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Simbra

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Why the Simbra Breed?

The evolutionary development of Simbra's parent-breeds differs greatly. The Simmental from central Europe was adapted to long cold winters and used for both milk and beef. Zebu cattle, the genetic pool from which the Brahman breed is derived, originates from India, an environment of heat, humidity, disease, and parasites. The purpose of the Simbra was to raise a breed that could adapt to diverse South African environments, not only the physical environments but also production systems and market requirements. To achieve this goal, the milk and beef production capacity of the Simmentaler was combined with the adaptability, disease resistance, and hardiness of the Brahman. The Simbra breed is an easy to farm with breed that has cows and heifers with outstanding maternal ability and reproduction, and bulls that thrive in all production systems.

Why Stud Breeding?

The difference between stud breeding and commercial breeding is the recording of pedigree and performance data and after genetic analysis, the interpretation and application of that data. It is imperative that a measurable process is in place to ensure that stud animals make genetic progress and ultimately transmit that genetic potential to next generation of both stud and commercial animals. A balanced approach that places sufficient emphasis on genetic and phenotypic traits that have economic relevance, as well as optimal utilisation of all available resources is the key to successful stud breeding.

Purpose of the Manual

The beef production climate is continually evolving and requires progressive breeders to meet economic demands. At Simbra our mission is to provide quality service and leadership that promotes genetic progress within the breed and ensures a high return on investment for our valued members and their clients. Parallel to the requirements of the global livestock industry, we hope that Simbra breeders share our vision to produce safe, high-quality sought-after beef profitably, whilst maintaining animal welfare and a low carbon footprint.

Everything must be scientifically substantiated.

This Inspectors manual aims to provide Simbra Inspectors/Judges with the essential information, procedures, and tools to strengthen their knowledge and progress the Simbra Breed. Thereby facilitating the profitable production of a highly sought-after product that is well adapted to Southern Africa's unique and diverse farming conditions and meets the demands of the beef industry.

Genetic Evaluation and Selection of Cattle

Key Factors Affecting Genetic Progress

The phenotype (what we see) is comprised of genotype and the environment. You should all be familiar with the formula P = G + E. The goal of a stud breeder should be to add value through performance by means of genetic improvement. A farmer generally has two main ways in which he can attempt to raise the performance of the animals. He/she can either improve their genetic environment (E) or try and change their genetic make-up to increase their genetic potential (G). The various traits of cattle are genetically controlled and inherited through genes that contain basic hereditary material. These genes can be manipulated to achieve genetic improvement by either increasing the frequency of favourable genes or combinations of genes by selection or by introducing new genes into the population thereby facilitating genetic progress.

Genetic Progress = <u>Selection Intensity x Accuracy x Genetic Variation</u> <u>Generation Interval</u>

Genetic progress is when the current generation's economic traits (yield potential) are better than the generation from which they were bred.

The major factors which affect efficiency and genetic progress are as follows:

<u>Selection Intensity</u>: Selection intensity is the intensity with which a subset of animals in a given group is selected to breed the next generation. Breeding every animal in the population would be a low selection intensity, and on its own, would not contribute to genetic progress in the next generation. On the contrary, identifying the top 20% of the population and breeding them exclusively would represent a high selection intensity and drive genetic progress in subsequent generations. The higher the selection intensity the more genetic progress is expected.

Accuracy: Accuracy is the strength of the relationship between true breeding value and its estimated breeding value being used for selection. Accuracy of selection depends on several factors. Heritability being one of them, any steps taken to increase heritability – managing animals uniformly, taking careful measurements, and using correct contemporary groups will increase the accuracy of selection. The higher the accuracy the more genetic progress is expected.

Variation: Variation is the differences that exist between the best animals for a given trait and the worst animals for the same trait. If there is little genetic variability for a trait, we expect to see less/slower genetic progress. The higher the variation the more genetic progress is expected.

<u>Generation interval</u>: The average age of the parents when their offspring are born and represents the time interval between generations. The shorter the generation interval the more rapid the genetic progress.

This basic formula forms the "Key Equation" to animal breeding and should always be kept in mind.

Performance Recording and EBVs

Performance Recording

The recording of performance data forms the basis of stud breeding and allows for the calculation of arguably the most valuable tool in modern stud breeding: Estimated Breeding Values (**EBVs**). The use of which, in conjunction with traditional selection techniques, facilitates genetic improvement in the herd. An animal's true additive genetic breeding value is never known, which is why we use statistical procedures such as BLUP to get an estimation (EBV) as close to possible to the animal's true breeding value. The BLUP statistical procedure used to calculate EBVs removes the environmental effects from this value. This EBV represents the value of an animal as a genetic parent, it quantifies the part of the individual's genotypic value that is due to independent and therefore transmittable gene effects.

Figure 1 shows a timeline that explains what traits to record and when and can be used in conjunction with the LRF Test plan to help you plan your performance recording programs. The data that is collected from this recording program is then used to calculate EBVs.



Figure 1: Timeline for Performance Recording

Figure 2 can be used in conjunction with the timeline above to help you plan your performance recording according to your calving seasons. If you have two calving seasons, when one group is weaned you can weigh the previous years 600d weights, and 400d weights will generally be in the same month as the current years birth weights, etc.

Figure 2: Data Recording for Two Calving Seasons

Two Calving Seasons	Birth	200-day	400-day	600-day
2016 Calf crop_Winter	May-16	Nov-16	May-17	Nov-17
2016 Calf crop_Summer	Nov-16	May-17	Nov-17	May-18
2017 Calf crop_Winter	May-17	Nov-17	May-18	Nov-18
2017 Calf crop_Summer	Nov-17	May-18	Nov-18	May-19
2018 Calf crop_Winter	May-18	Nov-18	May-19	Nov-19
2018 Calf crop_Summer	Nov-18	May-19	Nov-19	May-20
2019 Calf crop_Winter	May-19	Nov-19	May-20	Nov-20
2019 Calf crop_Summer	Nov-19	May-20	Nov-20	May-21

The LRF Test Plan shown is a guideline that outlines the requirements and age range for collecting performance data. Once that data has been recorded it needs to be sent into the society, this is usually done via an Excel Submission form or a Herdmaster file. These excel forms can be obtained from the Simbra Office or on the Simbra Website (<u>www.simbra.org</u>), where you will also find presentations explaining how to complete each of these forms.



	LIVENDERWIK REGISTRERIOD FEDERASIE LIVENDERWIK REGISTRERIOD FEDERASIE	LRF Test plan Execution				
When measured	What to measure	<u>Requirements</u>	How to Submit (1)	Age ranges of Animals	Slice Groups (2)	EBV's and outputs to be generated
Mating Season	Reproduction:- Days to Calving (DTC) Gestation Length	Record bull in, bull out dates Do preg test and record females not in calf, including heifers Submit all mating dates for whole herd annually, including disposed animals with DTC disposal codes	Electronically via *HerdMaster or Society Mating (DTC) spreadsheet	All serviceable females in mating herd, including all DTC disposal codes for the year	A maximum three month breeding season recommended. Continuous mating not applicable	Days to Calving (DTC) Gestation Length (GL)
	Birth Weight (BW)	Weight		Within 24 hours of calving	45 1	Birth Weight
Calving	Calving Ease Scores	Score 1 (Unassisted) to 6 (Elective Surgical)	With Birth notifications		45 a	Calving ease direct and daughters
TSU (Tissue sample unit) or Hair sample (preferably at calving)	DNA profile (SNP test)	Is an on farm responsibility. All societies: Send 2 x hair cards (60 hairs each) to society. Or send 1 TSU + 1 hair card to society.	Producer submits TSU or Hair samples. Hair samples managed by Society; Breed Society forwards sample (s) to DNA laboratory.	n/a	n/a	Genomic EBV's (GEBV's)
	200-day Weight	Weaning weight		80 to 300 days	45 d	200 day weight
	Sheath/Naval	Score from 1 (pendulous) to 9 (clean)		80 to 300 days	45 d	Sheath/Naval (Research)
Weaning (WW)	Docility	Score All breeds (1 = docile to 5 = aggressive) Brahman (1 = aggressive to 9 = docile)	Electronically via HerdMaster or	80 to 300 days	45 d	Docility
(200 day)	Mature Cow Weight (MA)	Weigh cows at wean of calves	Society Excel spreadsheet	870 to 3900 days		MCW (first four records used)
	Body Condition (BC)	Score cows for BC at time of MCW measurement (preferably at wean) Score from 1 (Emaciated) to 9 (extremely Fat)		At weaning of calf	60d	Adjusted MCW (Research)
	Hip Height of the cow (HH)	Hip Height of the cow		870 to 3900 days		Frame score (Research)
	400-day weight	Weight		301 to 500 days	60 d	400 day weight
(400 day)	Scrotum	Scrotum circumference (cm) preferably done on same day at 400-day weight	Society Excel spreadsheet	300 to 700 days	60 d	Scrotum

Ultrasound	Carcass traits and weight	Accredited scanner to do scanning preferably at 400-days or 600-day weight	Data to be given to producer. Submits RTU data to Society within 24 hours, electronically via HerdMASTER or Society Excel spreadsheet	300 to 800 days (Must be in best condition)	60 d	Carcase wght, Eye- muscle-area, rib-and rump fat, % retail-beef- yield, inter-muscular-fat
scanning	Scrotum	Scrotum circumference (cm) done on same day as weight required for Ultrasound	Electronically via HerdMASTER or Society Excel spreadsheet	300 to 700 days	60 d	Scrotum
	Hip Height (HH)	Hip height in cm	Electronically via HerdMASTER or Society Excel spreadsheet	500 to 800 days	60 d	Frame score (Research)
19 months (EW)	600-day weight	Weight	Electropically via HardMaster or	500 to 900 days	60 d	600 day weight
600 day	Scrotum (if not measured at 400-day weight)	Scrotum circumference (cm) preferably done on same day at 600-day weight	Society Excel spreadsheet	500 to 700 days	60 d	Scrotum
		Calan gate: 28 day adaptation, followed by 84 days testing GrowSafe or similar: 10 to 21 day adaptation, followed by 70 days testing Sernick: 28 day adaptation followed by 84 days		210 to 700 days at start of test. The LRF however	60 d	NFI (post wean)
During NFI test Net F	Net Feed Intake	testing Minimum contemporary group size of 5 animals with a minimum of two sires' progeny per group (recommended that one sire is a link sire). Refer to LRF test protocol	Results to be submitted to Society by test station in correct format (ILR2)	following: Minimum age of 210 days at start of adptation or such higher age to measure SS before end of test after 300 days of age.	60 d	NFI (feedlot finishing)
Abattoir records & Image scanning	Live weight; Fat depth (Rib); Carcass weight; Dressing %; Hump height; Optional:-Meat & fat Color; IMF% (1 - >12 %);PH & Temperature	Minimum contemporary group size of 5 animals with a minimum of two sires per group (one sire should be a link sire). Animals can be from a RFI test group, on farm or natural pastures. Must be a contemporary group fed through life in same conditions until age of cull. To be done by abattoir and/or image scan operator.	Data submission by abattoir & scan operator to Society	Cull age determined by each Breed based on best finishing age for Breed and finishing system; 300d to 1000d	60d	Carcase weight Marbling % Fat depth (mm) % Fineness EMA Fat color (Research) Meat colour (Research)
Meat lab	Fat depth (Rib); -Meat & fat Color;IMF% (1 - >12 %);PH & Temperature; Warner- Bratzler (tenderness) Optional: Fatty acid profiles	Minimum contemporary group size of 5 animals with a minimum of two sires per group (one sire should be a link sire). Animals either be from a NFI/RFI test group, on farm or natural pastures. Must be a contemporary group fed through life in same conditions until age of cull.	Data submission by meat lab to Society. Meat sample for meat lab to be collected marked and packed to meat lab	After standardized ageing period after slaughter within contemporary group	60d	Eye Muscle Area Rib fat, % inter-muscular-fat Tenderness Fat color (Research) Meat colour (Research) Fatty Acid Profiles (Research)

Estimated Breeding Values and their Accuracies

An EBV is the average genetic value of an animal as a genetic parent, it quantifies the genotypic value that is due to independent gene effects and therefore transmittable gene effects. The BLUP statistical procedure used to calculate EBVs removes the environmental effects from this value. EBVs should always be assessed with their accuracies and the current breed average when making selection decisions. Comparing EBVs with the breed average gives you an indication of how the animal compares with the current genetic level for the breed for each trait. If we consider an animal with +25kg EBV for 200-day weight with the breed average of +16kg this indicates that this animal is genetically superior by 9kg (i.e.25-16 = 9) than the current genetic level for growth at 200 days. It is also important to remember that only half of an animals EBV is passed onto the progeny. At birth, an animals EBV is made up (approximately) of 50% of the Sires EBV and 50% of the Dams EBV for that respective trait. When Breedplan calculates an animals EBVs they are published in a table form as shown in Figure 3.

Figure	3:	EBV	Table
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	October 2021 South African Simbra BREEDPLAN														
			200	400	600	Mat			Days		Eye			Retail	
1.1	Gestation	Birth	Day	Day	Day	Cow		Scrotal	to	Carcase	Muscle	Rib	Rump	Beef	
ш	Length	Wt.	Wt	Wt	Wt	Wt	Milk	Size	Calving	Wt	Area	Fat	Fat	Yield	IMF
	(days)	(kg)	(kg)	(kg)	(kg)	(kg)	(kg)	(cm)	(days)	(kg)	(sq cm)	(mm)	(mm)	(%)	(%)
EBV	-0.6	+2.6	+25	+39	+50	+55	+4	+1.4	-	+24	-1.3	-0.9	-1.1	0.0	-0.1
<u>Accuracy</u>	45%	75%	72%	69%	71%	60%	41%	68%	-	60%	45%	53%	53%	44%	33%
	Breed Avg. EBVs for 2019 Born Calves Click for Percentiles														
EBV	-0.8	+1.2	+16	+24	+31	+34	+4	+0.7	-1.5	+17	+0.2	-0.3	-0.4	+0.2	+0.0
	Traits Analysed: BWT,200WT,400WT(x2),600WT(x2),SS,FAT,EMA														

The EBVs are accompanied by an accuracy that reflects the relationship between the True EBV and an Estimated EBV and provides an indication of how much a breeder can trust an EBV, and how much risk is associated with it. Table 1 below illustrates EBV accuracy against risk.

Accuracy	Reliability	Risk
<50%	Low	High
50-74%	Medium	Medium – High
75-90%	Medium-High	Medium
>90%	High	Low

EBVs should always be assessed with their accuracies when making selection decisions. Another useful tool to be applied when selecting an animal is the EBV Standard Error Graph (Figure 4), it depicts EBVs in graphical form, the possible change in an animal's EBVs for each trait. By considering the accuracy of the EBV and the amount of data that has been collected for that specific trait. The horizontal bar for each trait displays one standard error on either side of the current EBV value, meaning that statistically, there is a 67% chance that the true breeding value for this trait will be within this range. This indicates where an animals' true EBV lies and can be a very useful tool in selection, especially for young animals with low EBV accuracies.

Figure 4: Potential EBV Change

			Breed Avg.		Acc
Gest. Len	Longer	+8.8	-0.8 -10.4	Shorter	45%
Birth Wt	Heavier	+10.2	+1.2 -7.8	Lighter	75%
200 Day Wt	Lighter	-27	+18 +59	Heavier	72%
400 Day Wt	Lighter	-37	+24 +85	Heavier	69%
600 Day Wt	Lighter	-48	+31 +110	Heavier	71%
Mat. Cow Wt	Lighter	-82	+34 +150	Heavier	60%
Milk	Lower	-20	+4 +28	Higher	41%
Scrotal Size	Smaller	-6.8	+0.7 +1.4	Bigger	68%
Days to Calv	Longer	+32.2	-1.6 -35.2	Shorter	
Carcase Wt	Lighter	-28	+17 +24 +82	Heavier	60%
Eye Musc Area	Smaller	-10.5	+0.2 +10.9	Bigger	45%
Rib Fat	Leaner	-8.5	-0.3 +7.9	Fatter	53%
Rump Fat	Leaner	-10.8	-0.4 +9.9	Fatter	53%
Retail Yield	Lower	-8.1	+0.2 +8.5	Higher	44%
IMF	Lower	-3.1	+0.0 +3.1	Higher	33%
		1			

Sources of Information and their Effect on EBVs and Accuracies

As previously mentioned, performance records form the basis from which EBVs are calculated, but more specifically there are three sources of performance records that are required for accurate EBV calculation (commonly known as the 3 P's):

- Pedigree Performance
- Own Performance
- Progeny Performance

Pedigree Performance includes performance data that has been collected on an individual's parents, sibs and half-sibs, etc. Own performance records are those traits measured on the animal itself, and Progeny performance records are those performance records collected on the animals' offspring.



Figure 5: Sources of Information

The graph above shows the percentage contribution of each source of information plotted against the number of progeny records. It can clearly be seen that as the number of progeny records increases, less emphasis is placed on pedigree and own performance records when calculating EBVs. This can be further illustrated in Table 2 which displays the proportional emphasis placed on pedigree, own performance, and progeny performance records.

	Number o	of Records		Proportional Emphasis				ACC
IND	PHS	MHS	PROG	IND	PHS	MHS	PROG	
0	10	2	0	0	.76	.24	0	0.08
0	200	2	0	0	.87	.13	0	0.15
1	10	2	0	.71	.22	.07	0	0.21
1	200	2	0	.54	.40	.06	0	0.26
1	200	2	10	.27	.20	.03	.5	0.39
1	200	2	200	0.03	0.2	0	.95	0.76

Table 2: Emphasis placed on the source of information when calculating EBVs

IND= Individual PHS= Paternal Half-Sibs MHS=Maternal Half-Sibs

In Table 2 you can clearly see that as the number of progeny records increases emphasis is shifted away from pedigree and own performance records. Similarly, in Table 3 the source of information and the number of available performance records influences the heritability of a trait, which in turn is related to the accuracy of selection. As outlined earlier the accuracy of selection is a driving factor in genetic progress.

				Heritability	
Source of	Pedigree	No. of	Low	Moderate	High
Information	Relationship	Records	0.05	0.3	0.7
Individual	1	1	.22	.55	.84
Half Sibs	.25	1	0.06	0.14	0.21
		10	0.17	0.33	0.41
		20	0.22	0.39	0.45
		100	0.37	0.47	0.49
		1000	0.48	0.49+	0.49+
Progeny	50	1	0.11	0.27	0.42
		10	0.34	0.67	0.82
		20	0.45	0.79	0.90
		100	0.75	0.94	0.98
		1000	0.96	0.99	0.99+

Table 3: Accuracy of Selection relative to Source of Information and Heritability

In Table 3 you can see that accuracy increases, regardless of heritability, as the number of records increases. The starting accuracies are just higher for traits that are moderate to highly heritable. This again emphasizes the importance of performance recording.

Importance of Contemporary Grouping

The BLUP analytical procedure used by Breedplan to generate EBVs is designed to remove any known environmental effects from the EBV, thus leaving a value that represents only the independent additive genetic (transmittable) effects. BLUP removes the known environmental effects by constructing contemporary groups. A contemporary group is a group of animals that have experienced a similar environment with respect to the expression of a trait.

Contemporaries typically perform in the same location, are of the same sex, are of similar age, and have been managed alike. If contemporary groups are incorrectly formed, the EBVs will be less accurate and possibly misleading. The underlying principle behind contemporary groups is that only animals that have had an equal opportunity to perform can be directly compared together within a contemporary group.

Breedplan automatically creates contemporary groups of animals for comparison based on the criteria outlined in the figure below. The exact criteria will differ depending on the trait being analysed.

Automatic	Automatic, but can be Breeder Influenced	Breeder Supplied
Herd	Breed	Breeders Management Groups
Calving year	Weight Date	
Sex of Calf	Calf Age (slicing)	
Twins/Single		
Birth Status (Embyo Transfer)		
Age of Dam		

Despite the automatic contemporary grouping procedures applied by Breedplan software, it is still EXTREMELY important to specify breeders' management groups. For Example, animals who have been supplemented feed in preparation for shows need to be specified, animals who fell sick and lost condition before weighing, even if there are significant differences in grazing quality/quantity between camps of your groups, all of these need to be specified in order to adjust for environmental effects.

		Improper Single CG		Correct CG
<u>Animal</u>	<u>Weight</u>	<u>CG Deviation</u>	<u>Management</u>	CG Deviation
1	311	+8	No Creep Feed	+17
2	285	-18	No Creep Feed	-9
3	280	-23	No Creep Feed	-14
4	300	-3	No Creep Feed	+6
5	295	-8	Creep Feed	-18
6	324	+21	Creep Feed	+11
7	327	+24	Creep Feed	+14
8	305	+2	Creep Feed	-8
<u>Averages</u>				
Improper Single CG	303			
No Creep Feed	294			
Creep Feed	313			

The table above illustrates the effects of improper contemporary grouping. In a scenario where all animals are put into one contemporary group (yellow) irrespective of the fact that they had different feeding programs the contemporary group average is 303kg. In this contemporary group, Animal 1 has an EBV of +8kg which places that animal with a ranking of 3rd overall. However, if correct contemporary grouping is applied (blue and green), then you can see that of all the animals that were not fed creep feed, this animal has an EBV of +17kg which ranks this animal 1st in its contemporary grouping is large, and the correct contemporary group specification by the breeders is extremely important.

Although it is important to specify contemporary groups, care should also be taken that the contemporary groups do not get too small. If there are only a few animals to which its performance can be directly compared, then the performance records for that animal cannot be effectively used in a Breedplan analysis. Small contemporary groups are frequently experienced by smaller herds without careful management. To overcome this: Restrict calving periods to 6 - 8 weeks since calves are generally only included in the same group if they are born within 45 or 60 days of one another. Run all calves under the same management conditions. If it is required to split the group, try to weigh the whole group before separating them. Weigh all animals in a group on the same day. Use more than one sire, in instances where smaller herds only have a few sires, try to make use of reproductive technologies such as Artificial insemination to improve herd linkages. If you are using AI technologies try to time it so that AI calves are born around the same time as natural calves.

Another thing to consider with contemporary groups is single sire contemporary groups. In the same way, it is important to have more than one calf represented in each contemporary group, it is also important to have the progeny from more than one sire represented within a contemporary group. Where all the calves in the contemporary group are from the same sire, there are no other calves by sires to which the performance of these calves can be compared (i.e., effective progeny). In this instance, performance records submitted for those calves cannot be effectively used in the Breedplan analysis to calculate the EBVs of their sire. Consciously manage your contemporary groups so that more than one sire is represented in each contemporary group.

Importance of Genetic Linkage

Another important component of the Breedplan analysis is the ability to compare the resulting EBVs of animals running under different conditions. This is achieved using genetic linkage. Genetic linkage is established by the use of common sires across herds. To compare animals from different environments, herds must have some performance recorded progeny from common animals (typically common sires), which are used to benchmark one herd against another. Genetic linkage is also important within a herd to compare animals born in different years and raised in different contemporary groups. At the within-herd level, link sires provide linkage between contemporary groups and dams can provide additional genetic linkage across years. To maintain a level of genetic linkage do not replace all of your sires from one year to the next so that across year comparisons can be made. Also, use sires that have progeny recorded for other traits in other herds. Al sires are a great way to improve the genetic linkage between herds.

Outliers

As part of the ongoing verification of performance data that is collected, Breedplan checks the variation in performance records between animals within each contemporary group. While a certain degree of variation is expected within each group, when the difference between a performance record for an animal and the average of all animals in that contemporary group is greater than expected, the record for the animal is flagged as an outlier. Each time an outlier is identified, an outlier report is forwarded to the relevant herd. This report allows the breeder to correct or verify the performance for the outlier animal, if Breedplan receives no response to the outlier report, the outlier herds are excluded for all future Breedplan analyses. Ignoring the outlier reports is a common cause of performance problems. Verify and correct all outlier reports as soon as you receive them.

Genomics

The Simbra Society of Southern Africa has applied to participate in the Beef Genomics Program (BGP) with the next round (Round 2) set to start in 2023. The BGP is a multi-million-rand project funded by the Technology and Innovation Agency (TIA) and started in April 2015. The main aim of the project is to gather good, reliable data on difficult to measure traits such as feed efficiency, carcass traits, maternal (milking ability), and also on female fertility. Simultaneously whilst gathering this data, the society aims to reach 2000 genotypes to be able to run a genomic genetic evaluation and obtain genomic estimated breeding values (GEBVS). Genomics is the study of how DNA (genome) is organized and expressed as traits. Genomics makes use of genetic markers (Single Nucleotide Polymorphisms or SNPs) to help us understand portions of the chromosome that might influence certain traits of interest, the more markers the better the chance of detecting major genes that influence quantitative genetic traits. You can request genotypic tests (SNP) to be performed on your animals by sending Hair, Blood, or Tissue samples to the Simbra Office (Contact the office for more information). For genomics to be effective, there needs to be genomic and phenotypic data collected on thousands of animals in a reference population. The Breedplan analysis then takes into consideration the known relationships between phenotypes and genotypes to calculate genomic breeding values. Genomic data has been seen to add the largest increases in accuracy to estimated breeding values, and when it comes to modern technology has become the primary driver behind genetic progress. Simbra Breeders are encouraged to take hair/tissue samples for genotyping of their animals.



Understanding Breedplan Reports

Breedplan provides several different reports that can be used by breeders to assess the genetic levels of their current herd. These reports can be found when you log into Internet Solutions, under Download Files. To log into Internet Solutions, you will need to log into the Simbra Website, go to Membership Area and Sign in to Breedplan. Your password can be obtained from the office if you are unsure. If you have difficulty obtaining these reports please contact the Simbra Office. Please note that Completeness of Performance and Breedplan Reports are only updated if additional information (trait recordings) were added in the month of the run. If no additional information was recorded, then the reports stay the same.

Completeness of Performance

The "Completeness of Performance" reports allow members of Breedplan to assess how "complete" the information is for their animals and importantly identify areas in which additional performance information could potentially be recorded. The reports provide a summary of the information that the herd has submitted to BREEDPLAN. A range of statistics are provided within the reports including details of the pedigree, weight, carcass, birth, and fertility information that has been recorded.

This report is where the Breeders can get their star rating. The star rating for each herd is calculated based on the proportion of calves within the herd born in a rolling 5-year period that have performance recorded for each trait. Different criteria are used within each breed depending on the traits for which EBVs are calculated within the breed. Each herd receives a star rating on a 0-5 scale (including half stars) that summarises the "completeness" of their performance information.

Breedplan Report

A Breedplan Report provides you with EBVs and Information on your Sires, Dams EBVs, and also Herd EBV trends as well as adjusted phenotypic trends. The information in these reports is useful when assessing the current herd genetic levels, and setting future targets that fit your breeding objective.

Farm Report

The farm report comes as either a PDF or a CSV format and contains all the animals (with their sires and dams) and all their EBVs as well as Age at First Calving and Intercalving Period. This information can be filtered and sorted on different criteria depending on what it is you are searching for. It can be very useful in determining herd genetic levels and reproductive efficiency (AFC and ICP). A custom farm report can be requested from the office atleast 2 weeks in advance, this report contains a much more comprehensive report.

Selection Indexes

A selection index is a combination of economic weighting factors and genetic information that describe an animals' economic merit as a parent. Traits that have larger impacts on profit or the production goal will have larger economic weights associated with them. Each selection index describes a different production system/market scenario and relates to a typical commercial herd. Producers are advised to use the selection index that most closely aligns to their production system. Simbra has three selection indexes that describe the following production systems:

Self-Replacing Feedlot Index

Estimates the genetic differences between animals in net profitability per cow joined for a herd that keeps replacement females and requires a moderate emphasis on calving ease. Progeny age at turnoff is 14/15 months after 120/150 days of extra feed. Steers target 510kg live weight (275kg carcass weight) and heifers target 445kg (260kg carcass weight). Emphasis was placed on carcass quality.





Self-Replacing Weaner Index

Estimates the genetic differences between animals in net profitability per cow joined for a herd that retains replacement females while excess progeny are sold at weaning to the Feedlot sector. Use this index in conjunction with the self-replacing feedlot index to maximise selection pressure on your replacement females while targeting the feedlot sector endpoint for excess progeny. Significant emphasis is placed on calving ease, 200-day weight, days to calving and carcass yield while moderating mature cow weight.





Grassfed Index

Estimates the genetic differences between animals in net profitability per cow joined for a herd that keeps replacement females and requires a moderate emphasis on calving ease. Progeny age at turn off is 23 months off pasture. Steers are around 500kg liveweight (260kg carcass). Emphasis was placed on carcass quality.





The Blue graphs shows the key economic traits of interest, and attempt to reflect the underlying profit drivers in a commercial operation (a stud breeders target market). While the red graphs represent the most profitable combination of EBVs required to reach the index description. It is important to note, that this weighting (Red Graph) makes the assumption that all animals are recorded for all traits, in order to reach the target described in the index, which is obviously not possible given that not all animals can be recorded for all traits.

The green graph represents the relative change we could see in EBVs if we mated the Top 10% of sires ranked on this index, with all the females in the breed. It is important to note the observed response would be different depending on the group of sires used, and the group of females used in your matings. Find the Index that best fits your production system and target market. But remember these indexes are an <u>indication</u> to which animals' progeny might perform well in certain production systems. It is important to then further asses the individual EBVs of that animals to ensure that they fit your onfarm breeding objective.

Phenotypic Evaluation, Judging and Selection of Cattle

Practical Selection of Cattle

As previously mentioned EBVs should be used in conjunction with their accuracies but also a visual appraisal. An animal might have good genetics but poor structural soundness and functional efficiency and therefore not be able to reproduce, which is why it is important to visually appraise an animal as well. Only cows that are adapted to their environment calve regularly, and they can only be adapted if they have the desired constitution.

The Fertile heifer/Cow

Fertile cows and heifers will always show certain female characteristics, nevertheless, breeders must be aware of the following:

- Forequarter: Femininity and high fertility are associated with a wedge-shaped body with the deepest point through the body, the belly, being close to the udder, with a wedge shape narrowing to the front. The fertile cow has an inconspicuous brisket and a large belly girth and shows no heavy muscle development in fore – or hindquarters. This is in direct contrast with the bull where a well-developed forequarter and a narrow but well-muscled hindquarter are typical masculine characteristics.
- Fat: Cattle that are too fat have lower fertility and infertile cattle get fat. The actual producers are never fat. The low fertile heifer is usually big, heavy, and fat and appears masculine. Fertile cows are not big and beefy in conformation
- Size: Extremes in size, both small and large, should be avoided, although the reasons for doing so could differ. The low fertile heifer is usually big and heavy.
- Shoulder Blades and Hump: In the fertile cow the hump and neck are lean in appearance. The
 highest point of the shoulder blade bones is slightly muscled and protrudes above the dorsal
 vertebrae when the animal moves. In the description of excellence of many breeds, one does
 however find that looseness of the shoulder is considered undesirable. There is, however, no
 evidence that a loose shoulder has ever been detrimental. In fact, well-muscled firm shoulder
 or a rising dorsal vertebra on a cow is an indication of low fertility.
- Udder: early signs of infertility that are normally treated with a measure of suspicion are:
 - o Shrunken teats sunk into the udder
 - Long hair and under-development of the udder.
 - By the way, visual appraisal of the udder is of no value in determining milk production, but sustained milk production is at least dependent on the functional effectiveness and conformation of the udder.
- Sex Organs: A sign of questionable fertility (even if the animal is presently in calf) is the underdevelopment of the external genital orifice with a fat deposit around the tail head.



The Fertile Bull

- Muscle definition and heavy forequarter development.
- A well-developed, heavy, and muscular hump.
- Masculine behaviour, traction, and retraction of testicles.
- Movement of the sheath and coarse hair growth on sheath and switch.
- Coarse hair growth on the head and neck.

The bull's contribution to a beef herd is more than merely the servicing of cows. His contribution is 25-35 times more than that of any cow. The effect on the current herd of the few bulls used in the last three generations is around 87%. The bull can either improve or cause the calving crop to deteriorate more within one year than what two years of selection in the cow herd can achieve. From this, the purchase of a herd bull is of paramount economic importance and should be carried out with extreme caution. The phenotypic traits, as well as the breeding values of the bull, should complement the herd where he will serve. Buying a bull should be viewed as investing money (return on investment). The more alive calves he will produce the lower the bull-cost-per-calf. To produce many calves, we must look at the fertility and semen quality, serving ability and libido, structural correctness (feet, hocks, sheath, testicle size, and shape). If the bull is functionally sound and happy in his environment, he will produce many calves and therefore be a good return on investment.



Anatomy of the Simbra Cow



Simbra Standard of Excellence

A Standard of Excellence of a breed is a detailed manual based only on appearance and is used by breeders and judges for the identifying of animals with desirable characteristics.

The breed is par excellence a medium-framed maternal breed with the characteristic features of extensive adaptability, high fertility, good maternal characteristics (easy calving, good milk production), high relative weaning weight, and the ability to produce a desirable carcass weight directly off the veld. The Simbra Standard of Excellence is made up of three parts. 2.2.1) General Appearance; 2.2.2) Conformation; 2.2.3) Discriminations & Disqualifications

General Appearance

1. Purity	 Characteristic traits must conform to this Standard of Excellence: an adapted beef breed with the good characteristics of both meat and adaptability. The Simbra is a combination of Simmentaler and Brahman and from an F2 Register level should clearly exhibit the characteristics of both these breeds.
2. Type, balance, and form	 A versatile breed that has a sufficient amount of both meat and milk. Animals should exhibit distinct purity of sex, and a good frame, be symmetrically outlined, and stand squarely with hind legs well released.
	 Bulls should be more muscular than females.
3. Character	 Temperament: Calm, manageable, and placid with an alert appearance. Sexual purity (Bulls): Strong, masculine with good overall muscular development, especially on neck and hump, across the forearm, shoulder, eye muscle, and hindquarter. No excessive fat, especially in flanks, brisket, and around the tail head. Well-developed uniform testes and epididymis, sheath not pendulous and uncontrollable. Hair coating in bulls will be more than females, however not too course and woolly, also darker hair over the neck, rump and thighs.
	 Sexual Purity (Female): Female appearance, wedge-shaped outline, especially when in milk. Not over-muscular, large. heavy. or robust.

	 No excessive fat deposits on any part of the body. Well-developed genital organs and a well-balanced udder. Heifers with visual udder and especially teat development.
4. Quality	 Joints firm and dry, hair short and dense with a smooth texture, skin pliable, soft and supple, of medium thickness, hooves strong, closed, and of good quality and texture.

Conformation

3. Centerpiece	• Long, wide, and deep with a good spring of rib.
	Should blend well into fore- and bindquarter
	• The back is straight, long, broad with well-developed muscling.
	• The loin is broad and well-muscled. In bulls, loin muscling sometimes
	appears prominent.
	• Ribs are broad, long, and well-sprung, slanting slightly to the rear.
4. Hindquarter	 Long, wide, and deep with well-developed muscles, joining the
	hindquarter firmly to the centerpiece.
	Good width between hips, pins, and thurls. Hips appear slightly
	prominent in females.
	Rump has a good length from hips to pins with an obvious slope
	down from front to back view from the side.
	Inigns are wide, well-muscled, outside thighs extending below the flank to a wall developed second thigh input thighs are amply filled
	with adequate length
	• The tail head exhibits a slight curve, not too deenly attached to the
	rump
	• The tail is long with a good switch.
5. Legs, hooves,	Legs: Strong, oval, and widely placed to facilitate an easy and free-
stance, and stride	moving stride. The finer bone structure in females.
	• Joints: Strong, firm, resilient, well developed, and dry with the correct
	angle. Achilles is well developed.
	Hooves: Uniform, of medium size, oval, deep, closed, and must be
	able to carry evenly spread weight.
6 Udder and Tests	Udder: Well-attached at the front and rear long broad and of
0. Odder and reats	moderate depth. Exhibits four clearly defined and balanced guarters.
	The udder is covered with short, soft, silky hair.
	• Teats: Uniform, cylindrical, pointed and squarely placed, and of
	adequate length and size.
7. Skin and Hair	• The skin is of moderate thickness, ample, pliable, loose, and supple.
	• Hair is short, thick, glossy, and slightly oily on the touch.

8. Colour and pigmentation	 Pigment of the eyelid is not a prerequisite for female animals but is strongly recommended. F1 to SP bulls must have more than 50% pigment per eye. Hair colour may vary.
9. Size and Weight	 Medium framed animals, that have a low maintenance energy requirement and reproduce regularly in natural conditions

Discriminations and Disqualifications

Emphasis should be placed on functional efficiency. It is important to always make a value assessment some criteria are grounds for disqualification while others are grounds for discrimination depending on the degree of severity. Animals with congenital defects or other defects that impair the functional efficiency of the animal should, in accordance with the Constitution be disqualified (DQ).

CRITERIA FOR DISCRIMINATION/DISQUALIFICATION					
1. Overall	2. Head				
 Any signs of impurity. Temperament – aggressive. Animals with a lanky appearance without capacity and depth. Excessively large animals or pony type. Poor or excessive muscling. Bone structure too fine or too coarse. Woolly or frizzy hair coating. Thin and tight skin (especially in bulls). Poorly pigmented animals (with reference to eye pigment). 	 Skew, twisted jaw, face or muzzle (DQ). Excessively long or short lower jaw (DQ). Fine or pointed mouth. Compact or excessively long head (coffin). Heavy lower jaw in females Underdeveloped eyebrow-ridges. Bulls with less than 50% eyelid pigment per eye are disqualified (DQ). Horns are a disqualification (DQ), with the exception of CUM animals. 				

3. Shoulders	4. Legs
• Shoulders too loose and/or upright.	Faulty stance and stride.
Prominent shoulder points.	• Patella fixation (stringhalt) (DQ).
• Prominent dorsal vertebrae.	 Small, upright hocks.
	• Laminitis.
	Cow hocked.
	Sickle hocked.
	 Bent front legs (X-legged, bow-
	legged(DQ)).
	 Pigeon-toed (DQ).
	 Weak pastern joints (limp or short and
	stiff/steep and/or sprung).
	• Weak hooves (wide split, roll claws (DQ),
	divergent claws).

5. Rump and Tail	6. Chest, back, and centerpiece		
• Flat, roofy, or excessively sloping	 Devil's grip (DQ) and/or girded. 		
rump.	Hollow or severely arched back (humped		
Prominent tail head.	back).		
• Skew tail head.	• Flat centerpiece, little rib spring.		
• Lack of width in pin bones.	Narrow chest.		

Diagrammatic Representation

<u>Scrotum</u>













Sheath

SIMBRA

SKEDE EN NAELVEL KLASSIFIKASIE SHEATH AND NAVEL SKIN CLASSIFICATION

- PUNT <u>ALLE</u> BULLE EN VERSE as die speengewig bepaal word en voltooi punting 1 tot 9 op 200 dae weegvorm. SCORE <u>ALL</u> BULLS AND HEIFERS when the weaning weight is determined and complete scores 1 to 9 on 200 day weighing form.
- 2. Punt bulle soos hieronder uiteengesit. Skede is 'n gekombineerde eienskap wat lengte, vlesigheid, grootte en opening beskryf.
- Score bulls as explained here below. Sheath is a composite trait and describes length, fleshiness, size and opening.
- 3. Punt <u>ALLE</u> verse se naelvel op 'n skaal van 1 = uiters slordig/groot tot 9 = uiters skoon.
- Score the navel skin on a scale of 1 = extremely heavy to 9 extremely smooth/clean for <u>ALL</u> heifers. 4. Punt <u>ALLE</u> diere op plaas - selektiewe punting sal nie aanvaar word nie.
- Score <u>ALL</u> animals on farm selective scoring will not be accepted.



Legs

Side View



Rear View



Front View



<u>Hooves</u>







Too much angle



Too straight









Scissor





FRONT 2











Simbra Breeding Policy

Some Examples of The Different the Breeds Found in S.A				
Sanga	Afrikaner, Bonsmara, Tuli, Nguni, Drakensberger, Hugenoot			
Zebu	Boran			
Bos Taurus	Angus, Hereford, Charolais, Limousin, Wagyu,			



Simbra F2 Register (B)					
రే		Ŷ		3 ♀	
Simbra (F1/F2/F3/SP)	x	Simbra F1	=	Simbra F2	
Simbra F1	x	Simbra (F1/F2/F3/SP)	=	Simbra F2	

Simbra F3 Register (C)				
రే		9		3 ♀
Simbra (F2/F3/SP)	x	Simbra F2	=	Simbra F3
Simbra F2	x	Simbra (F2/F3/SP)	=	Simbra F3

Simbra SP Register				
రే		9		3 ♀
Simbra (F3/SP)	×	Simbra F3	=	Simbra SP
Simbra F3	x	Simbra(F3/SP)	=	Simbra SP

*All animals to be registered must be inspected and approved by a Society Official, in accordance with the Breeds Standards. This inlcudes any animal to be introduced into the Simbra CUM F0 Register.

Simbra CUM Register (AA)										
ð	Ŷ		9							
Simmentaler (Registered)	x Sanga/Sanga Composites	=	Simbra Cum F0							
Simmentaler (Registered)	x Zebu/Zebu Composites	=	Simbra Cum F0							
Brahman (Registered)	x Bos Taurus/Sanga or their Composites	=	Simbra Cum F0							

Simbra (Registered)	-)	x			Simbra Cum F0
	S		Any of the Above	=	Simbra Cum F1
					(IT SIFE VERIFIED)

Simbra F1 Register (A)										
ð		Ŷ		3 ♀						
Simbra (Any F Generation)	x	Brahman (Registered)	=	Simbra F1						
Simbra (Any F Generation)	x	Simbra Cum F0	=	Simbra F1 🌳						
Simbra(Any F Generation)	x	Simmentaler (Registered)	=	Simbra F1						
Simbra (Any F3/F4)	x	Any Beef Breed with 25% Brahman Influence (Registered)	=	Simbra F1						
Any Beef Breed with 25% Brahman Influence (Registered)	x	Simbra (Any F3/F4)	=	Simbra F1						
Simmentaler (Registered)	x	Brahman (Registered)	=	Simbra F1						
Simmentaler (Registered)	x	Simbra Cum F0	=	Simbra F1 ♀						
Simmentaler (Registered)	x	Simbra (Any F Generation)	=	Simbra F1						
Brahman (Registered)	x	Simmentaler (Registered)	=	Simbra F1						
Brahman (Registered)	x	Simbra Cum F0	=	Simbra F1 ♀						
Brahman (Registered)	x	Simbra(Any F Generation)	=	Simbra F1						
* Any F1 Cum Inspected Before 1 March 2013										
* Only female animals born out of Simbra Cum F0 cows may be added to the F1 register. Shown By the symbol										
*Any Cum Female tha	t has	s been Simbra Sire Verified, becomes a S	imbra C	um F1						

Summary of Simbra Breeding Program and By-Laws

Please note that the By-Laws stated below pertaining to the Breeding Program and Policy are summarised and only contain some of the most pertinent information, the complete original copy of the Constitution can be obtained from the Simbra Website (<u>www.Simbra.org</u>) or the Simbra Office.

The Simbra Herdbook

<u>Base Animal Register</u>: This is compiled of any registered and sire-verified Simmentaler or Brahman animals.

<u>FO Development Register:</u> This is compiled of Simbra type *CUM* animals presented for inspection from 1 March 2013 that comply with the inspector's phenotypical evaluation according to the Breed Standards. This female is identified with an AA marking in her ear; any bull calf born out of a FO *CUM* animal is not for registration. The breeding policy approved on 9 September 2021 allows the introduction of FO *CUM* animals from the following crosses, registered and sire-verified Simmentaler x Sanga/Sanga Composites; registered and sire-verified Simmentaler x Zebu/Zebu Composites; registered and sire-verified Brahman x Bos Taurus/Sanga/Sanga Composites. Female progeny resulting from any of the afore-mentioned crosses can be introduced as FO *CUM* animals.

<u>F1 Development Register:</u> This is compiled of daughters and sons from multiple/single sire mating's of base animals that comply with the requirements determined by the council, and must come from fully registered Simmentaler, Brahman, or Simbra Bulls. Progeny resulting from crosses between registered base sires (Simmentaler/Brahman) with Simbra FO *CUM* females may have female F1 progeny added to the F1 development register, male progeny resulting from these crosses are not for registration. As per the decision made on 9 September 2021, matings of any registered Simbra bull with F0 *CUM* females, may have female progeny registered as F1. A registered Simbra F3/F4 crossed with any registered beef cattle breed containing a minimum of 25% Brahman influence has progeny eligible for the F1 development register. As of 1 March 2013, any Simbra F0 *CUM* that complies with the Inspectors evaluation and has been Simbra sire-verified through DNA verification, is eligible to become an F1 *CUM*.

<u>F2 Development Register:</u> Is compiled of daughters and sons from multiple/single sire matings from F1 x F1, F2, F3, or fully registered animals The Simbra is a combination of Simmentaler and Brahman and at an F2 Register level should clearly exhibit the characteristics of both these breeds

<u>F3Development Register:</u> Is compiled of daughters and sons from single sire matings of F2 x F2, F3, or fully registered animals.

<u>Fully Registered:</u> Is compiled of daughters and sons from single sire matings of F3 x F3 or fully registered animals come into consideration for registration in the final/ fully registered herdbook.

Except in the case of Simbra CUM F0 and CUM F1 no Simbra with horns shall be registered.

Registration/Recording in the Herd Book

Inspection is a pre-requisite for registration, no animal will otherwise be registered except by special approval of the Breed Director. Animals that do not pass inspection are rejected and cancelled in the Herd Book. A daughter of a rejected parent will be required to be inspected before she can be registered as F0/F1. The council maintains the right to cancel any registration or recording that has already been done if false/incorrect information has been furnished.

Notice of Births and Recording of Calf Book Animals

The birth of a calf must be reported to the office by the breeder on the prescribed birth notification form or in another approved format irrespective of whether such calf was born alive/ dead, is purebred or a cross, or is retained for registration or not. Birth Notifications must be handed in at the office within the period prescribed by the council (122 days) or be liable to a late birth notification fee.

Identification

The society's system of permanent identification of animals is an ear tattooing that must be applied by breeders with utmost care and wellbeing of the animal. Calves born alive must be identified by the breeder in the left ear (preferably) using the breeders' approved herd letters, the last two figures of the year in which the calf was born, followed by consecutive numbers that indicate the sequence in which the calves were born and thereafter followed by the correct letter suffix. E.g. CBG2125C would be the 25th calf born in 2021 and the C suffix indicates that this calf is an F3 calf. For practical sorting and filtering of animal IDs on your computer system it is recommended that if you have fewer than 90 calves per year then you should begin your numbering system at CBG21101C. The table below explains how the suffixes are allocated. The suffix is always one symbol higher than the lowest suffix of the parent and "grades up" until an F4 or studbook proper animal.

Dam	X	Sire	=	Calf
Base (Simmental)	х	Base (Brahman)	=	А
AA	х	А	=	А
AA	х	В	=	А
AA	х	С	=	А
А	х	А	=	В
А	х	В	=	В
А	х	С	=	В
В	х	В	=	С
В	х	С	=	С
С	х	С	=	No Suffix (SP)
SP	х	SP	=	No Suffix (SP)

Tabel 4: Suffixes

No identification number combination may be repeated. F0 CUM and F1 Cum animals are identified by the breeder's herd letters and an identification number that has not been used before followed by an AA or an A for F0 and F1 CUM animals respectively.

DNA Typing

DNA typing and sire verification is compulsory for all bulls born from 1 January 2014. As per the decision on 6 September 2016 in a Simbra breeders meeting, all Simbra bulls appearing in an auction catalogue must have DNA and sire verification on profile. As per the decision made on 9 September 2021 at the Breeders meeting, from 1 September 2022 sires of all calves born must be genotyped through SNP genotyping.

Inspections

Inspections serve as a quality guarantee of phenotypic characteristics for the buyer of registered animals and ensures that all registered animals comply with the minimum breed standards. No animal may be registered unless it has been phenotypically evaluated and approved by an inspector according to the Breed Standards. Calf book females must be inspected between the ages from 12 months and calf book bulls must be inspected from 18 months. All bulls must be inspected on the linear classification system, the inspection of females via the linear classification system is optional but highly recommended. All bulls that pass inspection must be branded with the compulsory Simbra "S" Brand. Animals that exceed the maximum age for inspection 36 months may be presented for inspection subject to a late inspection fee. It is the responsibility of the breeder to ensure that animals are inspected at the correct ages. An owner who is unhappy with the inspection may (within 7 days) lodge an appeal with the Breed Director. The Breed Director will then appoint a breed examiner who will reinspect the animal within 14 days of receipt of such an appeal. The appellant will be liable for inspection costs of the breed examiner. An inspector may not act as an inspector for his own animals. An inspection may be performed by a member of the accredited inspection panel, cost to be carried by the member according to the prescribed fee structure, or as agreed upon. At any publicly held Simbra Auction, it is compulsory that all animals be screened/inspected (bulls via the linear classification system). If an animal does not pass inspection, it may under no circumstances enter the auction ring. It is the responsibility of the breeder/seller to arrange inspections/screenings. A list of available inspectors is available on the Simbra website. After Screening at an auction, a guardian's report must be completed and sent to the Simbra Office.

BESKERMHEER/GUARDIAN:	
TELER(S)/BREEDER(ERS):	VEILINGS NAAM/AUCTION NAME:
VEILINGS DATUM/ AUCTION DATE:	

		TOETSE										
1	Alle diere het 60 dae voor veiling skoon getoets vir:	ТВ	Datum getoets: Date tested:		NEE/							
Ţ	All animals tested clean 60 days before auction for:	BM		JA/ 1 LS	NO							
Sertifikate moet uitgereik wees deur geregistreerde Veearts/Tegnikus. Stuur sertifikate na kantoor												
Certificates must be issued by registered Vetenarian/Technition. Send certificates to office												
	Teler bevestig dat alle diere wat aangebied gekontroleer is met die katalogus.											
2	Breeder confirms that all animals presented catalogue.	ed to match those in	JA/YES	NO								
3	Getoets 45 dae voor veiling	VRUGBAARHEID	Datum getoets: Date tested:	JA/YES	NEE/ NO							
	Tested 45 days before auction	FERTILITY										
	Sertifikate moet uitgereik wees deur ger	egistreerde Veearts/Te	gnikus. Stuur sertifik	ate na kanto	oor							
	Certificates must be issued by registe	ered Vetenarian/Techni	tion. Send certificate	es to office								
	Teler bevestig dat alle bulle skoon getoets het vir Trichomoniase en Vibriose.	TRICHOMONIASE	Datum getoets Date tested:	JA/YES	NEE/ NO							
4	Breeder confirms that all bulls tested clean for Trichomoniases and Vibrioses.	VIBRIOSE	Datum getoets Date tested:	JA/YES	NEE/ NO							
	Sertifikate moet uitgereik wees deur ger	egistreerde Veearts/Te	gnikus. Stuur sertifika	ate na kanto	oor							
	Certificates must be issued by registered Vetenarian/Technition. Send certificates to office											

5	Teler bevestig dragtigheids toetse op vroulike diere wat as dragtig aangebied word gedoen is. Breeder confirms all animals presented as pregnant were tested.	JA/YES	NEE/ NO		
	Sertifikate moet uitgereik wees deur ger	ate na kanto	oor		
	Certificates must be issued by regist	es to office			
6	Breeder confirms that open heifers offered of	JA/YES	NEE/ NO		
	Teler bevestig dragtige verse aangebied sal	voor 39 maande kalf.			
7	Breeder confirms pregnant heifers will calf		JA/YES	NEE/ NO	
	Teler bevestig bulle het 'n geboortegewig-t	eelwaarde en 200 dae ge	wigsmeting ten tye		
8	van samestelling van katalogus. Breeder confirms bulls on offer have a 200 weightmeasurement at the time of composit	10 days	JA/YES	NEE/ NO	
	Teler bevestig dat daar DNA met Vaderska	pbevestiging op rekord i	s vir bulle.		
9	Breeder confirms there is a record for DNA	or bulls.	JA/YES	NEE/ NO	
10	Teler bevestig veilingsdiere is gekeur, indien nie deur die beskermheer gekeur word nie. Breeder confirms all animals on offer	GEKEUR DEUR/INSPECTED BY:	DATUM / DATE	JA/YES	NEE/ NO
	were inspected, if not inspected by				
	Teler bevestig bulle is gebrandmerk met am	nptelike Simbra brandma	urk.		
11	Breeder confirms bulls are branded with of	JA/YES	NEE/ NO		

Animals that do not pass screening must be noted and their Lot numbers and reasons for non-approval must be submitted to the office. As mentioned previously, all bulls must be inspected on the linear classification system, the inspection of females via the linear classification system is optional but highly recommended. The linear classification template to be used for inspections can be seen on the next page.

Simbra Genootskap	Keurvor	<u>m</u>		Kudde:						Datum:	20-Dec-21			Plaas/k	amp:				Bladsy:			
Lid no:		[🗸 - REG	
		Ingetr	ek vanaf	stelsel		D/H/P/S	1-3	1-3	9	9	9	9	9	9	9	9	9	9	K/M/G		X - WEG	
Keurdernaam:					ſ																	
					ſ		KOP		GESI		10		ä			BOUN				ALGEHELE		
	•				TEM-				CIT WI							2001			RAAM			
	GEB	RAS SAME		KON-	PERA-	HORINGS	OOG	OOG	GESLAG-	SKEDE/								GEHEEL	TIPE			
ID	DATUM	STELLING	GESLAG	DISIE	MENT	D/P/H/S	LINKS	REGS	EGTHEID	NAELVEL	VOORBENE	AGTERBENE	KLOUE	VOOR	MIDDEL	AGTER	BREEDTE	BEELD	K/M/G	TOTAAL	REG/WEG	NOTAS
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There are several reasons why inspections are important.

It serves as a quality guarantee of phenotypic characteristics for the buyer of a registered animal as a guarantee that the animal during selection or inspection complied with the minimum breed standards. Focus should be on progressing each herd and achieving herd goals that address phenotypic traits as well as genetic progress. It should also be a value-adding opportunity for the breeder, during which the 5 reports made available through the office must be discussed with the breeder by a qualified inspector. The 5 available reports are:

- 1) FarmReport Powerful report in Excel that can be easily processed to share more information and trends with the breeder. We encourage breeders to request a custom Farm Report from the Office for maximum benefit.
- 2) Breedplan Report Herd's genetic data over years and with graphs showing genetic progress over time.
- 3) Herd List All the animals in the herd listed by gender and registation status.
- 4) Inspection list Like herd list but with only the calfbook animals on it
- 5) Completeness of Performance Explain how the star rating works and it is important to show the breeder what performance data is in and how complete it is.

Please also make sure that the breeder knows how to submit data (Excel, Hermaster and others) as well as when to record which properties (LRF Test Plan).

Please familiarize yourself with the Simbra breeding policy.

As for the linear classification form:

Please score the animals objectively in terms of an assumed optimal animal for each trait, so that after selection the breeder can class his animals in terms of quality, and not just structural correctness.

For *CUM* animals, blood composition and birth date are very important. Please indicate this on the forms under the notes.

The linear classification form is designed in such a way that it also takes into account the order of importance (as on the show ring).

Order of priority:

- 1. Sexual "Purity" Bull like a bull, not like an ox or cow. Females should show wedge and femininity.
- 2. Functional efficiency in terms of constitution emphasis on walking ability and hooves.
- 3. Conformation Meat characteristics and bigger picture (balance and quality
- 4.
- 5. The descriptions below explain how to complete the linear classification forms in terms of scoring

Condition - Compare within group on farm

- BC 1 Emaciated just before death
- BC 7 Optimal auction readiness
- BC 9 Overfat, "donut" around tailsetting. Overly fat from tail through to the brisket and the neck.

BCS	% Body Fat ^a	Detailed Description ^b
		Thin
1	3.77	Clearly defined bone structure of shoulder, ribs, back, hooks and pins easily visible. Little muscle tissue or fat present.
2	7.54	Small amount of muscling in the hindquarters. Fat is present, but not abundant. Space between spinous process is easily seen.
3	11.30	Fat begins to cover loin, back and foreribs. Upper skeletal structures visible. Spinous process is easily identified.
		Borderline
4	15.07	Foreribs becoming less noticeable. The transverse spinous process can be identi- fied by palpation. Fat and muscle tissue not abundant, but increasing in fullness.
		Optimum
5	18.89	Ribs are visible only when the animal has been shrunk. Processes not visible. Each side of the tail head is filled, but not mounded.
6	22.61	Ribs not noticeable to the eye. Muscling in hindquarters plump and full. Fat around tail head and covering the foreribs.
7	26.38	Spinous process can only be felt with firm pressure. Fat cover in abundance on either side of tail head.
		Fat
8	30.15	Animal smooth and blocky appearance; bone structure difficult to identify. Fat cover is abundant.
9	33.91	Structures difficult to identify. Fat cover is excessive and mobility may be impaired.

Table 1. Description of body condition scores (BCS) (1 [thin] to 9 [obese])^a.

1 – **Emaciated**. This cow is severely emaciated and physically weak. The bone structure of the shoulder, ribs, back, hip and pin bones are sharp to the touch and easily visible. There is no evidence of fat deposits or muscling. This body condition score is rarely observed in the field.



2-Very Thin. The cow appears emaciated but not weak. No evidence of fat deposition. Muscle atrophy in the shoulder, over the loin and rump and through to the hindquarters. The spinous transverse processes, hip and pin bones feel sharp to the touch and are easily seen



3- Thin. Very little fat cover over the shoulder, loin, and rump. The foreribs have slight evidence of fat deposition but the last three or more ribs can be seen. The backbone is slightly visible. Processes of the spine can be identified individually by touch and my still be visible. Spaces between the processes are less pronounced. There is evidence of muscle loss in the hindquarters



4- Borderline. Foreribs are slightly noticeable, and the 12th and 13th ribs are still easily visible. Muscle atrophy is still noticeable over the shoulders, loin and hindquarters but is approaching normal. The transverse and spinous processes can be identified only by palpation (with slight pressure) and feel rounded rather than sharp. The hip and pin bones are covered by minimal fat and are easily identifiable



5-Moderate. There is slight evidence of fat deposition in the brisket. Muscle expression in the shoulder, loin and rump and hindquarters is normal. The last two ribs (12th and 13th) can only be seen if the cow has a less than normal gut fill. Individual spine and transverse processes cannot be seen, can only felt with firm pressure, and feel rounded. Spaces between he processes are not visible and are only distinguishable with firm pressure. Areas on each side of the tail head are starting to fill. Hip and pin bones are covered with a layer of fat but are still distinguishable



6- Good. The cow exhibits a smooth appearance throughout. Ribs are fully covered and are not noticeable to the eye. Hindquarters are plump and full. Noticeable springiness over the foreribs and on each side of the tailhead. Firm pressure is not required to feel the transverse processes. Fat deposition on the brisket is evident.

7- Fleshy. The brisket is full, but not distended. Spinous and transverse processes are embedded in fat and can only be felt with very firm pressure. The top line is beginning to take on a square appearance. Spaces between processes can barely be distinguished. Abundant fat cover on either side of the tailhead with evident patchiness.

8- Obese. The cows neck appears short and thick. Brisket is distended with fat. Animal takes on a square and blocky appearance over the top line and smooth along the sides. Bone structure cannot be seen anymore. The pin bones are embedded in fat on both sides of the tailhead. Evidence of fat deposition in the udder.

9-Very Obese. Rarely seen. Bone structures are not easy to identify. The tailhead is buried in fat. The cow appears short necked with a full and distended brisket. Significand at deposition in the udder. The animal's mobility may be impaired by excessive fat.

Temperament - Points 1 to 5

- 1 Very tame, can easily be touched
- 2 Reluctant to move
- 3 Awake, calm, and easy to handle
- 4 Flighty
- 5 Dangerous and you feel uncomfortable

True to gender

- Bulls: Head, eye-bank/ ridge, neck muscling and hump development, testes development
- *Female:* Nobility/femininity in face, pleats in neck, wedge shape, well-developed external vulva and teats / udder

Sheath / Navel

- 1-4 undesirable
- 9 not ideal
- 5 acceptable with valuation
- Consider the depth of the middle piece and the length of the cannon bone

Front legs

- X-legged, pigeon-toed movement, strong legs but not coarse.
- Good pasterns and well distributed weight by legs and on hooves

Hind legs

- Discriminate against upright hock, sickle-hock, dry, laminitis
- Good pasterns and well distributed weight by legs and on hooves
- Legs should be strong but not coarse

<u>Hooves</u>

- Note hoof depth
- Disqualify roll claws
- Both hooves should be normal

Forequarter - seen from the side

• Forequarter depth, well-attached shoulder, discriminate against excessive / overdeveloped withers, filled behind shoulders, good forearm, not upright shoulders, not coarse

Middle piece - seen from the side

• Strong horizontal topline, well filled loin, good depth, capacity and spring of rib, must not "fall away" from the hips, and run well through to the shoulder.

Hindquarters - seen from the side

- Angle of the cross, length from hip to sit bones
- Long muscling in the buttocks that connect low above the hock (with big D shape)

Capacity - Front and rear view

- Emphasis on width and overall capacity, and muscling.
- Width in the chest floor
- Legs placed wide
- Outer thighs that form a horseshoe like shape
- Well filled inner thighs with hocks wide apart (flat Triangle)
- Female animals do not have the same fleshing as male animals.

General appearance

• Quality aspects play a role, e.g., coat (adapted / constitution), balance (how the forequarters, middle and hindquarters flow into each other), tail setting attachment, strong broad mouth (Mistakes with mouth/ nose) and is actually the first impression that the animal makes.

Frame size

• Physically in terms of Small Medium and Large, note hip height and cannon bone length. Early / late maturing type animals (Easy fleshing)

Once you have completed an inspection on the farm, it is important to submit the linear classification scores to the office. Please type these forms into an excel format for easy data processing at the office. When you send the form to the office, please complete the herd visit feedback form below and send it to the office as well.

Simbra - Herd Visit Feedback

(Simbra - A profitable easy to farm b	reed based on and supported by science)
Breeder:	Email:
Stud:	Cell:
Breeding Objectives	
Phenotypic:	
Genotypic:	
Do the Breeding Bulls support their objectives: _	
Discussion of "Farm Report":	
Age first calving (AFC), Inter calf period (ICP),Ma Contemporary groups, linkages	ture cow size, Ease of birth, Scrotum circumference.
Discussion of "Completeness of Performance":	
Pay attention to where can be improved to incre calves until at least scrotum measurement can b	ease star rating. For example, hold back more bull e done.
General Remarks/Recommendations:	

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Auction Rules

Please note that the summary below to the Auction Rules are summarised and only contain some of the most pertinent information, the complete original copy of the Auction Rules can be obtained from the Simbra Website (<u>www.Simbra.org</u>) or the Simbra Office.

The purpose of the auction rules is to ensure as far as possible that all Simbras that are offered at auctions still meet (even if they were previously inspected) the breed standards and an acceptable criteria in terms of fertility and/or reproduction as well as certain health requirements, and applies to all public/online/catalog auctions. All Simbras so sold therefore take place subject to the rules of the society. Registered Simbras that do not comply with the rules may not be offered for sale on auction.

There are three sections in an official Simbra auction catalog:

- A) **Registered**: Registere bulls (with S brand on left shoulder), and registered females, and calfbook animals under 12 months or suckling calves.
- B) **Cum Heifers**: Heifers that have already been recorded as Cum animals in the Simbra herdbook system
- *C)* **Commercial Heifers**: Simbra type females that are phenotypically of such quality that they can be considered as Cum animals.

It is the sellers' responsibility to make sure that all information of sale animals is fully integrated into the system. Information from auction animals, lot numbers and comments must reach the office at least 6 weeks prior to the auction date. Information must be submitted by e-mail in the prescribed format. One trial catalogue will be drawn up, which will indicate all outstanding information. Breeder has 3 business days to email corrections and outstanding information to the office. Second trial will be proposed for seller approval after which catalogue will be finalized.

- 1.1 All animals must be inspected a maximum of 30 days before an auction by an accredited inspector/selector from auction panel who will act as guardian
- 1.2 Suggested guardian remuneration is R1850 per day, plus accommodation if required and travel costs payable by the seller
- 1.3 Bulls must be scored according to the Simbra Linear classification system, and females must receive an overall appearance score.
- 1.4 Animals that do not meet minimum standards may not be offered for sale.
- 1.4.1 All bulls that will sire calves (eligible for registration) born from 1 September 2022 must be genotyped and have a SNP genotype on record before a pregnant animal or a cow with young calf referred to herein is offered on auction
- 1.4.2 All Simbras offered on public auction are sold subject to the Auction Rules of the Society
- 1.4.3 Auction Flyer/Pamphlet is subject to approval before it may be published on social media and the website, and must display the official Simbra Logo.
- 2.1 The seller must, upon signing these auction rules, be able to submit proof in writing that his auction animals have been tested clean for TB within 60 days before the auction and all females animals that have already calved have tested clean for CA, or submit a CA3 certificate/ vet certificate that specifies that all animals have been tested clean within the last 12 months. All females offered on auction must be vaccinated against Brucellosis with RB51/S19
- 2.2 Animals under 1 year on the date of auction are recorded as calfbook and will be transferred to the buyer at the sellers' expense. Members of the Society can offer these animals between 1 and 3 years of age for full registration in the herdbook.

- 2.3 The Seller has signed and submitted the "Sellers Declaration":
- 2.3.1 That the animals offered are tattooed and checked, and that they correspond to the records of the society. If the buyer can provide proof within 30 days of the auction that the animal is not tattoed or been wrongly tattooed guarantee 6 will apply.
- 2.3.2 That all bulls, no longer than 45 days before the acuction (i) have been certified as fertile by a veterinarian or registered veterinary technologist in the prescribed format with reference to, motility, morphology and scrotal circumference, must be evaluated and specified on the report and is guaranteed by the seller until 7 calendar days after auction date or in certan special cases 7 days after the buyer has taken delivery of thebull. Original fertility certification must be available from seller for 1 year after the auction date. If the buyer presents a veterinary certificate proving the contrary within 7 days of the auction (or in special cases as previously aranged with the seller from the receipt of the bull), guarantee 6 will apply.
- 2.3.3 Any guarantees regarding the freezing of semen will be made by a seperate agreement between buyer and seller
- 2.3.4 That all bulls have been tested clean for Thrichomoniasis and Virbriosis.
- 2.3.5 That all sires of calves that are eligible for calfbook registration and that are not yet on record with the society, and bulls from which cows are in calf, as well as semen, have a SNP genotyping profile on record and that the bulls are registered.
- 2.3.6 That animals offered as in calf have been certified as such by a veterinarian or registered veterinary technologist and such certification is available upon request from the seller up to one year after the auction date.
- 2.3.7 Animals appearing in one of these three parts of the catalogue must comply with the following rules:

A) Part A of the catalogue is Registered Simbras

- (1) Open heifers may only be offered up to the age of 30 months
- (2) A heifer in calf must calve before 39 months
- (3) A cow without a calf at foot must be certified in calf and the expected calving date must not be later than 18 months after her last calving date, and such a cow must not have been open for more than 18 months between calve.
- (4) CUM animals must have had atleast two or more calvings after registration, and if without a calf at foot must be certified in calf, and the expected calving date must not be later than 18 months after her last calving date, and such a cow must not have been open for more than 18 months between calvings.
- (5) Embrio donors must be in calf within 18 months since the last flush date
- (6) Simbra bulls must be 22 months or older, must be registered, thus wearing the S Brand on the left shoulder as a guarantee that the bull meets the minimum phenotpyic breed standards, has a 200-day weight on record and be sire verified through DNA verification.
- B) Part B of the catalogue is CUM Simbra Heifers
 - (1) Breeder/seller must have confirmed the birth date of the animal
 - (2) Open CUM heifers may only be offered up to the age of 30 months
 - (3) A CUM heifer offered as in calf must calve before or at 39 months of age
 - (4) Animals sold under this section must be clearly marked and tattooed with the seller's herd letters, year of birth and unique serial number.

C) Part C of the catalogue consists of Simbra Type Females

- (1) Simbra type females that do not meet the above two sections can be sold here
- (2) The animals quality must of such a nature that they can be entered as CUM FO animals in the Simbra Herdbook System
- 2.3.8 If these certified in calf animals are certified not in calf by a registered veterinarian or veterinary technologist within 48hours of the auction, guarantee 6 will apply.
- 2.3.9 If a female animal is sold as open or not in calf and is certified in calf by a veterinarian within 30days of the auction, guarantee 6 will apply.
- 2.3.10 Guarantee 6: If the neccessary evidence is provided to the seller in writing within the relevent period that any of the animals purchased do not comply with the rules as stipulated above, the seller will, at the option of the buyer, replace any animal in question with another animal of equal value or refund the purchase price

Judges/Inspectors Ethical Code

Upon meeting all of the requirements of a pass as a judge and/or inspector you will be required to sign the ethical code as a declaration that you will adhere to this code. By signing this ethical code, you agree to comply with the rules of the Society for judging and inspections.

- To at all times, through my actions and statements promote the objectives of the Society, and act as an ambassador for the breed, fellow members and the Office.
- I will ensure that I keep myself fully informed of the Standard of Excellence (Rules) and new developments in the breed by regularly attending symposiums and refresher courses in order to broaden my knowledge and insight and strive for excellence in terms of my training as judge and/or selector.
- In my job as a judge/appraiser, I will ascertain myself exclusively with the displayed/represented animals and disregard the exhibitioner/owner/breeder, irrespective of the person.
- I will be guided in my task by the Standard of Excellence, and use all relevant information to do an honest and objective placement or assessment of the animals, and commit myself to the society's constitution and by-laws as well as all other show and auction rules.
- With my comments about the proposed animals, I will be very professional and discreet in order to provide informative and objective information rather than becoming negative towards the cattle, the exhibitioner/owner/breeder and even the handlers.
- To maintain my own image, character, integrity and conduct at all times and in all circumstances, laudable and impeccable, so as to honour, by my actions also the Society.
- To uphold my own image, character, integrity and conduct at all times under all circumstances, praiseworthy and blameless, in order to honor the Society through my actions.
- Never to publicly question or disapprove of fellow judges/selectors' actions or statements. Any such controversy or dissatisfaction must be taken up with the adjudicator/inspector, the President, Breed Director or Board member.
- To accept and abide upon it, the Board would at any time address any unacceptable conduct of mine or even deprive me of my status as an adjudicator/inspector, having had the opportunity to state my side of the matter.
- That I accept and apply the provisions contained in the Simbra breeder's manual, Inspectors and judges policy, the Constitution and by-laws of the Society as well as the auction rules.

1	hereby	confirm that	I fully	understand	the above,	and so	accept it
on	20	to					

Judges and Inspectors

The Simbra Society is a member-driven organisation that aims to serve the Society's members within the framework of the Animal Improvement Act (Animal Improvement Act 62 of 1998) with the constitution of the Society as the cornerstone for the workings of the Society. Part of the quest to give effect to the Society's objectives makes it essential to establish and manage certain bodies and structures. It is the Society's custom to annually evaluate and adjust this judging policy according to the circumstances and, if necessary, place more emphasis on its execution, and the promotion of breeding of functionally efficient animals.

Purpose of this Policy

The contents of the document aim to provide you as a judge/inspector (with specific reference to your ambassadorial role and responsibility to meet breed and production standards), with the skills to make accurate assessments both within the show ring and your contributions as an inspector. Your decision on an animal's suitability as a stud animal or placement in the show ring, and comments thereon is crucial to give shape to the Simbra mission – which involves breeding animals that produce high-quality sought-after meat profitably, whilst considering animal welfare. The Council's responsibility is to ensure that the provisions of the constitution are complied with, and other committees and working groups function efficiently. Other committees such as the Breed Improvement, Training, and Show Committees are articulate and involved in advancing the breeds' objectives. The council should receive proposals and recommendations made by the committees and other structures within the Society for consideration, this is part of the function of these committees.

Show Committee

Pieto Louw (Chairperson), Linley Jones, Riaan van Zyl, Danie van Vuuren, Jaco Mare, Nikolai Metzger assisted by Matt Kinghorn. Bi-Annually a show committee will be elected, consisting of breeders who actively show, including a Namibian representative and an office representative.

Role of the Show Committee

- Represent members who show
- Provide input regarding show rules
- Liaison with show societies to arrange and run shows efficiently
- Discuss and consider proposals and recommendations from the Training Committee

Training Committee

The training committee consists of five members – all breed examinators and/or nominated council members. The training committee has the right to nominate a person from the Junior/Senior judges panel to be promoted, without the person applying for evaluation himself.

Role of the Training Committee

- Enforce the continuous monitoring of phenotypic breed standards
- Training and development of judges
- Training and development of Inspectors
- Discuss and consider suggestions and recommendations from the Show Committee

Promotion of Judges

A policy of transparency will be followed at all times. A manual and other course material will be made available in advance and form the basis on which judges and inspectors will be evaluated. There will be evaluation reports and other records kept for each person involved in the system.

The first step is a beginner course. This will consist of both theory and practical evaluation. The theory will count for 40% and will cover the correct description of the anatomy of the bull/cow, knowledge of the Simbra Breed standards, knowledge about the Simbra Breeding Policy, knowledge about traits that are disqualifications and discriminations, understanding and knowledge of modern breeding techniques. Practical evaluation will count for 60% and will cover the placement of animals, correct placements count for 1 point. Correct percentile placement counts for ½ points. You will be evaluated on the discussion of the animal, emphasis on the correct important qualities, word choice, and how you convey the message.

To qualify as a judge you need 75% and as an inspector you need 66%. A person who passes a beginner's course with an A symbol (75%) may do a junior course as a candidate.

The second step is a Junior course. The content is the same as the beginner's course but you will be evaluated at a higher standard. A deeper knowledge and sharper eye are essential. Experience and further evaluation opportunities are now crucial, you will be required to gain experience as a ring steward at shows, assist at farmer's days and courses, screening of animals at auction, and Inspection of animals as an inspector. All done together with a more senior person, and for each occasion, a form is completed on which certain qualities are assessed and marked. If sufficient progress is made in terms of the above, a person who has passed a junior course and acts as a junior judge in the roles and functions as outlined above, the person may apply as a senior judge or is nominated by the training committee for promotion.

The third step is a senior judge. For a junior to progress to a senior judge the junior will be evaluated by a more senior judge on several occasions. At the annual judging conference, junior judges and the senior judge's in-depth knowledge will be evaluated by breed examinators. Assessment during the conference and the preceding year's activities and assessments thereof in conjunction with other ambassadorial characteristics will form the basis for being able to act as an examinator at shows and to progress as a judge.

Breed examinators must have proven expertise and be persons who have stood out in terms of aspects of interest as referred to as above to be considered to serve on a panel of breed examinators.

Annual training conference

Participation at the annual training conference is mandatory. An annual evaluation/practical examination event for all judges will be held. The process is coordinated by the training committee. If a judge does not attend two consecutive events without a valid excuse, the person is placed one level down as a judge. A senior becomes a junior and must repeat the process. The main reason for the decision is to ensure that the annual conference decisions well as the emphasis that will be placed on certain traits in the show ring during the relevant years assessments, are properly explained to the judges and they agree on the application of the judging policy. The work of judges and inspectors over the past year will be evaluated and talked about.

Inspectors

Consist of any person who may act as a judge for Simbra at shows or complete a junior's course and obtain a final mark of 66% or more or be a senior judge or higher. Inspectors must have inspected at least 3 herds and a minimum of 100 animals (a minimum of 20 bulls and 80 females) with a qualified judge or senior inspector. Inspectors are expected to attend a training conference at least every two years and keep up to date with the Simbra breeders manual and breed standards of excellence and policy. Inspectors are not permitted to inspect their own animals. They are required to inspect bulls for registration using the linear classification system, an inspection of females using the linear classification system is not compulsory but can be requested by the breeder, otherwise, the shortened system is acceptable. Inspection should be a value-adding proposition and the inspector acts as an advisory consultant, intending to increase the intrinsic value of the herd and ensuring that only structurally correct animals that meet bred standards are used for breeding stud animals. Inspectors must have a good knowledge of modern breeding methods and ensure that the breeder visited will

make genetic progress on the strength of recommendations and discussions of the herd's genetic profile and trends.

General Rules Applicable to Judging and Selection

- All animals evaluated must be tattooed with the Herd Letters, Year Number, and Sequence Number, and if applicable AA/A/B/C suffix to indicate generation.
- Judges may not consider an exhibitor's animals for placement if the handlers are not dressed in terms of the Society's official attire, and the animals must be displayed with a yellow halter.
- Reproduction benchmarks, as for auctions, must be adhered to in the show ring.
- As a judge, you will continually strive for your judgment to be seen as a professional training exercise and your comments are to be presented constructively and positively.
- That judges will act strictly against any animal that is difficult to manage in the ring or is unmanageable for some reason.
- All bulls older than 15 months must have a nose ring (halter trained only).
- Ear tags do not need to be removed.
- A cow in milk must have her own registerable calf by her side, with her (calf) on a halter in the ring. If the calf disrupts the judging, the judge may request that after seeing the calf, the calf leaves the ring. The calf of a cow being judged may not be older than 210 days on the day of assessment.
- No cattle will be judged if they are attached to the side of the ring, or to any other object only animals within the ring will be assessed.
- A second handler may, at the discretion of the judges, may be allowed in the ring to move animals that are lazy or immobile.
- A cow without a calf that has not been certified in calf is not judged.
- Female animals that have reached the age of 30 months must be certified as in calf on the day of judging, and/or walk with a calf at foot.
- Animals whose date of birth has been changed twice and more will not be allowed to show.
- Breeders and/or exhibitors who engage in misconduct against judges and/or fellow breeders will be referred by the Training Committee to the council to apply disciplinary action.
- Bulls who have more than two modified birth or weaning weights, or of which they have been moved to another contemporary group a second time will not be eligible for BLUP championships.
- Disqualifications: animals displaying ANY disqualifying properties (e.g., roll claw) will not be considered for placement and must leave the ring.
- Animals whose body parts have undergone obvious alterations (concealment, not grooming) will leave the ring and not be eligible for placement.

Judges Approach

Some characteristics vary according to their relative importance and must be assessed with emphasis on functionality in terms of economic importance. For example, turned out forelegs and an upright hock can be identified as two faults, but the hocks would be judged more critically because it is a function of the bull and could influence his ability to cover a female. When it comes to your placements as well as comments, constantly place emphasis on what Is of economic importance in the beef industry. To solidify our position in the beef industry, judging should be done according to the following:

A - Sexual Dimorphism

Masculinity

• What qualities constitute a function of masculinity? The head, hump development, neck (neck pleats), testis development, balance, and even darkening of colour in most of these characteristics. By definition, most of the properties will be described with words such as Strong, broad, prominent and balanced, and well-muscled.

<u>Sheath</u>

In terms of a bull's functional ability to cover as an economically important trait, sufficient attention must be paid to the preputium. When assessing the preputium should be paid to the preputial opening, the opening should be small and tight-fitting. The preputium that is excessive in length must be discriminated against. A short and firm preputium is desirable. The preputium should be evaluated relative to the "median" line (Os-to-Os line), taking into consideration the depth of the mid-piece.

Of great importance is the angle of the sheath and the bulls' ability to control it.

Femininity

• What constitutes a function of femininity? The head, hump development, neck (neck pleats), udder and teat development, and a distinct wedge. Most of the traits could also be described under masculinity, but with an emphasis on finer development.

Navel

The navel should preferably not be overdeveloped - should not appear heavy or hang like a curtain. Discriminate against it, after doing a value assessment.

Reproductive Organs

• Although these points are not mentioned in order of importance, fertility traits must be emphasised sufficiently.

No excuses for deviations in the following characteristics are allowed:

B - Constitution

- Walkability or mobility
 - Given that Simbra is an extensive breed with the ability to perform in the feedlot, mobility, strong legs and hocks are crucial. Leg or hoof defects should be strictly assessed. Pay close attention to the animals' hind legs, especially hocks and pasterns as this determines the animal's mobility.
- The chest floor should have sufficient capacity for vital organs.
- Mid-piece should have a good eye muscle area and sufficient spring of rib.
- Well adapted, smooth coat.

Pay special attention to a strong broad mouth, a well-formed hump and neck, good shoulder attachment without prominent shoulder blades, length, and width in the hindquarters (width

between the pin-bones) with well-filled inner and outer thighs and long muscling. A wide chest floor would normally be accompanied by width in the front quarters while a narrow chest can give rise to a narrow stance between the front legs.

C- Meat Characteristics/ Muscling

Pay attention to economically important qualities that are a function of growth and muscling and put emphasis on

- Capacity within a medium frame Length, width, and depth.
- Pay attention to high-value meat cuts, eye muscle, loin, and hindquarters

<u>Comments</u>

When discussing/ commenting on placements, comments should be kept positive. Good qualities should be highlighted, starting from the last-placed animal to the first placed animal.

Be sure to know your terminology and use it correctly when referring to a particular characteristic or part of an animal. Be specific in your comments and do not use words such as "lekker", "nice"," pap" or "I like". Remarks such as "Heifer number 1 is better than heifer 2 because she has better muscling", give no explanation to the exhibitor or bystander if you cannot point out what economic characteristics on heifer 1 make her stand out above heifer 2.

Give only the main reasons for your placements by explaining your placement in pairs, for example, compare 1 with 2 and 2 with 3, etc. Work methodically through your placements. Avoid any assumptions or statements that cannot be supported by science. Comment on what you see in the ring on the day, not what you expect to see in the future. Make constructive comments and don't hesitate to give compliments to an exhibitor for special animals/ groups of animals or champions in front of the public. Remember you speak on behalf of the breed.

Attempt to organise your reasons in a logical order with your comments, to explain the qualities that influenced your placements. As a guideline, it is recommended that you follow this methodology. Start at the head and work systematically through to functionality. Head, front quarter, centerpiece, hind quarter, constitution, and reproductive organs. As the animal is discussed it may make sense to pull the animal out and move it around in the ring so that everyone can get a glimpse of the animal.

Method of Judging

To successfully act as a judge, it is recommended that you use the following method as a guide to perform your task professionally, methodically, and in an organised manner. Judging consists of two phases - a qualifying phase and a comparative phase to be applied continuously within each class.

The Qualifying phase: once all the animals for the class in question are in the ring, position yourself in such a way that you can instruct the ring steward that each animal moves towards you, in order to judge the animal from the front while it is walking. Always let the animals walk clockwise in the ring because it places the handler on the outside of the animal. Now you look at the following:

• Head, Mouth, Front legs, and chest.

Then step inward so that the handler walks on the outside of the animal and look for the following:-

• Mouth (pay attention to the lower jaw), neck, shoulders, hump, spring of rib, length and depth of body, preputium/navel, hindquarters, and walking ability.

Then step behind as the animal walks away from you and look at the following:

• Look at the width of the pin bones because it is mostly a function of width through the animal's body. Look especially closely at the animal's hind legs, hooves, and pasterns (walking ability).

If necessary, you can make the animal stand still to look at the following:

- Pay attention to the bull's testis (testis development) or in the case of a female animal look at her sex organ development as well as the udder attachment, udder, and teats,
- Temperament(docility). Animals that are difficult to handle in the show ring. An animal that detaches from its halter only gets one chance. If an animal runs out of the judging ring then it is disqualified.

Now you're done with your qualifying phase and animals with obvious characteristics that you weren't happy with are out of the ring while you're starting the comparative phase.

The Comparative Phase: At this stage, you should already have a very good impression of the standard of the class, which animals impressed you, and even likely your first place. Now position yourself in the center of the ring while animals are walking around you. You can even begin to change the order of the animals by running your second-best animal behind the best animal. The animals are now being compared to each other. Now you look at the following:

- Start with the best and second best. Take out and tentatively compare with each other where they stand side by side in the middle of the ring. Place the animals from left to right viewing them from the front.
- Now look particularly at characteristics such as sexual dimorphism, constitution, meat characteristics, muscling, sheath as referred to in the Judging policy.
- Now check the animals where they stand side by side, while you rank the second and third positions again to obtain absolute certainty.
- Overfat animals: If an animal is the best in the group but is overfat then it is penalised by one place. This will be pointed out in the comments.
- Too large animals: it is very important that assessment also supports the breeds policy and objectives and should discriminate against large animals. The breed strives for a medium framed animal
- Now instruct your ring steward that he finally places the animals from left to right from the front. Place at least 6 animals if numbers make it possible.
- You should have all the animals properly memorized and are ready to explain your placements to the public with comments.

General Remarks

Examiners at courses should preferably be a breed examiner and senior judge. Two per course up to 30 participants, then a third person who may be a junior judge can act as an examiner.

Show participants

Breeders must keep themselves informed of the arrangements of the relevant Show Societies.

- Indemnity Form and Terms & Conditions of the Show Society must be signed by all parties involved.
- Animals are shown or displayed in accordance with the Simbra policy, breed standards and rules.
- Male and female animals must be halter trained unless special arrangements have been made at a show to allow show animals to participate as a non-halter trained show.
 - Halter and non-halter animals may not compete against each other for the determination of grand champions.
- Animal welfare is of paramount importance adequate feed, clean cool water and comfort of the animals are non-negotiable.
- Rope leaders and handlers must be well trained to work with animals.
- Toile leaders must strictly obey the instructions of judges and / or ring guide. Animals of relevant classes must report to the outdoor / gate guide in time.

Judges and Ring Stewards

- Judges and ring stewards are appointed by the Simbra Society (Council) on the recommendation of the Training Committee.
- The Judges will place animals in order of breed standards.
- The Judges will discuss the animals and motivate reasons for the relevant placements.
- The Judges' placings are final, and are not to be criticized in public.
- If an animal to which the judge was involved in the breeding of the animal is in the ring, the Ring Stewards should point this out the judges, should there be more than 1 judge, and that "involved" judge may excuse himself then from judging that class.
- The Ring Steward should only be helpful in the ring by arranging the animals and cattle handlers in or as designated / requested by Judges and <u>does not participate in the judging</u>.
- Ring Stewards must ensure that the animals enter the ring in the correct catalog number order.
- Ring Stewards must ensure that the show runs smoothly and orderly inside the ring.

Judging at Shows

Persons who attend the annual judging conference are assigned to judge shows by the training committee. Judges who did not attend the annual conference may not judge for that year.

Ring Stewards at Shows

Persons who have performed well at the Junior Judging Evaluation are invited to assist as ring stewards at shows. Persons nominated by a show society can also be used as ring stewards

Proper Records and Register

Proper records should be kept of who has been assessed, when, and where, as well as all evaluation reports.

Preparing animals for Shows

- All halter trained animals must be well trained to limit the risk of injury to humans and animals and to prevent damage to property.
- Animals must be prepared so that they are displayed in their best condition (not overweight).
- Animals that are malnourished or that do not meet the breed standards will not be placed or allowed.
- Animals with injuries or obvious diseases that are detrimental to the breed may not be displayed.
- No concealment of defects in animals will be allowed.
- Always display functionally efficient animals.

Animal Health

- TB and CA certificates and/or breeders declarations must be submitted with the offloading of cattle or can be submitted to the Show Society ahead of time.
- Pregnancy status of female animals (where applicable) must be available.
- Animals with obvious injuries, illness or swelling should not be shown.

Show classes

- National show classes differ from ordinary regional show classes.
- Make sure that correct entries have been made for the relevant show.
- The show committee always strives to compile show classes in such a way that it ensures maximum participation in the interracial classes.

Clothing and Halters

- Cattle handlers must always participate in the Society's prescribed dress code.
- Simbras are always displayed/exhibited in a yellow halter. "Bibbies" with participant number must always be clearly visible, and the right card in the right place.
- Cattle handlers are always to be neat.
- Showgear (Clothing) and "Bibbies" are available from the office.

Interbreed Participation

- Only designated champions, as indicated by the judges, will participate in the interbreed competition The only exception will be where group classes are put together for participation.
- Always represent the breed with pride and dignity.