

Boerboel Genetic Evaluation

SA Stud Book

Augustus 2025

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POSBUS 1329

BETHAL

2310



Kennel Number: 682585



Estimated Breeding Values (EBVs)

Litter size and conformation traits are influenced by many genes, with every gene making a small contribution to the expression of the trait. These traits are, however, also influenced by physiological and physical environmental factors, for example the age and sex of the animal, the feeding and management the animal received and year x season effects. It is therefore not possible to know what the animal's genetic potential for the trait is by merely using the measurement.

With BLUP (*Best Linear Unbiased Prediction*) methodology an animal's genetic potential is predicted by making use of the genetic parameters (heritabilities and genetic correlations) of the breed, pedigree information, as well as the measurements of the animal as deviation from the average of the animals that were measured with the animal. Adjustments are made for differences in sex, age, classifier, management and year x season effects to ensure that fair comparisons are made amongst the animals. These predictions are called **EBVs (Estimated Breeding Values)** which indicates the animal's genetic potential for the specific trait and predicts the type of progeny that the animal will breed.

Pedigree information determines the genetic level at which the animal enters the genetic evaluation, it links the information of all relatives together and it is used to determine the genetic ranking of the breed. For young animals that were not yet measured, mid-parent EBVs are estimated, which are the average of the EBVs of the sire and dam. These breeding values are still inaccurate and can change a lot when more information (measurements) is included in subsequent genetic evaluations.

Breeding values therefore enables a breeder to compare his/her animals genetically to one another, as well as to all other animals of the breed. This Report gives a summary of the genetic levels of the active males and females of the relevant breeder in comparison to that of the breed for linearly classified traits and litter size. The genetic change that occurred over time can also easily be seen.

Breeding Value Indices (EBVi)

For easy interpretation, EBVs are standardised and expressed relative to the average (100) of the active animals of the breed, using 12 as standard deviation (SD). This means that an EBV of 100 is equal to the active average of the breed, and more or less 50% of the animals will have EBVi's of between 90 and 110, which indicates an average animal. Only 0.5% of the EBVi's will be lower than 64 and 0.5% will be higher than 136. Higher EBVi's indicate better genetic potential for the trait.

Accuracy

EBVs are published with an **accuracy value (%)**, which indicates how much info was available for the estimation of the EBV and with how much trust it can therefore be applied. Factors that influence the accuracy include heritability, completeness and correctness of pedigree information, number of own and measured relatives and the size of the group in which the animal was measured. When an accuracy of 85% and more is reached, the EBV should not change significantly with the inclusion of more information in subsequent genetic evaluations.

Kennel and Breed Averages: The different traits' averages of the breeder's active animals are compared to those of the breed in the Kennel and Breed Average Graphs and Tables. The breeder can therefore easily see for which traits the animals are above or below the average of the breed.

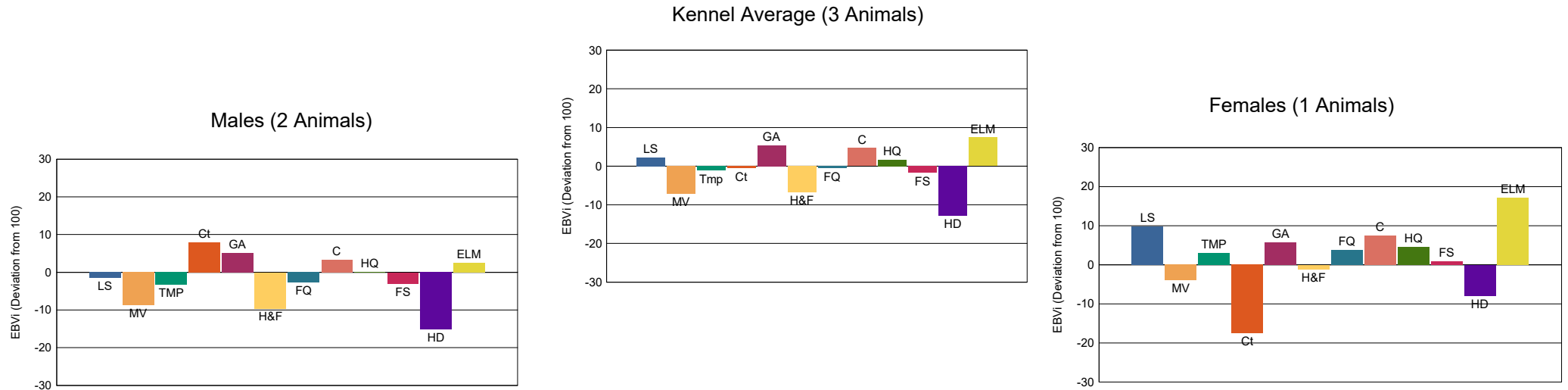
Genetic Trends: The Genetic Trends indicate the genetic change that occurred over time in the animals bred by the breeder compared to that of the breed. These are calculated as the average of the breeding values of all measured animals bred by the breeder, per year of birth.

Inbreeding: Inbreeding is the mating of related animals and is widely viewed as being harmful. The danger of inbreeding lies there in that it can gradually decrease fertility and survivability – a phenomenon known as inbreeding depression. It can cause lower conception rates, more abortions, more stillborn and weak offspring and a higher susceptibility to diseases. Indications in dogs include a low litter size as well as problems relative to fertility, such as invisible heat, behavioural problems when mating and low sperm quality. Overall, reduced litter size most likely reflects inbreeding depression in several traits, both physiological and behavioural, as well as a high frequency of non-viable embryos due to lethal alleles. Generally, the effects of inbreeding can become noticeable at a value of 6.25%, therefore it is generally recommended that individuals should have inbreeding coefficients of less than 6.25%. Breeders should therefore avoid matings causing inbreeding of more than 6.25% in the progeny. The theoretical maximum inbreeding coefficient is 50%. However, it should be noted that not all inbred animals show signs of inbreeding depression.

The data used in this evaluation was obtained from LOGIX from linear classifications that were done by the Breeder Society. All possible attempts have been made to present the information correctly. SA Stud Book does not accept responsibility for the use and interpretation of the information presented on animals in this publication.

Genetic Levels

Kennel Average relative to Breed Average, where Breed Average is indicated as 0



Average Breeding Value Indices (EBVi) where Breed Average = 100

Trait	All Animals	Males	Females
Litter size (LS)	102	99	110
Movement (Mv)	93	91	96
Temperament (Tmp)	99	97	103
Coat (Ct)	99	108	83
General Appearance	105	105	106
Head & Face (H&F)	93	90	99
Front Quarter (FQ)	100	97	104
Centre (C)	105	103	107
Hind Quarter (HQ)	102	100	105
Final Score (FS)	98	97	101
Hip Health (HH)	87	85	92
Elbow Health (ELM)	107	103	117

Inbreeding

Notes

Inbreeding primarily leads to decreased fertility, low survivability of pups and low disease resistance.

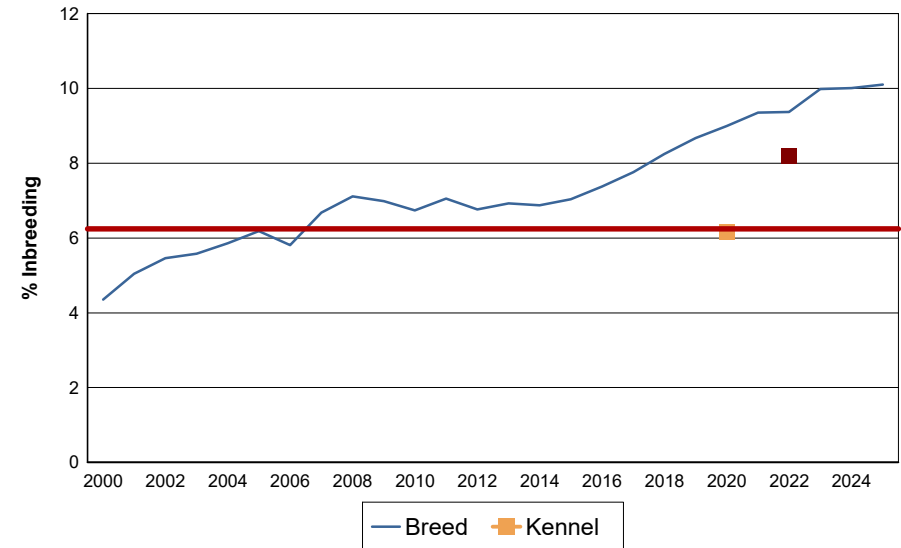
Inbreeding coefficients are calculated for all animals of the breed and indicates the probability that two genes of a pair are the same due to a common ancestor in the pedigree of the animal.

The adverse effects of inbreeding can be observed from 6.25% onwards.

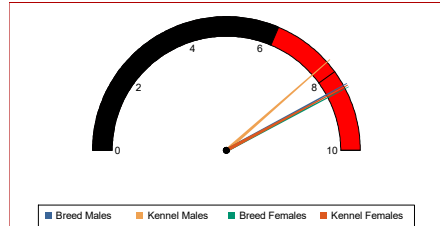
It is therefore highly recommended to record pedigree information as accurately. Inbreeding is dependent on pedigree information. Conventional methods for the calculation of inbreeding coefficients usually assume that unknown parents are unrelated, which is usually far from the truth. Inbreeding coefficients are therefore conservative indicators of the level of inbreeding.

Incomplete or incorrect pedigree information can be reported to SA Stud Book via the Breed Society.

Rate of Inbreeding



Inbreeding Indicator

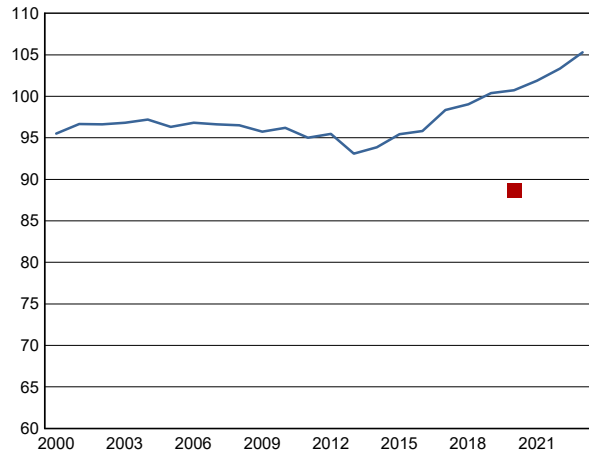


Inbreeding Levels

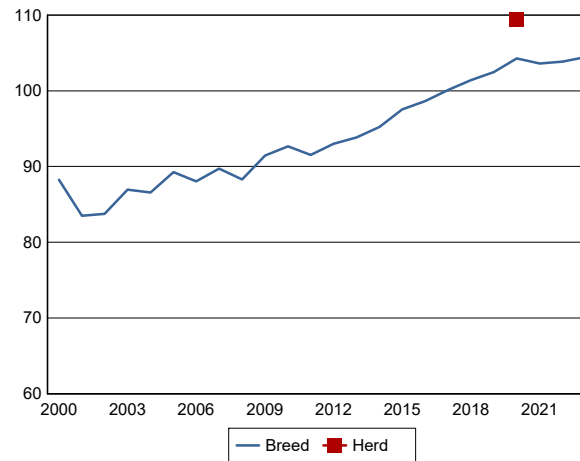
	All Animals		Males		Females		Sires		Dams	
	Kennel	Breed	Kennel	Breed	Kennel	Breed	Kennel	Breed	Kennel	Breed
Number	3	47352	2	24262	1	23081	3	3250	3	6056
Average Inbreeding	7.95	8.43	7.71	8.39	8.43	8.47	8.61	7.93	6.84	7.94
Number inbred	3	47082	2	24113	1	22960	3	24113	3	22960
Number >6.25% Inbr.	2	29018	1	14700	1	14313	2	14700	2	14313

Genetic Trends

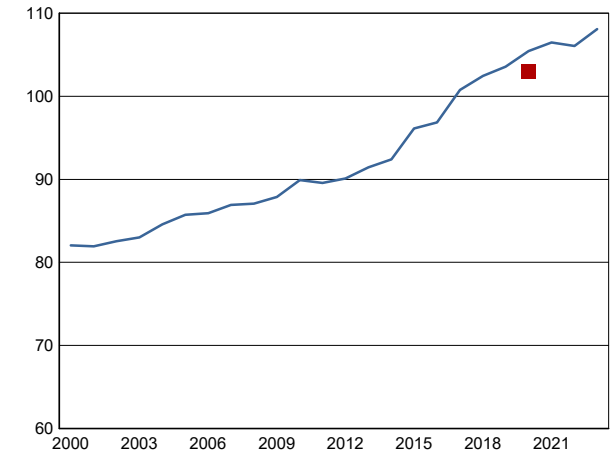
Litter Size



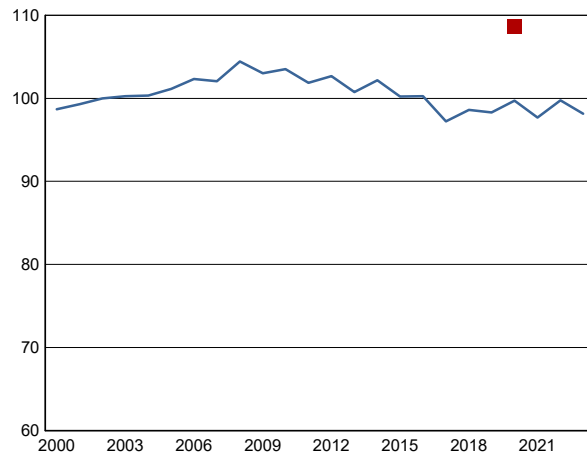
Movement



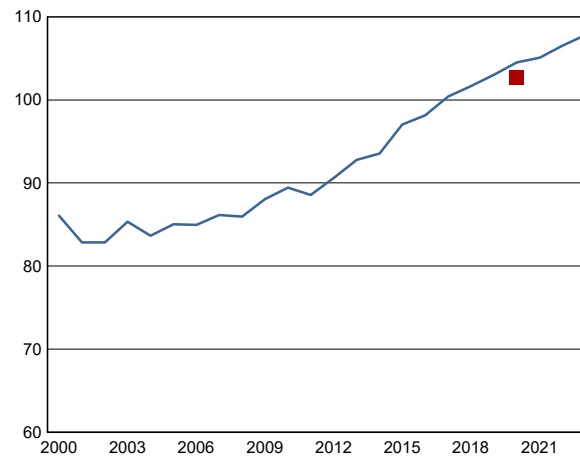
Temperament



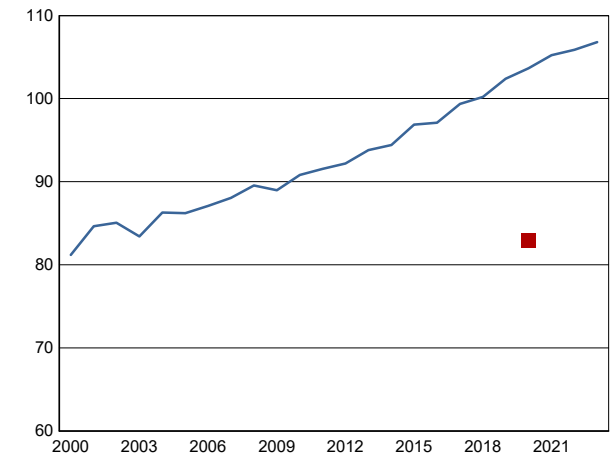
Coat



General Appearance

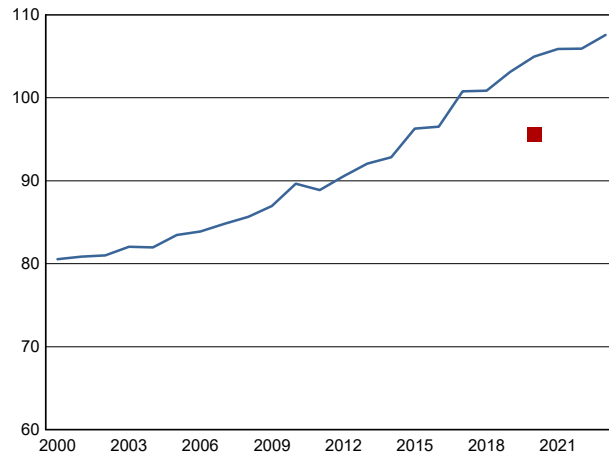


Head & Face

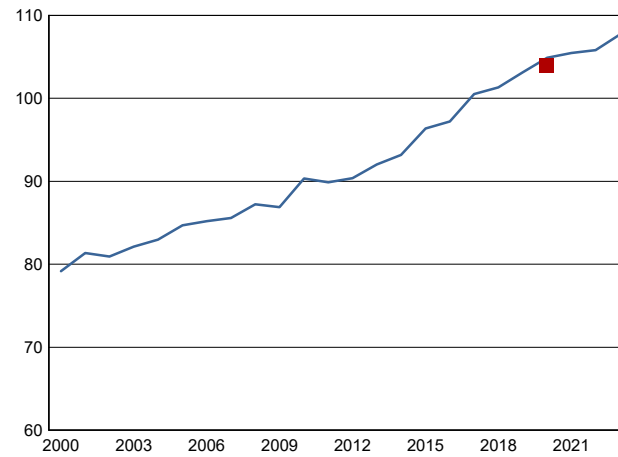


Genetic Trends

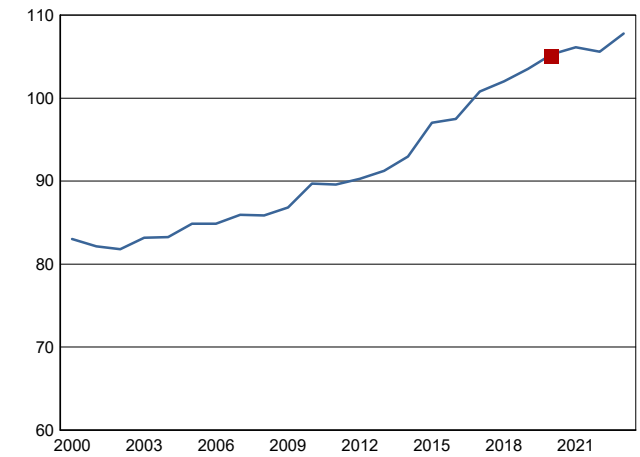
Front Quarter



Centre

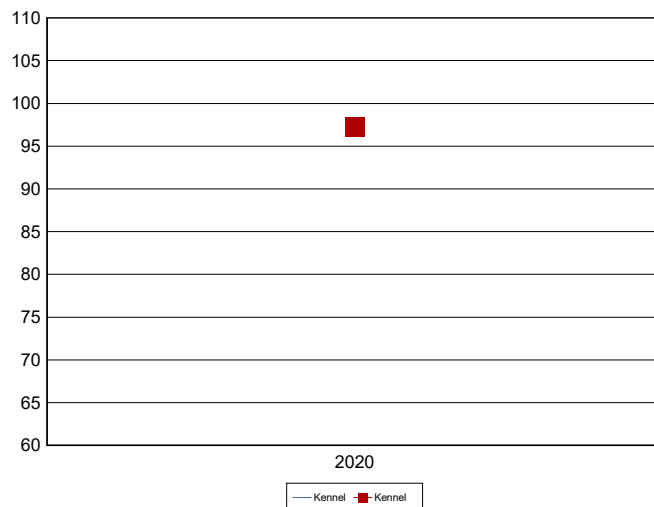


Hind Quarter

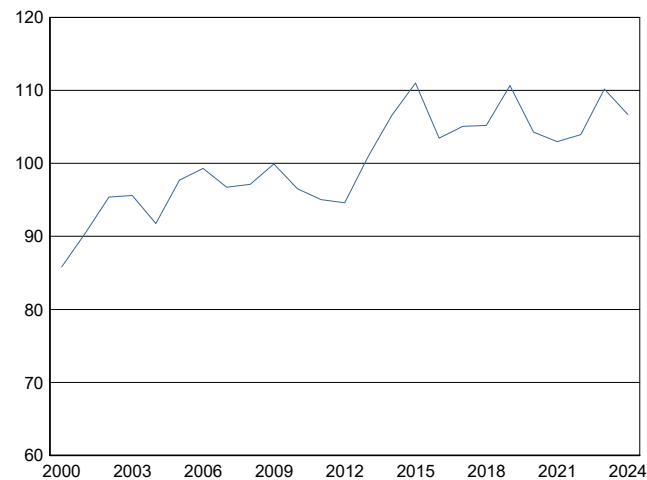


Final Score & Health Traits

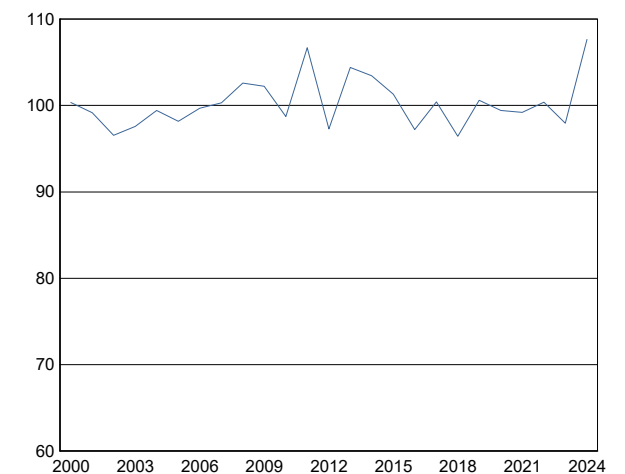
Final Score



Hip Health



Elbow Health



Estimated Breeding Value Indices (EBVi's)

Males

Inbreeding >6.25% is high

< 80

>= 100

>= 120

Animal Information			Inbreed	Health		Fertility	General			Appearance						Progeny :		Appraisal	Health		Progeny with litters
Name	BYr	Sire Dam	%	Hips Acc.	Elbows Acc.	Litter Size Acc.	Move-ment	Tempe-rament	Coat	General Appear.	Head & Face	Front Quarter	Centre	Hind Quarter	Final Score	Progeny	Litters	Progeny Kennels	Hips	Elbows	
SAMARA LOGAN		BEL BOUA SMOKEY	6.15	96	101	89	107	101	99	101	73	89	98	100	89						
	2020	KLEIN SANDFONTEIN NYX 5		5	5	7	40	5	59	39	57	41	43	46	52						
BODINGTON BOERBOEL BOMAZ		BODINGTON BOERBOEL THE ROCK	9.26	74	104	108	75	92	117	109	108	105	108	101	105						
	2023	BODINGTON BOERBOEL BLACK PEARL		5	5	10	43	5	62	42	60	44	46	49	55						

Estimated Breeding Value Indices (EBVi's)

Females

Inbreeding >6.25% is high

< 80

>= 100

>= 120

Animal Information			Inbreed	Health		Fertility	General			Appearance						Progeny :		Appraisal	Health		Progeny with litters
Name	BYr	Sire Dam	%	Hips Acc.	Elbows Acc.	Litter Size Acc.	Move- ment	Tempe- rament	Coat	General Appear.	Head & Face	Front Quarter	Centre	Hind Quarter	Final Score	Progeny Litters	Progeny Kennels		Hips	Elbows	
CDH PRETTY BELINDA		COLOS BUFFEL	8.43	92	117	110	96	103	83	106	99	104	107	105	101						
	2021	CDH DOLLA		5	5	26	48	20	64	47	63	49	51	54	59						

Estimated Breeding Value Indices (EBVi's)

Sires

Inbreeding >6.25% is high

< 80

>= 100

>= 120

Sire Information			Inbreed	Health		Fertility	General			Appearance						Progeny :		Appraisal	Health		Progeny
Name	BYr	Sire Dam	%	Hips Acc.	Elbows Acc.	Litter Size Acc.	Move-ment	Tempe-rament	Coat	General Appear.	Head & Face	Front Quarter	Centre	Hind Quarter	Final Score	Progeny Litters	Progeny Kennels	Hips Elbows	with litters		
BEL BOUA SMOKEY		STEPHANO STRAATKAT OMEGA	6.35	97	103	84	104	99	116	100	71	86	93	101	88	9	1	4		1	
	2017	VOEL GERUS JANA I		5	5	7	45	8	64	45	63	46	49	52	58						
COLOS BUFFEL		TARGUS RAM	5.55	84	126	119	99	103	68	107	105	108	118	104	104	57	6	15		5	
	2019	KLEIN SANDFONTEIN AKITA		5	10	40	65	42	78	65	77	66	68	70	74						
BODINGTON BOERBOEL THE ROCK		TARGUS RAM	13.93	62	110	96	71	90	94	107	104	102	104	93	97	28	5	7		1	
	2020	BODINGTON BOERBOEL PHOEBE		5	5	30	59	32	74	59	73	60	62	65	69						

Estimated Breeding Value Indices (EBVi's)

Dams

Inbreeding >6.25% is high

< 80

>= 100

>= 120

Animal Information		Inbreed	Health		Fertility	General			Appearance						Progeny :		Appraisal	Health		Progeny with litters
Name	BYr	Sire Dam	%	Hips Acc.	Elbows Acc.	Litter Size Acc.	Move-ment	Tempe-r ament	Coat	General Appear.	Head & Face	Front Quarter	Centre	Hind Quarter	Final Score	Progeny	Litters	Progeny Kennels	Hips Elbows	
KLEIN SANDFONTEIN NYX 5	2017	KLEIN SANDFONTEIN MATANA	7.51	95	99	94	113	106	101	106	94	105	116	112	106	9	1	4		1
		KLEIN SANDFONTEIN REEVA		19	28	40	47	27	59	47	58	48	50	52	55			3		1
BODINGTON BOERBOEL BLACK PEARL	2018	SA SUPERIOR GUNNEY	4.53	85	97	120	96	100	116	109	92	101	105	103	100	16	2	6		2
		BODINGTON BOERBOEL BLACK ROSE		5	5	39	52	18	70	51	69	53	55	58	64			5		1
CDH DOLLA	2019	CDH SNIPER	8.50	101	109	101	107	107	116	106	99	105	101	107	106	21	3	7		1
		LOURENTIA BOLLA		5	5	50	56	31	71	55	71	57	59	61	66			7		1

