 32
VA 210039 92391556 GLEN FALLOCH VA21003		BN 090561 VA 150055	60 76	117 68	122 57	91 35	97 51	105 43	119 57	113 50	67 1.74 78	70 0.90 66	106 10 35	117 8.7 68	122 6.1 57	129 81 53	120 13.9 38	100 11 30	103 4.9 33	105 -10.3 59	92 -1.0 35	100 22.9 60	91 -2 34	94 1 33
VA 210047 92391564 GLEN FALLOCH VA21004		BN 090561 VA 140014	95 75	116 70	132 62	78 36	101 51	108 44	108 59	108 52	99 0.15 77	77 0.72 67	123 26 36	116 8.1 70	132 8.5 62	126 75 56	118 13.0 40	122 61 29	118 10.8 33	102 -7.7 58	103 -3.5 35	97 21.8 60	107 5 34	112 14 32
VA 210070 92890243 GLEN FALLOCH VA21007		BN 090561 VA 090023	118 68	98 58	113 62	90 36	102 51	99 42	95 54	96 48	126 -1.17 68	82 0.57 67	108 12 36	98 1.8 58	113 4.0 62	104 28 52	102 4.8 42	106 25 29	106 6.0 33	109 -13.4 59	102 -3.3 34	96 21.0 61	94 -1 34	98 4 32

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ID Number Name																										
VA 210072	BN 090561	92890250	VA 130054	109	88	96	85	108	90	74	80	142	119	116	88	96	81	89	107	109	121	108	95	99	105	
GLEN FALLOCH VA21007				64	54	54	34	50	39	50	44	-1.96	-0.48	19	-1.6	0.1	-24	-1.6	28	7.2	-23.5	-4.7	20.4	1	9	
												65	62	34	54	54	47	40	31	35	59	33	59	35	34	
VA 220024	EX 180217	94190642	VA 170035	109	77	114	86	102	87	68	75	138	98	113	77	114	87	87	102	103	101	100	103	100	99	
VA220024				68	46	40	29	33	30	40	35	-1.77	0.10	16	-5.4	4.2	-9	-2.6	15	4.7	-6.9	-2.8	24.9	2	4	
												74	40	29	46	40	38	31	30	35	34	21	44	36	34	
VA 220032	NRF 180025	94200821	VA 140040	91	108	115	88	108	108	108	108	94	88	110	108	115	113	108	99	107	113	109	97	105	110	
GLEN FALLOCH VA22003				69	43	37	25	33	28	38	33	0.43	0.39	14	5.3	4.5	47	7.7	9	6.4	-17.0	-4.9	21.8	4	13	
												73	49	25	43	37	35	28	24	26	33	22	45	27	26	
VA 220035	EX 180217	94198165	VA 160027	87	100	129	85	98	99	96	97	89	89	114	100	129	117	108	107	107	95	94	106	105	103	
GLEN FALLOCH VA22003				69	47	43	29	37	32	41	36	0.67	0.35	17	2.8	7.7	55	7.8	28	6.4	-2.2	-1.5	26.2	5	7	
												74	42	29	47	43	40	32	31	36	41	24	45	37	35	
VA 220043	1	EX 180217	VA 190034	117	82	112	85	92	80	66	70	129	88	114	82	112	89	93	101	103	92	94	96	101	97	
GLEN FALLOCH VA22004				66	44	35	25	34	28	38	33	-1.30	0.39	17	-3.8	3.9	-5	0.0	15	4.8	0.3	-1.4	21.3	2	3	
												73	33	25	44	35	35	30	28	34	38	20	43	35	33	
VA 220048	NRF 180025	94190600	VA 120011	108	93	102	97	108	101	94	97	108	98	101	93	102	95	94	85	96	116	107	99	94	98	
GLEN FALLOCH VA22004				71	64	42	25	34	33	47	40	-0.26	0.12	6	0.2	1.4	7	0.8	-21	2.4	-19.2	-4.5	22.4	-1	3	
												75	50	25	64	42	44	28	24	26	33	22	48	27	26	
VA 220051	EX 180217	94190626	VA 150055	109	91	114	91	107	101	91	95	132	67	107	91	114	100	102	97	101	102	98	115	96	93	
GLEN FALLOCH VA22005				71	67	48	31	39	37	51	44	-1.47	0.98	11	-0.7	4.2	19	4.9	4	4.2	-7.7	-2.4	31.2	0	0	
												75	52	31	67	48	49	32	31	36	41	26	50	37	35	
VA 220061	NRF 180025	94281912	VA 130021	116	104	114	85	113	111	103	107	116	93	114	104	114	108	105	106	112	110	110	107	110	116	
GLEN FALLOCH VA22006				69	64	41	25	35	33	47	40	-0.66	0.26	18	4.2	4.2	35	6.2	25	8.5	-14.5	-5.3	27.2	7	17	
												73	50	25	64	41	43	28	24	26	33	22	49	27	26	
VA 220063	1	NRF 180025	EX 170216	79	124	100	80	110	106	107	107	82	87	123	124	100	107	121	111	113	99	114	103	115	117	
GLEN FALLOCH VA22006				51	68	48	31	39	36	51	44	1.01	0.42	26	10.9	1.0	34	14.1	36	8.7	-5.1	-6.2	24.7	9	18	
												53	43	31	68	48	49	35	28	31	42	27	47	32	31	
VA 230013	NRF 180025	98467848	VA 170023	118	94	100	93	114	105	94	99	113	117	105	94	100	92	92	96	105	121	114	99	102	107	
VA230013				57	46	42	27	36	30	40	35	-0.52	-0.41	9	0.5	1.0	1	-0.1	3	5.6	-23.8	-6.2	22.5	3	11	
												59	45	27	46	42	38	28	24	26	38	24	45	27	26	
VA 230014	NRF 180025	98467855	VA 160051	111	99	110	89	116	111	100	105	110	102	110	99	110	102	99	99	107	122	114	102	105	110	
VA230014				53	50	42	25	37	31	42	36	-0.37	-0.01	14	2.3	3.3	23	3.2	9	6.4	-24.2	-6.2	24.0	4	13	
												55	45	25	50	42	39	28	24	26	39	25	46	27	26	
VA 230017	EX 180217	95849733	VA 200020	117	91	118	82	98	90	77	82	119	85	119	91	118	99	100	103	102	101	98	96	98	95	
VA230017				67	52	42	29	37	32	43	38	-0.80	0.49	22	-0.6	5.3	16	3.7	18	4.7	-7.4	-2.5	21.3	1	1	
												73	38	29	52	42	41	33	32	37	40	25	46	38	36	

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ID Number Name																									
VA 230025 98458805 VA230025	1	NRF 180025 NRF 090260	114 70	93 49	94 46	104 27	95 38	90 33	90 43	89 38	115 -0.61 74	89 0.35 50	95 0 27	93 0.1 49	94 -0.4 46	91 -2 41	96 1.6 32	83 -26 29	102 4.5 32	98 -4.3 39	105 -4.0 27	87 16.0 49	89 -3 33	93 0 32	
VA 230028 95939229 VA230028		NRF 180025 VA 160027	95 70	107 46	123 43	87 27	106 37	109 31	108 41	108 36	96 0.30 74	90 0.32 48	111 15 27	107 5.0 46	123 6.3 43	118 58 39	108 7.6 28	104 21 25	111 8.0 27	108 -12.5 40	103 -3.6 25	103 24.6 45	110 7 28	114 15 27	
VA 230037 96309281 VA230037		NRF 180025 VA 120011	105 70	100 46	99 42	93 25	105 34	99 30	96 40	97 35	106 -0.16 74	95 0.20 50	105 9 25	100 2.7 46	99 0.9 42	97 12 38	100 3.7 28	92 -7 24	101 4.2 26	115 -18.3 33	108 -4.7 22	93 19.4 46	99 1 27	103 7 26	
VA 240030 98443815 VA240030		EX 180217 VA 210015	93 66	111 64	125 45	76 29	98 36	99 34	95 48	96 41	98 0.20 71	72 0.84 38	127 29 29	111 6.6 64	125 6.8 45	115 52 46	118 12.9 33	117 50 32	113 8.8 37	92 0.1 39	102 -3.3 24	99 22.7 44	110 7 38	109 12 36	
VA 240038 99539702 VA240038	4	NRF 180025 VA 140065	104 68	105 47	104 41	84 24	117 37	110 31	100 40	104 36	101 0.05 72	108 -0.16 49	116 19 24	105 4.5 47	104 1.9 41	100 17 37	103 5.3 29	102 17 25	112 8.5 28	122 -24.2 40	118 -7.1 23	100 23.2 47	109 6 29	115 17 28	
VA 240046 98037641 VA240046		EX 180217 VA 210038	112 66	97 53	128 43	79 30	103 37	101 33	87 44	93 38	115 -0.62 71	79 0.65 39	121 24 30	97 1.4 53	128 7.5 43	110 39 42	107 7.1 34	111 36 32	108 7.0 37	100 -6.0 40	106 -4.3 25	99 22.8 45	103 3 38	102 6 36	
VA 240047 98038466 VA240047		EX 180217 VA 210023	111 66	99 51	126 41	76 30	99 36	95 32	83 43	87 38	114 -0.59 71	80 0.63 38	126 28 30	99 2.4 51	126 7.0 41	108 35 41	108 7.7 34	117 49 32	113 8.6 37	94 -1.2 40	100 -2.9 25	101 23.5 44	110 7 38	108 11 36	
VA 240051 98037658 VA240051	3	NRF 180025 VA 150055	111 69	106 65	108 47	92 28	111 38	111 35	110 50	111 42	116 -0.66 73	72 0.86 50	105 10 28	106 4.9 65	108 2.9 47	109 37 47	109 8.2 28	95 0 24	106 6.1 27	114 -17.7 41	108 -4.6 25	105 25.9 48	101 2 28	104 8 27	
VA 240056 98351406 VA240056		EX 180217 VA 210047	98 66	105 67	130 44	74 31	100 37	99 35	88 50	93 42	102 0.00 72	77 0.69 39	129 32 31	105 4.5 67	130 7.9 44	114 48 47	113 10.3 34	119 55 32	115 9.5 37	93 -0.8 40	101 -3.0 25	103 24.8 46	111 7 38	109 12 36	
VA 240058 98037666 VA240058		EX 180217 VA 210070	112 67	90 66	123 44	82 31	100 37	94 35	79 50	85 42	115 -0.60 72	84 0.51 40	118 21 31	90 -0.9 66	123 6.3 44	102 23 47	100 3.5 34	105 23 32	104 5.3 37	98 -4.9 40	99 -2.7 25	102 24.5 47	99 2 38	96 2 36	
VA 240066 98764368 VA240066	1	NRF 180025 VA 180056	100 69	92 50	106 40	101 25	107 37	104 31	98 42	100 36	98 0.21 73	105 -0.09 47	97 2 25	92 -0.1 50	106 2.5 40	100 18 38	94 0.7 29	84 -25 26	101 4.0 28	112 -16.2 39	109 -5.0 25	96 21.1 46	88 -4 29	94 0 28	
VA 240068 98467962 VA 240068	1	NRF 180025 VA 140037	109 68	100 46	107 44	87 25	105 37	99 31	92 41	95 36	109 -0.34 72	95 0.21 49	111 15 25	100 2.6 46	107 2.6 44	100 18 38	100 3.8 28	99 10 25	111 8.0 28	110 -14.5 39	108 -4.8 25	94 19.8 46	103 4 29	107 10 27	

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	ID Number Name	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
VA 250022	99460792	NRF 180025 VA 220061	100 46	110 38							101 0.06 54	92 0.28 9		110 6.0 38								102 24.0 18		
VA 250026	99412090	EX 180217 VA 170023	121 55	83 47	106 43	90 29	107 36	95 31	78 41	84 36	117 -0.72 58	113 -0.31 39	108 12 29	83 -3.2 47	106 2.4 43	88 -8 40	90 -1.5 31	99 10 30	101 4.0 35	109 -13.6 39	105 -4.1 23	102 24.1 45	98 1 36	97 2 34
VA 250048	99968760	EX 180217 NRF 160852	94 67	104 64	104 48	82 32	91 39	83 36	81 50	80 43	92 0.50 72	106 -0.13 42	119 23 32	104 3.9 64	104 1.9 48	97 12 48	105 6.2 32	104 21 33	104 5.3 39	92 0.1 43	94 -1.6 26	94 20.1 47	98 1 40	92 -1 38
VA 250057	99968778	EX 180217 VA 150055	118 68	91 52	116 48	90 31	102 38	98 34	89 45	92 40	123 -1.00 72	69 0.92 45	108 12 31	91 -0.6 52	116 4.7 48	102 22 44	102 4.9 32	97 6 31	102 4.4 36	102 -7.8 41	98 -2.4 26	105 25.7 47	96 0 37	94 0 35
VA 260001	99968786	2 NRF 180025 VA 220051	108 67	102 47	115 39	83 26	109 33	105 29	95 39	99 34	112 -0.46 72	78 0.66 41	117 21 26	102 3.3 47	115 4.6 39	105 30 37	106 6.8 28	101 14 26	109 7.1 29	107 -11.7 35	107 -4.5 23	105 26.0 41	107 6 30	108 11 29
VA 260012	6020521321	1 EX 180217 VA 180096	108 66	90 44	119 35	84 26	97 35	90 29	79 38	83 34	111 -0.41 71	84 0.49 38	115 18 26	90 -1.0 44	119 5.5 35	101 20 35	99 3.4 30	102 17 28	102 4.6 34	94 -1.6 40	98 -2.4 22	100 23.1 44	101 2 35	97 3 33
VA 260016	6020521347	NRF 180025 VA 170060	123 69	94 49	112 40	90 25	118 36	113 31	98 41	105 36	122 -0.96 73	98 0.12 49	108 12 25	94 0.4 49	112 3.9 40	101 20 38	95 1.5 28	97 5 24	105 5.8 26	124 -26.4 39	116 -6.5 24	102 24.4 46	103 4 27	108 11 26

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	VA 240027	VA240027	NRF 180025	NRF 190119	13.8	92 68	110 64	121 45	81 20	110 33	110 32	104 46	107 39
					★★★★								
1	NRF 180025	NRF 180025	FF 080166	NRF 040025	3.9	84 85	115 74	117 61	76 43	111 55	108 47	100 63	104 55
2	VA 240067	VA240067	NRF 180025	VA 180096	0.4	97 66	103 41	113 34	87 23	105 35	102 28	98 36	99 32
					★★								
1	EX 180217	KOFFIE	EX 120209	EX 030012	0.0	91 80	94 81	129 63	72 49	95 55	87 49	68 66	75 58

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	LEB 130366	LEB 130366	LEB 090648	LEB 030205	0.0	79 68	129 52	103 46	108 29	101 53	117 38	138 48	129 43
2	VA 140014	VA140014	AVM 050348	NBK 060099	0.5	97 75	103 59	135 64	92 27	111 51	119 41	117 53	119 47
3	VA 150055	VA150055	AVM 050348	ISF 060014	0.5	100 80	92 63	102 72	119 37	109 53	112 45	114 58	113 52
4	VA 160051	VA160051	AVM 050348	VEN 040008	0.0	118 62	84 65	103 59	109 23	121 49	116 39	100 53	108 46
5	VA 170060	VA170060	AVM 050348	VEN 040008	0.0	98 78	75 64	108 52	112 23	125 48	118 38	98 52	108 45
6	VA 210038	GLEN FALLOCH VA21003	BN 090561	VA 120008	0.0	97 76	96 68	126 57	88 33	111 52	111 43	104 57	107 50
7	VA 220061	GLEN FALLOCH VA22006	NRF 180025	VA 130021	0.4	116 69	104 64	114 41	85 25	113 35	111 33	103 47	107 40
8	VA 230014	VA230014	NRF 180025	VA 160051	0.4	111 53	99 50	110 42	89 25	116 37	111 31	100 42	105 36
9	VA 240038	VA240038	NRF 180025	VA 140065	4.4	104 68	105 47	104 41	84 24	117 37	110 31	100 40	104 36
10	VA 240051	VA240051	NRF 180025	VA 150055	2.8	111 69	106 65	108 47	92 28	111 38	111 35	110 50	111 42
						★★★★							
1	NRF 190119	NRF 190119	FF 080166	GMD 060092	0.0	96 80	109 76	124 71	88 47	102 53	108 49	111 65	110 57
2	VA 130021	VA130021	AVM 050348	VA 070014	0.0	119 74	85 46	117 53	105 23	104 39	105 33	97 43	100 38
3	VA 160027	VA160027	AVM 050348	GHB 080183	0.0	106 79	87 52	128 60	104 31	101 49	107 39	103 50	105 44
4	VA 170023	VA 170023	AVM 050348	LCK 030011	0.0	109 74	73 50	83 58	119 31	118 46	105 38	88 48	95 43
5	VA 170054	VA170054	AVM 050348	VA 080003	0.0	111 76	81 63	106 48	109 23	104 38	100 35	91 49	94 42
6	VA 180056	VA180056	AVM 050348	NRF 090260	2.6	113 78	70 65	96 51	131 27	104 48	101 39	96 53	98 46
7	VA 210015	GLEN FALLOCH VA21001	BN 090561	VA 150041	0.0	107 73	99 60	127 66	86 32	101 50	102 42	98 54	100 48
8	VA 210023	GLEN FALLOCH VA21002	BN 090561	VA 160027	0.0	119 76	109 68	122 53	81 34	102 51	105 42	102 56	103 49
9	VA 210039	GLEN FALLOCH VA21003	BN 090561	VA 150055	0.0	60 76	117 68	122 57	91 35	97 51	105 43	119 57	113 50
10	VA 210047	GLEN FALLOCH VA21004	BN 090561	VA 140014	0.0	95 75	116 70	132 62	78 36	101 51	108 44	108 59	108 52
11	VA 220032	GLEN FALLOCH VA22003	NRF 180025	VA 140040	0.4	91 69	108 43	115 37	88 25	108 33	108 28	108 38	108 33
12	VA 220048	GLEN FALLOCH VA22004	NRF 180025	VA 120011	0.4	108 71	93 64	102 42	97 25	108 34	101 33	94 47	97 40
13	VA 220051	GLEN FALLOCH VA22005	EX 180217	VA 150055	0.2	109 71	91 67	114 48	91 31	107 39	101 37	91 51	95 44
14	VA 220063	GLEN FALLOCH VA22006	NRF 180025	EX 170216	0.8	79 51	124 68	100 48	80 31	110 39	106 36	107 51	107 44
15	VA 230013	VA230013	NRF 180025	VA 170023	0.4	118 57	94 46	100 42	93 27	114 36	105 30	94 40	99 35
16	VA 230028	VA230028	NRF 180025	VA 160027	0.4	95 70	107 46	123 43	87 27	106 37	109 31	108 41	108 36

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		
					★★★★									
17	VA 240046	VA240046	EX 180217	VA 210038	0.1	112 66	97 53	128 43	79 30	103 37	101 33	87 44	93 38	
18	VA 240066	VA240066	NRF 180025	VA 180056	0.7	100 69	92 50	106 40	101 25	107 37	104 31	98 42	100 36	
					★★★★☆									
1	VA 180096	VA180096	GHB 140495	VA 140023	0.6	114 65	85 34	109 29	101 17	99 44	94 28	88 34	90 31	
2	VA 190058	GLEN FALLOCH VA19005	GHB 140495	VA 130055	3.0	115 72	83 41	102 38	104 16	101 43	93 30	85 38	88 34	
3	VA 210070	GLEN FALLOCH VA21007	BN 090561	VA 090023	0.0	118 68	98 58	113 62	90 36	102 51	99 42	95 54	96 48	
4	VA 210072	GLEN FALLOCH VA21007	BN 090561	VA 130054	0.0	109 64	88 54	96 54	85 34	108 50	90 39	74 50	80 44	
5	VA 220035	GLEN FALLOCH VA22003	EX 180217	VA 160027	0.1	87 69	100 47	129 43	85 29	98 37	99 32	96 41	97 36	
6	VA 230017	VA230017	EX 180217	VA 200020	0.1	117 67	91 52	118 42	82 29	98 37	90 32	77 43	82 38	
7	VA 230025	VA230025	NRF 180025	NRF 090260	0.6	114 70	93 49	94 46	104 27	95 38	90 33	90 43	89 38	
8	VA 230037	VA230037	NRF 180025	VA 120011	0.4	105 70	100 46	99 42	93 25	105 34	99 30	96 40	97 35	
9	VA 240030	VA240030	EX 180217	VA 210015	0.1	93 66	111 64	125 45	76 29	98 36	99 34	95 48	96 41	
10	VA 240047	VA240047	EX 180217	VA 210023	0.1	111 66	99 51	126 41	76 30	99 36	95 32	83 43	87 38	
11	VA 240056	VA240056	EX 180217	VA 210047	0.1	98 66	105 67	130 44	74 31	100 37	99 35	88 50	93 42	
12	VA 240058	VA240058	EX 180217	VA 210070	0.1	112 67	90 66	123 44	82 31	100 37	94 35	79 50	85 42	
13	VA 240068	VA 240068	NRF 180025	VA 140037	0.8	109 68	100 46	107 44	87 25	105 37	99 31	92 41	95 36	
					★★									
1	VA 140037	VA140037	AVM 050348	XK 090017	0.7	111 74	84 54	97 62	103 27	99 50	89 39	83 51	85 45	
2	VA 150049	GLEN FALLOCHVA150049	VA 080007	VA 100002	0.3	112 72	90 47	101 51	99 30	89 49	83 37	84 46	82 42	
3	VA 160047	VA160047	VA 080007	VA 090012	0.3	102 73	76 65	84 57	109 22	101 49	85 39	74 53	77 46	
4	VA 220024	VA220024	EX 180217	VA 170035	0.1	109 68	77 46	114 40	86 29	102 33	87 30	68 40	75 35	
5	VA 220043	GLEN FALLOCH VA22004	EX 180217	VA 190034	0.8	117 66	82 44	112 35	85 25	92 34	80 28	66 38	70 33	
					★★☆									
1	NRF 160852	NRF 160852	T 100344	NRF 120540	0.1	99 78	96 69	85 73	94 39	85 53	72 46	75 61	72 54	

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	VA 250036	VA250036	EX 180217	VA 160051	0.1	115 50	89 52	116 43	86 27	109 37	101 32	85 43	91 38
					★★★★☆								
1	VA 250003	VA250003	NRF 180025	VA 160070	1.4	120 53	95 42	108 38	91 19	103 33	98 27	91 36	94 32
2	VA 250047	VA250047	EX 180217	NRF 190119	0.4	85 67	105 66	127 47	78 33	100 38	99 36	91 51	94 44
3	VA 260008	VA260008	EX 180217	VA 210070	0.1	104 66	97 51	121 44	80 31	99 37	94 33	83 43	87 38
4	VA 260015	VA260015	EX 180217	VA 210039	0.1	72 66	107 53	126 42	81 30	96 37	96 33	94 44	95 38
					★★								
1	VA 250035	VA250035	EX 180217	VA 160047	0.2	125 55	85 52	106 43	86 27	100 37	87 32	71 43	77 38
2	VA 260007	VA260007	EX 180217	VA 140037	1.1	121 66	86 49	113 44	85 28	97 37	87 32	73 42	78 37

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	VA 260016	VA260016	NRF 180025	VA 170060	0.4	123 69	94 49	112 40	90 25	118 36	113 31	98 41	105 36
									★★★★				
1	VA 260001	VA260001	NRF 180025	VA 220051	1.6	108 67	102 47	115 39	83 26	109 33	105 29	95 39	99 34
									★★★☆☆				
1	VA 250026	VA250026	EX 180217	VA 170023	0.1	121 55	83 47	106 43	90 29	107 36	95 31	78 41	84 36
2	VA 250057	VA250057	EX 180217	VA 150055	0.2	118 68	91 52	116 48	90 31	102 38	98 34	89 45	92 40
3	VA 260012	VA260012	EX 180217	VA 180096	0.8	108 66	90 44	119 35	84 26	97 35	90 29	79 38	83 34
									★★★				
1	VA 250048	VA250048	EX 180217	NRF 160852	0.5	94 67	104 64	104 48	82 32	91 39	83 36	81 50	80 43

	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.

