

Meatmaster Genetic Analysis

SA Stud Book

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MR N.A. NICHOLAS ALAN CRAWFORD

PLOT 36

CULLINAN

1000



FDM: CRAW



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 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.

Three Indices are constructed for the Meatmaster breed, namely the Growth Index, Reproduction Index and the Logix Merit Index. These indices, their purpose and the contribution of the different traits to the indices are summarised as follows :

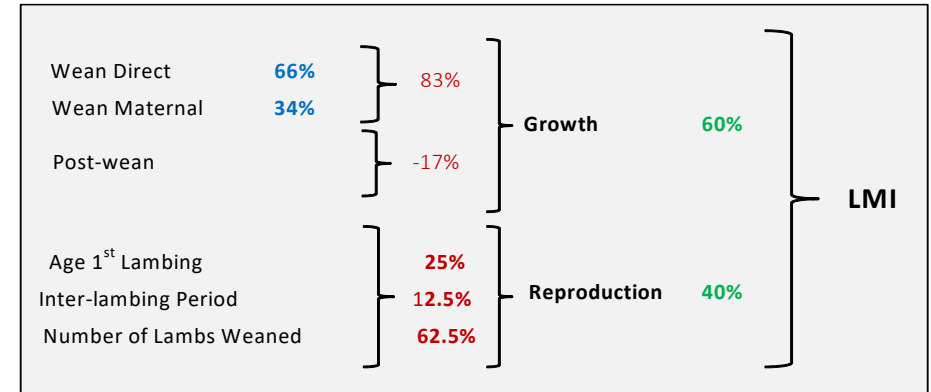
Logix Merit Index (LMI)

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, 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 :

$$(0.33 * \text{Wean Dir}) + (0.17 * \text{Wean Mat}) - (0.10 * \text{Post-wean}) + (0.25 * \text{N_Lambs_Weaned}) + (0.10 * \text{AFL}) + (0.05 * \text{ILP})$$

Schematically the LMI can be explained as follows :



Growth Index (GI)

The Growth Index indicates growth potential up to weaning and is a combination of Wean Direct, Wean Maternal and Post-Wean breeding values. The Growth Index is useful to indicate an animal's advantage in crossbreeding systems. The GI is constructed as follows :

$$GI = 0.54 \text{ Wean Dir} + 0.26 \text{ Wean Mat} + 0.2 \text{ Post-Wean}$$

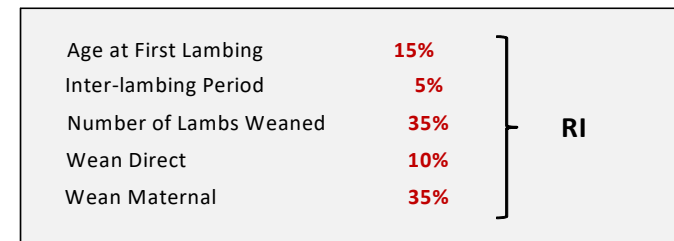
Reproduction Index (RI)

This index includes the EBVs of the components of Total Weight Weaned (Weaning Direct and Maternal and Number of Lambs Weaned), as well as Age at First Lambing and Interlambing Period. This is especially an important index to consider in the development of a dam line.

The **RI** is constructed as follows :

$$(0.15 * \text{AFL}) + (0.05 * \text{ILP}) + (0.35 * \text{N_Lambs_Weaned}) + (0.10 * \text{Wean Dir}) + (0.35 * \text{Wean Mat})$$

Schematically it can be explained as follows :



Meatmaster

Genetic Averages of Animals

Trait	Flock **			Breed		
	All	Rams	Ewes	All	Rams	Ewes
Weaning Weight Direct	-0.50		-0.50	-0.16	-0.04	-0.22
Weaning Weight Maternal	-0.31		-0.31	0.01	0.04	0.00
Weaning Weight Comb	-0.56		-0.56	-0.07	0.02	-0.11
Post-wean Weight	-1.36		-1.36	-0.67	-0.46	-0.76
Number Lambs Weaned	-1.51		-1.51	0.68	0.69	0.67
Total Weight Weaned	-1.72		-1.72	0.26	0.41	0.19
Age at First Lambing	2.46		2.46	0.41	0.65	0.30
Interlambing Period	-1.66		-1.66	0.33	0.34	0.32
Selection Indices						
Logix Merit Index	85		85	96	96	95
Reproduction Index	86		86	97	97	97
Growth Index	90		90	95	96	94
Inbreeding						
Inbreeding (%)	3.13		3.13	3.93	4.25	3.79
Number of Animals						
Number of Animals	9	0	9	29299	8760	20496

** Averages of all active animals in the flock.

Breeding Value Indices

Trait	Flock **		
	All	Rams	Ewes
Weaning Weight Direct	91.5		91.5
Weaning Weight Maternal	91.7		91.7
Weaning Weight Comb	89.9		89.9
Post-wean Weight	90.8		90.8
Number Lambs Weaned	89.7		89.7
Total Weight Weaned	85.9		85.9
Age First Lambing	96.3		96.3
Interlambing Period	101.3		101.3
Selection Indices			
Logix Merit Index	85.2		85.2
Reproduction Index	85.6		85.6
Growth Index	90.2		90.2
Inbreeding			
Inbreeding (%)	3.13		3.13
Number of Animals			
Number of Animals	9	0	9

** 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

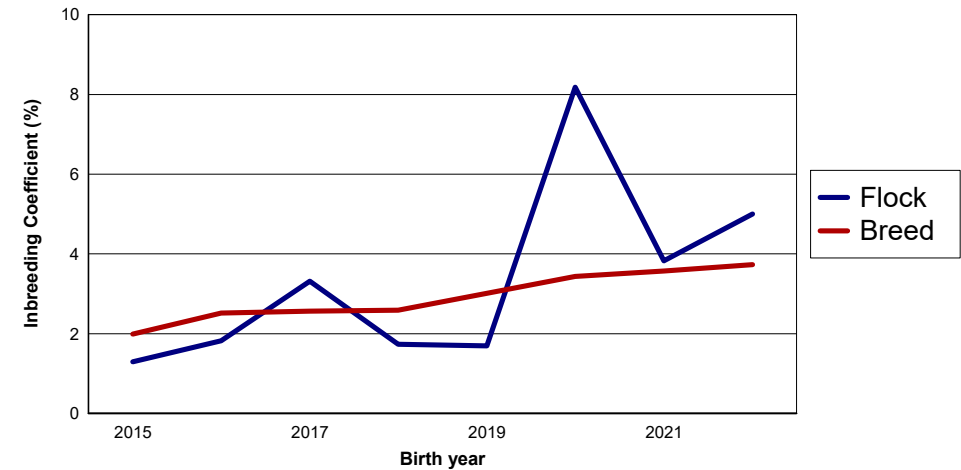
Progeny with Parents :	25%
Full Brother x Full Sister :	25%
Half Brother x Half Sister :	12.5%
One Common Grandparent :	6.25%
One Common Great-Grandparent :	3.125%

Level and Rate of Inbreeding

Year of Birth	Level* (%)	Rate (% / year)
2015 - 2022	5.00	0.53
Recommended:	< 6.25	< 0.1 - 0.2

*Of the last year of birth

Rate of Inbreeding

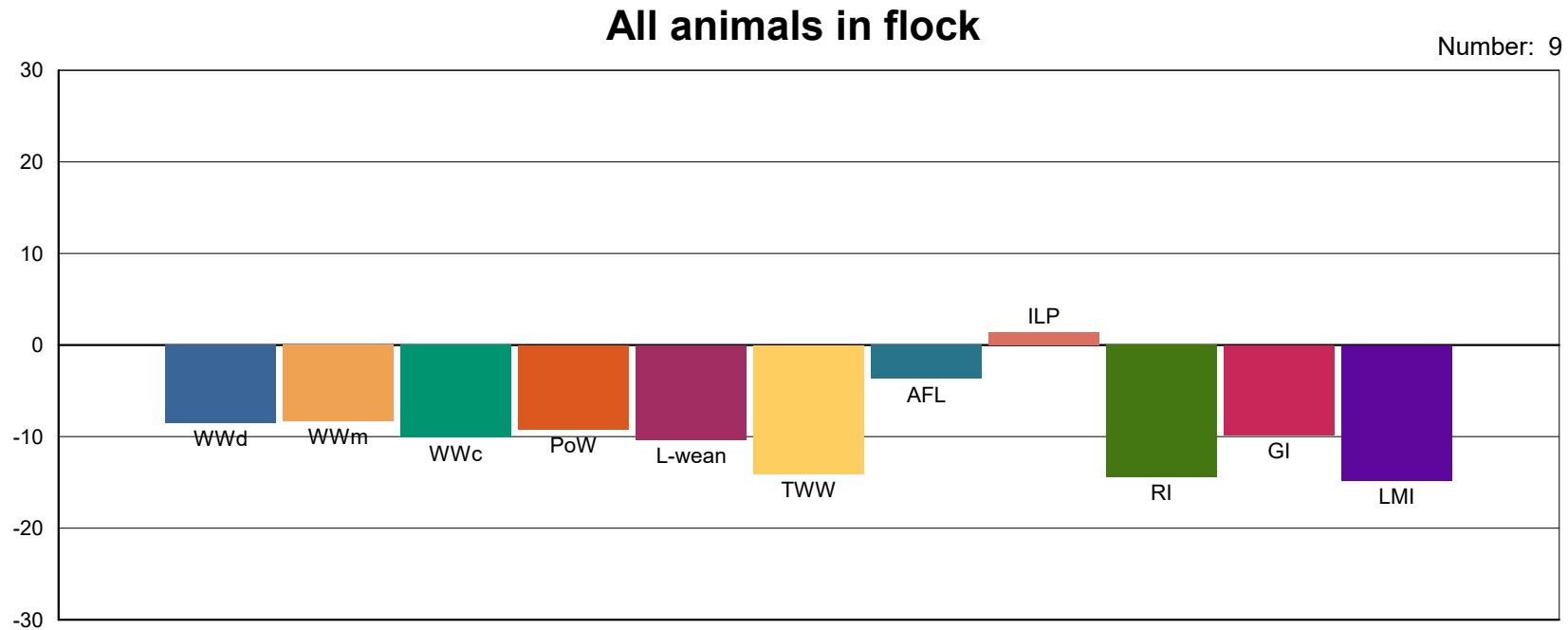


Pedigree Information

	Number	%
Known Sires	8	89
Known Dams	9	100

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-Weaning Weight
L-wean: Number of Lambs Weaned
TWW: Total Weight Weaned
AFL: Age at First Lambing
ILP: Interlambing Period
RI: Reproduction Index
GI: Growth Index

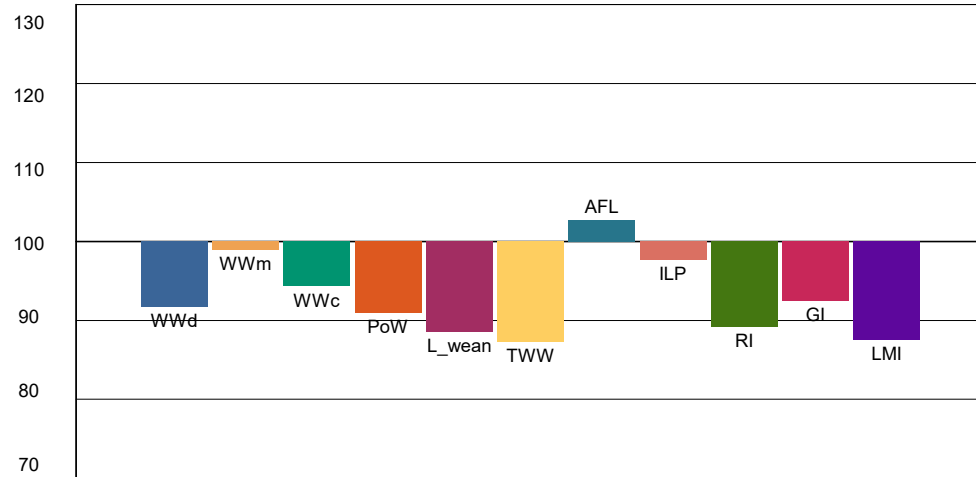
The genetic windows allow a quick overview of the genetic status of the flock compared to the breed. The values presented here are the average EBV indices of all the active animals of the flock, of the dams and sires of the active animals of the flock, as well as of the active ewes and rams that are 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

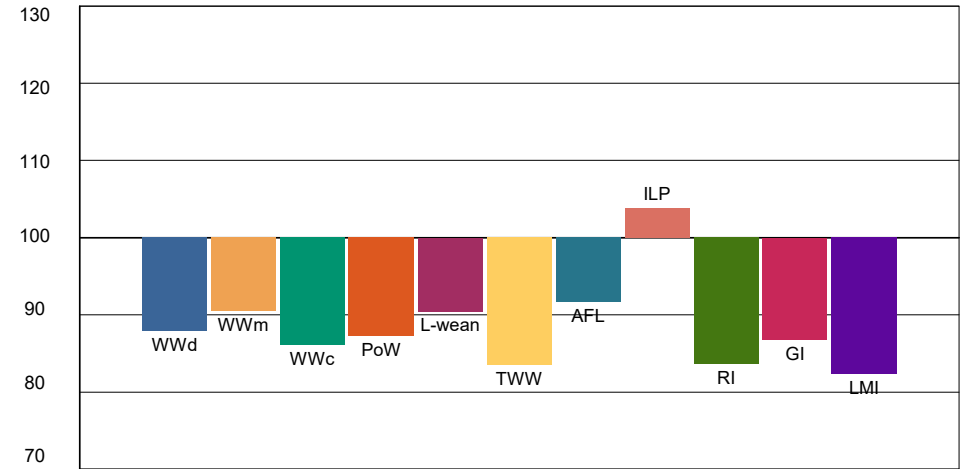
Dams

Number: 9



Sires

Number: 7



Number:

130
120
110
100
90
80
70

Young Rams

Number:



Genetic Trends

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

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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	
	Number	Dir	Mat	Comb	Number	EBV	Number	EBV	Number	EBV	Number	EBV	Number	EBV	Number	EBV	Number	EBV
2013	2551	-0.52	-0.51	-0.77	1364	-1.64	940	0.11	2551	89	1204	1.12	935	-0.04	2551	88	2551	88
2014	2768	-0.48	-0.43	-0.67	1344	-1.54	1129	-0.12	2768	89	1363	1.02	1019	1.35	2768	88	2768	88
2015	3224	-0.30	-0.28	-0.43	1476	-0.96	1066	-0.17	3224	92	1297	0.69	880	0.37	3224	91	3224	91
2016	2994	-0.19	-0.36	-0.46	1674	-0.78	1253	0.05	2994	92	1656	0.50	1234	1.44	2994	90	2994	91
2017	2937	-0.02	-0.33	-0.34	1491	-0.40	1321	0.01	2937	92	1935	0.59	1442	1.86	2937	90	2937	91
2018	3790	0.05	-0.15	-0.12	2173	-0.40	1415	0.26	3790	95	1822	0.79	1212	1.10	3790	94	3790	94
2019	4281	0.04	-0.04	-0.01	1997	-0.02	1202	0.04	4281	95	1665	0.68	1277	0.69	4281	94	4281	94
2020	3443	0.00	0.00	0.00	2062	0.00	1788	0.02	3443	95	2006	0.00	1533	0.00	3443	96	3443	95
2021	4482	0.03	0.05	0.07	2120	0.32	1508	0.50	4482	96	2126	-0.49	1482	0.45	4482	97	4482	96
2022	5249	0.06	0.00	0.03	2476	0.20	2064	0.26	5249	96	2178	-0.10	1244	-0.92	5249	96	5249	96
2023	6336	0.27	-0.09	0.04	2328	0.53	1830	-0.04	6336	95	1993	0.52	716	-0.03	6336	94	6336	95
2024	7250	0.24	-0.08	0.05	2588	0.79	276	-0.03	7250	97	899	0.69	6	-5.49	7250	96	7250	96
2025	3906	0.18	-0.04	0.05	76	-0.34			3906	98					3906	98		

Genetic Trends of Flock

Birth year	Weaning Weight				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	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	SD*	Min	Percentiles (%)															Max
				1	5	10	20	25	30	40	50	60	70	75	80	90	95	99	
Weaning Weight Direct	-0.16	1.28	-4.77	-2.67	-2.02	-1.63	-1.21	-1.08	-0.90	-0.62	-0.36	-0.02	0.40	0.65	0.93	1.65	2.20	3.10	5.64
Weaning Weight Maternal	0.01	0.59	-2.91	-1.36	-0.87	-0.67	-0.46	-0.37	-0.31	-0.16	-0.02	0.11	0.28	0.38	0.49	0.78	1.04	1.56	2.96
Weaning Weight Combined	-0.07	1.00	-4.42	-2.13	-1.41	-1.08	-0.82	-0.73	-0.66	-0.49	-0.31	-0.05	0.33	0.53	0.78	1.38	1.84	2.64	4.81
Post-Wean Weight	-0.66	2.12	-7.97	-4.77	-3.66	-3.04	-2.36	-2.09	-1.90	-1.50	-1.05	-0.50	0.21	0.63	1.11	2.37	3.31	4.97	9.74
Number of Lambs Weaned	0.68	2.30	-8.60	-4.60	-2.70	-1.80	-0.90	-0.60	-0.40	-0.10	0.40	0.90	1.50	1.90	2.40	3.70	4.90	7.30	14.90
Total Weight Weaned	0.26	2.17	-7.54	-3.90	-2.68	-2.09	-1.46	-1.23	-0.99	-0.56	-0.11	0.43	0.99	1.40	1.90	3.29	4.42	6.40	11.56
Age at First Lambing	0.41	-4.55	49.25	12.47	7.62	5.65	3.59	2.84	2.27	1.31	0.41	-0.41	-1.33	-1.95	-2.71	-4.86	-6.95	-12.25	-29.56
Interlambing Period	0.32	-7.39	56.92	19.34	12.28	9.14	5.74	4.57	3.56	1.79	0.23	-1.05	-2.72	-3.70	-4.92	-8.65	-11.98	-19.22	-37.08
Growth Index	95	11	59	74	80	83	86	87	88	90	92	95	99	101	104	111	115	123	141
Reproduction Index	97	10	57	75	82	85	89	90	92	94	96	98	101	103	105	111	116	125	152
Logix Merit Index	96	11	56	75	81	84	87	88	89	92	94	96	100	102	104	111	116	125	146

*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	SD*	Min	Percentiles (%)															Max
				1	5	10	20	25	30	40	50	60	70	75	80	90	95	99	
Weaning Weight Direct	-0.04	1.30	-3.99	-2.52	-1.91	-1.57	-1.12	-0.96	-0.82	-0.56	-0.29	0.11	0.57	0.84	1.10	1.81	2.33	3.20	5.13
Weaning Weight Maternal	0.04	0.55	-2.03	-1.16	-0.78	-0.62	-0.41	-0.33	-0.27	-0.13	0.01	0.13	0.28	0.37	0.47	0.77	1.00	1.48	2.93
Weaning Weight Combined	0.02	0.99	-3.27	-1.81	-1.23	-0.98	-0.77	-0.71	-0.62	-0.45	-0.27	0.03	0.45	0.66	0.91	1.47	1.91	2.62	4.69
Post-Wean Weight	-0.46	2.15	-6.37	-4.39	-3.36	-2.81	-2.22	-1.96	-1.80	-1.42	-0.95	-0.26	0.54	0.98	1.49	2.67	3.48	5.06	7.93
Number of Lambs Weaned	0.69	2.10	-6.50	-4.10	-2.30	-1.60	-0.80	-0.50	-0.40	-0.10	0.40	0.80	1.40	1.80	2.30	3.50	4.50	7.00	14.50
Total Weight Weaned	0.41	2.13	-6.28	-3.69	-2.42	-1.86	-1.33	-1.08	-0.86	-0.47	-0.02	0.52	1.15	1.64	2.17	3.48	4.47	6.26	11.56
Age at First Lambing	0.65	-4.05	22.86	11.35	7.06	5.34	3.48	2.81	2.34	1.47	0.69	-0.23	-1.01	-1.51	-2.24	-4.07	-5.86	-10.49	-26.34
Interlambing Period	0.34	-6.43	29.52	16.11	10.81	8.29	5.21	4.26	3.32	1.67	0.21	-0.96	-2.26	-3.21	-4.21	-7.65	-10.51	-17.11	-28.29
Growth Index	96	11	62	76	81	84	87	88	89	90	93	96	101	103	106	112	116	123	141
Reproduction Index	97	10	57	75	83	86	90	91	92	94	96	98	101	102	105	110	116	125	152
Logix Merit Index	96	11	59	76	82	85	87	88	89	92	94	97	100	102	105	111	116	125	141

All Active Ewes

Trait	Avg	SD*	Min	Percentiles (%)															Max
				1	5	10	20	25	30	40	50	60	70	75	80	90	95	99	
Weaning Weight Direct	-0.22	1.26	-4.77	-2.67	-2.10	-1.69	-1.25	-1.09	-0.96	-0.65	-0.39	-0.07	0.33	0.56	0.83	1.57	2.12	3.03	5.64
Weaning Weight Maternal	0.00	0.61	-2.91	-1.41	-0.92	-0.70	-0.48	-0.40	-0.33	-0.18	-0.04	0.10	0.28	0.39	0.50	0.79	1.07	1.59	2.96
Weaning Weight Combined	-0.11	1.01	-4.42	-2.22	-1.48	-1.13	-0.84	-0.75	-0.67	-0.51	-0.32	-0.08	0.27	0.47	0.71	1.33	1.81	2.64	4.81
Post-Wean Weight	-0.76	2.09	-7.97	-4.87	-3.75	-3.14	-2.43	-2.17	-1.92	-1.53	-1.09	-0.58	0.09	0.48	0.95	2.20	3.19	4.91	9.74
Number of Lambs Weaned	0.67	2.38	-8.60	-4.80	-2.80	-1.90	-0.90	-0.70	-0.40	-0.20	0.30	0.90	1.50	1.90	2.40	3.70	5.00	7.50	14.90
Total Weight Weaned	0.19	2.18	-7.54	-3.94	-2.83	-2.17	-1.52	-1.29	-1.06	-0.61	-0.14	0.38	0.93	1.33	1.79	3.19	4.38	6.45	11.08
Age at First Lambing	0.30	-4.76	49.25	12.91	7.96	5.81	3.64	2.86	2.24	1.21	0.25	-0.55	-1.50	-2.14	-2.94	-5.29	-7.45	-12.90	-29.56
Interlambing Period	0.31	-7.80	56.92	20.44	13.15	9.59	6.02	4.84	3.69	1.83	0.24	-1.16	-2.93	-3.98	-5.32	-9.17	-12.78	-19.98	-37.08
Growth Index	94	11	59	73	79	82	86	87	88	90	92	95	98	101	103	110	115	123	141
Reproduction Index	97	10	58	74	82	85	89	90	91	94	96	98	101	103	105	111	116	126	152
Logix Merit Index	95	11	56	75	81	84	87	88	89	92	94	96	100	102	104	110	116	125	146

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

Rams



Genotyped

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 ID Comp no.	Parents Sire Dam		% In- breeding	Logix Merit Index	Growth Index	Repro- duction Index	Wean Weight		Comb	Post-Wean	Number Weaned	TWW	AFL	ILP	Dam
	Dir	Mat					EBV Acc Index	EBV Acc Index							
Active Breed Average:				100	100	100									
Ram Flock Average: Number of rams in the flock:															

Ewes



Genotyped

Inbreeding in red is high

EBV - Estimated Breeding Value

Indices >=124
Above breed average
Indices <= 76

Acc: Accuracy of the breeding value
EBV's 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 ID	Parents			% In-breeding	Logix Merit Index	Growth Index	Reproduction	Dir	Wean Weight	Comb	Post-Wean	Number Weaned	TWW	AFL	ILP	EPI
Comp no.	Sire	Dam						EBV	EBV	EBV	EBV	EBV	EBV	EBV	EBV	Phenotype
								Acc Index	Acc Index	Index	Acc Index	Acc Index	Acc Index	Acc Index		
Active Breed Average:					100	100	100	-0.16	0.01	-0.07	-0.67	0.68	0.26	0.41	0.33	
CC 16 0352 78115326	LM 13 0756 CC 15 0059		2.35		82	85	73	-0.02 73	-1.89 68	-1.90 76	-1.07 72	1.10 55	-1.25 67	7.66 52	-8.65 54	133 7
WIP 17 0008 81769994	- - - WIP 15 0229		1.73		101	99	103	0.13 31	0.30 40	0.36 100	0.25 5	1.30 5	1.21 27	-1.56 5	0.88 98	100 3
WIP 17 0034 80301229	WIP 16 0038 WIP 12 0079		1.00		84	78	85	-1.61 62	-1.05 54	-1.85 76	-3.29 30	1.70 35	-1.64 53	2.10 29	-8.82 36	100 2
KERN 17 0347 80990534	KERN 16 0118 KERN 15 0146		7.22		92	101	91	0.54 43	0.30 39	0.57 102	0.19 36	-1.80 24	-0.24 37	4.69 34	1.77 42	5
CCS 19 0200 83727545	RSL 16 0511 KERN 13 0200		1.16		87	88	100	-1.90 64	1.02 60	0.07 97	-2.59 23	-1.80 42	-1.97 57	-3.26 34	10.23 37	92 5
CCS 20 0046 89494009	CCS 18 0058 CCS 12 0011		1.20		70	87	71	-0.94 64	-0.31 60	-0.78 88	-1.88 40	-6.80 45	-5.33 58	2.00 32	-1.19 38	95 5
CCS 22 0200 94631876	CCS 20 0334 CCS 21 0149		1.97		82	83	84	-1.28 65	-0.67 52	-1.31 82	-2.54 39	0.40 40	-1.71 54	4.60 36	1.66 40	91 2
CCS 22 0221 94633971	CCS 20 0263 CCS 19 0298		6.92		83	89	79	-0.27 67	-0.62 55	-0.76 88	-1.90 45	-4.40 42	-3.53 57	-1.92 36	-13.10 40	100 2
CCS 22 0266 94634359	CCS 20 0334 CCS 21 0070		4.65		87	102	84	0.87 62	0.13 44	0.56 102	0.56 37	-3.30 31	-0.99 48	7.89 35	2.29 31	1
Ewe flock average: Total ewes in flock: 9					85	90	86	-0.50	-0.31	-0.56	-1.36	-1.51	-1.72	2.46	-1.66	

Sires Used in Flock



Genotyped

*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- breedin	Sire ID Dam ID		1st Generation		2nd Generation		LMI	GI	RI	Weaning Weight		Comb	Post-Wean	Number Weaned	TWW	AFL	ILP	Dam	
				Prog	Nr	Prog	Nr				Dir	Mat								EPI
		Progeny	Progeny	EBV	EBV	EBV	EBV				Acc	Index	Index	Index	Index	Index	Index	Index		Index
		Active Breed Average:						100	100	100	-0.16	0.01	-0.07	-0.67	0.68	0.26	0.41	0.33		
LM 13 0756 77726230	0.62	KI 10 0225 LM 11 1144	92	2	30	3	83	78	78	-1.04 92	-2.84 80	-3.36 64	-2.51 92	5.10 66	-0.82 81	14.57 80	-11.97 82		10	
WIP 16 0038 77426062	0.85	DVS 13 3249 WIP 14 0072	6	1	1	1	82	81	87	-1.77 69	-0.34 48	-1.23 83	-3.30 37	-0.20 37	-2.23 54	2.36 34	-3.78 37		99	
KERN 16 0118 79019303	0.92	KERN 14 0125 KERN 13 0160					95	101	96	0.45 48	0.51 40	0.74 104	0.04 39	-1.20 28	0.25 40	4.29 36	2.49 42		8	
RSL 16 0511 80468150	2.23	CC 15 0030 RSL 14 0503	27	1	8	1	81	78	97	-3.02 79	0.59 58	-0.92 86	-3.89 37	-0.20 43	-2.55 63	-4.37 41	20.16 45		1	
CCS 18 0058 81457764	1.30	CCS 16 0085 CCS 15 0204	26	1	9	1	77	90	81	-1.09 81	0.26 65	-0.29 93	-1.55 58	-6.00 49	-4.43 67	2.51 39	-16.80 43		135	
CCS 20 0263 91123570	1.48	CCS 18 1032 CCS 19 0126	90	1	9	1	78	85	71	-0.21 92	-1.38 63	-1.48 80	-2.63 80	-3.70 49	-3.81 71	0.30 45	-9.88 47		100	
CCS 20 0334 91245548	1.30	FJD 19 0034 CCS 15 0223	65	1	23	2	80	95	76	0.28 89	-0.40 67	-0.26 93	-0.43 64	-3.10 46	-1.99 71	10.70 45	-3.26 49		90	
		Sire Flock Average: Nr of sires used in the flock: 7						82	87	84	-0.91	-0.51	-0.97	-2.04	-1.33	-2.22	4.34	-3.29		

Ram Selection List: LMI

Animals sorted on LMI

Inbreeding in red is high

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Above breed average
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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- bding	Sire ID Dam ID	1st Generation		2nd Generation		LMI	GI	RI	Weaning Weight		Comb	Post-Wean	Number Weaned	TWW	AFL	ILP	Dam
			Prog	Nr	Prog	Nr				Dir	Mat							
			Weaned	Herds	Weaned	Herds				EBV Acc ndex	EBV Acc Index							
			Active Breed Average:				100	100	100									
1																		



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
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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-breeding	Sire ID Dam ID		LMI	GI	RI	Weaning Weight		Comb	Post-Wean	Number Weaned	TWW	AFL	ILP	EPI	Times Lambed				
										Dir	Mat									EBV	EBV	EBV	EBV
										Acc	Index	Acc	Index	Acc	Index	Acc	Index	Phenotype					
Active Breed Average:							100	100	100	-0.16	0.01	-0.07	-0.67	0.68	0.26	0.41	0.33						
1	WIP	17	0008	1.73	-	-	101	99	103	0.13	0.30	0.36	0.25	1.30	1.21	-1.56	0.88	100	3				
	81769994				WIP	15		0229			31	97	40	102	100	5	99			5	101	27	100
2	KERN	17	0347	7.22	KERN	16	0118	92	101	91	0.54	0.30	0.57	0.19	-1.80	-0.24	4.69	1.77		5			
	80990534				KERN	15	0146				43	101	39	103	102	36	99	24			89	37	93
3	CCS	19	0200	1.16	RSL	16	0511	87	88	100	-1.90	1.02	0.07	-2.59	-1.80	-1.97	-3.26	10.23	92	5			
	83727545				KERN	13	0200				64	79	60	115	97	23	84	42			89	57	85
4	CCS	22	0266	4.65	CCS	20	0334	87	102	84	0.87	0.13	0.56	0.56	-3.30	-0.99	7.89	2.29		1			
	94634359				CCS	21	0070				62	104	44	99	102	37	101	31			82	48	90
5	WIP	17	0034	1.00	WIP	16	0038	84	78	85	-1.61	-1.05	-1.85	-3.29	1.70	-1.64	2.10	-8.82	100	2			
	80301229				WIP	12	0079				62	82	54	79	76	30	81	35			103	53	86
6	CCS	22	0221	6.92	CCS	20	0263	83	89	79	-0.27	-0.62	-0.76	-1.90	-4.40	-3.53	-1.92	-13.10	100	2			
	94633971				CCS	19	0298				67	94	55	86	88	45	88	42			78	57	77
7	CCS	22	0200	1.97	CCS	20	0334	82	83	84	-1.28	-0.67	-1.31	-2.54	0.40	-1.71	4.60	1.66	91	2			
	94631876				CCS	21	0149				65	85	52	85	82	39	85	40			98	54	86
8	CC	16	0352	2.35	LM	13	0756	82	85	73	-0.02	-1.89	-1.90	-1.07	1.10	-1.25	7.66	-8.65	133	7			
	78115326				CC	15	0059				73	96	68	64	76	72	92	55			101	67	88
9	CCS	20	0046	1.20	CCS	18	0058	70	87	71	-0.94	-0.31	-0.78	-1.88	-6.80	-5.33	2.00	-1.19	95	5			
	89494009				CCS	12	0011				64	88	60	92	88	40	88	45			68	58	69