



CERTIFICATE
OF QUALITY
Valid up to
October 2029

 **SA** STAMBOEK
STUD BOOK
'n Storie met twee kante

HOLSTEIN-FRIESLAND GENOMIC BREEDING VALUE REPORT

June 2026

Owner: VOORBERG GEVANGENIS

Herd Number: 376367



Introduction

Genomic EBVs (GEBVs)



SA Stud Book strives to stay abreast of the latest scientific and technological developments. Genomically Enhanced Breeding Values (GEBVs) are therefore predicted for the SA Friesland breed, where genomic data are also included as a source of information in the genetic evaluation. Animals that were genotyped through SA Stud Book's Genomic Selection Service, are indicated by the accompanying logo in the Report. A representative reference population is available for the breed, which is essential to establish the relationship between SNP markers and breeding values. If a young animal has been genotyped, more information is available for estimation of its breeding values and the breeding values are estimated more reliably, especially those of complex traits like fertility and longevity. These GEBVs are therefore based on the expression of genes in the SA environment and population and built on the breed's own genetic parameters and variation, taking all measurements and pedigree information of both parental lines into account and is the most accurate and relevant information that selection decisions can be based on.



Another benefit of genomic analyses is the accurate verification of parentages, based on more than 50 000 SNP markers. If both the animal and parent have genomic tests, parentage as recorded on Logix, can be verified. The top block refers to the sire and the bottom block to the dam of the animal. This is indicated as follows in the Report:

- ☐ Parent does not have a genomic test. Parentage is not verified.
- ☒ Both animal and parent have genomic tests, and the parentage is verified.
- ☒ The genomic test indicates that there is a conflict in the parentage, *i.e.* the parentage is not correct.

Possible reasons:

1. The parentage was incorrectly recorded on Logix. Genomic information can be applied to indicate the correct parent, if that parent had also been genotyped. If the breeder of the animal can confirm that the suggested parent was also on the farm/ semen of bull was also used at the time of mating, the breeder should correct the parentage *via* the Breed Society on Logix.
2. The wrong biological sample was submitted for the genomic test. (Please ensure that biological samples are collected and labelled correctly, as the genomic test is very precise). In this case, the test should be repeated.

In the Genomic Evaluation relationships amongst the animals are adjusted according to the genomic information. It is therefore the breeder's responsibility to correct conflicting pedigree

information on Logix. The effect of correction of parentages on the estimation of breeding values, range from mild to drastic. If the correct and conflicting parents are, for example, closely related, the effect could be minimal. Similarly the effect will be minimal when the animal already has EBVs of high accuracy, *i.e.* has many measured progeny that contributed to the estimation of its breeding values, as is the case with most of the animals tested up to date. However, if the correct and conflicting parents differ genetically, or the animal is still young (its breeding values are mostly determined by its parent average), the effect could be much larger. It is in the interest of the breeder, the breed and the genomic programme to have correct recorded parentages as far as possible. For any questions – and if you would like to know if the genomic test indicated another parent – please contact Dr Bernice Mostert at bernice@studbook.co.za.

MACE Breeding Values

Young foreign AI-bulls' MACE (international) breeding values are still blended with their SA EBVs until the reliability of the bulls' EBVs, based on their SA daughters, reach 80%. Thereafter their EBVs are based solely on their SA daughters' information (measurements and genotypes). EBVs of young SA bulls that do not have daughter information, as well as those of heifers, are also based on their AI-sires' MACE EBVs.

Abbreviations

EFI	Efficiency Index
ICP	Intercalving Period
LMI	Logix Merit Index
LPI	Logix Production Index
BWI	Body Weight Index

Inclusion of Data

Age restrictions

Lac1 : 18 – 42 mths
Lac2: 30 – 54 mths
Lac3: 40 – 67mths

Production restrictions

Milk : 2.5 -90kg
BF% : 2 – 9%
Prot% : 2 – 6%

Test-day Records

1st test within 70 days after calving
No interval longer than 100 days
Only 1 interval between 75 and 100 days

At least one parent should be known

At least three tests for a lactation before lactation is included in the evaluation

Use www.sadairybulls.com, SA Stud Book's search engine, to view genetic profiles of specific bulls or groups of bulls. All (G)EBVs are expressed on the SA base, which is directly comparable to the (G)EBVs of your herd.

Breeding Values and Selection Indices

Milk, Butterfat and Protein Production

EBVs for these traits enable breeders to increase the milk, butterfat and protein yields of their herds by identifying high potential cows and heifers to stay in the herd, while low potential cows and heifers can be sold/culled. Selection on production traits alone, however, results in a decline in solid percentages, fertility and longevity, while resistance to mastitis will also deteriorate.

Butterfat and Protein Percentages

EBVs for the percentage traits indicate the amount of butterfat or protein relative to that of milk. Never select on percentage EBVs alone, as high percentage EBVs might also be due to low milk volumes. The percentage of solids in the herd can be increased by selecting for higher butterfat and protein EBVs, while keeping the genetic level of milk production constant.

Somatic Cell Score

Low EBVs for Somatic Cell Score are an indication of a cow's genetic ability to resist infections, eg. mastitis. These breeding values are expressed as a score on the logarithmic scale. Smaller EBVs are therefore desirable.

Calving Interval

EBVs indicate how much longer (positive EBVs) or shorter (negative EBVs) the cow's calving interval is in comparison to the average of the base cows. A penalization is also applied in the genetic evaluation for cows with prolonged lactations without subsequent calving dates, therefore cows that struggles to become pregnant. Smaller EBVs are desirable and indicates more fertile animals.

Functional Herd Life

EBVs for Functional Herd Life are expressed as relative indices with average the average of the base cows set to 100 and a standard deviation of 12. Animals with EBVs of 112 are therefore 1 standard deviation unit above the average, while EBVs of 76 are 2 standard deviation units below the average. These EBVs are based on the survival of cows up to the 4th calving.

Selection Indices

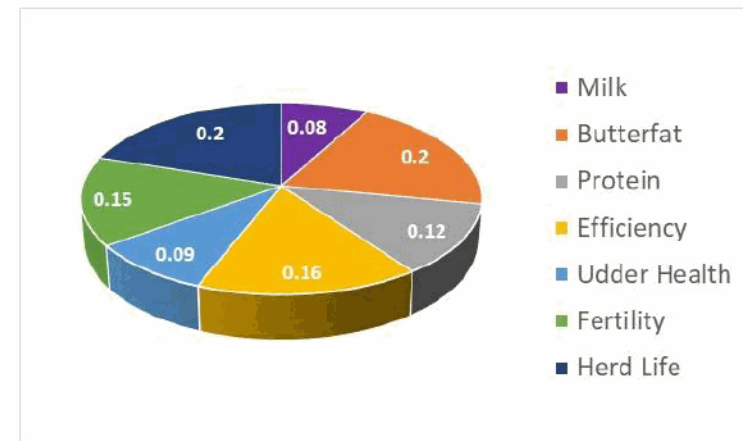
To simplify the selection of animals, the different EBVs are combined into a selection index, i.e. the Logix Merit Index, where Production, Efficiency, Udder Health, Fertility and Longevity

are combined in optimal proportions to address the strong and weak aspects of the breed. This will ensure sustainability of genetic progress as balanced breeding is promoted.

The relevant indices are constructed as follows:

- $LMI = 0.08 \text{ Milk} + 0.20 \text{ Bfat} + 0.12 \text{ Prot} + 0.16 \text{ Efficiency} + 0.09 \text{ Udder Health} + 0.15 \text{ Fertility} + 0.20 \text{ HerdLife}$
- $\text{Efficiency Index (EFI)} = 0.15 \text{ Milk} + 0.3 \text{ Bfat} + 0.2 \text{ Prot} + 0.12 \text{ Density} - 0.23 \text{ Body Weight}$
- $\text{Density} = -(\text{Milk EBV} - ((\text{Bfat EBV} + \text{Prot EBV})/0.032))$
- $\text{Logix Production Index (LPI)} = 0.2 * \text{Milk} + 0.5 * \text{Butterfat (kg)} + 0.3 * \text{Protein (kg)}$

Construction of the LMI



The LMI and LPI are expressed around 100 (average of base year), with standard deviation = 12. A LMI of 88 is therefore 1 standard deviation below the average, while a LMI of 118 is 1.5 standard deviations above the average of the breed.

The data used in this evaluation has been obtained from LOGIX as well as the ARC, 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.

SINGLE GENE TRAITS

Genes mutate or change. The most common form of a gene, is called the original gene or 'wild type'. Some genes have many different variants, but an animal can only have 2 of the variants, as one copy is received from the sire and the other from the dam. These genes can be the same variant (homozygous), or different variants (heterozygous).

If the animal is heterozygous, one gene may dominate (animals with a polled gene and a horned gene will be polled because polled is dominant).

Traits are rarely 100% influenced by a single gene; there are usually interactions with other genes that may (slightly) alter the trait.

Breed Fraction

Indication of the animal's breed purity with regards to 12 bovine breeds that are genotyped in South Africa.

% Homozygosity

Percentage markers (SNPs) that are similar as received from the parents and therefore an indication of genetic diversity.

Polled and Horned (Celtic and Friesian)

The polled gene is dominant. Only HH animals will therefore have horns.

- PcPc: The animal breeds pure for polled. This means that the animal received a polled gene from both its parents and can only transmit the polled gene to its offspring.
- PcH: The animal is polled, but carries the horn gene, because the polled gene (Pc) is dominant over the horn gene (H). It can transmit either a polled or horned gene to its offspring.
- HH: The animal breeds pure for horns. It can only transmit horn genes to its offspring.
- The exact inheritance of 'Scurs' is still unknown.

ABCG2

An additive gene lowering milk fat (kg and %) and increase milk volume.

DGAT1

A gene that increase butterfat production and butterfat- and protein percentages, while decreasing milk- and protein production.

Beta-Casein composition of milk

Several variants of the gene for beta-casein in milk exists. The most common are the A1- and A2-variants, which are co-dominant. For pure A1-milk the cow therefore has to be A1A1, and for A2-milk she has to be A2A2, with similar quantities of A1- and A2-milk being produced by cows having the heterozygous genotype (A1A2). The A1-variant is associated with higher butterfat- and protein percentages, while the A2-variant has a positive impact on milk- and protein production and is considered to be more healthy. Other variants of the gene are A3, B, C, D, E, F,G,H1, H2 and I, which are rarer.

Kappa-Casein composition of milk

Important in the production of cheese. It forms about 13% of the protein in milk. and influences milk clotting and cheese yield as it is a stabilizing factor that determines how well and fast the milk coagulates. Two different forms of Kappa-Casein are tested for, with 3 different genotypes that can therefore occur depending on the variants that were carried over by the parents: AA, AB or BB. These genotypes produce different forms of Kappa-Casein in the milk which influences the quality of the cheese. Cows with BB-genotypes produce milk with higher levels of fat and protein that clots more quickly and produce the highest cheese yield and is therefore the most desired genotype.

Beta-Lactoglobulin (LGB)

Associated with traits of economical importance relevant to milk composition, quality, yield as well as cheese production. LGB represents around 50% of whey protein and 12% of total milk prot of dairy cows. BB-genotypes are associated with milk quality (solids), while AA-genotypes are associated with milk production.

Yellow Milk Fat Variant

A recessive gene, which increase β -carotene, a precursor of Vit A, in milk and results in yellow colouring of the milk.

BLAD (Bovine Leukocyte Adhesion Deficiency)

An unwanted, recessive gene where affected calves often have severe ulcers in the mouth, teeth loss, chronic pneumonia and diarrhoea. Death often occurs at a young age due to infections.

Citrullinaemia (CT)

A lethal recessive gene where affected calves are born normal, but become depressed within 24 hours. In 3-5 days they develop tongue protrusion, unsteady gait, wander aimlessly, froth at the mouth, develop convulsions and die.

DUMPS (Deficiency of Uridine Monophosphate Synthase)

A lethal, recessive gene where affected calves are aborted around day 40 of pregnancy. The affected embryos are often resorbed during the first 2 months of gestation, leading to more services per calving and longer than normal icps.

Mule Foot (Syndactyly)

An unwanted recessive gene causing fusion of the cloven hoof. Affected cattle can have 1-4 fused hooves, show varying degrees of lameness, have a high-step gait and may walk slowly.

Holstein Haplotypes (1, 3, 4 and 5)

Lethal recessive genes where calves, homozygous for the mutation, are aborted early in gestation. Mating of two carriers will have a 25% probability to produce lethal progeny.

Important Information

SA Stud Book and/or the LOGIX system distance itself from any errors which are beyond its control and cannot be held liable for any such errors. SA Stud Book and the LOGIX system only publishes the information at its disposal and assumes that sampling on the farm, handling of the samples and the actions in the laboratory were performed correctly.

Genetic Windows

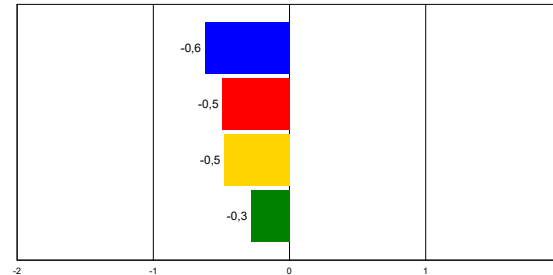
Base Year: 2020

Interpretation:

1. Genetic Windows indicate the average of the active animals in the herd relative to the average of the breed.
2. The average of all the active animals in the breed (cows, heifers and bulls) is set as zero and the deviation of the herd's cows, heifers, sires of cows and sires of heifers from the breed average are expressed in standard deviation units (SDU).
3. This means that approximately 67% of the animals will lie within -1 and +1 SDU from the average, 95% between -2 and +2 SDU and 99% between -3 and +3 SDU because EBV's are normally distributed.
4. Example: If the average of the cows of the herd's Production (combination of milk, butter fat and protein) is -0.5, it means that the active cows of the herd is half an SDU below the average of the breed.
5. Example: If the average Fertility of the sires of the active cows in the herd is 1.0, the ICP of the bulls used in the herd is 1 SDU lower (better) than the breed average.
6. It is more favourable for Weight of the animals to be below breed average.
7. Deviations from the average can be inaccurate if the number of animals on which it is based is low.

Measured Cows

Selection Indices



Logix Merit Index)

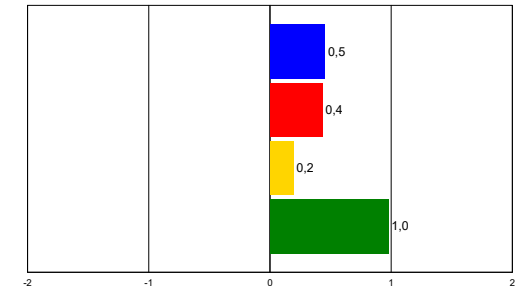
Production

Efficiency

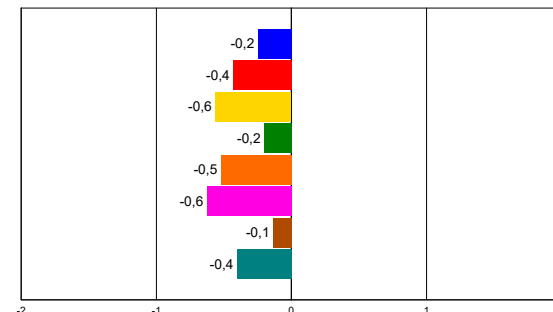
Weight

Sires of Cows

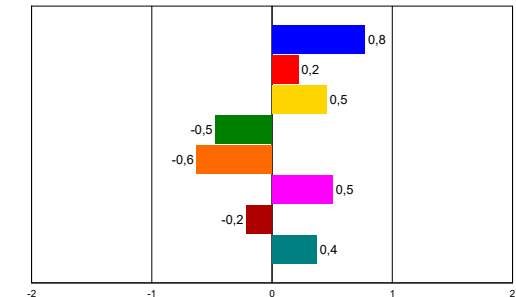
Selection Indices



Production and other Traits



Production and other Traits



VERY IMPORTANT

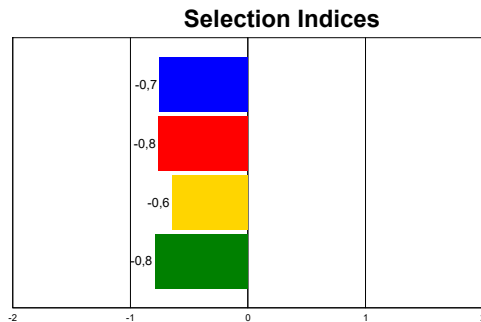
Udder Health : Higher values, lower SSC, better health

Fertility : Higher values, lower ICP, better fertility

Body Weight : Higher values, heavier animals

Genetic Windows

Heifers



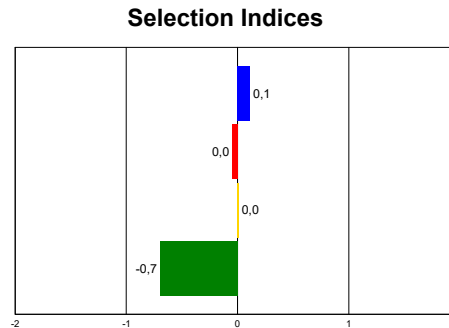
Logix Merit Index

Production

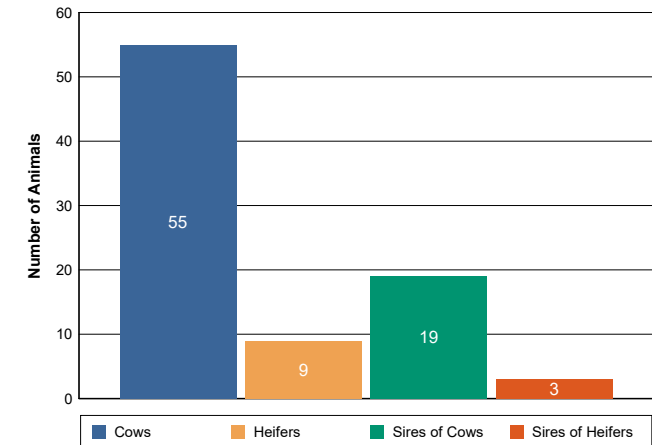
Efficiency

Weight

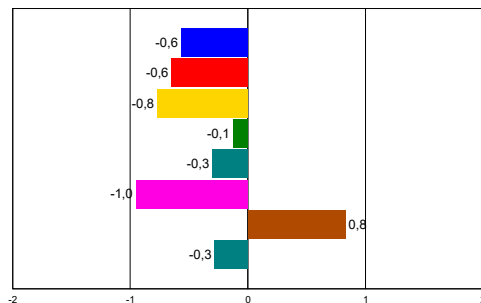
Sires of Heifers



Number of Cows, Heifers and Sires

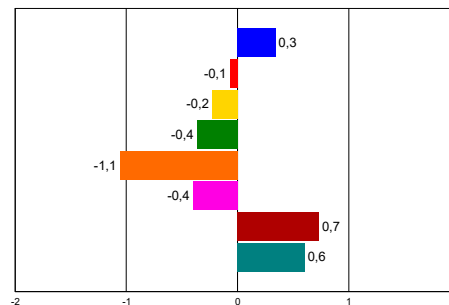


Production and other Traits



Milk
Butterfat
Protein
BFat%
Prot%
Udder Health
Fertility
Herd Life

Production and other Traits



Number of Cows per Age Group

	Heifers	Lac 1	Lac 2	Lac 3	Lac 4+
Number	9	14	8	18	15

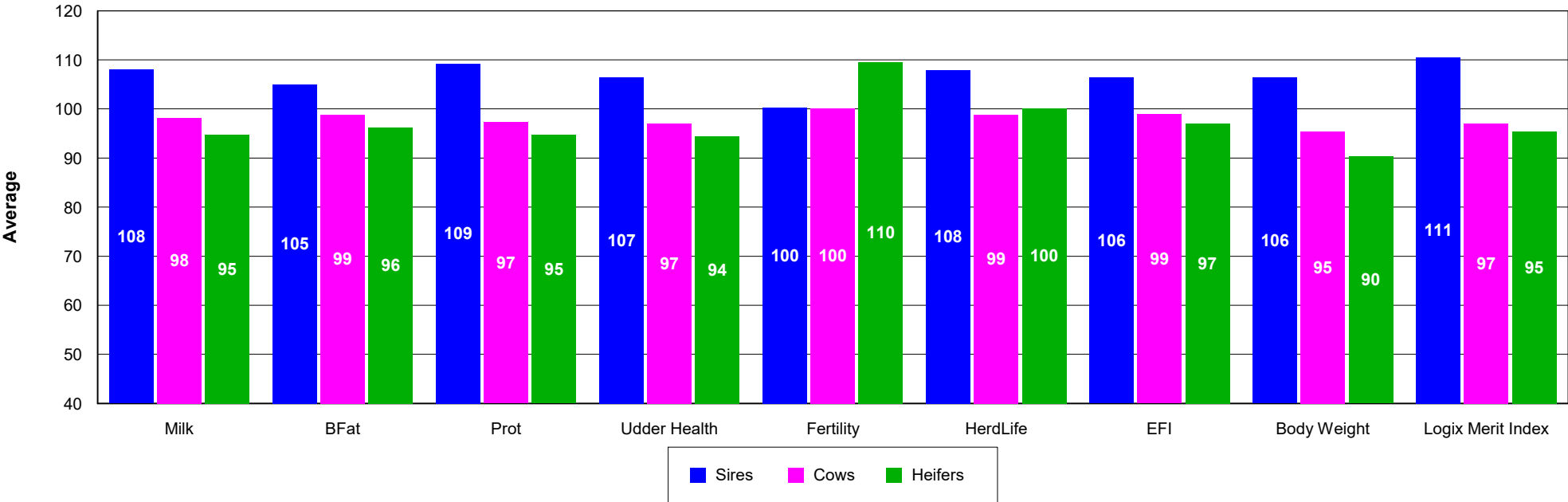
GENETIC RANKING OF THE HERD WITHIN THE ACTIVE BREED

The green blocks indicate where the specific herd ranks within the active population for every trait and selection index.

Trait	Top 5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	Bottom 95%
Melk	706.15	561.32	460.88	379.00	303.32	236.40	177.00	122.00	68.93	16.88	-35.01	-86.00	-137.00	-187.34	-246.00	-314.68	-388.00	-494.00	-622.00
BVet	34.10	27.90	23.80	20.20	17.30	14.40	11.90	9.40	6.90	4.90	2.60	0.20	-1.90	-4.00	-6.30	-9.20	-12.10	-17.00	-22.50
Prot	24.70	20.80	18.10	15.70	13.60	11.60	9.70	7.60	5.70	3.70	1.90	0.20	-1.30	-2.90	-4.60	-6.60	-9.00	-12.40	-17.30
BV%	0.31	0.24	0.20	0.17	0.14	0.12	0.10	0.08	0.06	0.04	0.03	0.01	-0.01	-0.03	-0.05	-0.08	-0.12	-0.16	-0.24
Prot%	0.14	0.11	0.09	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.01	0.00	-0.01	-0.02	-0.03	-0.05	-0.08
SCS	-20.11	-15.96	-13.23	-11.24	-9.43	-7.91	-6.53	-5.29	-4.04	-2.79	-1.59	-0.37	0.87	2.15	3.60	5.14	6.70	9.56	14.17
TKP	-8.70	-6.90	-5.80	-4.80	-4.10	-3.40	-2.70	-2.10	-1.50	-0.90	-0.30	0.30	1.00	1.70	2.40	3.30	4.20	5.40	7.10
HLife	124.00	120.00	116.00	114.00	111.00	108.00	106.00	104.00	103.00	101.00	100.00	99.00	98.00	97.00	95.00	94.00	93.00	90.00	87.00
SIZE	113.60	109.40	106.90	104.80	103.60	102.30	101.10	100.10	99.20	98.30	97.50	96.50	95.50	94.40	93.00	91.50	89.30	86.80	82.00
DTI	123.20	119.60	117.10	115.00	113.00	111.00	109.20	107.40	105.60	104.10	102.30	101.00	99.50	97.90	96.60	94.90	93.10	90.00	85.10
LMI	126.80	122.90	119.70	117.10	114.70	112.30	110.20	108.10	106.10	104.10	102.20	100.70	99.00	97.50	95.90	94.20	92.30	89.60	84.20

Holstein-Friesland

Average Genetic Levels of the Herd



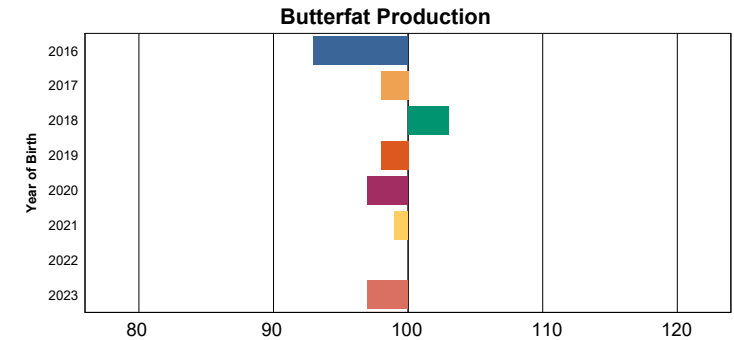
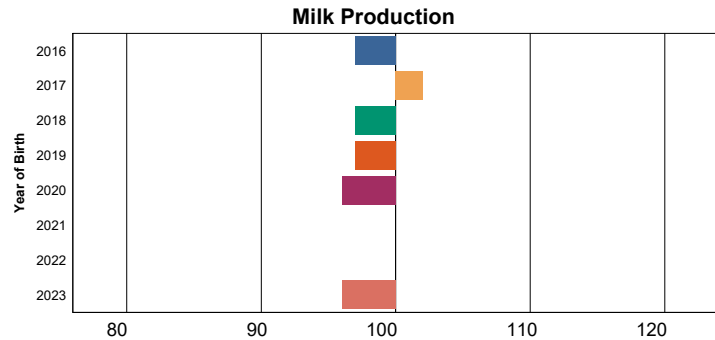
Holstein-Friesland

Genetic Averages of Active Cows per Lactation Group

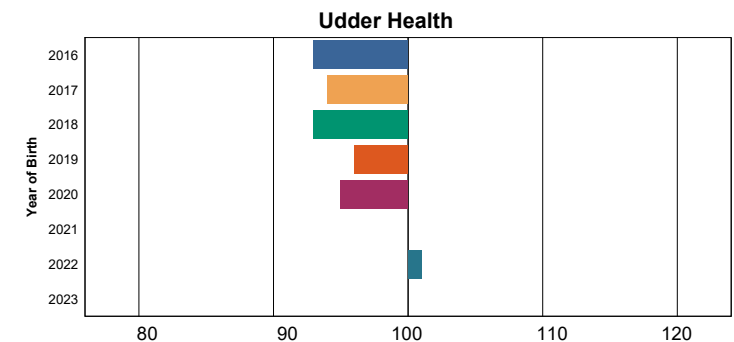
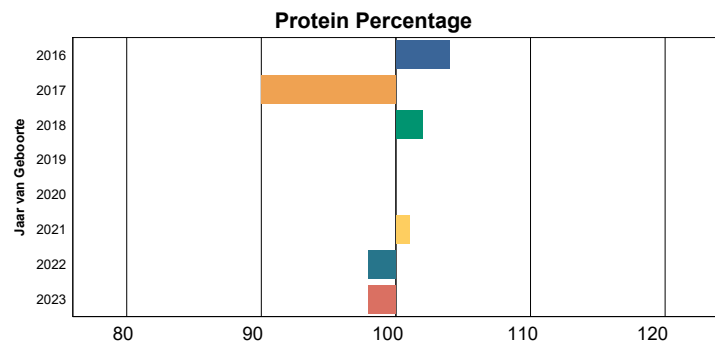
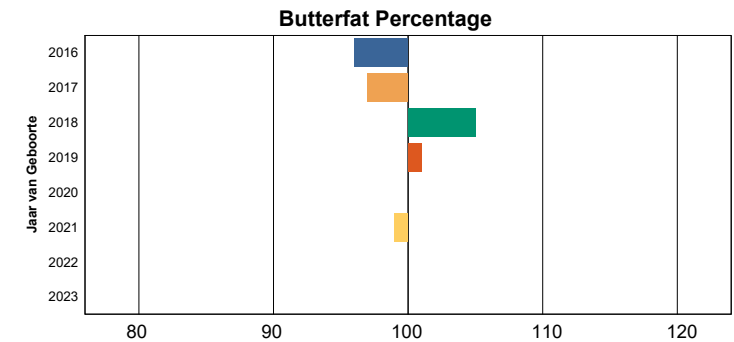
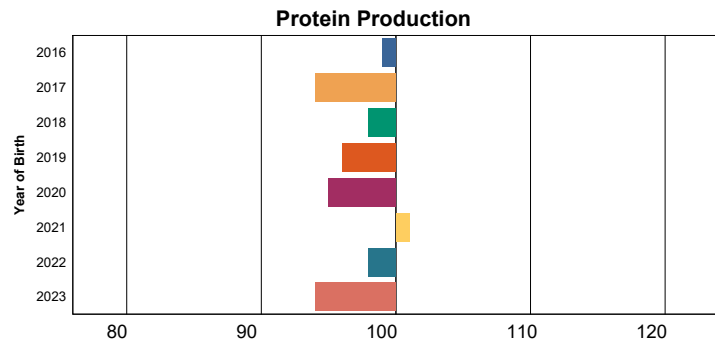
Trait	Heifers		Lactation 1		Lactation 2		Lactation 3		Lactation 4+	
	Herd	Breed	Herd	Breed	Herd	Breed	Herd	Breed	Herd	Breed
Milk	94,8	102,9	98,4	102,7	98,1	102,6	98,2	101,9	98,0	101,3
Butterfat	96,2	106,9	99,3	107,0	98,4	104,8	97,7	103,3	99,9	102,6
Protein	94,7	108,5	97,1	106,5	98,9	105,6	96,9	104,3	97,0	103,2
BF%	101,0	103,2	100,4	102,6	99,8	101,0	99,2	100,6	101,5	100,7
Prot%	101,4	106,4	98,8	104,2	101,8	103,2	98,8	102,5	99,4	102,0
UdHealth	94,4	104,1	100,6	96,6	97,0	94,9	96,9	93,3	94,0	91,9
Fertility	109,6	100,7	102,8	100,4	100,6	99,4	98,1	99,3	99,7	100,8
HerdLife	100,2	107,3	96,7	101,2	98,4	101,1	96,9	102,9	103,3	105,0
BWC	90,3	99,7	99,5	101,8	94,5	101,2	93,4	100,5	94,5	99,6
EFI	97,0	108,6	98,4	101,0	99,4	100,7	98,3	100,4	99,9	99,9
LMI	95,4	110,5	98,1	101,5	97,3	100,9	95,5	100,2	98,0	99,4

Holstein-Friesland

Average Performance of Active Cows per Year of Birth

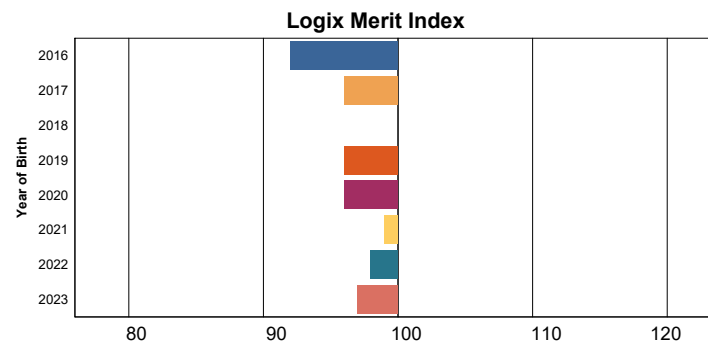
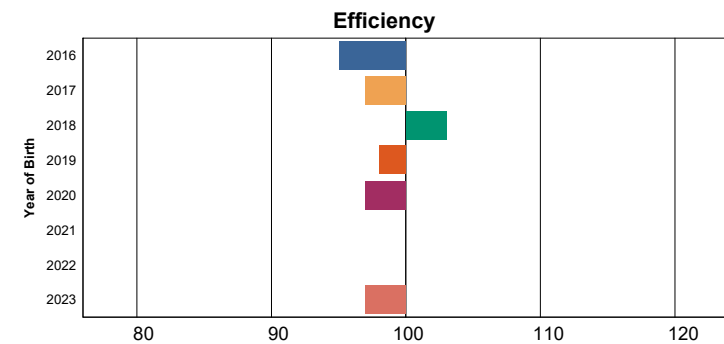
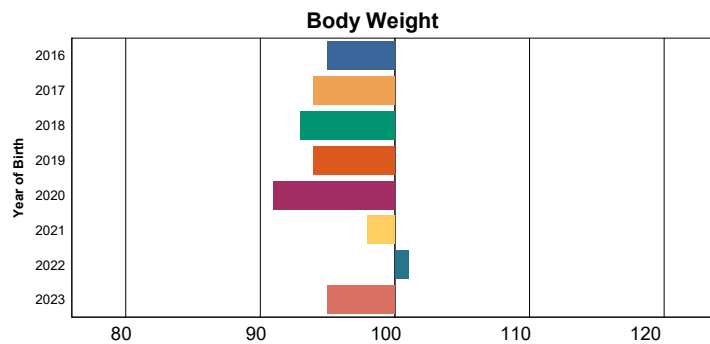
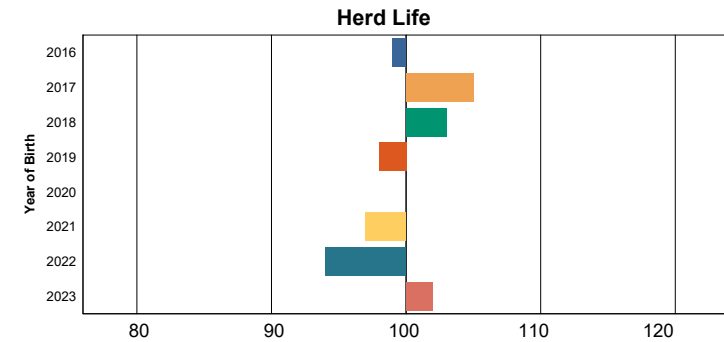
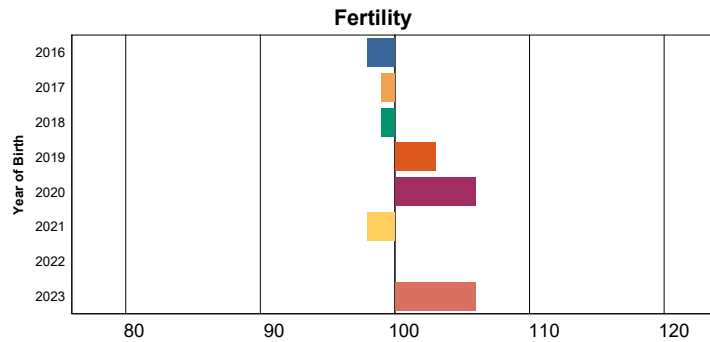


Year of Birth	Number
2016	3
2017	4
2018	8
2019	20
2020	9
2021	8
2022	7
2023	5



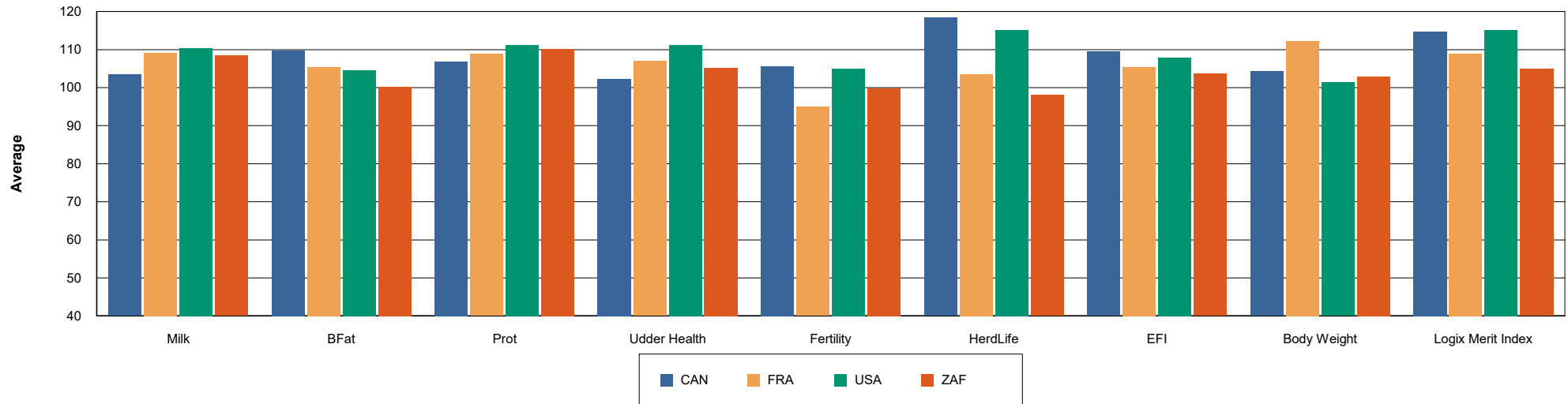
Holstein-Friesland

Average Performance of Active Cows per Year of Birth



Holstein-Friesland

Average Genetic Levels of Sires per Country of Origin



Number of Sires and Daughters per Country of Sire

Country	Nr Sires	Nr Daughters
CAN	5	10
FRA	9	20
USA	5	11
ZAF	5	23

Holstein-Friesland

Genetic levels of Cows and Heifers

Trait	Cows & Heifers		Cows		Heifers	
	Herd	Breed	Herd	Breed	Herd	Breed
Nr of Animals	64	13232	55	7196	9	6036
Avg Inbreeding	7.31	8.73	7.42	8.09	6.62	9.49
> 6.25% Inbred	39	11542	33	5680	6	5862
Estimated Breeding Values (EBVs)						
Milk	-90	26	-72	-48	-204	113
Butterfat	-2.7	5.2	-2.2	0.2	-6.1	11.2
Protein	-3.4	4.1	-3.0	0.2	-5.7	8.6
Butterfat %	0.01	0.04	0.01	0.02	0.02	0.06
Protein %	0.00	0.03	0.00	0.02	0.01	0.05
Udder Health	97	102	97	101	94	104
Calving Interval	-0.8	-0.8	-0.1	-1.2	-5.0	-0.4
Herd Life	99	103	99	100	100	107
Selection Indices						
LMI	97	105	97	101	95	111
Efficiency (EFI)	-0.11	0.37	-0.09	0.08	-0.25	0.72
Prod (LPI)	98	104	98	100	95	108
Body Weight	-0.44	-0.15	-0.38	-0.26	-0.81	-0.02

The average breeding values and indices of cows and heifers currently in the herd and breed as on 2026/06/10

Genetic Levels of Sires

Trait	Sires	
	Herd	Breed
Nr Bulls	24	481
Avg Inbreeding	9.57	9.41
> 6.25% inbred	20	410
Estimated Breeding Values (EBVs)		
Milk	313	166
Butterfat	8.4	11.1
Protein	9.3	9.3
Butterfat %	-0.04	0.04
Protein %	-0.01	0.04
Udder Health	106	104
Calving Interval	-0.2	0.3
Herd Life	108	109
Selection Indices		
LMI	111	111
Efficiency (EFI)	0.53	0.71
Prod (LPI)	108	109
Body Weight	0.53	0.11

The average Breeding values and Indices of the sires used in the herd and breed

Holstein-Friesland

Inbreeding

- Inbreeding primarily leads to decreased fertility and low survivability of calves.
- 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 bulls.
- 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

Years of Birth	Level (%) *	%Rate / Year
2000 - 2023	7.87	0.22
Recommendations:	< 6.25	< 0.1 - 0.2

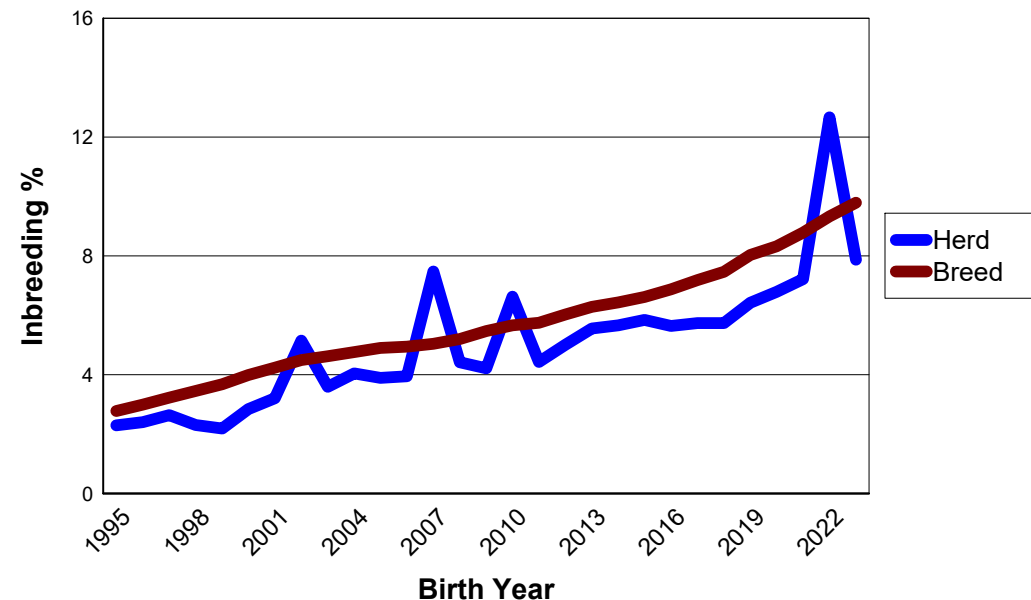
* Of latest birth year

Pedigree Information

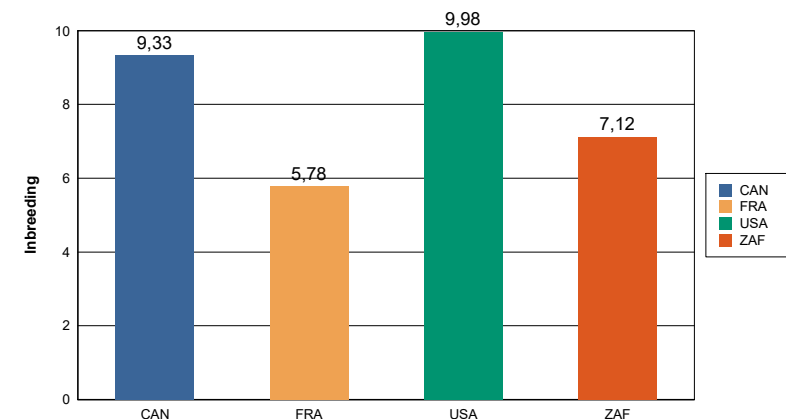
	Number	%
Known Sires	47	70
Known Dams	65	97

Note: If parentages are unknown, inbreeding will be under-estimated.

Rate of Inbreeding: Herd vs Breed

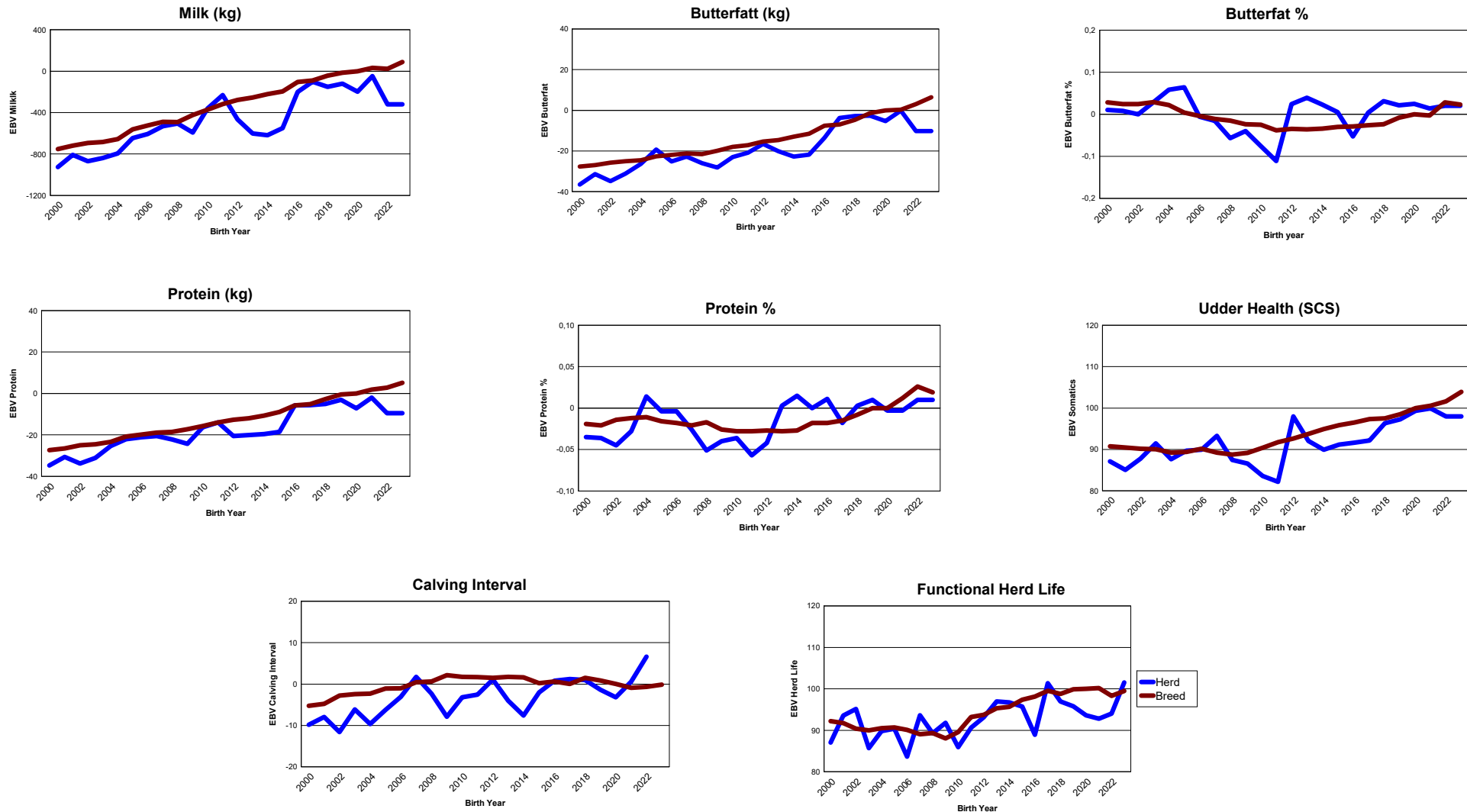


Average Inbreeding per Country of Sire



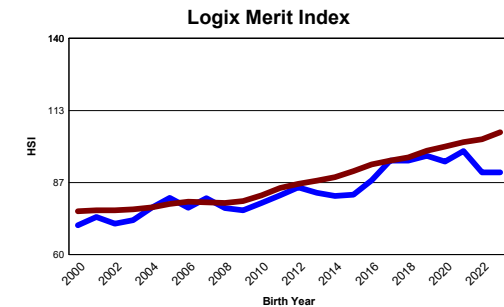
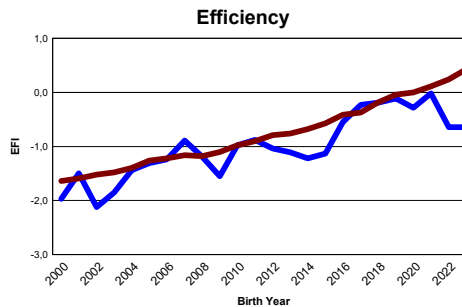
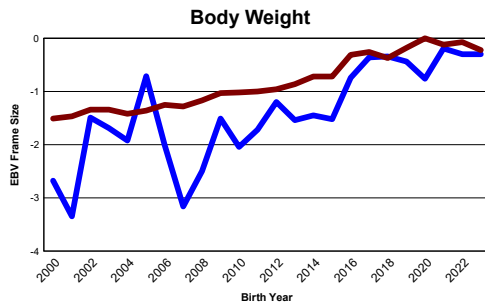
Holstein-Friesland

Herd History: Genetic Trends of the Herd (blue) and Breed (brown): Breeding values



Holstein-Friesland

Herd History: Genetic Trends of the Herd (blue) and Breed (brown): Breeding values



The average breeding values of milked cows per year in the herd and breed.

Genetic Trends

Cows Tested in Breed													
Birth Year	Number of Cows			EBV Milk	EBV BFat	EBV Prot	EBV BFat%	EBV Prot%	EBV SCS	EBV CalvInt	EBV H Life	LMI	Inbreeding
	Milk	Solids	SCS										
2008	14844	14839	14839	-491	-21.6	-18.5	-0.02	-0.02	88.8	0.6	89.4	79.1	5.20
2009	12002	11975	11975	-425	-19.9	-17.2	-0.02	-0.03	89.2	2.2	88.0	79.8	5.47
2010	10800	10777	10777	-372	-18.0	-15.7	-0.03	-0.03	90.4	1.8	89.6	82.0	5.66
2011	10642	10636	10636	-317	-17.2	-14.0	-0.04	-0.03	91.8	1.7	93.2	84.7	5.75
2012	10140	10108	10109	-278	-15.3	-12.7	-0.04	-0.03	92.7	1.5	93.7	86.2	6.02
2013	7862	7794	7795	-254	-14.6	-12.0	-0.04	-0.03	93.7	1.7	95.3	87.3	6.28
2014	6841	6814	6814	-222	-13.0	-10.7	-0.03	-0.03	95.0	1.6	95.7	88.7	6.43
2015	7118	7033	7035	-195	-11.5	-8.9	-0.03	-0.02	95.9	0.2	97.3	90.9	6.61
2016	6119	5936	5936	-103	-7.6	-5.7	-0.03	-0.02	96.5	0.6	98.1	93.3	6.87
2017	6028	5673	5673	-89	-7.0	-5.2	-0.03	-0.02	97.4	0.0	99.5	94.8	7.18
2018	5748	5327	5327	-44	-4.7	-2.7	-0.02	-0.01	97.5	1.5	98.8	96.0	7.46
2019	3808	3713	3712	-15	-1.4	-0.5	-0.01	0.00	98.5	0.8	99.9	98.5	8.03
2020	3446	3408	3407	0	0.0	0.0	0.00	0.00	100.0	0.1	100.0	100.0	8.32
2021	1968	1777	1777	32	0.3	1.9	0.00	0.01	100.5	-0.9	100.2	101.6	8.78
2022	2037	1761	1761	23	3.0	2.8	0.03	0.03	101.6	-0.7	98.3	102.7	9.33
2023	1112	1025	1024	90	6.4	5.2	0.02	0.02	103.9	-0.2	99.5	105.3	9.79

Cows Tested in Herd													
Birth Year	Number of Cows			EBV Milk	EBV BFat	EBV Prot	EBV BFat%	EBV Prot%	EBV SCS	EBV CalvInt	EBV HLife	LMI	Inbreeding
	Milk	Solids	SCS										
2008	15	15	15	-506	-26.0	-22.2	-0.06	-0.05	87.5	-2.3	89	77	4.42
2009	11	11	11	-593	-28.1	-24.3	-0.04	-0.04	86.6	-7.9	92	76	4.21
2010	19	19	19	-361	-23.0	-16.3	-0.08	-0.04	83.6	-3.2	86	79	6.62
2011	18	18	18	-230	-20.8	-14.0	-0.11	-0.06	82.2	-2.6	91	82	4.43
2012	19	19	19	-467	-16.5	-20.6	0.02	-0.04	98.0	1.1	93	85	5.01
2013	15	15	15	-602	-20.1	-20.1	0.04	0.00	92.0	-4.0	97	83	5.55
2014	17	17	17	-618	-22.8	-19.6	0.02	0.02	90.0	-7.6	97	82	5.66
2015	24	24	24	-551	-21.8	-18.6	0.01	0.00	91.2	-2.0	96	82	5.84
2016	16	16	16	-201	-13.6	-5.7	-0.05	0.01	91.6	0.8	89	87	5.64
2017	12	12	12	-102	-3.8	-5.6	0.00	-0.02	92.2	1.2	101	95	5.73
2018	15	15	15	-152	-2.8	-5.0	0.03	0.00	96.4	1.0	97	95	5.73
2019	18	18	18	-120	-2.7	-3.1	0.02	0.01	97.3	-1.4	96	97	6.42
2020	8	8	8	-198	-5.3	-7.2	0.03	0.00	99.4	-3.2	94	94	6.79
2021	7	7	7	-48	-0.2	-2.0	0.01	0.00	99.9	0.6	93	98	7.21
2022	1	1	1	-320	-10.2	-9.5	0.02	0.01	98.0	6.6	94	90	12.66
2023	1	1	1	-320	-10.2	-9.5	0.02	0.01	98.0		102	90	7.87

Percentile Table

Active Cows and Heifers

Trait	Average	Std. Dev.	Max.	5%	10%	25%	50%	75%	90%	95%	Min.
Melk	25.60	414.29	1626.00	706.15	561.32	303.32	16.88	-246.00	-494.00	-622.00	-2191.00
BVet	5.25	17.64	85.60	34.10	27.90	17.30	4.90	-6.30	-17.00	-22.50	-89.50
Prot	4.08	12.93	57.00	24.70	20.80	13.60	3.70	-4.60	-12.40	-17.30	-53.80
BV%	0.04	0.17	0.99	0.31	0.24	0.14	0.04	-0.05	-0.16	-0.24	-0.97
Prot%	0.03	0.07	0.39	0.14	0.11	0.07	0.03	-0.01	-0.05	-0.08	-0.30
Somaties	102.31	8.23	135.00	115.90	112.60	107.50	102.20	97.10	92.40	88.80	60.00
TKP	-0.83	4.92	21.00	-8.70	-6.90	-4.10	-0.90	2.40	5.40	7.10	-27.10
KudLewe	103.38	11.53	149.00	124.00	120.00	111.00	101.00	95.00	90.00	87.00	55.00
Gewig	-0.15	0.81	5.36	1.13	0.79	0.30	-0.14	-0.58	-1.10	-1.50	-6.34
Uier	0.10	1.26	3.77	2.01	1.66	0.98	0.06	-0.62	-1.30	-2.04	-5.82
H&B	0.11	0.88	1.96	1.27	1.03	0.65	0.25	-0.22	-1.03	-1.65	-8.62
DTI	0.37	0.97	3.81	1.94	1.64	1.08	0.34	-0.28	-0.83	-1.24	-3.45
Bouvorm	-0.32	1.00	3.28	1.12	0.79	0.26	-0.25	-0.77	-1.46	-2.08	-9.59
FLD LMI	105.49	13.70	147.00	128.60	124.20	115.30	104.40	95.80	89.40	83.90	47.40
LMI	105.10	12.99	143.70	126.80	122.90	114.70	104.10	95.90	89.60	84.20	50.70

Interpretation:

A percentile table is an indication of where the animal's EBV falls relative to the rest of the breed. If an EBV of an animal falls between the maximum value and 5% level on the percentile table of "All Animals", this EBV is in the top 5% of the breed. If the EBV falls between 5% and 25%, this animal's EBV is in the top 25% of the breed. If the EBV falls within 95% and the minimum value, this EBV is in the bottom 5% of the breed for that specific trait.

Percentile Table

Active Bulls

Trait	Average	Std. Dev.	Max.	5%	10%	25%	50%	75%	90%	95%	Min.
Melk	166.09	451.69	1407.79	853.00	696.50	477.00	167.00	-102.00	-434.00	-595.00	-1532.00
BVet	11.09	23.20	91.00	51.50	41.50	25.20	10.60	-5.00	-17.50	-25.48	-76.00
Prot	9.46	14.67	44.40	34.10	29.70	19.70	9.50	-1.00	-10.00	-15.00	-34.70
BV%	0.04	0.22	0.99	0.38	0.33	0.17	0.05	-0.09	-0.23	-0.30	-0.82
Prot%	0.04	0.10	0.38	0.19	0.16	0.09	0.03	-0.02	-0.09	-0.12	-0.27
Somaties	104.28	14.13	139.30	127.00	120.70	113.90	104.90	95.30	86.70	80.20	52.10
TKP	0.31	8.43	22.00	-14.20	-10.20	-5.30	1.00	6.00	10.40	14.17	-33.30
KudLewe	109.32	19.70	171.90	144.60	135.90	122.00	107.00	96.42	86.72	79.00	52.30
Gewiq	0.11	1.52	5.69	2.58	2.04	1.05	0.15	-0.79	-1.75	-2.38	-5.09
Uier	0.97	1.79	5.52	3.79	3.12	2.04	1.02	0.03	-1.20	-2.27	-5.75
H&B	-0.78	1.53	1.71	1.11	0.91	0.33	-0.56	-1.54	-2.97	-3.46	-8.02
DTI	0.71	1.21	4.34	2.87	2.23	1.49	0.61	-0.15	-0.77	-1.09	-2.67
Bouvorm	-0.09	1.66	4.38	2.23	1.82	1.08	0.11	-0.95	-2.18	-3.46	-5.79
FLD LMI	111.05	18.85	161.30	145.20	134.20	122.40	111.30	98.60	87.60	81.40	61.30
LMI	110.98	17.42	156.80	143.20	133.00	121.30	110.90	100.00	88.90	83.40	65.10

BULLS

Bulls are sorted alphabetically M = MACE (International) breeding values and reliability GM = GMACE G = Genomic information R = Reliability Above breed average Top 10% of the breed Bottom 10% of the breed *Inbreeding in red is high

Bull					Selection Indices				Estimated Breeding Values (EBV) and Reliabilities (B)										S.A. Daughters and Herds				
Compnr FarmerNr	Parent Verification	Name	BYear Cnt	% In- breeding	LMI	LPI	EFI	BWI	Milk Index R	BFat Index R	BFat % Index R	Prot Index R	Prot % Index R	Som Index R	CalvInt Index R	HLife R	Lac > 149 d Herds	Lac < 150 d Herds	Avg Lac Length	%Short Lac	Compl Lac		
Active Breed Average:				8.73	105	104	0.37	-0.15	26	5.2	0.04	4.1	0.03	102	-0.8	103							
85882322		DE-SU FEDEX-ET	2015 USA	7.83	111	104	0.32 104	-0.27 97	M 77 102 70	M 15.0 109 63	0.11 106	M -11.4 89 66	-0.13 81	M -9.8 108 68	M -6.2 112 63	M 115 66	15	4	1	1	240	40	
82704180		DIDOT	2008 FRA	4.91	104	113	0.98 112	0.81 110	M 93 102 59	M 21.6 113 53	0.17 109	M 9.6 109 57	0.06 109	M 4.3 97 71	M 4.4 91 66	M 78 54	7	2			283	12	
82735432		GOLESNIL	2011 FRA	5.71	111	107	0.21 103	1.48 118	M 278 107 73	M 6.5 104 66	-0.04 98	M 7.9 108 71	-0.01 98	M -2.4 102 68	M -5.0 110 58	M 118 41	29	5	2	1	267	12	56
87260709		IHG DISCUSSION-ET	2014 USA	10.72	107	109	0.70 108	-0.38 95	M 464 112 61	M 7.4 105 53	-0.10 95	M 9.1 109 56	-0.06 91	M 10.5 92 70	M -1.3 102 59	M 105 64	7	4			240	9	
82735978		INPUT	2013 FRA	7.21	115	122	1.57 119	1.04 112	M 559 115 76	M 27.2 116 70	0.04 102	M 22.2 122 73	0.03 104	M 16.4 87 70	M 4.9 90 62	M 103 62	32	4	6	2	240	36	52
82542275		INSIDER	2013 FRA	7.30	94	98	-0.41 95	0.73 109	228 106 89	-12.0 93 87	-0.19 90	6.0 106 88	-0.01 98	M -6.3 105 77	M 8.5 83 66	M 94 68	115	12	2	2	256	20	171
83363093		INTERVIEW	2013 FRA	6.31	105	115	0.15 102	4.70 156	M 664 117 58	M 17.9 111 52	-0.08 96	M 11.4 111 52	-0.09 87	M -24.2 119 72	M 15.7 70 63	M 74 58	5	2			264	14	
83601955		JAGGER	2014 FRA	7.74	112	108	0.38 105	0.18 102	M 656 117 61	M 6.1 104 55	-0.18 90	M 3.8 104 55	-0.16 77	M -4.6 104 65	M 1.8 96 58	M 126 62	4	2			277	8	
84824267		JEBRASKA	2014 FRA	8.69	93	91	-0.60 93	-0.55 93	-342 91 62	-11.7 93 56	0.02 101	-8.1 92 59	0.03 104	M -4.3 103 38	M -1.9 104 22	M 101 25	20	8			269	17	35
83602904		JEEPSON	2014 FRA	9.19	120	112	0.91 111	-0.23 97	M 789 120 51	M 5.4 103 51	-0.23 88	M 18.9 118 51	-0.06 91	M -24.9 119 60	M -0.1 100 51	M 116 60	14	2			267	17	24
90064254		LIWAY SIL	2015 FRA	9.14	125	113	0.83 110	1.02 112	M 285 107 62	M 18.9 111 56	0.07 104	M 9.2 109 59	0.00 100	M -34.3 127 71	M -5.3 110 62	M 123 61	8	2	1	1	245	17	
91004655		OCD SHERPA-ET	2017 USA	10.94	136	117	1.25 115	1.07 113	M 465 112 64	M 13.7 108 54	-0.05 97	M 30.0 129 57	0.13 119	M -41.5 132 78	M -8.9 117 69	M 140 65	1	1			268		
93896868 PF015		PF015	2022 ZAF	6.54	113	104	0.30 104	0.36 104	M 67 102 16	M 1.7 101 13	-0.01 99	M 9.9 110 14	0.07 110	M -19.0 115 19	M -4.1 108 17	M 118 16							
93896835 PF017		PF017	2022 ZAF	30.68	108	111	0.81 110	0.03 100	M 526 114 22	M 8.5 105 16	-0.11 94	M 13.8 114 16	-0.03 96	M -6.2 105 19	M 3.8 93 13	M 92 15							
93896876 PF020		PF020	2022 ZAF	9.61	106	107	0.32 104	1.14 114	M 185 105 22	M 6.0 104 19	-0.01 99	M 9.9 110 20	0.03 104	M -7.4 106 21	M 2.8 95 16	M 99 16							
87584926		PROGENESIS AVATAR	2015 CAN	13.86	109	114	1.23 115	0.24 103	M -137 96 73	M 30.7 119 66	0.34 118	M 3.5 104 69	0.08 111	M 9.4 93 69	M 3.0 94 65	M 95 67	22	6			250	24	33
91621961		PROGENESIS GRANITE	2015 CAN	12.74	108	110	0.66 108	1.10 113	M 17 100 62	M 17.2 110 56	0.15 108	M 7.0 107 59	0.06 109	M 27.5 79 73	M -5.1 110 64	M 114 65							
91003277		PROGENESIS HAWAI	2017 CAN	9.80	139	120	1.55 119	0.47 106	M 371 110 61	M 26.4 116 54	0.10 105	M 19.8 119 57	0.07 110	M -34.3 127 75	M -12.0 123 64	M 147 67	1	1			293		
91434720		PROGENESIS PAVAROTTI	2017 CAN	10.69	98	96	-0.58 93	1.22 115	M 37 101 60	M -9.4 94 52	-0.10 95	M 0.7 101 56	0.00 100	M -14.4 111 68	M 9.7 81 55	M 108 55	1	1			143	100	
91576710		REGAN-DANHOF CHAPTER-ET	2019 USA	11.61	119	123	1.70 120	0.43 105	M 788 120 65	M 24.8 115 54	-0.06 97	M 24.9 124 53	-0.01 98	M -11.3 109 71	M 6.5 87 49	M 91 47	14	2			241	29	
83187666		ROCKYMOUNTAIN LOTTOMAX	2012 CAN	8.82	120	111	1.06 113	-1.27 85	399 110 84	17.0 110 81	0.01 100	3.0 103 83	-0.09 87	M -2.4 102 73	M -10.3 120 65	M 127 68	47	9	1	1	238	25	75
201277581 A01826		SPITSVUUR SPITS-SUPERSTAR A1826	2011 ZAF	6.01	112	111	0.87 110	-0.49 94	M 559 115 99	M 16.9 110 99	-0.05 97	M 1.4 102 99	-0.15 78	M -11.3 109 95	M -5.2 110 89	M 93 93	208	16			267	15	394
83386847		VIEW-HOME UTAH-ET	2013 USA	7.51	104	92	-0.66 92	-0.26 97	241 106 83	M -23.0 86 76	-0.30 84	M 4.6 105 79	-0.03 96	M -19.5 115 72	M -3.5 107 64	M 125 65	42	5			274	9	96
2012845380 MAVERICK		WAIT-AND-SEE MAVERICK	2011 ZAF	6.09	86	92	-0.77 91	0.21 103	249 106 89	-31.9 81 87	-0.38 80	15.8 115 88	0.07 110	10.3 92 72	3.8 93 43	88 53	84	12			277	8	170

Bull Average Herd: Aantal: 24	9.57	111	108	0.53	0.53	313	8.4	-0.04	9.3	-0.01	106.48	-0.2	108
Bull Average Breed: Aantal: 481	9.41	111	109	0.71	0.11	166	11.1	0.04	9.3	0.04	104.22	0.3	109

Most Influential Bulls in the Herd

The difference between the Bull's breeding values and the Average Breeding Values of his Daughters reflects the Genetic Levels of the Dams
The difference between the Average of the Bull's Daughters in this herd and the Average of all the Bull's Daughters reflects the Genetic Levels of the Herd within the Breed

Herd Daughters > All Daughters

Herd Daughters < All Daughters

Name		Total Daughters		Active Daughters		Breeding Values and Selection Indices										
Regnr	Country	Year of Birth		Year of Birth		Milk	Butterfat	Protein	BFat%	Prot%	Somatics	ICP	Herd Life	EFI	LMI	
		In SA In Milk	In Herd In Milk	In SA In Milk	In Herd In Milk											
Breed Average :						100	103	103	102	104	102	102	103	104	105	
Herd Average :						97	98	96	100	99	97	102	99	98	96	
1	INPUT	2016	- 2021	2017	- 2019	Bull EBVi :	115	116	122	102	104	87	90	103	119	115
82735978	FRA	41	11	6	6	Herd Daughtetr EBVi :	101	102	103	101	103	88	96	104	105	100
		32	8	4	4	All Daughtetr EBVi :	103	104	104	101	100	89	93	99	106	101
2	GOLESNIL	2016	- 2018	2017	- 2018	Bull EBVi :	107	104	108	98	98	102	110	118	103	111
82735432	FRA	48	7	3	2	Herd Daughtetr EBVi :	97	97	93	100	96	94	98	99	96	93
		29	7	2	2	All Daughtetr EBVi :	99	97	96	99	97	95	95	101	97	95
3	JEEPSON	2017	- 2020	2018	- 2019	Bull EBVi :	120	103	118	88	91	119	100	116	111	120
83602904	FRA	17	6	3	3	Herd Daughtetr EBVi :	99	98	97	99	97	97	95	86	98	93
		14	6	3	3	All Daughtetr EBVi :	96	98	94	102	99	98	96	91	97	93
4	SPITSVUUR SPITS-SUPERSTAR A1826	2012	- 2023	2017	- 2023	Bull EBVi :	115	110	102	97	78	109	110	93	110	112
2012775819	ZAF	326	6	3	2	Herd Daughtetr EBVi :	100	95	95	96	93	100	105	92	97	94
		208	3	2	1	All Daughtetr EBVi :	106	101	97	97	86	102	102	95	101	100

COWS

Animals are sorted on farmer number within birth year

*Inbreeding in red is high

G = Genomic information

R = Reliability

Above breed average

Top 10% of the breed

Bottom 10% of the breed

Cow				Selection Indices				Estimated Breeding Values (EBV)													Average Production Values							Pedigree		
FarmNr Regnr	Parent Verification	Name	% In- breeding*	LMI	LPI	EFI	BWI	Milk Index	BFat Index	BFat % Index	Prot Index	Prot % Index	Som Index	Calvnt Index	HLife R	Test/lact. 1 2 3	Nr. Lact	ICP	Kg Milk	Kg BFat	% BFat	Kg Prot	% Prot	Sire Dam	Dam BirthYr					
Active Breed Average:			8.73	105	104	0.37	-0.15	26	5.2	0.04	4.1	0.03	102	-0.8	103															
								Year of Birth : 2016																						
PZ005 83211979	ZETA		4.49	89	87	-0.83 90	-0.82 90	-265 93	-22.3 52	-0.12 48	-4.5 94	0.04 50	4.1 106	-3.5 32	100 107	9 9 9	7	431	7672	257	3.4	253	3.3	WAIT-AND-SEE MAVERICK WAGOH	2013					
PZ036 84238369	ZAKUMI		6.12	97	100	0.12 102	-0.04 100	-171 96	1.4 42	0.07 101	2.2 34	0.08 111	10.1 92	7.8 17	104 85	8 8 8	6	550	6999	232	3.3	237	3.4	DIDOT						
PZ041 84948223	ZOLANI		5.62	91	94	-0.51 94	-0.36 96	120 103	-16.1 34	-0.19 31	0.1 100	-0.03 96	11.4 91	-1.6 27	94 103	5 7 9	5	466	7505	280	3.7	261	3.5	INSIDER PT041TAMA	2011					
								Year of Birth : 2017																						
PA002 84948256	ANEL		5.62	93	95	-0.45 95	-0.04 100	-18 100	-4.8 48	-0.04 97	-9.7 40	-0.08 98	10.2 92	1.3 24	104 97	9 8	5	539	7416	238	3.2	230	3.1	DIDOT PP001	2008					
PA007 85044220	AVON		5.25	97	94	-0.34 96	-0.65 92	-298 92	-4.2 48	0.07 98	-10.2 44	0.00 100	-2.8 102	-3.9 28	103 107	8 8 7	6	433	7854	268	3.4	258	3.3	GOLESNIL UTOPIA	2012					
PA034 85661684	AVA		5.15	99	104	0.32 104	-0.45 95	530 114	-4.9 42	-0.23 97	11.4 41	-0.05 88	25.4 111	4.5 40	108 93	9 8	4	595	8585	264	3.1	263	3.1	INPUT PX014	2014					
PA051 86240892	AMANDA		6.36	95	94	-0.45 95	-0.88 89	-17 100	-4.2 38	-0.04 98	-16.2 32	-0.14 98	-1.7 85	0.5 35	103 80	7 7 8	5	436	8813	267	3.0	255	2.9	PY027	2015					
								Year of Birth : 2018																						
PB002 86670858	BELINDA		5.03	102	103	0.42 105	-0.56 93	-58 98	6.1 47	0.08 104	2.3 41	0.04 106	11.9 91	0.9 26	107 98	7 7	4	618	8809	300	3.4	287	3.3	GOLESNIL PY013	2015					
PB019 87156782	BONNY		6.36	93	100	0.04 101	-0.42 95	149 104	-3.5 21	-0.09 98	2.3 21	-0.02 97	9.6 93	4.1 14	83 92	8 8	3	406	8332	269	3.2	252	3.0	JEEPSON PZ016	2016					
PB029 87319802	BRICS		5.55	98	101	0.40 105	-1.05 87	-122 97	2.1 27	0.06 103	3.5 26	0.07 110	19.3 85	3.4 16	105 93	8 6 7	4	368	8901	300	3.4	307	3.5	INPUT WINNYPW01	2013					
PB038 87570420	BIANCA		4.81	103	99	-0.17 98	0.11 101	27 101	1.3 37	0.00 100	-7.5 36	-0.08 88	-7.5 106	0.6 22	114 99	8 7	4	516	7202	247	3.4	225	3.1	JAGGER PW049	2013					
PB045 87730180	BERLIN		4.89	100	102	0.36 104	-1.03 88	9 100	6.1 29	0.05 104	-3.1 28	-0.03 96	8.8 93	3.7 18	104 93		3	585	7451	247	3.3	236	3.2	INPUT PY027	2015					
PB051 87943080	BELIA		5.34	104	104	0.66 108	-0.60 93	-434 89	13.8 48	0.30 108	1.0 46	0.15 121	19.1 85	-4.8 25	110 109	8 7 3	4	481	6305	249	4.0	232	3.7	INPUT 140012	2014					
PB052 88240221	BREEZ		4.06	96	95	-0.24 97	-0.35 96	-501 87	5.2 42	0.24 103	-15.9 37	0.01 113	-5.4 85	-0.9 40	93 101	7 6	4	576	6728	239	3.6	214	3.2	INTERVIEW PT045TOSK	2011					
PB054 88240254	BIKITA		5.51	100	101	0.30 104	-0.83 90	-59 98	4.0 28	0.06 102	-1.5 25	0.00 103	16.1 99	-1.8 27	105 100		4	567	7692	265	3.5	257	3.3	INPUT YACOPY03	2015					
								Year of Birth : 2019																						
PC002 88240262	CANDICE		7.07	88	91	-0.62 93	-0.60 93	-189 95	-12.2 9	-0.05 97	-9.1 91	-0.03 96	8.7 93	2.9 5	96 94	8	3	524	9122	268	2.9	262	2.9	PY007	2015					
PC005 88338256	CANDY		7.07	90	91	-0.51 94	-0.89 89	-270 93	-9.7 10	0.01 94	-10.2 8	-0.01 100	4.7 90	-2.1 9	93 98		2	377	8708	298	3.4	277	3.2	PY05	2015					

COWS

Animals are sorted on farmer number within birth year

*Inbreeding in red is high

G = Genomic information

R = Reliability

Above breed average

Top 10% of the breed

Bottom 10% of the breed

Cow				Selection Indices				Estimated Breeding Values (EBV)													Average Production Values							Pedigree			
FarmNr Regnr	Parent Verification	Name	% In- breed- ing*	LMI	LPI	EFI	BWI	Milk Index	BFat Index	BFat % Index	Prot Index	Prot % Index	Som Index	Calvnt Index	HLife R	Test/lact. 1 2 3	Nr. Lact	ICP	Kg Milk	Kg BFat	% BFat	Kg Prot	% Prot	Sire Dam	Dam BirthYr						
Active Breed Average:			8.73	105	104	0.37	-0.15	26	5.2	0.04	4.1	0.03	102	-0.8	103																
PC007 88505037	CHARMA		5.97	98	102	0.44 105	-1.57 81	317 108 48	-1.9 99 43	-0.13 93	4.7 105 46	-0.05 93 91	11.3 25 79	11.0 12 15	104	8 5	3	693	7982	264	3.3	260	3.3	INPUT PW034WINE	2013						
PC012 88505045	CHARMEN		5.67	99	102	0.17 102	-0.42 95	231 106 42	1.5 101 37	-0.07 96	-0.7 99 40	-0.07 90 95	6.0 21 92	4.0 13 16	99	7 7	3	690	7643	257	3.4	245	3.2	INTERVIEW PT051TOUC	2011						
PC013 88505052	CARLA		5.84	93	91	-0.56 93	-1.14 86	35 101 50	-18.0 89 46	-0.18 90	-4.0 96 48	-0.05 93 99	0.9 31 107	-3.9 18 23	100	6	3	525	8440	261	3.1	270	3.2	SPITSVUUR SPITS-SUPERSTAR A1826 ZAJG150002	2015						
PC014 88594700	CARNEY		7.07	90	92	-0.54 94	-0.43 95	-159 96 12	-14.2 92 11	-0.08 96	-2.1 98 12	0.03 104 96	5.6 7 103	-1.8 8 10	90	6	3	302	6878	233	3.4	248	3.6	PZ011	2016						
PC016 88594718	CHAROL		7.07	102	103	0.21 103	-0.32 96	304 108 41	3.2 102 34	-0.08 96	-0.5 100 36	-0.09 87 97	4.3 19 102	-1.0 7 8	101	6 5 5	5	374	7876	264	3.4	248	3.2	PA007	2017						
PC018 88594742	CRISTY		7.07	93	91	-0.51 94	-0.15 98	-780 80 38	-0.3 100 33	0.31 116	-16.0 85 36	0.10 114 91	11.3 14 119	-10.0 5	100	7 6	3	480	6937	238	3.4	233	3.4	PZ040ZUKO	2016						
PC020 88594759	CARBY		7.07	106	106	0.53 106	-0.17 98	122 103 12	7.6 105 11	0.02 101	6.2 106 12	0.02 103 98	3.2 7 104	-1.9 7 8	102	8	2	604	7806	261	3.4	251	3.2	PA006	2017						
PC021 88683321	CANNY		5.47	104	100	-0.11 99	0.05 101	127 103 40	-2.7 98 37	-0.07 96	-0.3 100 38	-0.04 94	-11.5 109 20	-4.7 109 8	106	7 7	3	362	8235	254	3.1	257	3.1	OCD SHERPA-ET YANINAPY	2015						
PC023 88683313	CYREL		6.36	98	104	0.40 105	-0.42 95	174 105 43	3.3 102 41	-0.04 98	5.1 105 41	-0.01 98	7.6 94 24	3.4 93 12	85	8 7	3	439	7932	264	3.3	260	3.3	JEEPSON PZ016	2016						
PC024 88683339	CAMRY		8.62	100	104	0.25 103	0.19 102	153 104 33	5.9 104 32	-0.01 99	1.1 101 32	-0.04 94	-2.2 102 19	5.5 89 9	91	6	3	442	8111	269	3.3	263	3.3	JEEPSON PA009	2017						
PC035 89111066	CHELSEA		5.66	94	93	-0.26 97	-0.80 90	-534 86 19	-3.1 98 17	0.18 109	-8.7 92 18	0.09 113	7.0 95 9	-10.4 120 7	91	7 7	3	343	6464	228	3.5	232	3.6	IHG DISCUSSION-ET 140015	2014						
PC036 89111074	CANON		5.19	97	89	-0.81 90	-0.86 90	-205 95 41	-15.2 91 40	-0.07 96	-13.3 87 39	-0.06 91	-8.0 106 27	-4.9 109 16	121	7	3	491	7974	257	3.2	255	3.2	VIEW-HOME UTAH-ET PW051	2013						
PC038 89111082	CHINA		7.21	104	105	0.47 106	-0.04 100	-218 94 38	15.6 109 39	0.23 112	-4.2 96 37	0.03 104 99	1.1 23 100	-0.1 10 15	98	8 6	4	381	7429	242	3.3	241	3.3	PROGENESIS AVATAR PA042	2017						
PC050 89936264	CARRA		6.97	94	97	-0.24 97	0.22 103	-325 92 42	2.5 102 36	0.15 108	-8.8 92 40	0.02 103	-3.7 103 21	5.2 90 13	88	8	3	645	7780	262	3.4	271	3.5	PROGENESIS HAWAI ZICKY	2016						
PC051 89936272	COCONUT		7.07	88	92	-0.39 95	-0.66 92	-451 88 27	-9.7 94 25	0.08 104	-3.7 97 25	0.11 116	18.2 86 12	1.0 98 5	95	6	3	501	7743	265	3.4	264	3.4	YELBANDPY	2015						
								Year of Birth : 2020																							
PD016 90405689	DIPSY		5.55	98	99	-0.07 99	-0.32 96	228 106 26	-6.2 96 13	-0.14 92	2.5 103 14	-0.05 93	-1.4 101 8	1.0 98 6	94	7	2	438	7501	241	3.2	247	3.3	REGAN-DANHOF CHAPTER-ET YANINAPY	2015						
PD017 90405697	DUDU		7.28	93	94	-0.22 97	-1.41 83	-150 96 13	-7.3 96 12	-0.01 99	-7.6 93 13	-0.02 97	8.7 93 9	0.8 98 8	100	7	3	624	7137	247	3.5	233	3.3	PT051TOUC	2011						
PD035 91611632	DON		7.28	90	89	-0.64 92	-0.63 92	-579 85 12	-9.2 95 10	0.13 107	-12.5 88 11	0.07 110	8.7 93 5	-5.3 110 4	98	6	2	340	6886	234	3.4	227	3.3	PX020	2014						
								Year of Birth : 2021																							
PE001 91611665	EASY		7.68	91	96	-0.37 96	0.06 101	-99 97 38	-4.1 98 32	0.00 100	-6.4 94 36	-0.03 96	0.8 99 17	10.6 79 9	94	7 8	3	545	7292	235	3.2	232	3.2	ZICKY	2016						

COWS

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G = Genomic information

R = Reliability

Above breed average

Top 10% of the breed

Bottom 10% of the breed

Cow				Selection Indices				Estimated Breeding Values (EBV)										Average Production Values							Pedigree		
FarmNr Regnr	Parent Verification	Name	% In- breeding*	LMI	LPI	EFI	BWI	Milk Index	BFat Index	BFat % Index	Prot Index	Prot % Index	Som Index	CalvInt Index	HLife R	Test/lact. 1 2 3	Nr. Lact	ICP	Kg Milk	Kg BFat	% BFat	Kg Prot	% Prot	Sire Dam	Dam BirthYr		
Active Breed Average:			8.73	105	104	0.37	-0.15	26	5.2	0.04	4.1	0.03	102	-0.8	103												
PE005 91611640	ERICA		7.68	95	91	-0.43 95	-1.34 84	-327 92	-6.7 36	0.06 96	-14.6 86	-0.04 33	-0.5 94	-7.3 100	100 12	4	2	491	6200	197	3.2	204	3.3	PT045TOSK	2011		
PE014 91749689	EMA		6.92	99	102	0.10 101	0.26 103	93 102	-0.2 20	-0.04 100	4.9 19	0.02 98	4.8 103	-1.1 96	94 12		1	0	8189	246	3.0	246	3.0	LIWAY SIL PZ007	2016		
PE024 92109834	ELLIS		6.92	99	103	0.23 103	0.26 103	-125 97	3.6 25	0.08 102	5.3 23	0.09 104	7.3 105	-2.0 24	88 15		1	0	7050	250	3.5	227	3.2	LIWAY SIL PZ034	2016		
PE034 92109792	EDWIN		6.44	106	105	0.44 105	-0.44 95	431 111	0.2 39	-0.16 100	10.0 32	-0.04 91	-8.5 110	-0.5 36	97 14	4	3	446	7192	234	3.3	234	3.3	PROGENESIS PAVAROTTI PC011	2019		
PE044 95919478	EDGE		7.68	99	102	0.21 103	-0.02 100	-47 99	3.2 36	0.04 102	2.3 26	0.04 102	7.7 31	5.7 94	103 6	3	2	582	5972	195	3.3	200	3.3	PZ036	2016		
PE045 7016986288	EBEN		7.28	103	103	0.17 102	-0.02 100	296 108	-2.4 13	-0.13 99	6.9 13	-0.03 93	-7.5 107	3.0 94	101 5		1	0	6826	244	3.6	226	3.3	PROGENESIS PAVAROTTI PB012	2020		
PE054 96552948	ECOVID		7.68	98	98	-0.13 98	-0.02 100	-150 96	-3.1 9	0.02 98	0.0 8	0.05 101	-0.1 100	0.5 99	102 6	7	2	488	6299	208	3.3	217	3.5	PA011	2017		
				Year of Birth : 2022																							
PF009 93852424	FELIX		8.22	97	97	-0.17 98	-0.44 95	-52 99	-1.1 9	0.01 99	-7.6 8	-0.05 93	-0.3 100	-0.6 101	97 6		1	0	6702	209	3.1	203	3.0	PA051	2017		
PF013 93902351	FREDA		9.13	102	108	0.66 108	-0.30 96	414 111	1.5 22	-0.14 101	15.9 10	0.02 92	8.2 116	6.6 11	95 13		2	618	7125	240	3.4	226	3.2	REGAN-DANHOF CHAPTER-ET PB029	2018		
PF014 93902369	FREEZ		30.94	101	103	0.27 103	0.28 103	-112 97	9.6 17	0.13 106	-1.4 15	0.02 107	-6.9 99	2.7 16	89 11		1	0	5485	191	3.5	193	3.5	PROGENESIS HAWAI PC050	2019		
PF016 93902393	FLINK		4.79	89	93	-0.66 92	0.25 103	-238 94	-5.7 26	0.03 97	0.0 24	-0.04 102	9.4 88	-2.4 25	89 16		1	0	6085	200	3.3	205	3.4	DE-SU FEDEX-ET WILBOPW03	2013		
PF018 93902385	FEBS		30.47	108	105	0.25 103	0.61 107	186 105	3.6 15	-0.04 102	7.1 14	0.01 98	-11.6 107	-3.0 14	105 8		1	0	7227	220	3.1	248	3.4	OCD SHERPA-ET PC021	2019		
PF021 93928174	FLIPPY		6.97	96	98	-0.28 97	0.20 102	-27 99	-0.9 20	0.00 100	-7.1 18	-0.06 99	-2.6 102	-3.9 14	87 15		1	0	4749	158	3.3	151	3.2	DE-SU FEDEX-ET PC014	2019		
PF023 7016986270	FOX		8.22	95	96	-0.30 96	-0.13 98	-226 94	-2.9 7	0.05 98	-7.1 6	0.00 103	-3.0 93	1.5 6	96 8		1	0	5704	215	3.8	199	3.5	PROGENESIS HAWAI			
				Year of Birth : 2023																							
PD032 96553409	DAVID		6.67	92	92	-0.60 93	-0.95 89	-18 100	-11.6 35	-0.11 93	-11.9 34	-0.10 86	2.5 98	1.3 30	103 27		1	0	5020	169	3.4	167	3.3	SPITSVUUR SPITS-SUPERSTAR A1826 PU035	2012		
PG005 7016986296	GAYTON		7.01	101	100	0.04 101	-0.07 99	-187 95	2.9 19	0.10 102	-2.9 18	0.03 104	4.6 96	-2.6 13	107 15		1	0	4522	155	3.4	150	3.3	PROGENESIS GRANITE PA026	2017		
PG006 7016986304	GERALDO		7.71	97	101	0.00 100	0.20 102	126 103	4.4 22	-0.01 103	-5.0 20	-0.08 99	-0.6 95	-0.9 21	83 16		1	0	4786	158	3.3	146	3.0	DE-SU FEDEX-ET PB019	2018		
PG025 7017033825	GERSON		11.38	101	94	-0.37 96	-0.39 95	-177 95	-7.0 19	0.00 96	-5.6 18	0.00 100	-3.5 103	-7.1 14	114 16		1	0	6215	206	3.3	192	3.1	PROGENESIS GRANITE PC036	2019		
PG030 7017033833	GALUSH		5.67	95	91	-0.51 94	-0.72 91	-436 89	-11.6 18	0.05 93	-6.1 16	0.08 111	-3.6 103	-5.2 11	101 8		1	0	6168	199	3.2	199	3.2	PROGENESIS GRANITE PY014	2015		

COWS

Animals are sorted on farmer number within birth year

*Inbreeding in red is high

G = Genomic information R = Reliability Above breed average Top 10% of the breed Bottom 10% of the breed

Cow				Selection Indices				Estimated Breeding Values (EBV)										Average Production Values						Pedigree										
FarmNr Regnr	Parent Verification	Name	% In- breed- ing*	LMI	LPI	EFI	BWI	Milk Index	BFat R	BFat Index	% R	Prot Index	Prot %	Som Index	CalvInt R	HLife R	Test/lact. 1 2 3	Nr. Lact	ICP	Kg Milk	Kg BFat	% BFat	Kg Prot	% Prot	Sire Dam	Dam BirthYr								
Active Breed Average:			8.73	105	104	0.37	-0.15	26	5.2	0.04	4.1	0.03	102	-0.8	103																			
Average (Herd): Number:55			7.42	97	98	-0.09	-0.38	-72	-2.2	0.01	-3.0	0.00	97	-0.1	99																			
Cow Average (Breed): Number:13232			8.09	101	100	0.08	-0.26	-48	0.2	0.02	0.2	0.02	101	-1.2	100																			

Cows with Most Influence in the Herd

Cows with Most Daughters in Milk and with Most Lactations

Daughter EBVs > Dam EBVs

Daughter EBVs < Dam EBVs

Farmnr Regnr		Sire	Nr Lact	Tot Daughts		Act Daughts		BREEDING VALUE- and SELECTION INDICES										
Birth Year		Country of Sire		Birth Years Total In Milk		Birth Years Total In Milk		Milk	BFat	Prot	BF%	Prot%	UdHlth	Fert	HLife	EFI	LMI	
Breed Average :							100	103	103	102	104	102	102	103	104	105		
Herd Average :							97	98	96	100	99	97	102	99	98	96		
1	PZ005	WAIT-AND-SEE MAVERICK		2018	-	2018	-											
	83211979		7	1		0		Cow EBVi:	93	87	96	94	106	97	107	100	90	89
	2016	ZAF		1		0		Dghts EBVi:	105	97	103	94	96	96	110	100	101	100
2	PZ036	DIDOT		2021	-	2021	2021	-	2021									
	84238369		6	1		1		Cow EBVi:	96	101	102	104	111	92	85	104	102	97
	2016	FRA		1		1		Dghts EBVi:	99	102	102	102	106	94	89	103	103	99
3	PA007	GOLESNIL		2019	-	2020	2019	-	2020									
	85044220		6	2		2		Cow EBVi:	92	98	90	104	100	102	107	103	96	97
	2017	FRA		1		1		Dghts EBVi:	105	102	100	98	92	97	104	102	102	102
4	PC012	INTERVIEW		2021	-	2021	-											
	88505045		3	1		0		Cow EBVi:	106	101	99	96	90	95	92	99	102	99
	2019	FRA		1		0		Dghts EBVi:	104	104	94	100	84	102	105	94	101	102

Heifers

Animals are sorted on farmer number within birth year

*Inbreeding in red is high

Top 10% of the breed

Bottom 10% of the breed

Above breed average

R = Reliability

G = Genomically tested

M = Blended with sire's MACE (International) EBVs

GM = Blended with sire's GMACE EBVs

Heifer				Selection Indices				Estimated Breeding Values (EBV)									Pedigree		
FarmNr Regnr	Parent Verification	Name	% Inbr- ding	LMI	LPI	EFI	BWI	Milk Index <i>R</i>	BFat Index <i>R</i>	BFat% Index	Prot Index <i>R</i>	Prot% Index	Somatics Index <i>R</i>	CalvInt Index <i>R</i>	HLife <i>R</i>	Sire	Dam	BYr	
Breed Average:			8.73	105	104	0.37	-0.15	26	5.2	0.04	4.1	0.03	102	-0.8	103				
								Year of Birth : 2019											
PC030 88992565	COSMOS		5.02	98	98	0.06 101	-0.71 91	-273 93	2.1 20	0.12 101	-5.2 19	0.04 106	10.4 92	-8.6 12	97 9	IHG DISCUSSION-ET	PY013	2015	
PC049 89495618	PC049		5.84	88	87	-0.85 90	-1.07 87	-315 92	-19.4 24	-0.06 88	-10.5 22	0.00 100	10.4 92	-4.5 12	101 5	JEBRASKA	PY015	2015	
PC054 89936280	CAVALIA		7.07	94	92	-0.45 95	-0.80 90	-322 92	-9.6 11	0.03 94	-7.4 10	0.03 104	7.3 94	-8.4 6	100 3		PX023	2014	
								Year of Birth : 2020											
PD002 89936298	DELON		7.28	90	90	-0.56 93	-0.89 89	-358 91	-12.3 10	0.02 93	-8.4 8	0.03 104	11.5 91	-4.3 3	97 1		14009	2014	
PD006 89936314	DELL		7.28	90	90	-0.62 93	-0.89 89	-417 89	-12.6 10	0.04 92	-9.6 9	0.04 106	1.1 99	-4.5 4	91 1		UTOPIA	2012	
PD008 90211699	DEVON		5.59	107	100	0.32 104	-1.36 84	-159 96	5.5 32	0.11 103	-5.5 30	0.00 106	M 3.4 97	M -9.6 23	M 117 20	ROCKYMOUNTAIN LOTTOMAX	140012	2014	
PD012 90211715	DAVOS		6.89	102	101	0.19 102	-0.46 95	M 57 101	M 2.5 27	0.00 102	M -0.5 24	-0.02 100	M 3.4 97	M -2.8 24	M 103 19	IHG DISCUSSION-ET	PA007	2017	
PD019 90405705	DEX		7.28	99	102	0.21 103	-0.22 97	221 106	-1.4 10	-0.10 99	6.2 10	-0.01 95	13.2 90	1.4 7	100 3		PA034	2017	
PD020 90405713	DEAN		7.28	92	91	-0.51 94	-0.89 89	-270 93	-9.7 10	0.01 94	-10.2 8	-0.01 100	4.7 90	-3.8 3	96 1		PY05	2015	
Average (Heifers in Herd):			6.62	95	95	-0.25	-0.81	-204	-6.1	0.02	-5.7	0.01	94	-5.0	100.2				
Number: 9																			
Average (Heifers in Breed):			9.49	111	108	0.72	-0.02	113	11.2	0.06	8.6	0.05	104	-0.4	107.3				
Number: 6036																			

Selection List: Logix Merit Index (LMI)

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Top 25% of the herd

Bottom 25% of the herd

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Above breed average

Top 10% of the breed

Bottom 10% of the breed

Cow Information					Indices				Breeding Values										Pedigree	
Rank	FarmNr CompNr	Name	Birth. Year	% In- breeding	LMI	LPI	EFI	BWI	Milk Index	BFat Index	Prot Index	BFat % Index	Prot % Index	Som Index	CalvInt Index	HLife R	Sire	Dam		
1	PF018 93902385	FEBS	2022	30.47	108	105	0.25 103	0.61 107	186 105	3.6 15	7.1 102	-0.04 14	0.01 101	-11.6 109	-3.0 8	105 106	OCD SHERPA-ET	PC021		
2	PD008 90211699	DEVON	2020	5.59	107	100	0.32 104	-1.36 84	-159 96	5.5 32	-5.5 103	0.11 30	0.00 100	3.4 97	-9.6 23	117 118	ROCKYMOUNTAIN LOTTOMAX	140012		
3	PE034 92109792	EDWIN	2021	6.44	106	105	0.44 105	-0.44 95	431 111	0.2 39	10.0 100	-0.16 36	-0.04 94	-8.5 107	-0.5 19	97 101	PROGENESIS PAVAROTTI	PC011		
4	PC020 88594759	CARBY	2019	7.07	106	106	0.53 106	-0.17 98	122 103	7.6 12	6.2 105	0.02 11	0.02 101	3.2 98	-1.9 7	102 104		PA006		
5	PB051 87943080	BELIA	2018	5.34	104	104	0.66 108	-0.60 93	-434 89	13.8 48	1.0 108	0.30 43	0.15 101	19.1 85	-4.8 25	110 109	INPUT	140012		
6	PC021 88683321	CANNY	2019	5.47	104	100	-0.11 99	0.05 101	127 103	-2.7 40	-0.3 98	-0.07 37	-0.04 100	-11.5 109	-4.7 20	106 109	OCD SHERPA-ET	YANINAPY		
7	PC038 89111082	CHINA	2019	7.21	104	105	0.47 106	-0.04 100	-218 94	15.6 38	-4.2 109	0.23 39	0.03 104	1.1 99	-0.1 23	98 100	PROGENESIS AVATAR	PA042		
8	PE045 7016986288	EBEN	2021	7.28	103	103	0.17 102	-0.02 100	296 108	-2.4 13	6.9 99	-0.13 13	-0.03 107	-7.5 93	3.0 96	101 106	PROGENESIS PAVAROTTI	PB012		
9	PB038 87570420	BIANCA	2018	4.81	103	99	-0.17 98	0.11 101	27 101	1.3 37	-7.5 101	0.00 36	-0.08 100	-7.5 106	0.6 22	114 99	JAGGER	PW049		
10	PC016 88594718	CHAROL	2019	7.07	102	103	0.21 103	-0.32 96	304 108	3.2 41	-0.5 102	-0.08 36	-0.09 96	4.3 97	-1.0 19	101 102		PA007		
11	PB002 86670858	BELINDA	2018	5.03	102	103	0.42 105	-0.56 93	-58 98	6.1 47	2.3 104	0.08 44	0.04 104	11.9 91	0.9 26	107 98	GOLESNIL	PY013		
12	PD012 90211715	DAVOS	2020	6.89	102	101	0.19 102	-0.46 95	57 101	2.5 27	-0.5 102	0.00 25	-0.02 100	3.4 97	-2.8 24	103 105	IHG DISCUSSION-ET	PA007		
13	PF013 93902351	FREDA	2022	9.13	102	108	0.66 108	-0.30 96	414 111	1.5 22	15.9 101	-0.14 11	0.02 92	8.2 94	6.6 7	95 87	REGAN-DANHOF CHAPTER-ET	PB029		
14	PG005 7016986296	GAYTON	2023	7.01	101	100	0.04 101	-0.07 99	-187 95	2.9 19	-2.9 102	0.10 18	0.03 97	4.6 104	-2.6 13	107 105	PROGENESIS GRANITE	PA026		
15	PF014 93902369	FREEZ	2022	30.94	101	103	0.27 103	0.28 103	-112 97	9.6 17	-1.4 106	0.13 15	0.02 99	-6.9 105	2.7 10	89 95	PROGENESIS HAWAI	PC050		
16	PG025 7017033825	GERSON	2023	11.38	101	94	-0.37 96	-0.39 95	-177 95	-7.0 19	-5.6 96	0.00 18	0.00 95	-3.5 103	-7.1 14	114 114	PROGENESIS GRANITE	PC036		
17	PB045 87730180	BERLIN	2018	4.89	100	102	0.36 104	-1.03 88	9 100	6.1 29	-3.1 104	0.05 26	-0.03 97	8.8 93	3.7 18	104 93	INPUT	PY027		
18	PC024 88683339	CAMRY	2019	8.62	100	104	0.25 103	0.19 102	153 104	5.9 33	1.1 104	-0.01 32	-0.04 99	-2.2 102	5.5 19	91 9	JEEPSON	PA009		
19	PB054 88240254	BIKITA	2018	5.51	100	101	0.30 104	-0.83 90	-59 98	4.0 28	-1.5 102	0.06 25	0.00 99	16.1 87	-1.8 17	105 103	INPUT	YACOPY03		
20	PE014 91749689	EMA	2021	6.92	99	102	0.10 101	0.26 103	93 102	-0.2 20	4.9 100	-0.04 19	0.02 105	4.8 98	-1.1 14	94 102	LIWAY SIL	PZ007		
21	PE044 95919478	EDGE	2021	7.68	99	102	0.21 103	-0.02 100	-47 99	3.2 36	2.3 102	0.04 31	0.04 102	7.7 94	5.7 12	103 89		PZ036		
22	PC012 88505045	CHARMEN	2019	5.67	99	102	0.17 102	-0.42 95	231 106	1.5 42	-0.7 101	-0.07 40	-0.07 96	6.0 90	4.0 21	99 92	INTERVIEW	PT051TOUC		
23	PD019 90405705	DEX	2020	7.28	99	102	0.21 103	-0.22 97	221 106	-1.4 10	6.2 99	-0.10 10	-0.01 95	13.2 90	1.4 7	100 97		PA034		

Selection List: Logix Merit Index (LMI)

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Cow Information					Indices				Breeding Values										Pedigree				
Rank	FarmNr CompNr	Name	Birth. Year	% In- breeding	LMI	LPI	EFI	BWI	Milk Index	R	BFat Index	R	Prot Index	R	BFat % Index	Prot % Index	Som Index	R	CalvInt Index	R	HLife R	Sire	Dam
24	PA034 85661684	AVA	2017	5.15	99	104	0.32 104	-0.45 95	530 114	-4.9 42	11.4 97	-0.23 41	-0.05 111	25.4 40	4.5 88	108 93	108 80	108 27	108 91	108 13	108 15	INPUT	PX014
25	PE024 92109834	ELLIS	2021	6.92	99	103	0.23 103	0.26 103	-125 97	3.6 25	5.3 102	0.08 23	0.09 105	7.3 24	-2.0 104	88 94	88 16	88 104	88 9	88 15	88	LIWAY SIL	PZ034
26	PC030 88992565	COSMOS	2019	5.02	98	98	0.06 101	-0.71 91	-273 93	2.1 20	-5.2 101	0.12 19	0.04 95	10.4 19	-8.6 106	97 106	97 92	97 12	97 117	97 7	97 9	IHG DISCUSSION-ET	PY013
27	PE054 96552948	ECOVID	2021	7.68	98	98	-0.13 98	-0.02 100	-150 96	-3.1 9	0.0 98	0.02 8	0.05 100	-0.1 4	0.5 99	102 1	102 6	102 6	102 6	102 6	102		PA011
28	PC007 88505037	CHARMA	2019	5.97	98	102	0.44 105	-1.57 81	317 108	-1.9 48	4.7 99	-0.13 43	-0.05 105	11.3 91	11.0 25	104 79	104 12	104 12	104 15	104	104	INPUT	PW034WINE
29	PB029 87319802	BRICS	2018	5.55	98	101	0.40 105	-1.05 87	-122 97	2.1 27	3.5 101	0.06 25	0.07 104	19.3 26	3.4 103	105 110	105 85	105 16	105 93	105 11	105 13	INPUT	WINNYPW01
30	PD016 90405689	DIPSY	2020	5.55	98	99	-0.07 99	-0.32 96	228 106	-6.2 26	2.5 96	-0.14 13	-0.05 103	-1.4 14	1.0 92	94 93	94 101	94 8	94 98	94 6	94 13	REGAN-DANHOF CHAPTER-ET	YANINAPY
31	PC023 88683313	CYREL	2019	6.36	98	104	0.40 105	-0.42 95	174 105	3.3 43	5.1 102	-0.04 41	-0.01 105	7.6 41	3.4 98	85 98	85 94	85 24	85 93	85 12	85 14	JEEPSON	PZ016
32	PC036 89111074	CANON	2019	5.19	97	89	-0.81 90	-0.86 90	-205 95	-15.2 41	-13.3 91	-0.07 40	-0.06 87	-8.0 39	-4.9 96	121 91	121 106	121 27	121 109	121 16	121 20	VIEW-HOME UTAH-ET	PW051
33	PG006 7016986304	GERALDO	2023	7.71	97	101	0.00 100	0.20 102	126 103	4.4 22	-5.0 103	-0.01 20	-0.08 95	-0.6 21	-0.9 99	83 88	83 101	83 15	83 102	83 9	83 16	DE-SU FEDEX-ET	PB019
34	PF009 93852424	FELIX	2022	8.22	97	97	-0.17 98	-0.44 95	-52 99	-1.1 9	-7.6 99	0.01 8	-0.05 93	-0.3 9	-0.6 100	97 93	97 100	97 4	97 101	97 1	97 6		PA051
35	PZ036 84238369	ZAKUMI	2016	6.12	97	100	0.12 102	-0.04 100	-171 96	1.4 42	2.2 101	0.07 34	0.08 102	10.1 37	7.8 104	104 111	104 92	104 17	104 85	104 7	104 9	DIDOT	
36	PA007 85044220	AVON	2017	5.25	97	94	-0.34 96	-0.65 92	-298 92	-4.2 48	-10.2 98	0.07 44	0.00 90	-2.8 46	-3.9 104	103 100	103 102	103 28	103 107	103 11	103 13	GOLESNIL	UTOPIA
37	PF021 93928174	FLIPPY	2022	6.97	96	98	-0.28 97	0.20 102	-27 99	-0.9 20	-7.1 100	0.00 18	-0.06 93	-2.6 19	-3.9 100	87 91	87 102	87 14	87 107	87 8	87 15	DE-SU FEDEX-ET	PC014
38	PB052 88240221	BREEZ	2018	4.06	96	95	-0.24 97	-0.35 96	-501 87	5.2 42	-15.9 103	0.24 37	0.01 85	-5.4 40	-0.9 113	93 101	93 104	93 21	93 102	93 12	93 15	INTERVIEW	PT045TOSK
39	PF023 7016986270	FOX	2022	8.22	95	96	-0.30 96	-0.13 98	-226 94	-2.9 7	-7.1 98	0.05 6	0.00 93	-3.0 6	1.5 103	96 100	96 102	96 5	96 97	96 3	96 8	PROGENESIS HAWAI	
40	PA051 86240892	AMANDA	2017	6.36	95	94	-0.45 95	-0.88 89	-17 100	-4.2 38	-16.2 98	-0.04 32	-0.14 85	-1.7 35	0.5 98	103 80	103 101	103 17	103 99	103 5	103 8		PY027
41	PE005 91611640	ERICA	2021	7.68	95	91	-0.43 95	-1.34 84	-327 92	-6.7 36	-14.6 96	0.06 29	-0.04 86	-0.5 33	-7.3 103	100 94	100 100	100 16	100 114	100 9	100 12		PT045TOSK
42	PG030 7017033833	GALUSH	2023	5.67	95	91	-0.51 94	-0.72 91	-436 89	-11.6 18	-6.1 93	0.05 15	0.08 94	-3.6 16	-5.2 103	101 111	101 103	101 11	101 110	101 8	101 13	PROGENESIS GRANITE	PY014
43	PC035 89111066	CHELSEA	2019	5.66	94	93	-0.26 97	-0.80 90	-534 86	-3.1 19	-8.7 98	0.18 17	0.09 92	7.0 18	-10.4 109	91 113	91 95	91 9	91 120	91 7	91 10	IHG DISCUSSION-ET	140015
44	PC054 89936280	CAVALIA	2019	7.07	94	92	-0.45 95	-0.80 90	-322 92	-9.6 11	-7.4 94	0.03 10	0.03 93	7.3 10	-8.4 93	100 102	100 104	100 94	100 6	100 116	100 3		PX023
45	PC050 89936264	CARRA	2019	6.97	94	97	-0.24 97	0.22 103	-325 92	2.5 42	-8.8 102	0.15 36	0.02 92	-3.7 40	5.2 108	88 103	88 103	88 21	88 90	88 13	88 16	PROGENESIS HAWAI	ZICKY
46	PA002 84948256	ANEL	2017	5.62	93	95	-0.45 95	-0.04 100	-18 100	-4.8 48	-9.7 97	-0.04 40	-0.08 98	10.2 91	1.3 43	104 98	104 92	104 24	104 97	104 14	104 16	DIDOT	PP001

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Cow Information					Indices				Breeding Values									Pedigree	
Rank	FarmNr CompNr	Name	Birth. Year	% In- breeding	LMI	LPI	EFI	BWI	Milk Index R	BFat Index R	Prot Index R	BFat % Index	Prot % Index	Som Index R	CalvInt Index R	HLife R	Sire	Dam	
47	PB019 87156782	BONNY	2018	6.36	93	100	0.04 101	-0.42 95	149 104	-3.5 21	2.3 102	-0.09 95	-0.02 97	9.6 93	4.1 14	83 92	JEEPSON	PZ016	
48	PD017 90405697	DUDU	2020	7.28	93	94	-0.22 97	-1.41 83	-150 96	-7.3 13	-7.6 13	-0.01 99	-0.02 93	8.7 93	0.8 9	100 98	PT051TOUC		
49	PC013 88505052	CARLA	2019	5.84	93	91	-0.56 93	-1.14 86	35 101	-18.0 50	-4.0 89	-0.18 96	-0.05 93	0.9 99	-3.9 31	100 107	SPITSVUUR SPITS-SUPERSTAR A1826	ZAJG150002	
50	PC018 88594742	CRISTY	2019	7.07	93	91	-0.51 94	-0.15 98	-780 80	-0.3 38	-16.0 100	0.31 33	0.10 85	11.3 36	-10.0 116	100 114	PZ040ZUKO		
51	PD032 96553409	DAVID	2023	6.67	92	92	-0.60 93	-0.95 89	-18 100	-11.6 35	-11.9 35	-0.11 89	-0.10 94	2.5 98	1.3 30	103 97	SPITSVUUR SPITS-SUPERSTAR A1826	PU035	
52	PD020 90405713	DEAN	2020	7.28	92	91	-0.51 94	-0.89 89	-270 93	-9.7 10	-10.2 8	0.01 90	-0.01 98	4.7 96	-3.8 3	96 107	PY05		
53	PE001 91611665	EASY	2021	7.68	91	96	-0.37 96	0.06 101	-99 97	-4.1 38	-6.4 32	0.00 94	-0.03 96	0.8 99	10.6 17	94 79	ZICKY		
54	PZ041 84948223	ZOLANI	2016	5.62	91	94	-0.51 94	-0.36 96	120 103	-16.1 34	0.1 31	-0.19 100	-0.03 32	11.4 90	-1.6 27	94 103	INSIDER	PT041TAMA	
55	PC005 88338256	CANDY	2019	7.07	90	91	-0.51 94	-0.89 89	-270 93	-9.7 10	-10.2 8	0.01 90	-0.01 98	4.7 96	-2.1 3	93 104	PY05		
56	PC014 88594700	CARNEY	2019	7.07	90	92	-0.54 94	-0.43 95	-159 96	-14.2 12	-2.1 11	-0.08 98	0.03 96	5.6 104	-1.8 7	90 103	PZ011		
57	PD035 91611632	DON	2020	7.28	90	89	-0.64 92	-0.63 92	-579 85	-9.2 12	-12.5 10	0.13 88	0.07 107	8.7 93	-5.3 5	98 110	PX020		
58	PD006 89936314	DELL	2020	7.28	90	90	-0.62 93	-0.89 89	-417 89	-12.6 10	-9.6 9	0.04 91	0.04 102	1.1 99	-4.5 4	91 109	UTOPIA		
59	PD002 89936298	DELON	2020	7.28	90	90	-0.56 93	-0.89 89	-358 91	-12.3 10	-8.4 8	0.02 92	0.03 101	11.5 104	-4.3 91	97 108	14009		
60	PF016 93902393	FLINK	2022	4.79	89	93	-0.66 92	0.25 103	-238 94	-5.7 26	-12.5 24	0.03 88	-0.04 102	9.4 93	-2.4 16	89 105	DE-SU FEDEX-ET	WILBOPW03	
61	PZ005 83211979	ZETA	2016	4.49	89	87	-0.83 90	-0.82 90	-265 93	-22.3 52	-4.5 48	-0.12 96	0.04 106	4.1 97	-3.5 32	100 107	WAIT-AND-SEE MAVERICK	WAGOH	
62	PC051 89936272	COCONUT	2019	7.07	88	92	-0.39 95	-0.66 92	-451 88	-9.7 27	-3.7 25	0.08 97	0.11 104	18.2 86	1.0 12	95 98	YELBANDPY		
63	PC002 88240262	CANDICE	2019	7.07	88	91	-0.62 93	-0.60 93	-189 95	-12.2 9	-9.1 9	-0.05 91	-0.03 97	8.7 93	2.9 5	96 94	PY007		
64	PC049 89495618	PC049	2019	5.84	88	87	-0.85 90	-1.07 87	-315 92	-19.4 24	-10.5 22	-0.06 97	0.00 100	10.4 92	-4.5 12	101 109	JEBRASKA	PY015	

Herd: Extreme Cows per Trait

Top Ranking Cows

Breeding Values												Selection Indices											
Milk		Butterfat		Butterfat%		Protein		Protein%		Somatics		Calving Inter		Herd Life		LMI		LPI		Weight		EFI	
Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind
PA034	530	PC038	15.6	PC018	0.31	PF013	15.9	PB051	0.15	PF018	-11.6	PC035	-10.4	PC036	121	PF018	108	PF013	108	PC007	81	PB051	108
PE034	431	PB051	13.8	PB051	0.30	PA034	11.4	PC051	0.11	PC021	-11.5	PC018	-10.0	PG025	114	PE034	106	PC020	106	PD017	83	PF013	108
PF013	414	PF014	9.6	PB052	0.24	PE034	10.0	PC018	0.10	PE034	-8.5	PE005	-7.3	PB038	114	PC020	106	PE034	105	PE005	84	PC020	106
PC007	317	PC020	7.6	PC038	0.23	PF018	7.1	PE024	0.09	PC036	-8.0	PG025	-7.1	PB051	110	PB051	104	PC038	105	PC013	86	PC038	106
PC016	304	PB002	6.1	PC035	0.18	PE045	6.9	PC035	0.09	PE045	-7.5	PD035	-5.3	PA034	108	PC021	104	PF018	105	PB029	87	PE034	105
PE045	296	PB045	6.1	PC050	0.15	PC020	6.2	PG030	0.08	PB038	-7.5	PG030	-5.2	PB002	107	PC038	104	PB051	104	PB045	88	PC007	105
PC012	231	PC024	5.9	PF014	0.13	PE024	5.3	PZ036	0.08	PF014	-6.9	PC036	-4.9	PG005	107	PE045	103	PC023	104	PD032	89	PB002	105
PD016	228	PB052	5.2	PD035	0.13	PC023	5.1	PB029	0.07	PB052	-5.4	PB051	-4.8	PC021	106	PB038	103	PA034	104	PC005	89	PB029	105
PF018	186	PG006	4.4	PG005	0.10	PE014	4.9	PD035	0.07	PC050	-3.7	PC021	-4.7	PB029	105	PC016	102	PC024	104	PA051	89	PC023	105
PC023	174	PB054	4.0	PC051	0.08	PC007	4.7	PE054	0.05	PG030	-3.6	PC013	-3.9	PB054	105	PB002	102	PF014	103	PC036	90	PB045	104

Bottom Ranking Cows

Breeding Values												Selection Indices											
Milk		Butterfat		Butterfat%		Protein		Protein%		Somatics		Calving Inter		Herd Life		LMI		LPI		Weight		EFI	
Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind
PC018	-780	PZ005	-22.3	PA034	-0.23	PA051	-16.2	PA051	0	PA034	25.4	PC007	11.0	PB019	83	PC051	88	PZ005	87	PF018	107	PZ005	90
PD035	-579	PC013	-18.0	PZ041	-0.19	PC018	-16.0	PC018	0	PB029	19.3	PE001	10.6	PG006	83	PC002	88	PC036	89	PF014	103	PC036	90
PC035	-534	PZ041	-16.1	PC013	-0.18	PB052	-15.9	PB052	0	PB051	19.1	PZ036	7.8	PC023	85	PZ005	89	PD035	89	PE024	103	PF016	92
PB052	-501	PC036	-15.2	PE034	-0.16	PE005	-14.6	PE005	0	PC051	18.2	PF013	6.6	PF021	87	PF016	89	PG030	91	PE014	103	PD035	92
PC051	-451	PC014	-14.2	PD016	-0.14	PC036	-13.3	PC036	0	PB054	16.1	PE044	5.7	PC050	88	PD035	90	PC002	91	PF016	103	PC002	93
PG030	-436	PC002	-12.2	PF013	-0.14	PD035	-12.5	PD035	0	PB002	11.9	PC024	5.5	PE024	88	PC014	90	PC013	91	PC050	103	PD032	93
PB051	-434	PG030	-11.6	PE045	-0.13	PF016	-12.5	PF016	0	PZ041	11.4	PC050	5.2	PF014	89	PC005	90	PC018	91	PG006	102	PC013	93
PE005	-327	PD032	-11.6	PC007	-0.13	PD032	-11.9	PD032	0	PC018	11.3	PA034	4.5	PF016	89	PZ041	91	PE005	91	PF021	102	PC014	94
PC050	-325	PC005	-9.7	PZ005	-0.12	PC005	-10.2	PC005	0	PC007	11.3	PB019	4.1	PC014	90	PE001	91	PC005	91	PC024	102	PC018	94
PA007	-298	PC051	-9.7	PD032	-0.11	PA007	-10.2	PA007	0	PA002	10.2	PC012	4.0	PC024	91	PD032	92	PD032	92	PB038	101	PZ041	94

Herd: Extreme Heifers per Trait

Top Ranking Heifers

Breeding Values

Milk		Butterfat		Butterfat%		Protein		Protein%		Somatics		Calving Inter		Herd Life	
Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV
PD019	221	PD008	5.5	PC030	0.12	PD019	6.2	PD006	0.04	PD006	1.1	PD008	-9.6	PD008	117
PD012	57	PD012	2.5	PD008	0.11	PD012	-0.5	PC030	0.04	PD008	3.4	PC030	-8.6	PD012	103
PD008	-159	PC030	2.1	PD006	0.04	PC030	-5.2	PD002	0.03	PD012	3.4	PC054	-8.4	PC049	101
PD020	-270	PD019	-1.4	PC054	0.03	PD008	-5.5	PC054	0.03	PD020	4.7	PD006	-4.5	PD019	100
PC030	-273	PC054	-9.6	PD002	0.02	PC054	-7.4	PD008	0.00	PC054	7.3	PC049	-4.5	PC054	100
PC049	-315	PD020	-9.7	PD020	0.01	PD002	-8.4	PC049	0.00	PC030	10.4	PD002	-4.3	PC030	97
PC054	-322	PD002	-12.3	PD012	0.00	PD006	-9.6	PD020	-0.01	PC049	10.4	PD020	-3.8	PD002	97
PD002	-358	PD006	-12.6	PC049	-0.06	PD020	-10.2	PD019	-0.01	PD002	11.5	PD012	-2.8	PD020	96
PD006	-417	PC049	-19.4	PD019	-0.10	PC049	-10.5	PD012	-0.02	PD019	13.2	PD019	1.4	PD006	91

Selection Indices

LMI		LPI		Weight		DFI	
Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind
PD008	107	PD019	102	PD008	84	PD008	104
PD012	102	PD012	101	PC049	87	PD019	103
PD019	99	PD008	100	PD020	89	PD012	102
PC030	98	PC030	98	PD002	89	PC030	101
PC054	94	PC054	92	PD006	89	PC054	95
PD020	92	PD020	91	PC054	90	PD020	94
PD006	90	PD002	90	PC030	91	PD002	93
PD002	90	PD006	90	PD012	95	PD006	93
PC049	88	PC049	87	PD019	97	PC049	90

Bottom Ranking Heifers

Breeding Values

Milk		Butterfat		Butterfat%		Protein		Protein%		Somatics		Calving Interv		Herd Life	
Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV	Farm nr.	EBV
PD006	-417	PC049	-19.4	PD019	-0.10	PC049	-10.5	PD012	-0.02	PD019	13.2	PD019	1.4	PD006	91
PD002	-358	PD006	-12.6	PC049	-0.06	PD020	-10.2	PD020	-0.01	PD002	11.5	PD012	-2.8	PD020	96
PC054	-322	PD002	-12.3	PD012	0.00	PD006	-9.6	PD019	-0.01	PC049	10.4	PD020	-3.8	PC030	97
PC049	-315	PD020	-9.7	PD020	0.01	PD002	-8.4	PD008	0.00	PC030	10.4	PD002	-4.3	PD002	97
PC030	-273	PC054	-9.6	PD002	0.02	PC054	-7.4	PC049	0.00	PC054	7.3	PC049	-4.5	PC054	100
PD020	-270	PD019	-1.4	PC054	0.03	PD008	-5.5	PD002	0.03	PD020	4.7	PD006	-4.5	PD019	100
PD008	-159	PC030	2.1	PD006	0.04	PC030	-5.2	PC054	0.03	PD012	3.4	PC054	-8.4	PC049	101
PD012	57	PD012	2.5	PD008	0.11	PD012	-0.5	PC030	0.04	PD008	3.4	PC030	-8.6	PD012	103
PD019	221	PD008	5.5	PC030	0.12	PD019	6.2	PD006	0.04	PD006	1.1	PD008	-9.6	PD008	117

Selection Indices

LMI		LPI		Weight		EFI	
Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind	Farm nr.	Ind
PC049	88	PC049	87	PD019	97	PC049	90
PD002	90	PD006	90	PD012	95	PD006	93
PD006	90	PD002	90	PC030	91	PD002	93
PD020	92	PD020	91	PC054	90	PD020	94
PC054	94	PC054	92	PD006	89	PC054	95
PC030	98	PC030	98	PD020	89	PC030	101
PD019	99	PD008	100	PD002	89	PD012	102
PD012	102	PD012	101	PC049	87	PD019	103
PD008	107	PD019	102	PD008	84	PD008	104

Single Gene Traits

0 = Does not carry the gene 1 = Carries one copy of the gene 2 = Carries both copies of the gene Empty field = Information not available

FarmNumber Regnr	Name Birth Date	Breed Frac (%)	% Homozy- gosity	Casein		DGAT1	LGB	Yellow Milk Fat	Horns / Polled		BLAD	DUMPS	CT	HST Haplotypes				
				Beta	Kappa				Celtic	Friesian				1	3	4	5	

