

KALAHARI RED GENETIC REPORT

04 September 2026



Kalahari Red Club

ELAND ZAKITHI RED GOATS

FDM : 244



CERTIFICATE
OF QUALITY

Valid up to
October 2029

General Information

This **Genetic Report** of your flock enables you to determine the genetic merit and potential of the animals in your herd relative to that of the breed. An animal's performance is determined by two factors, namely the environment and genetics. Good nutrition and management can improve performance, but an animal cannot perform better than its genetic potential. Superior performance due to the environment cannot be carried over to the next generation. It is therefore extremely important not to neglect genetic progress of your flock. Due to the interaction between environment and genetics, it is difficult to identify genetically superior animals on performance data. Estimated Breeding Values (EBVs) are therefore predicted for every animal to determine its genetic potential, as well as its worth as a parent for the next generation. Through the use of EBVs, animals can be compared fairly **within the breed**, therefore across herds, years and production systems. Results presented in this report allow the breeder to identify the underlying genetics of the animals.

Genetic parameters

Genetic parameters (heritability and genetic correlations) are estimated on a breed-basis and are required for the prediction of breeding values. The **heritability** refers to the portion of the variation of a trait in a population that is due to transferrable genetics (the rest of the variation can be attributed to the environment and non-transferrable genetics). Some traits are genetically correlated, which means that a change in one trait will lead to changes in other traits. The strength of this association amongst traits is referred to as a **genetic correlations** and can be desirable or undesirable.

Breeding Values

The prediction of EBVs makes use of performance recordings of the animal as well as those of its relatives, pedigree information and genetic parameters. The deviation of the animal's measurement relative to the average of its contemporary group, forms the basis for identifying the animal's genetic potential for the trait. A **contemporary group** is a group of animals that have been exposed to the same environmental and biological effects, including herd, year, sex and age effects. After adjusting for differences in these effects, animals can fairly be compared and the difference in performance that still persist are then assumed to be due to differences in the genetic merit of the animals.

The EBV predicted for an animal at birth and until it has been measured, is the average EBV of its parents, since the animal received half of its genes from each parent. This mid-parent value makes the assumption that the same half of the parents' genes are carried over to all their offspring. In reality, each offspring receives a random sample of each parent's genes,

therefore mid-parent EBVs are still of low accuracy, but it does indicate the genetic level that can be expected due its parental history. An animal's true genetic merit can be predicted more accurately as more information becomes available, eg. when the animal has been measured or when the number of relatives with measurements increases. Estimated breeding values therefore change over time as more information becomes available. EBVs of animals are published with an **accuracy** (%), which indicates how much information was available for the estimation of breeding values and therefore the confidence with which a breeder can use it. Factors that influence the accuracy of an EBV are the heritability of the trait, the number of measured relatives, the size of the contemporary group, the precision with which the measurements were taken and the completeness of pedigree information. An EBV with an accuracy of 85% or more is less likely to change significantly with subsequent genetic analyses.

Interpretation of breeding values

EBVs are expressed around a **base year** (5 years ago), which means that the average breeding value of the base year is set as zero and all breeding values are expressed relative to this average. An animal with an EBV of +1kg for weaning weight is therefore genetically superior by 1kg compared to an average animal born in the base year. EBVs therefore express genetic merit of animals relative to each other. The true performance of an animal cannot be calculated from the EBV, but it enables the breeder to know which animals will make a better contribution to the next generation. For easier interpretation EBVs are also expressed as breeding value indices. For these indices the average value of the **active population** is set as 100 with a standard deviation of 12. An index of 76 therefore indicates that the animal is 2 standard deviations below the average and an index of 112 indicates that the animal is 1 standard deviation above the average of the active population for the specific trait. Please note that negative EBVs are favourable for Inter-Lambing Period and Age at First Lambing, therefore shorter inter-lambing periods and younger ages at first lambing indicates better fertility. However, breeding value indices are expressed in the same way for all traits, therefore higher indices indicates desirability for the traits and lower indices are undesirable. This makes it easy to identify superior animals for all traits.

The data used in this evaluation has been obtained from LOGIX, as supplied by breeders. Everything possible had been done to present the information correctly. SA Stud Book does not take any responsibility for the use and interpretation of the information from this publication.

Selection Indices

It is easy to select on a single trait, but that is not the best approach to follow. Selecting on only one trait can lead to the deterioration of performance in other traits due to genetic correlations. There are different traits that are important, some being more important than others. A selection index combines multiple traits, each with an economic weight to take the different levels of importance into account. EBVs for different traits cannot simply be added together, since the unit of measurement and range of the values differ and in some cases negative values are favoured. These factors are accounted for in the compilation of a selection index. An overall selection index includes EBVs of all the traits of economic importance, while other selection indices are more focused on specific breeding objectives. Selection indices are expressed around 100, with 100 being the average of the active population, with a standard deviation of 12. A selection index of 124 is therefore 2 standard deviations above the average and an index of 88 is one standard deviation below the average of the active animals of the population.

Two Indices are constructed for the Kalahari Red Goat breed, namely the Logix Merit Index and the Reproduction Index. These indices, their purpose and the contribution of the different traits to the indices are summarised as follows :

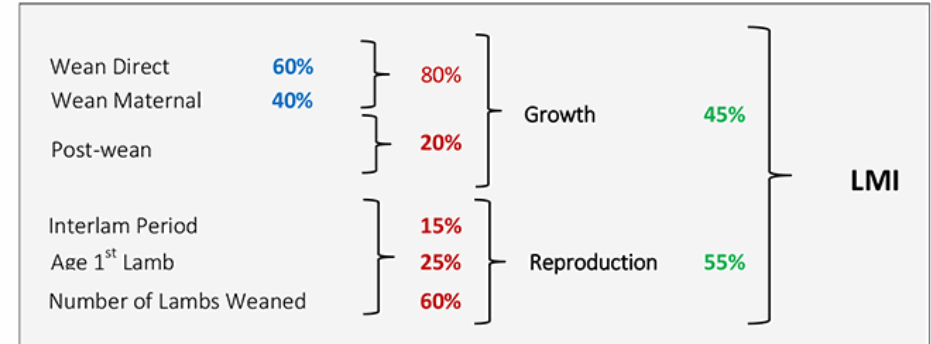
Logix Merit Index (LMI)

This index combines all the traits to select for a balanced, profitable animal that is fertile and delivers a desirable level of production while not reaching very large adult weights. Very large animals require more feed to meet their maintenance requirements, which makes them more expensive to keep and more likely to struggle during difficult times. Since large animals in a breeding flock are unfavourable, a penalty is placed on Post-Wean Weight EBV (indicated by the negative value) in the index. Selection based on the LMI will lead to breeding of balanced animals that will have the genetic potential to wean at a heavier weight (both due to its own potential and having dams that produce sufficient milk), lambs at an early age, lambs regularly, give multiple lambs and has lower maintenance requirements. This value is especially important for sustainability, which requires the selection of good, productive replacement animals for the flock.

The LMI is constructed as follows :

$$LMI = (0.0675 * AFL) + (0.1125 * ILP) + (0.264 * Wean Dir) + (0.176 * Wean Mat) + (0.27 * N_Lambs_Weaned) + (0.11 * Post-Wean Dir)$$

Schematically the LMI can be explained as follows :



Reproduction Index (RI)

This index includes Weaning Maternal), Number of Lambs Weaned, Age at First Lambing and Inter-lambing. This is especially an important index to consider in the development of a dam line.

The RI is constructed as follows :

$$(0.2 * AFL) + (0.2 * ILP) + (0.3 * Wean Mat) + (0.3 * N_Lambs_Weaned)$$

Schematically it can be explained as follows :



It is always important to consider the traits that contribute to the index individually when selection of animals is based on indices. It sometimes happen that an animal receives a good index due to its exceptional genetic merit of a specific trait, while some of the other traits of the animal in the index might be at undesirable levels for the specific flock's breeding objective, but masked in the index due to the exceptionality of that trait. A sound procedure is to rank animals based on the relevant selection index and then eliminate animals from the list that do not conform towards the flock's breeding objectives when considering the individual traits. Make use of all the available information.

Genetic Levels

Breeding Values

Eienskap	Flock**			Breed		
	All	Rams	Ewes	All	Rams	Ewes
Weaning Weight Direct	-0.25	-0.26	-0.24	0.10	0.13	0.09
Weaning Weight Maternal	-0.21	-0.20	-0.22	-0.02	-0.02	-0.03
Weaning Weight Combined	-0.33	-0.33	-0.34	0.03	0.04	0.02
Post-wean Weight	3.37	3.26	3.51	3.97	4.04	3.94
Number Lambs Weaned	0.13	-0.17	0.51	0.35	0.35	0.35
Total Weight Weaned	-0.38	-0.56	-0.15	0.29	0.31	0.27
Age at First Lambing	1.51	2.78	-0.15	-0.26	-0.27	-0.25
Inter-lambing Period	0.11	-1.21	1.82	0.28	0.14	0.35
Selection Indices						
Logix Merit Index	92	90	94	98	98	98
Reproduction Index	93	93	94	97	97	97
Inbreeding						
Inbreeding (%)	4.29	5.71	2.88	5.70	5.98	5.58
Number of Animals						
Number of Animals	34	17	17	12707	3920	8764

** Averages of all active animals in the flock.

Breeding Value Indices

Trait	Flock **		
	All	Rams	Ewes
Weaning Weight Direct	94.2	94.0	94.5
Weaning Weight Maternal	93.2	93.3	92.9
Weaning Weight Comb	89.9	89.9	89.8
Post-wean Weight	94.8	94.1	95.7
Number Lambs Weaned	97.8	96.0	100.0
Total Weight Weaned	92.8	91.4	94.5
Age at First Lambing	99.6	97.8	101.9
Interlambing Period	97.3	100.2	93.5
Selection Indices			
Logix Merit Index	91.7	90.2	93.6
Reproduction Index	93.1	92.6	93.8
Inbreeding			
Inbreeding (%)	4.29	5.71	2.88
Number of Animals			
Number of Animals	34	17	17

** Averages of all active animals in the flock.

Inbreeding

NOTES

- Inbreeding primarily leads to decreased fertility and low survivability of lambs.
- The effects of inbreeding can be observed from 6.25% onwards.
- It is therefore highly recommended to record pedigree information as accurately and completely as possible and to use a selection programme for selection of unrelated rams.
- Incomplete or incorrect pedigree information can be reported to SA Stud Book. Inbreeding is dependent on pedigree information. Conventional methods for the Calculation of inbreeding coefficients usually assume that unknown parents are unrelated. However, this is usually far from the truth. An algorithm is used for the calculation of inbreeding, where the average inbreeding coefficient is assigned to unknown parents based on the generation in which they were born. This result is a more accurate reflection of inbreeding of the herd and breed.

Inbreeding Levels for Specific Matings

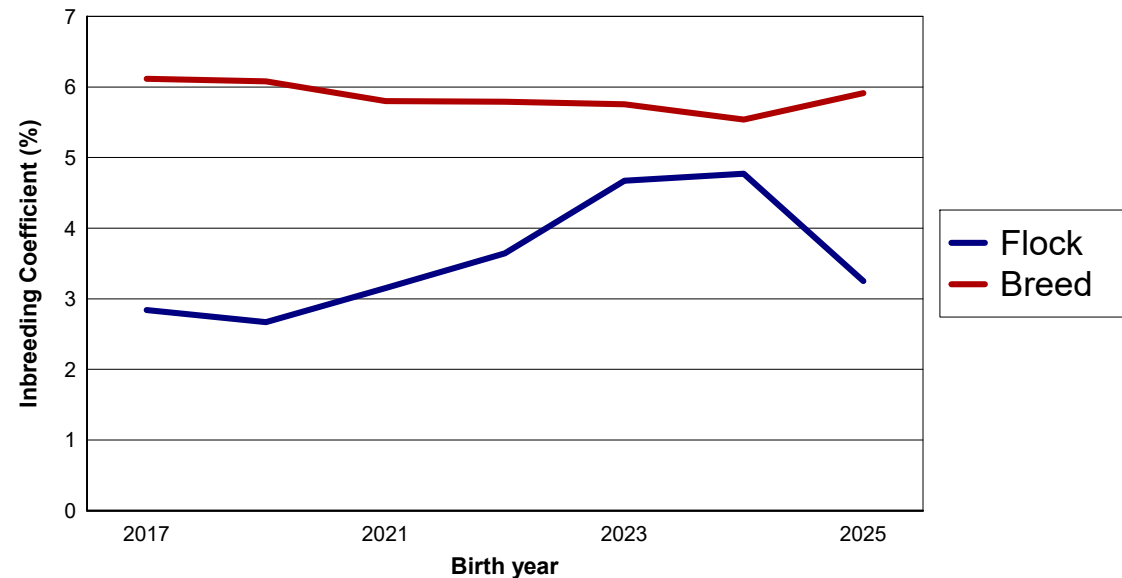
Progeny with Parents :	25%
Full Brother x Full Sister :	25%
Half Brother x Half Sister :	12.5%
One Common Grandparent :	6.25%
One Common Great-Grandparent :	3.125%

Level and Rate of Inbreeding

Year of Birth	Level* (%)	Rate (% / year)
2017 - 2025	3.25	0.05
Recommended:	< 6.25	< 0.1 - 0.2

*Of the last year of birth

Inbreeding

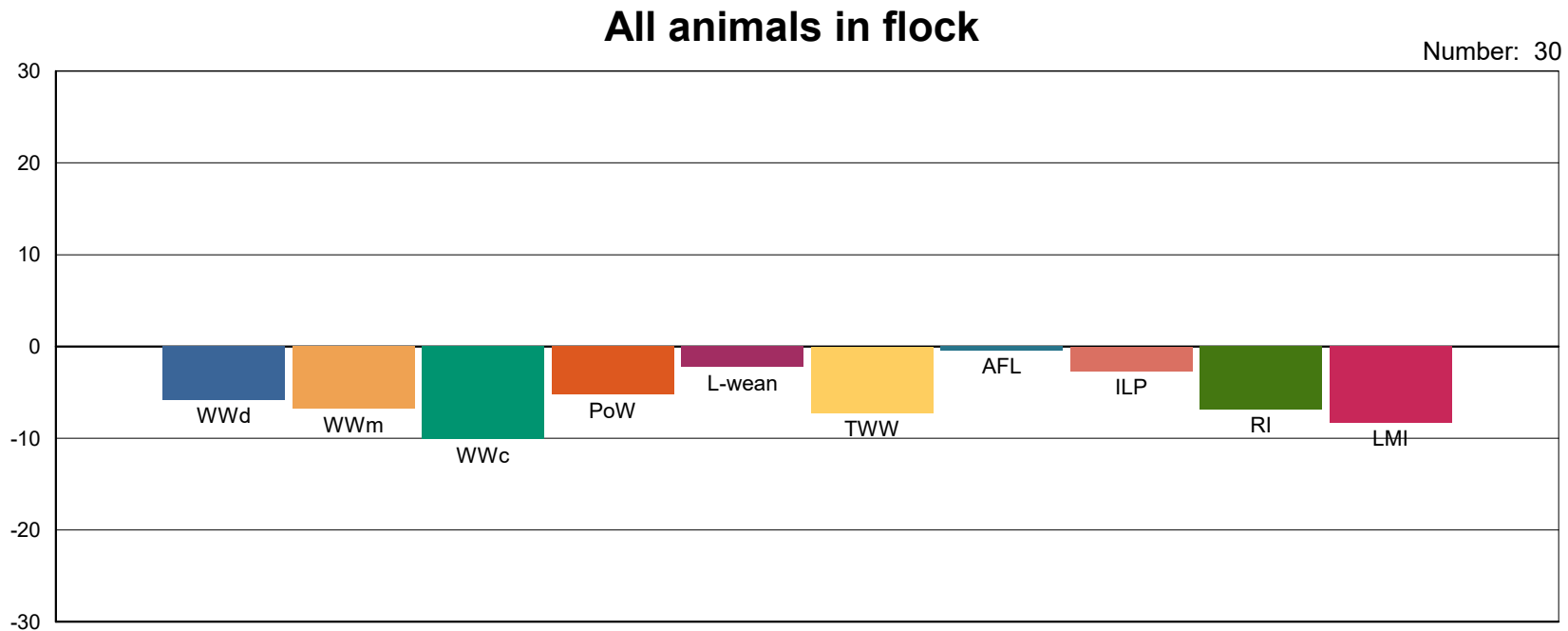


Pedigree Information

	Number	%
Known Sires	30	88
Known Dams	30	88

Note: Inbreeding can be under-estimated if pedigree information is incomplete or incorrect

Genetic Windows



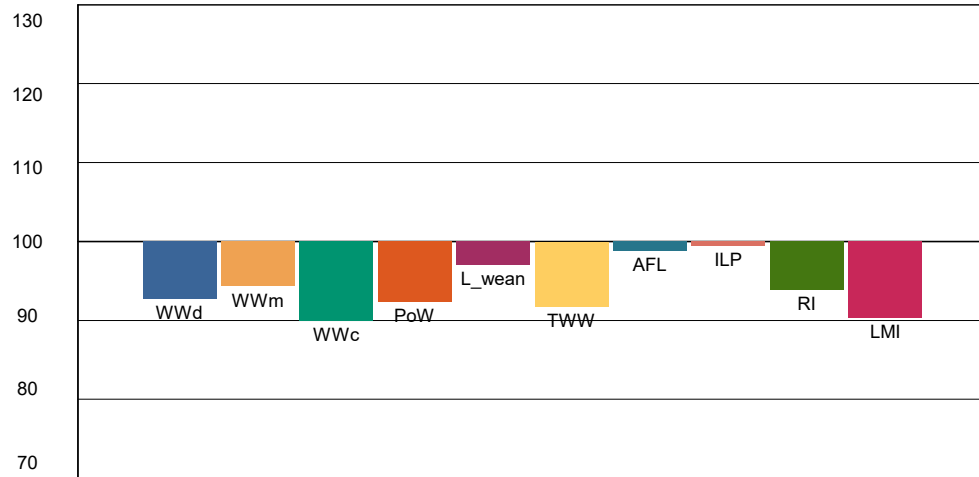
WWd: Weaning Weight Direct
WWm: Weaning Weight Maternal
WWc: Weaning Weight Combined
PoW: Post-Wean Weight
L-wean: Number of Lambs Weaned
TWW: Total Weight Weaned
AFL: Age at First Lambing
ILP: Inter-lambing Period
RI: Reproduction Index
LMI: Logix Merit Index

The genetic windows allow a quick overview of the genetic status of the flock compared to the breed. The values presented here are the average EBV indices of all the active animals of the flock, of the dams and sires of the active animals of the flock, as well as of the active ewes and rams younger than 2 years old. An index of 100 is equal to the average of the active measured population. Due to the higher selection intensity on rams (selection is more strict since a much smaller percentage of young animals are retained in the flock), the expectation is for the average index of the sires to be higher than that of the dams.
 Remember that the EBV index for AFL and ILP are presented in such a way that an index above 100 indicates animals that have a lower EBV for these traits.

Genetic Windows

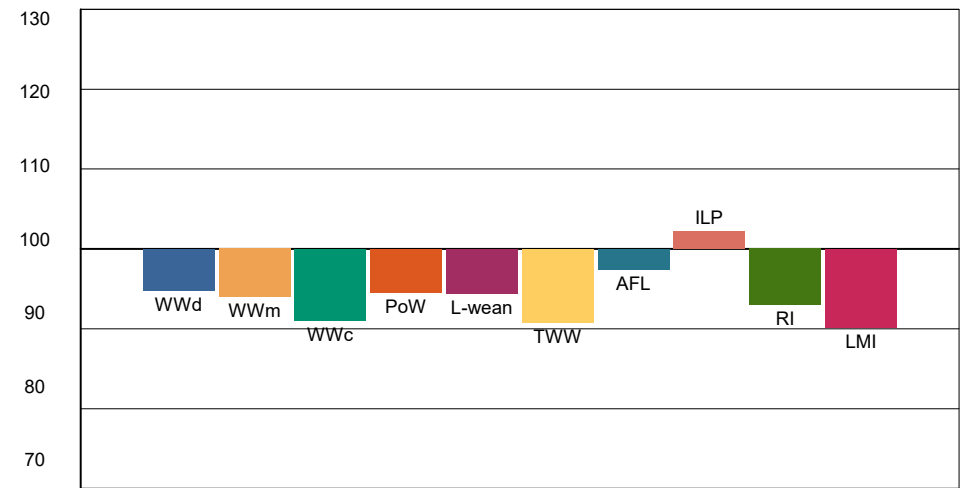
Dams

Number: 15



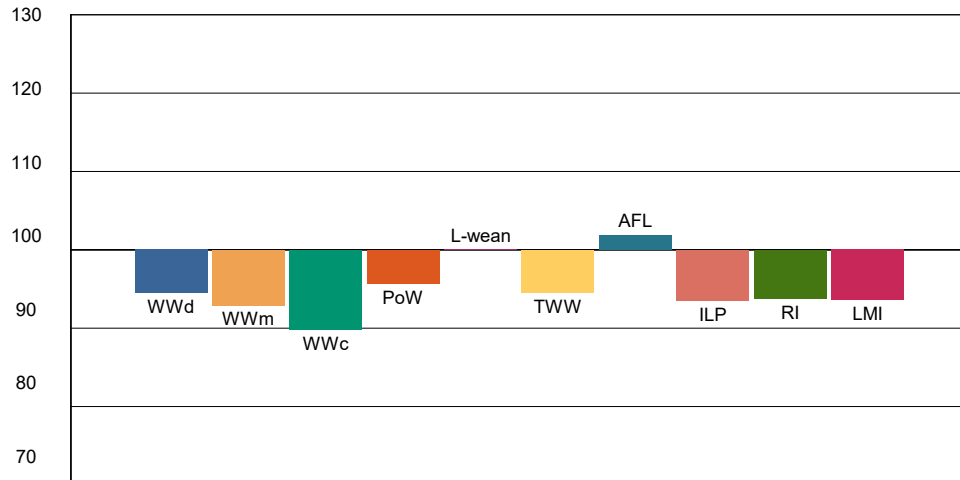
Sires

Number: 16



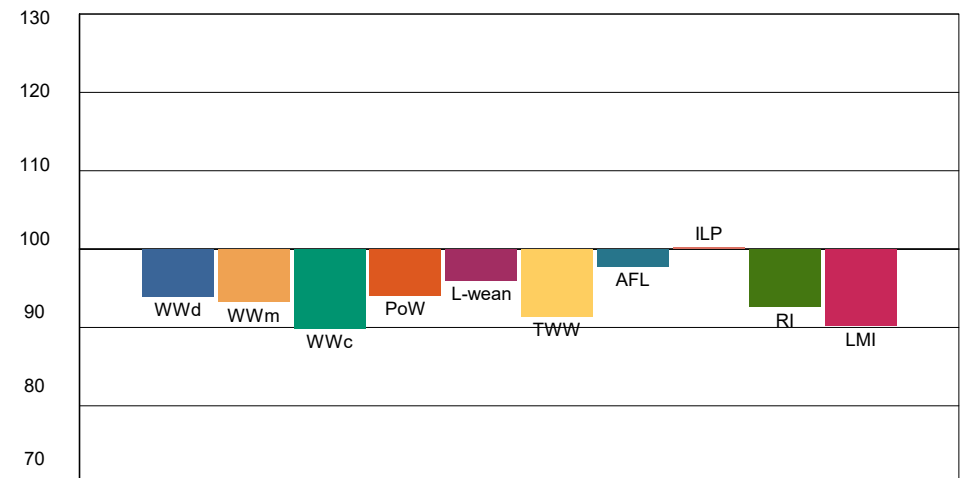
Young Ewes

Number: 13



Young Rams

Number: 17



Genetic Trends

Genetic trends are based on measured animals that were bred by the specific breeder.

Genetic Trends

Genetic trends are based on measured animals that were bred by the specific breeder.

For AFL and ILP flock genetic trends below breed averages are desirable.

Genetic Trends of Breed

Birth year	Weaning Weight				Post-wean	Lambs Weaned		TWW		AFL		ILP		RI		LMI	
	EBV					EBV		EBV		EBV		EBV		EBV		EBV	
	Number	Dir	Mat	Comb		Number	EBV	Number	EBV	Number	EBV	Number	EBV	Number	EBV	Number	EBV
2013	184	0.80	-0.35	0.06	68 3.89 102 3.43	103	0.81	184	106	186	3.64	94	-2.39	184	96	184	106
2014	75	-0.13	-0.10	-0.17		70	0.70	75	98	115	0.65	45	-0.59	75	97	75	98
2015	144	-0.12	-0.14	-0.20		98	0.48	144	98	138	-0.07	74	-1.25	144	98	144	98
2016	108	-0.26	-0.02	-0.15		87	0.34	108	97	139	3.86	94	-4.48	108	99	108	97
2017	271	-0.02	0.16	0.15		104	0.44	271	98	176	1.01	127	-0.49	271	99	271	96
2018	168	-0.35	0.24	0.06		202	0.31	168	92	268	3.02	208	-2.21	168	101	168	92
2019	293	-0.23	0.14	0.03		257	0.35	293	97	358	0.34	271	0.42	293	100	293	96
2020	637	0.18	0.05	0.14	284	0.62	637	101	634	-0.01	461	0.76	637	100	637	100	
2021	562	0.00	0.00	0.00	14 0.00	274	-0.01	562	96	749	0.00	513	0.00	562	97	562	95
2022	1120	-0.22	0.11	0.00	377 3.43	302	0.16	1114	97	896	0.23	522	-0.21	1114	100	1114	97
2023	1342	0.11	0.00	0.05	209 3.99	227	0.25	1342	99	805	0.42	270	0.60	1342	98	1342	98
2024	1472	0.20	0.07	0.17	164 4.47	95	-0.11	1472	101	384	-1.08	53	-2.38	1472	100	1472	101
2025	1116	0.20	0.18	0.28	394 4.65			1116	101	22	1.42			1116	102	1116	101

Genetic Trends of Flock

Birth year	Weaning Weight EBV				Post-Wean	Lambs Weaned		TWW		AFL		ILP		RI		LMI	
	Number	Dir	Mat	Comb		Number	EBV	Number	EBV	Number	EBV	Number	EBV	Number	EBV	Number	EBV

Breeding Value & Selection Index Percentiles

The percentiles indicate the ranking of the animals' EBVs and Selection Indices within the active population.

For example, if an animal's EBV for a specific trait falls between the maximum and 99% percentile of the trait, it means that this animal ranks in the top 1% of the active population, or this animal's genetic merit for the trait is better than 99% of that of the active population.

Should the EBV for a specific trait falls between the 5% and 10% percentile, it means that the animal ranks in the bottom 10% of the active population for the specific trait, or the animal's genetic merit is worse than 90% of the active population.

Note that the percentiles for Age at First Lambing and Inter-lambing Period EBVs work on the reverse scale.

All Active Animals

Trait	AVG	SA*	Min	Percentiles(%)															Max
				1	5	10	20	25	30	40	50	60	70	75	80	90	95	99	
Weaning Weight Direct	0.10	0.58	-2.61	-1.35	-0.77	-0.54	-0.31	-0.23	-0.16	-0.03	0.05	0.17	0.27	0.39	0.51	0.83	1.19	1.73	3.06
Weaning Weight Maternal	-0.02	0.41	-2.33	-0.90	-0.57	-0.45	-0.34	-0.30	-0.26	-0.18	-0.09	0.02	0.13	0.19	0.26	0.50	0.74	1.20	2.15
Weaning Weight Combined	0.03	0.48	-2.85	-1.12	-0.71	-0.54	-0.34	-0.28	-0.22	-0.08	0.03	0.13	0.23	0.29	0.36	0.60	0.87	1.30	2.36
Post-Wean Weight	3.97	1.19	-1.89	0.94	2.16	2.59	3.10	3.26	3.47	3.71	3.95	4.15	4.39	4.57	4.79	5.44	5.99	7.22	12.54
Number of Lambs Weaned	0.35	1.41	-7.50	-3.60	-1.90	-1.20	-0.50	-0.30	-0.10	0.20	0.40	0.70	0.80	1.00	1.10	1.60	2.50	4.70	13.50
Total Weight Weaned	0.29	1.17	-7.52	-3.17	-1.68	-1.10	-0.44	-0.25	-0.09	0.16	0.34	0.56	0.77	0.89	1.02	1.50	2.03	3.44	8.91
Age at First Lambing	-0.26	-7.68	56.53	18.86	11.54	8.88	5.46	4.32	3.20	1.34	0.07	-1.35	-3.26	-4.69	-6.11	-9.87	-13.80	-19.60	-37.78
Interlambing Period	0.28	-5.28	19.61	12.82	8.72	6.76	4.28	3.48	2.91	1.87	0.81	-0.54	-2.24	-3.15	-4.21	-6.85	-8.84	-12.54	-24.28
Reproduction Index	97	9	53	76	84	88	92	93	93	95	96	98	100	101	103	108	113	124	146
Logix Merit Index	98	9	45	73	83	87	92	93	95	96	98	100	101	102	104	108	112	122	147

*SD : Standard Deviation. An indicator of how far breeding values/selection indices are distributed around the average.

Breeding Value & Selection Index Percentiles

All Active Rams

Trait	AVG	SA*	Min	Percentiles (%)															Max
				1	5	10	20	25	30	40	50	60	70	75	80	90	95	99	
Weaning Weight Direct	0.13	0.58	-2.24	-1.26	-0.75	-0.51	-0.29	-0.21	-0.15	-0.02	0.07	0.19	0.31	0.43	0.55	0.86	1.21	1.70	2.81
Weaning Weight Maternal	-0.02	0.38	-1.44	-0.75	-0.52	-0.43	-0.34	-0.30	-0.25	-0.17	-0.08	0.04	0.14	0.19	0.25	0.47	0.69	1.12	1.88
Weaning Weight Combined	0.04	0.45	-1.43	-0.96	-0.64	-0.50	-0.33	-0.27	-0.21	-0.07	0.04	0.15	0.24	0.30	0.37	0.59	0.84	1.25	2.24
Post-Wean Weight	4.04	1.21	-1.77	1.42	2.31	2.63	3.12	3.28	3.47	3.73	4.00	4.22	4.48	4.67	4.91	5.49	6.15	7.30	12.54
Number of Lambs Weaned	0.35	1.31	-4.60	-3.20	-1.80	-1.10	-0.50	-0.30	-0.10	0.20	0.40	0.70	0.80	1.00	1.10	1.50	2.30	4.70	8.80
Total Weight Weaned	0.31	1.10	-4.54	-2.91	-1.53	-0.96	-0.39	-0.22	-0.08	0.15	0.34	0.59	0.80	0.92	1.02	1.45	1.95	3.29	5.84
Age at First Lambing	-0.27	-7.03	27.46	14.80	10.78	8.41	5.20	4.19	3.07	1.39	0.18	-1.27	-3.15	-4.61	-5.88	-9.01	-12.52	-19.15	-31.92
Interlambing Period	0.14	-5.04	19.27	12.69	8.29	6.32	3.96	3.17	2.66	1.58	0.49	-0.83	-2.33	-3.18	-4.11	-6.52	-8.31	-11.92	-18.90
Reproduction Index	97	8	70	77	85	89	92	93	93	95	97	98	100	101	103	108	112	124	145
Logix Merit Index	98	8	65	75	84	88	92	94	95	97	98	100	102	103	104	107	112	123	137

All Active Ewes

Trait	AVG	SA*	Min	Percentiles (%)															Max
				1	5	10	20	25	30	40	50	60	70	75	80	90	95	99	
Weaning Weight Direct	0.09	0.58	-2.61	-1.41	-0.78	-0.55	-0.32	-0.23	-0.16	-0.03	0.04	0.15	0.25	0.36	0.48	0.81	1.17	1.73	3.06
Weaning Weight Maternal	-0.03	0.42	-2.33	-0.94	-0.60	-0.46	-0.34	-0.30	-0.26	-0.18	-0.09	0.00	0.13	0.19	0.26	0.51	0.76	1.24	2.15
Weaning Weight Combined	0.02	0.49	-2.85	-1.19	-0.73	-0.56	-0.35	-0.29	-0.23	-0.09	0.02	0.11	0.23	0.29	0.35	0.60	0.88	1.37	2.36
Post-Wean Weight	3.94	1.17	-1.89	0.80	2.10	2.57	3.09	3.26	3.47	3.70	3.92	4.11	4.36	4.51	4.73	5.41	5.89	7.15	9.58
Number of Lambs Weaned	0.35	1.46	-7.50	-3.80	-2.00	-1.20	-0.50	-0.30	-0.10	0.20	0.50	0.70	0.90	1.00	1.10	1.60	2.60	4.90	13.50
Total Weight Weaned	0.27	1.21	-7.52	-3.26	-1.74	-1.16	-0.48	-0.25	-0.10	0.17	0.34	0.54	0.75	0.88	1.02	1.53	2.04	3.50	8.91
Age at First Lambing	-0.25	-7.98	56.53	19.28	11.85	9.04	5.56	4.41	3.25	1.33	0.02	-1.39	-3.32	-4.74	-6.21	-10.44	-14.24	-19.76	-37.78
Interlambing Period	0.34	-5.40	19.61	12.85	9.02	6.90	4.47	3.57	2.96	2.01	0.96	-0.41	-2.16	-3.12	-4.28	-7.01	-9.03	-12.81	-24.28
Reproduction Index	97	9	53	75	84	88	91	93	93	95	96	98	100	101	103	109	114	125	146
Logix Merit Index	98	9	45	72	83	87	92	93	94	96	98	99	101	102	104	108	113	122	147

*SD : Standard Deviation. An indicator of how far breeding values/selection indices are distributed around the average.

Rams

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information							Selection Indices			EBV - Weights					EBV - Fertility							
Animal Comp no.			Parents Sire Dam			% In- breeding	Logix Merit Index	Reproduction Index	Wean Weight		Post-Wean		Number Weaned		TWW		AFL		ILP		Dam	
									Dir EBV Acc Index	Mat EBV Acc Index	Comb EBV Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EPI	Times Lambd			
Active Breed Average:							100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28						
157 21 0097 94336591	49 19 0125 157 20 0583	3.65	82	87	-0.37 35 93	-0.25 31 92	-0.43 88	2.53 24 89	-1.50 19 88	-1.51 30 84	2.80 39 98	-1.34 26 101	5									
104 21 0116 92634005	104 19 0034 104 17 0106	5.69	95	100	0.16 56 100	0.08 52 99	0.15 99	2.91 47 92	-0.80 34 92	-0.25 49 94	-2.60 43 105	-3.96 27 106	100 5									
157 22 0012 97492672	KR62 19 0009 157 20 0155	2.94	85	85	-0.31 34 93	-0.43 30 88	-0.58 85	3.39 21 95	-1.20 17 90	-1.46 29 85	-8.27 39 113	6.74 27 83	2									
157 22 0182 99096307	157 21 0008 104 18 0010	10.38	77	84	-0.76 41 87	-0.48 36 87	-0.86 80	2.26 27 87	-0.70 22 93	-1.66 35 83	20.55 36 73	-9.71 23 119	7									
157 23 0109 99761355	233 20 0905 233 20 0025	2.06	95	93	0.04 5 98	-0.27 5 92	-0.25 92	4.07 5 99	0.80 5 102		6.07 17 93	-0.76 5 99	1									
157 23 0263 99885196	R105 17 7046 157 22 0089	15.19	92	89	-0.21 27 95	-0.37 24 90	-0.48 87	3.21 12 94	0.30 6 99	-0.40 21 93	-5.99 36 110	7.18 22 82	2									
157 24 0056 108863051	157 22 0142 104 18 0031	7.24	83	88	-0.70 34 88	-0.59 30 85	-0.94 78	2.58 23 90	-0.50 17 94	-1.59 29 84	5.02 31 95	-4.84 19 108	6									
157 24 0059 108937913	157 22 0234 133 19 0091	7.56	88	92	-0.35 33 93	-0.40 28 89	-0.57 85	2.73 25 91	0.00 14 97	-0.74 27 90	9.71 27 88	-7.07 20 113	4									
157 24 0194 111308425	157 22 0067 157 22 0117	4.66	92	97	-0.32 27 93	0.02 21 98	-0.14 94	3.74 19 97	-0.30 13 95	-0.48 21 92	4.52 25 95	-4.18 14 107	1									
157 24 0202 108862871	157 22 0142 KR75 16 0113	3.26	93	92	-0.10 22 96	-0.37 13 90	-0.42 88	3.80 8 98	0.20 6 98	-0.35 15 93	0.65 20 101	-0.05 9 98	5									
157 24 0222 109183194	157 22 0234 157 22 0181	8.32	87	90	-0.43 30 92	-0.44 24 88	-0.66 84	2.88 23 92	-0.20 13 96	-0.99 24 88	2.73 25 98	-2.28 17 103	2									
157 24 0242 109183160	100 21 0156 100 21 0110	12.50	101	110	0.17 49 100	1.14 38 123	1.22 120	4.24 20 101	-0.90 18 92	0.77 38 101	9.11 35 89	-7.54 22 114	4									
157 24 0257 108863028	157 21 0026 157 18 0074	2.67	89	94	-0.51 25 91	-0.14 23 95	-0.39 89	3.62 18 97	-0.50 12 94	-0.94 21 89	0.04 25 102	-0.77 15 99	3									
157 24 0330 108863069	157 22 0072 157 21 0095	2.50	93	94	-0.30 24 94	-0.19 17 94	-0.34 90	3.14 18 93	0.80 9 102	-0.02 18 96	4.44 24 96	-0.02 15 98	3									
157 24 0331 109183210	157 22 0072 157 21 0095	2.50	93	94	-0.30 24 94	-0.19 17 94	-0.34 90	3.14 18 93	0.80 9 102	-0.02 18 96	4.44 24 96	-0.02 15 98	3									

Rams

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information							Selection Indices		EBV - Weights				EBV - Fertility					
Animal Comp no.			Parents Sire Dam			% In- breeding	Logix Merit Index	Reproduction Index	Wean Weight		Post-Wean	Number Weaned	TWW	AFL	ILP	Dam		
									Dir	Mat								Comb
							EBV	EBV	EBV	EBV	EBV	EBV	EBV	EBV	EBV	EBV		
							Acc Index	Acc Index	Index	Acc Index	Acc Index	Acc Index	Acc Index	Acc Index	Acc Index	EPI	Times Lambd	
Active Breed Average:							100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28		
244 25 0003 114379803	157 23 0263 201 21 0021	3.13	94	93	-0.11 16 96	-0.18 14 94	-0.24 92	3.59 7 96	0.30 5 99	-0.12 12 95	-3.27 23 106	4.02 13 89				1		
244 25 0008 114379746	157 23 0263 125 17 0058	2.83	95	92	-0.09 14 97	-0.32 12 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89				1		
Ram Flock Average: Number of rams in the flock: 17							90	93	-0.26	-0.20	-0.33	3.26	-0.17	-0.56	2.78	-1.21		

Ewes

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information							Selection Indices			EBV - Weights				EBV - Fertility										
Animal Comp no.			Parents Sire Dam			% In- breedin	Logix Merit Index	Reproduction Index	Dir		Wean Weight		Post-Wean		Number Weaned		TWW		AFL		ILP		Phenotype	
									EBV Acc Index	EBV Acc Index	EBV Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EPI	Times Lambd				
			Active Breed Average:				100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28								
201 21 0021 95795431			201 18 0008 201 19 0273	2.83	97	97	-0.02 18 97	0.00 16 98	0.00 96	3.98 8 99	0.30 6 99	0.17 14 97	-0.54 27 102	0.85 14 96	1									
161 22 0026 94176534			AH 19 0160 159 20 0047	2.64	93	105	-1.62 65 76	0.05 46 99	-0.76 82	1.29 24 81	3.00 20 115	0.23 47 97	5.65 41 94	-0.36 20 98	0									
157 24 0075 108921727			157 22 0067 157 20 0003	2.06	94	96	-0.26 19 94	-0.08 14 96	-0.21 92	4.22 13 101	0.40 8 99	-0.10 15 95	4.50 14 95	-1.59 8 101	0									
244 24 0201 109735456			157 21 0097 244 17 0580	2.84	90	91	-0.17 17 95	-0.26 16 92	-0.34 90	3.30 12 94	-0.30 9 95	-0.60 15 91	1.78 19 99	-0.18 13 98	0									
157 24 0272 107770265			104 20 0078 157 21 0123	3.81	91	92	0.03 38 98	-0.31 31 91	-0.30 91	3.60 29 96	-0.50 19 94	-0.58 31 91	3.99 35 96	-3.97 22 106	0									
157 24 0425 111067534			157 22 0067 157 22 0089	4.03	90	93	-0.40 25 92	-0.14 19 95	-0.34 90	3.81 15 98	-0.20 10 96	-0.66 19 91	1.69 25 99	0.44 15 97	0									
244 25 0001 114379795			157 23 0263 233 18 0005	2.67	95	92	-0.09 14 97	-0.32 12 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89	0									
244 25 0002 114379761			157 23 0263 233 18 0005	2.67	95	92	-0.09 14 97	-0.32 12 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89	0									
244 25 0004 114379753			157 23 0263 201 21 0021	3.13	94	93	-0.11 16 96	-0.18 14 94	-0.24 92	3.59 7 96	0.30 5 99	-0.12 12 95	-3.27 23 106	4.02 13 89	0									
244 25 0007 114379787			157 23 0263 125 17 0058	2.83	95	92	-0.09 14 97	-0.32 12 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89	0									
244 25 0009 114379779			157 23 0263 125 21 0051	2.71	95	92	-0.09 14 97	-0.32 12 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89	0									
244 25 0017 114379811			157 23 0263 244 17 0580	2.83	95	92	-0.09 14 97	-0.32 12 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89	0									
244 25 0018 114379829			157 23 0263 244 17 0580	2.83	95	92	-0.09 14 97	-0.32 12 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89	0									
Ewe flock average: Total ewes in flock: 13							94	94	-0.24	-0.22	-0.34	3.51	0.51	-0.15	-0.15	1.82								

Sires Used in Flock

*Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information		Parents & Progeny				Selection Indices		EBV - Weights				EBV - Fertility					
Animal ID Computer nr	% In- breedin	Sire ID Dam ID	1st Generation		2nd Generation		Logix Merit Index	Reproducti on Index	Weaning Weight		Comb EBV Index	Post-Wean EBV Acc Index	Number Weaned EBV Acc Index	TWW EBV Acc Index	AFL EBV Acc Index	ILP EBV Acc Index	DAM EPI Times Lambe
			Progeny Number Weaned	Herds	Progeny Number Weaned	Herds			Dir EBV Acc Index	Mat EBV Acc Index							
		Active Breed Average:				100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28		
1 R105 17 7046 82641291	3.21	R105 15 5078 R105 15 5022	2	1	5	2	95	91	-0.18 42 95	-0.36 39 90	-0.45 88	3.17 17 94	1.10 5 104	0.13 32 97	-7.12 58 112	9.33 37 77	1
2 201 18 0008 95795506	2.84	100 17 0059 126 17 0120			1	1	99	101	0.07 34 99	0.31 31 105	0.34 103	4.08 16 100	-0.10 12 96	0.32 28 98	-1.37 49 104	0.24 25 97	3
3 KR62 19 0009 90633009	3.51	KR62 17 0777 KR62 17 0795			2	1	74	76	-0.56 64 90	-0.54 57 86	-0.82 81	3.16 41 93	-3.40 33 77	-3.14 54 72	-10.19 67 116	6.76 48 83	8
4 104 19 0034 83565705	7.31	100 16 0131 104 18 0038	59	1	19	1	101	100	0.99 92 111	0.09 82 100	0.59 108	3.59 83 96	-1.10 57 91	0.42 80 99	-3.79 71 107	-4.14 45 107	172 9
5 49 19 0125 92213693	2.84	49 17 9142 49 16 0561			1	1	103	103	0.12 39 99	0.22 32 103	0.28 102	3.44 20 95	1.20 7 104	1.06 29 104	0.00 53 102	0.51 33 96	2
6 AH 19 0160 90590456	2.64		126	1	10	1	83	73	-0.03 93 97	-1.54 66 64	-1.56 66	4.56 5 103	0.70 12 101	-1.15 64 87	17.31 67 78	-5.67 27 110	
7 104 20 0078 86421708	11.36	104 18 0057 104 17 0045	3	1			98	99	0.33 70 102	-0.22 54 93	-0.06 95	3.59 54 96	0.40 35 99	0.34 56 98	10.16 55 88	-11.04 34 122	123 10
8 233 20 0905 96840327	2.06														11.38 34 86	-2.51 8 103	
9 157 21 0008 93179307	5.25	KR62 19 0009 104 18 0030			2	1	78	82	-0.63 48 89	-0.59 44 85	-0.90 79	2.62 30 90	-1.90 23 86	-2.36 41 78	-0.04 48 102	-0.65 33 99	5
10 157 21 0026 93179257	4.49	KR62 19 0009 104 18 0001			2	1	81	92	-1.05 50 83	-0.01 46 98	-0.53 86	3.18 37 94	-1.80 23 86	-2.13 42 80	0.91 47 100	-3.04 31 104	4
11 157 21 0097 94336591	3.65	49 19 0125 157 20 0583					82	87	-0.37 35 93	-0.25 31 92	-0.43 88	2.53 24 89	-1.50 19 88	-1.51 30 84	2.80 39 98	-1.34 26 101	5
12 100 21 0156 93039303	19.31	100 19 0052 100 18 0170	24	2			100	114	0.13 82 99	1.40 57 129	1.46 125	3.40 28 95	-1.10 27 91	0.87 60 102	14.02 53 82	-11.30 33 123	99 3
13 157 22 0067 96385448	2.64	104 20 0068 157 19 0076	1	1			92	97	-0.56 38 90	0.11 28 100	-0.17 93	4.38 25 102	0.00 16 97	-0.45 29 92	8.25 27 90	-4.16 16 107	5
14 157 22 0072 96308143	2.06	104 20 0078 157 20 0014	2	1			92	99	-0.54 44 90	-0.07 28 96	-0.34 90	2.67 34 90	0.60 17 101	-0.25 32 94	5.46 28 94	-5.03 17 109	4
15 157 22 0142 96308127	2.06	157 21 0007 157 20 0017					88	89	-0.35 22 93	-0.45 21 88	-0.62 84	3.38 15 95	-0.50 12 94	-1.10 19 87	0.31 32 101	-1.01 16 100	5

Sires Used in Flock

*Inbreeding in red is high

EBV - Estimated Breeding Value

Indices ≥ 124
Above breed average
Indices ≤ 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information		Parents & Progeny				Selection Indices		EBV - Weights				EBV - Fertility									
Animal ID Computer nr	% In- breedin	Sire ID Dam ID	1st Generation		2nd Generation		Logix Merit Index	Reproducti on Index	Weaning Weight				Number Weaned EBV Acc Index	TWW		AFL		ILP		DAM	
			Progeny Number Weaned	Herds	Progeny Number Weaned	Herds			Dir EBV Acc Index	Mat EBV Acc Index	Comb EBV Index	Post-Wean EBV Acc Index		EBV Acc Index	EBV Acc Index	EBV Acc Index	EBV Acc Index	EPI	Times Lambe		
			Active Breed Average:				100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28					
16	157 22 0234 99501504	10.14	104 20 0078 104 18 0031	2	1	1	1	87	94	-0.51 53 91	-0.43 41 88	-0.69 83	2.63 44 90	0.00 24 97	-0.95 42 89	9.94 38 88	-9.85 24 119	6			
17	157 23 0263 99885196	15.19	R105 17 7046 157 22 0089					92	89	-0.21 27 95	-0.37 24 90	-0.48 87	3.21 12 94	0.30 6 99	-0.40 21 93	-5.99 36 110	7.18 22 82	2			
			Sire Flock Average: Number of sires used in the flock: 17				90	93	-0.21	-0.17	-0.27	3.35	-0.44	-0.64	3.06	-2.10					

Ram Selection List: LMI

Animals sorted on LMI

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information		Parents & Progeny			Selection Indices		EBV - Weights				EBV - Fertility			
Animal ID Computer nr	% In-breedi	Sire ID Dam ID	1st Generation	2nd Generation	Logix Merit Index	Reproducti on Index	Weaning Weight		Comb EBV Index	Post-Wean EBV Acc Index	Number Weaned EBV Acc Index	TWW EBV Acc Index	AFL EBV Acc Index	ILP EBV Acc Index
			Progeny Number Weaned Herds	Progeny Number Weaned Herds			Dir EBV Acc Index	Mat EBV Acc Index						
			Active Breed Average:				100	100	0.10	-0.02	0.03	3.97	0.35	0.29
1	157 24 0242 109183160	12.50	100 21 0156 100 21 0110		101	110	0.17 49	1.14 38	1.22 120	4.24 20	-0.90 18	0.77 38	9.11 35	-7.54 22
2	157 23 0109 99761355	2.06	233 20 0905 233 20 0025		95	93	0.04 5	-0.27 5	-0.25 92	4.07 5	0.80 5		6.07 17	-0.76 5
3	104 21 0116 92634005	5.69	104 19 0034 104 17 0106		95	100	0.16 56	0.08 52	0.15 99	2.91 47	-0.80 34	-0.25 49	-2.60 43	-3.96 27
4	244 25 0008 114379746	2.83	157 23 0263 125 17 0058		95	92	-0.09 14	-0.32 12	-0.36 89	3.64 6	0.60 5	-0.05 11	-2.62 18	4.08 11
5	244 25 0003 114379803	3.13	157 23 0263 201 21 0021		94	93	-0.11 16	-0.18 14	-0.24 92	3.59 7	0.30 5	-0.12 12	-3.27 23	4.02 13
6	157 24 0202 108862871	3.26	157 22 0142 175 16 0113		93	92	-0.10 22	-0.37 13	-0.42 88	3.80 8	0.20 6	-0.35 15	0.65 20	-0.05 9
7	157 24 0331 109183210	2.50	157 22 0072 157 21 0095		93	94	-0.30 24	-0.19 17	-0.34 90	3.14 18	0.80 9	-0.02 18	4.44 24	-0.02 15
8	157 24 0330 108863069	2.50	157 22 0072 157 21 0095		93	94	-0.30 24	-0.19 17	-0.34 90	3.14 18	0.80 9	-0.02 18	4.44 24	-0.02 15
9	157 24 0194 111308425	4.66	157 22 0067 157 22 0117		92	97	-0.32 27	0.02 21	-0.14 94	3.74 19	-0.30 13	-0.48 21	4.52 25	-4.18 14
10	157 23 0263 99885196	15.19	105 17 7046 157 22 0089		92	89	-0.21 27	-0.37 24	-0.48 87	3.21 12	0.30 6	-0.40 21	-5.99 36	7.18 22
11	157 24 0257 108863028	2.67	157 21 0026 157 18 0074		89	94	-0.51 25	-0.14 23	-0.39 89	3.62 18	-0.50 12	-0.94 21	0.04 25	-0.77 15
12	157 24 0059 108937913	7.56	157 22 0234 133 19 0091		88	92	-0.35 33	-0.40 28	-0.57 85	2.73 25	0.00 14	-0.74 27	9.71 27	-7.07 20
13	157 24 0222 109183194	8.32	157 22 0234 157 22 0181		87	90	-0.43 30	-0.44 24	-0.66 84	2.88 23	-0.20 13	-0.99 24	2.73 25	-2.28 17
14	157 22 0012 97492672	2.94	162 19 0009 157 20 0155		85	85	-0.31 34	-0.43 30	-0.58 85	3.39 21	-1.20 17	-1.46 29	-8.27 39	6.74 27

Ram Selection List: LMI

Animals sorted on LMI

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
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Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information		Parents & Progeny				Selection Indices		EBV - Weights				EBV - Fertility			
Animal ID Computer nr	% In- breedi	Sire ID Dam ID	1st Generation		2nd Generation	Logix Merit Index	Reproducti on Index	Weaning Weight		Comb EBV Index	Post-Wean EBV Acc Index	Number Weaned EBV Acc Index	TWW EBV Acc Index	AFL EBV Acc Index	ILP EBV Acc Index
			Progeny Number Weaned	Herds	Progeny Number Weaned			Herds	Dir EBV Acc Index						
			Active Breed Average:			100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28
15	157 24 0056 108863051	7.24	157 22 0142 104 18 0031			83	88	-0.70 34 88	-0.59 30 85	-0.94 78	2.58 23 90	-0.50 17 94	-1.59 29 84	5.02 31 95	-4.84 19 108
16	157 21 0097 94336591	3.65	49 19 0125 157 20 0583			82	87	-0.37 35 93	-0.25 31 92	-0.43 88	2.53 24 89	-1.50 19 88	-1.51 30 84	2.80 39 98	-1.34 26 101
17	157 22 0182 99096307	10.38	157 21 0008 104 18 0010			77	84	-0.76 41 87	-0.48 36 87	-0.86 80	2.26 27 87	-0.70 22 93	-1.66 35 83	20.55 36 73	-9.71 23 119

Ewe Selection List: LMI

Animals sorted on LMI

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information		Parents	Selection Indices		EBV - Weights				EBV - Fertility				
Animal ID Computer nr	% In-breedin	Sire ID Dam ID	Logix Merit Index	Reproducti on Index	Dir EBV Acc Index	Weaning Weight Mat EBV Acc Index	Comb EBV Index	Post-Wean EBV Acc Index	Number Weaned EBV Acc Index	TWW EBV Acc Index	AFL EBV Acc Index	ILP EBV Acc Index	Phenotype EPI Times Lambd
Active Breed Average:			100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28	
1 157 24 0242 109183160	12.50	100 21 0156 100 21 0110	101	110	49 0.17 100	38 1.14 123	1.22 120	4.24 20 101	-0.90 18 92	0.77 38 101	9.11 35 89	-7.54 22 114	
2 157 23 0109 99761355	2.06	233 20 0905 233 20 0025	95	93	5 0.04 98	5 -0.27 92	-0.25 92	4.07 5 99	0.80 5 102		6.07 17 93	-0.76 5 99	
3 104 21 0116 92634005	5.69	104 19 0034 104 17 0106	95	100	56 0.16 100	52 0.08 99	0.15 99	2.91 47 92	-0.80 34 92	-0.25 49 94	-2.60 43 105	-3.96 27 106	
4 244 25 0008 114379746	2.83	157 23 0263 125 17 0058	95	92	14 -0.09 97	12 -0.32 91	-0.36 89	3.64 6 97	0.60 5 101	-0.05 11 95	-2.62 18 105	4.08 11 89	
5 244 25 0003 114379803	3.13	157 23 0263 201 21 0021	94	93	16 -0.11 96	14 -0.18 94	-0.24 92	3.59 7 96	0.30 5 99	-0.12 12 95	-3.27 23 106	4.02 13 89	
6 157 24 0202 108862871	3.26	157 22 0142 KR75 16 0113	93	92	22 -0.10 96	13 -0.37 90	-0.42 88	3.80 8 98	0.20 6 98	-0.35 15 93	0.65 20 101	-0.05 9 98	
7 157 24 0331 109183210	2.50	157 22 0072 157 21 0095	93	94	24 -0.30 94	17 -0.19 94	-0.34 90	3.14 18 93	0.80 9 102	-0.02 18 96	4.44 24 96	-0.02 15 98	
8 157 24 0330 108863069	2.50	157 22 0072 157 21 0095	93	94	24 -0.30 94	17 -0.19 94	-0.34 90	3.14 18 93	0.80 9 102	-0.02 18 96	4.44 24 96	-0.02 15 98	
9 157 24 0194 111308425	4.66	157 22 0067 157 22 0117	92	97	27 -0.32 93	21 0.02 98	-0.14 94	3.74 19 97	-0.30 13 95	-0.48 21 92	4.52 25 95	-4.18 14 107	
10 157 23 0263 99885196	15.19	R105 17 7046 157 22 0089	92	89	27 -0.21 95	24 -0.37 90	-0.48 87	3.21 12 94	0.30 6 99	-0.40 21 93	-5.99 36 110	7.18 22 82	
11 157 24 0257 108863028	2.67	157 21 0026 157 18 0074	89	94	25 -0.51 91	23 -0.14 95	-0.39 89	3.62 18 97	-0.50 12 94	-0.94 21 89	0.04 25 102	-0.77 15 99	
12 157 24 0059 108937913	7.56	157 22 0234 133 19 0091	88	92	33 -0.35 93	28 -0.40 89	-0.57 85	2.73 25 91	0.00 14 97	-0.74 27 90	9.71 27 88	-7.07 20 113	
13 157 24 0222 109183194	8.32	157 22 0234 157 22 0181	87	90	30 -0.43 92	24 -0.44 88	-0.66 84	2.88 23 92	-0.20 13 96	-0.99 24 88	2.73 25 98	-2.28 17 103	
14 157 22 0012 97492672	2.94	KR62 19 0009 157 20 0155	85	85	34 -0.31 93	30 -0.43 88	-0.58 85	3.39 21 95	-1.20 17 90	-1.46 29 85	-8.27 39 113	6.74 27 83	

Ewe Selection List: LMI

Animals sorted on LMI

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBVs with an accuracy below 5% are not printed

Index: Expresses the EBV around 100 where 100 is set as the average EBV of active animals

Animal Information		Parents	Selection Indices		EBV - Weights				EBV - Fertility				Phenotype	
Animal ID Computer nr	% In- breedin	Sire ID Dam ID	Logix Merit Index	Reproducti on Index	Dir EBV Acc Index	Weaning Weight Mat EBV Acc Index	Comb EBV Index	Post-Wean EBV Acc Index	Number Weaned EBV Acc Index	TWW EBV Acc Index	AFL EBV Acc Index	ILP EBV Acc Index	EPI	Times Lambled
Active Breed Average:			100	100	0.10	-0.02	0.03	3.97	0.35	0.29	-0.26	0.28		
15	157 24 0056 108863051	7.24	157 22 0142 104 18 0031	83	88	-0.70 34	-0.59 30	-0.94 78	2.58 23	-0.50 17	-1.59 29	5.02 31	-4.84 19	108
16	157 21 0097 94336591	3.65	49 19 0125 157 20 0583	82	87	-0.37 35	-0.25 31	-0.43 88	2.53 24	-1.50 19	-1.51 30	2.80 39	-1.34 26	101
17	157 22 0182 99096307	10.38	157 21 0008 104 18 0010	77	84	-0.76 41	-0.48 36	-0.86 80	2.26 27	-0.70 22	-1.66 35	20.55 36	-9.71 23	119