The National Animal Genetic Resources Center and Data Bank (NAGRC&DB)

MAAIF
Ministry of Agriculture Animal Industry and Fisheries

"Animal genetic solutions for economic transformation"


FRIESIAN


AYRSHIRE


BORAN


SAHIWAL

BULL CATALOGUE

2023

PREFACE

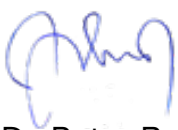
The National Animal Genetic Resources Centre and Data Bank (NAGRC&DB) is a body corporate under the Ministry of Agriculture, Animal Industry and Fisheries. It was established by an Act of Parliament in 2001, and is mandated to spearhead livestock breeding in the country. NAGRC&DB pursues scientifically based breeding with a goal to improve livestock genetics through discriminate crossbreeding, systematic selection of dams/sires, conservation of indigenous animal genetics, and generation and storage of breeding and production records. It also gives guidance on the breeds and the type of bulls to be used by farmers.

OUR VISION: A leader in profitable production and efficient delivery of animal genetic resources and services in Eastern Africa.

OUR MISSION: To establish a comprehensive and sustainable National Animal Breeding Program which meets the commercial and developmental interests of the actors along the livestock sub-sector value chains.

The bulls presented in this catalogue are bulls from which semen is collected and are housed at NAGRC&DB Bull Stud (a place where bulls are kept). They are exotic breeds that have been bred and selected under tropical conditions, specifically, in the East African countries. Exotic bulls bred under temperate conditions and transferred to tropical countries have frequently posed large problems due to lack of adaptation. Use of imported semen is slightly better than importing live animals. However, use of semen from bulls which have been raised in the country, the region, or in the tropical belt, is the best way to develop climate resilient stock. In other words, such an approach will enable us have animals which perform well (give more milk and beef) on our natural and improved pastures, and at the same time are more resistant to diseases and parasites.

This Bull Catalogue is a simplified version for farmers and stakeholders in the livestock value chain. The characteristics or traits presented can easily be understood to enable farmers make choices of bulls whose semen they can use on their farms. Extension workers, especially artificial insemination technicians, should accordingly assist farmers in making use of this catalogue.



Dr. Peter Beine
Executive Director

GUIDANCE IN THE USE OF THE CATALOGUE

There are terms and graphics that have be used in describing the traits of the bulls which the reader needs to understand properly. The pedigree of the animals have been presented for both the dairy and beef bulls while the functional / linear descriptive traits have been presented for only dairy cattle.

PEDIGREE - means the recorded ancestry or lineage of an animal

PUREBRED – refers to the animal having a known ancestry. Bred from members of a recognized breed, strain, or kind without admixture of other blood over many generations

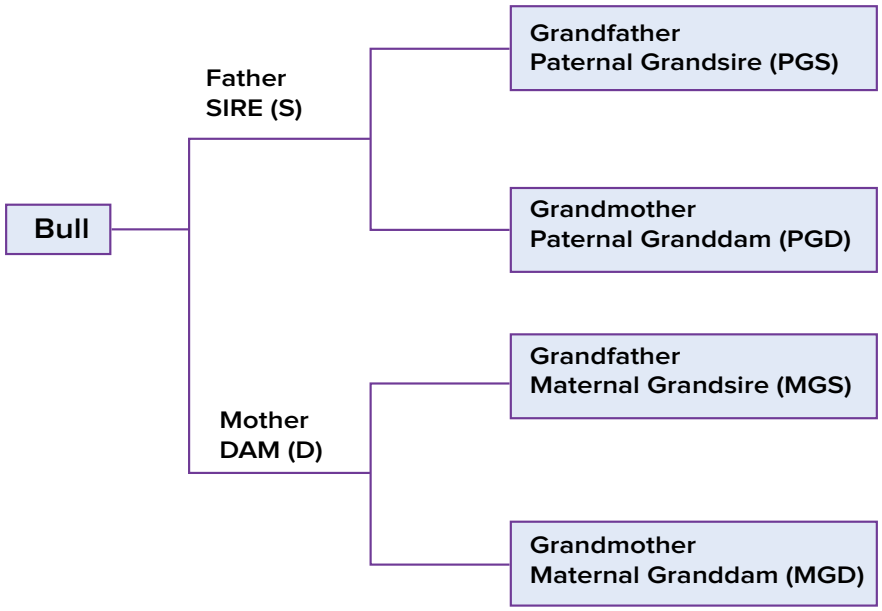
Sire: male parent of an animal

Dam: female parent of an animal

Grandsire: male grandparent of an animal

Granddam: female grandparent of an animal

KLBO: Kenya Livestock Breeders Organization



FUNCTIONAL / LINEAR DESCRIPTIVE TRAITS

Functional traits are a species' morphological (form and structure), physiological (cell, tissue and organism functions), or phenological (seasonal biological events) characteristics which impact fitness indirectly via their effects on growth, reproduction and survival.

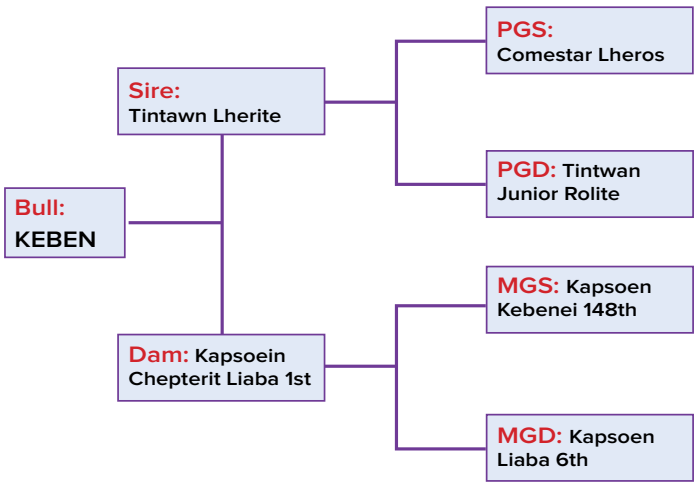
Each Linear descriptive trait rating is based on a measurement made by the classifier. In most cases, this is not an actual measurement made by a yardstick but by rating an animal's trait within a range of biological extremes. The traits are rated without regard to age, environment or stage of lactation. The 15 functional or Linear Descriptive traits that have been included in this catalogue are called primary traits. They have economic value and are practical traits to select for breed improvement. The illustrations at the end of the Catalogue will assist in explaining the individual trait being evaluated.

FRIESIAN

KEBEN			
Original name: KAP. KEBENEI LIABA 353RD			
Origin: Kenya	**Date of birth:** 04.8.2015	**KLBO Cert No.** 23561. LXXVIII	**Breeder:** Kapsoein Estates Ltd

Paternal Grand Sire (PGS)

Conformation / Functional / Linear Descriptive Traits			-2 -1 0 1 2
Stature	+1.45	Tall	
Strength	+1.52	Strong	
Body Depth	+1.54	Deep	
Dairy Form	+0.05	Open Rib	
Rump Angle	+1.54	Sloped	
Rump Width	+1.45	Wide	
Rear Legs-Side	+0.47	Sickle	
Rear Legs-Rear	-1.14	Hock In	
Foot Angle	-1.13	Low	
Feet & Legs Score	-0.78	Low	
F. Udder Attachment	-0.92	Loose	
Rear Udder Height	-0.49	Low	
Rear Udder Width	+0.24	Wide	
Udder Cleft	+0.94	Strong	
Udder Depth	-0.95	Deep	
Front Teat Placement	+0.42	Close	
Rear Teat P. Rear	+1.67	Close	
Teat Length	+1.41	Long	



Production of Bull Dam

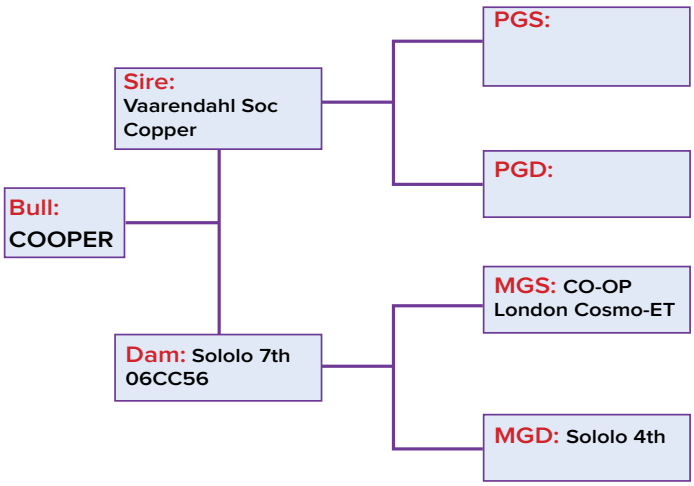
Lactation No.	Days in Lactation	Total Yield (kg)
1.	301	6,350
2.	301	6,780
3.	305	7,128

FRIESIAN

COPPER			
Original name: Chemusian 16CC73			
Origin: Kenya	**Date of birth:** 24.04.16	**KLBO Cert No.** 23644. LXXVIII	**Breeder:** Chemusian Co. Ltd

Sire

Conformation / Functional / Linear Descriptive Traits			-2 -1 0 1 2
Stature	-0.22	Short	
Strength	+0.80	Strong	
Body Depth	+1.05	Deep	
Dairy Form	+0.54	Open Rib	
Rump Angle	+0.51	Sloped	
Thurl Width	+0.77	Wide	
Rear Legs-Side	+0.50	Sickle	
Rear Legs-Rear	-0.56	Hock In	
Foot Angle	-0.61	Low	
Feet & Legs Score	-0.83	Low	
F. Udder Attachment	-0.81	Loose	
Rear Udder Height	+0.02	High	
Rear Udder Width	-0.16	Narrow	
Udder Cleft	-0.70	Weak	
Udder Depth	-1.71	Deep	
Front Teat Placement	-1.19	Wide	
Rear Teat P. Rear	-0.45	Wide	
Teat Length	+2.94	Long	



Production of Bull Dam

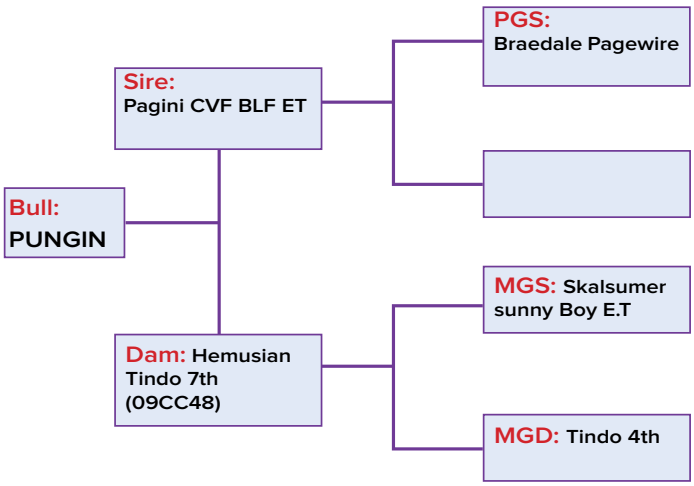
Lactation No.	Days in Lactation	Total Yield (kg)
1.	301	7,625
2.	301	7,428
3.	305	7,570

FRIESIAN

PUNGIN			
Original name: CHEMISIAN 16CC69			
Origin: Kenya	**Date of birth:** 02.04.2016	**KLBO Cert No.** 23638. LXXVIII	**Breeder:** Chemusian Co. Ltd

Paternal Grand Sire (PGS)

Conformation / Functional / Linear Descriptive Traits			-2 -1 0 1 2
Stature	+0.64	Tall	
Strength	-0.56	Frail	
Body Depth	+0.25	Deep	
Dairy Form	+1.83	Open Rib	
Rump Angle	+0.65	Sloped	
Thurl Width	+0.52	Wide	
Rear Legs-Side	+0.57	Sickle	
Rear Legs-Rear	-1.76	Hock In	
Foot Angle	-0.45	Low	
Feet & Legs Score	-0.95	Low	
F. Udder Attachment	-0.86	Loose	
Rear Udder Height	-0.36	Low	
Rear Udder Width	+0.00	Wide	
Udder Cleft	+1.22	Strong	
Udder Depth	+0.49	Shallow	
Front Teat Placement	+0.13	Close	
Rear Teat P. Rear	+0.68	Close	
Teat Length	-0.46	Short	



Production of Bull Dam

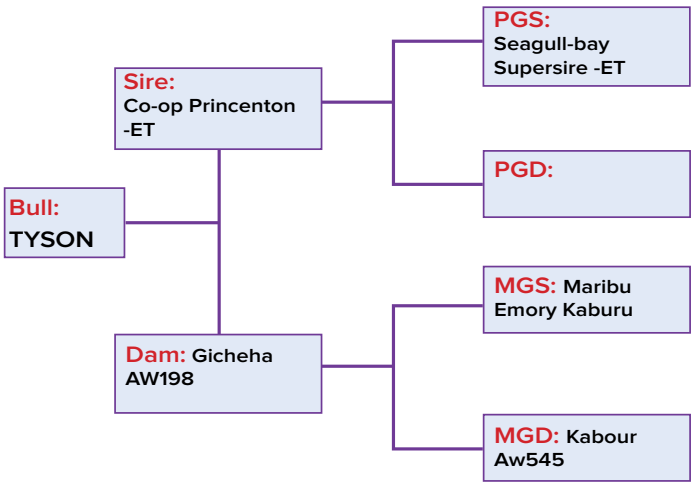
Lactation No.	Days in Lactation	Total Yield (kg)
1.	301	7,625
2.	301	7,428
3.	305	7,570

FRIESIAN

TYSON			
Original name: GICHEHA TYSON 16GAMO15 ET			
Origin: Kenya	**Date of birth:** 22.01.2017	**KLBO Cert No.** 23675. LXXVIII	**Breeder:** Gicheha Farms Ltd

Parternal Grand Sire (PGS)

Conformation / Functional / Linear Descriptive Traits			-2 -1 0 1 2
Stature	+1.45	Tall	
Strength	+1.52	Strong	
Body Depth	+1.54	Deep	
Dairy Form	+0.05	Open Rib	
Rump Angle	+1.54	Sloped	
Rump Width	+1.45	Wide	
Rear Legs-Side	+0.47	Sickle	
Rear Legs-Rear	-1.14	Hock In	
Foot Angle	-1.13	Low	
Feet & Legs Score	-0.78	Low	
F. Udder Attachment	-0.92	Loose	
Rear Udder Height	-0.49	Low	
Rear Udder Width	+0.24	Wide	
Udder Cleft	+0.94	Strong	
Udder Depth	-0.95	Deep	
Front Teat Placement	+0.42	Close	
Rear Teat P. Rear	+1.67	Close	
Teat Length	+1.41	Long	



Production of Bull Dam

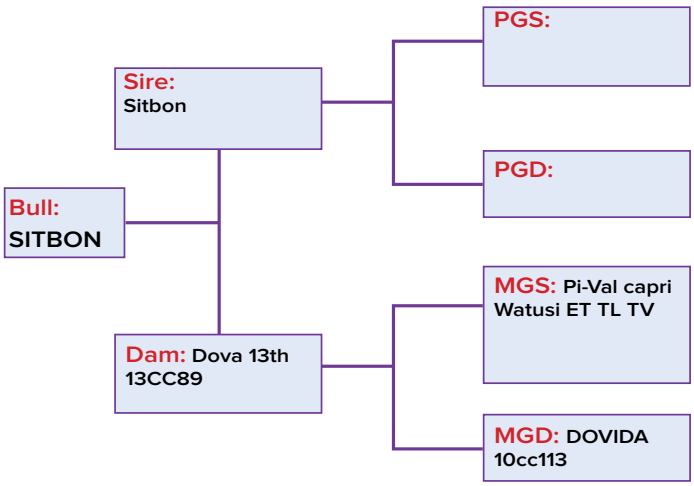
Lactation No.	Days in Lactation	Total Yield (kg)
1.	315	6,810
2.	310	6,832
3.	305	7,035

FRIESIAN

SITBON			
Original name: Chemusian 16CC32			
Origin: KENYA	**Date of birth:** 12.02.2016	**KLBO Cert No.** 23641. LXXVIII	**Breeder:** Chemusian Co.

Sire

Conformation / Functional / Linear Descriptive Traits			2 -1 0 1 2
Stature	+0.64	Tall	
Strength	-0.56	Frail	
Body Depth	+0.25	Deep	
Dairy Form	+1.83	Open Rib	
Rump Angle	+0.65	Sloped	
Thurl Width	+0.52	Wide	
Rear Legs-Side	+0.57	Sickle	
Rear Legs-Rear	-1.76	Hock In	
Foot Angle	-0.45	Low	
Feet & Legs Score	-0.95	Low	
F. Udder Attachment	-0.86	Loose	
Rear Udder Height	-0.36	Low	
Rear Udder Width	+0.00	Wide	
Udder Cleft	+1.22	Strong	
Udder Depth	+0.49	Shallow	
Front Teat Placement	+0.13	Close	
Rear Teat P. Rear	+0.68	Close	
Teat Length	-0.46	Short	



Production of Bull Dam

Lactation No.	Days in Lactation	Total Yield (kg)
1.	287	5,969
2.	285	6,245
3.	275	6,038

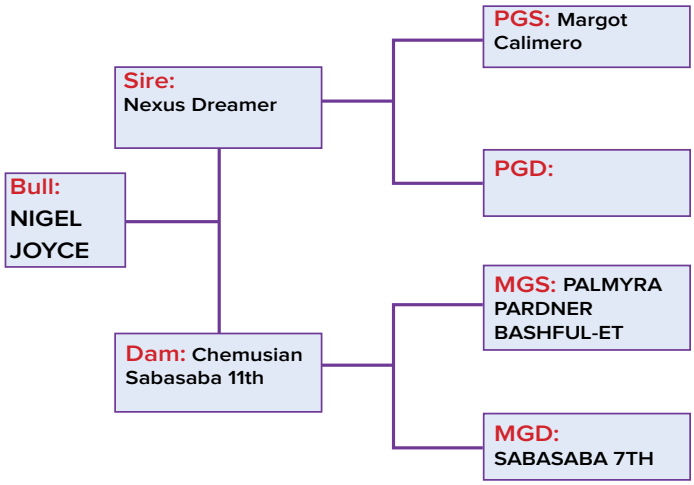
AYRSHIRE

NIGEL JOYCE			
Original name: Chemusian Joyce 4th			
Origin: Kenya	**Date of birth:** 03.02.2016	**KLBO Cert No.** 14697. LXXVIII	**Breeder:** Chemusian Co. Ltd

Sire

Conformation / Functional / Linear Descriptive Traits

			-2 -1 0 1 2
Stature	+1.30	Tall	
Strength	-0.10	Frail	
Body Depth	+0.90	Deep	
Dairy Form	+1.30	Open Rib	
Rump Angle	+0.40	Sloped	
Rump Width	+1.20	Wide	
Rear Legs-Side	+0.70	Sickle	
Foot Angle	-0.70	Low	
F. Udder Attachment	+0.20	Strong	
Rear Udder Height	+0.80	High	
Rear Udder Width	+0.30	Wide	
Udder Cleft	+0.70	Strong	
Udder Depth	+0.00	Shallow	
Front Teat Placement	+1.20	Close	
Teat Length	-0.40	Short	



Production of Bull Dam

Lactation No.	Days in Lactation	Total Yield (kg)
1.	290	6,710
2.	270	6,576
3.	275	6,739

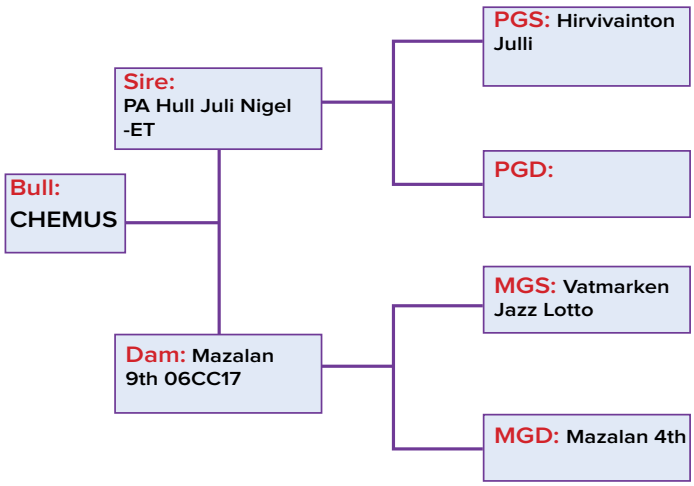
AYRSHIRE

CHEMUS			
Original name: Chemusian Mazalan			
Origin: Kenya	**Date of birth:** 22.02.2016	**KLBO Cert No.** 14703. LXXVIII	**Breeder:** Chemusian Co. Ltd

Sire

Conformation / Functional / Linear Descriptive Traits

			-2 -1 0 1 2
Stature	-0.30	Short	
Strength	+0.00	Strong	
Body Depth	+0.00	Deep	
Dairy Form	+0.60	Open Rib	
Rump Angle	+1.20	Sloped	
Thurl Width	-0.60	Narrow	
Rear Legs-Side	-0.20	Posty	
Foot Angle	+0.70	Steep	
F. Udder Attachment	-1.60	Loose	
Rear Udder Height	-0.20	Low	
Rear Udder Width	+0.00	Wide	
Udder Cleft	+0.70	Strong	
Udder Depth	-1.10	Deep	
Front Teat Placement	+1.10	Close	
Teat Length	-0.50	Short	



Production of Bull Dam

Lactation No.	Days in Lactation	Total Yield (kg)
1.	290	5,487
2.	270	6,340
3.	278	6,723

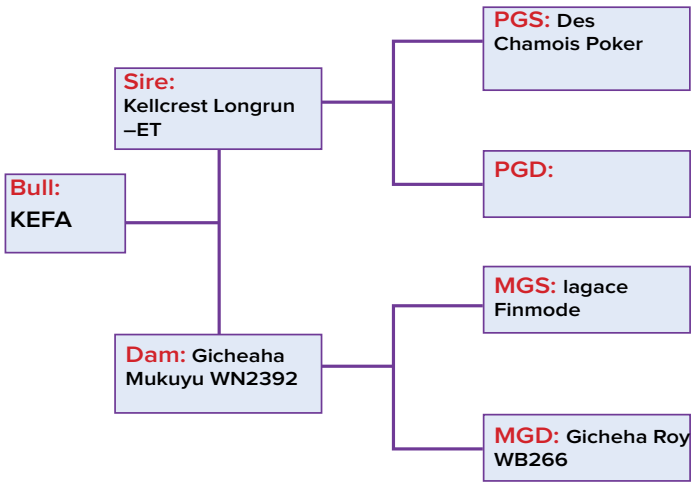
AYRSHIRE

KEFA			
Original name: Chemusian Mazalan			
Origin: Kenya	**Date of birth:** 13.01.2017	**KLBO Cert No.** 14693. LXXVIII	**Breeder:** Gicheha Farms Ltd

Sire

Conformation / Functional / Linear Descriptive Traits

			-2 -1 0 1 2
Stature	-0.30	Short	
Strength	+0.10	Strong	
Body Depth	+0.10	Deep	
Dairy Form	+0.70	Open Rib	
Rump Angle	+1.30	Sloped	
Thurl Width	-0.60	Narrow	
Rear Legs-Side	-0.10	Posty	
Foot Angle	+0.70	Steep	
F. Udder Attachment	-1.60	Loose	
Rear Udder Height	-0.30	Low	
Rear Udder Width	+0.10	Wide	
Udder Cleft	+0.60	Strong	
Udder Depth	-1.20	Deep	
Front Teat Placement	+1.10	Close	
Teat Length	-0.40	Short	



Production of Bull Dam

Lactation No.	Days in Lactation	Total Yield (kg)
1.	310	5,526
2.	305	7,566
3.	308	8,200

JERSEY

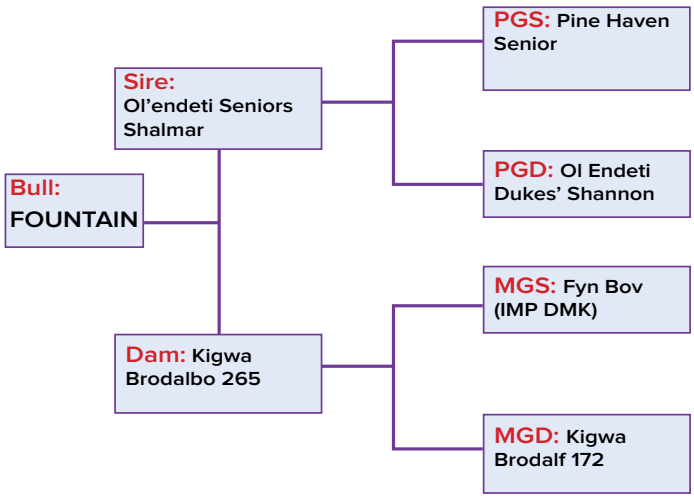
FOUNTAIN			
Original name: KIGWA JUBILEE 14/01			
Origin: Kenya	**Date of birth:** 01.10.2014	**KLBO Cert No.** 10391. LXXVIII	**Breeder:** Kigwa Estate

Sire

Conformation / Functional / Linear Descriptive Traits

Type %R 64 D / H

			-1 0 1
Stature	-0.64	Short	
Capacity	-0.26	Low	
Rump Angle	+0.05	Sloped	
Rump Width	-0.25	Narrow	
Legs	+0.08	Curved	
Udder Support	+0.10	Strong	
Fore Udder	+0.11	Strong	
Rear Udder	+0.31	Strong	
Front Teat Placement	+0.17	Close	
Rear Teat Placement	+0.13	Close	
Udder Overall	+0.29	Desirable	
Dairy Conformation	-0.25	Undesirable	



Production of Bull Dam

Lactation No.	Days in Lactation	Total Yield (kg)
1.	300	5,250
2.	297	5,438
3.	302	5,688

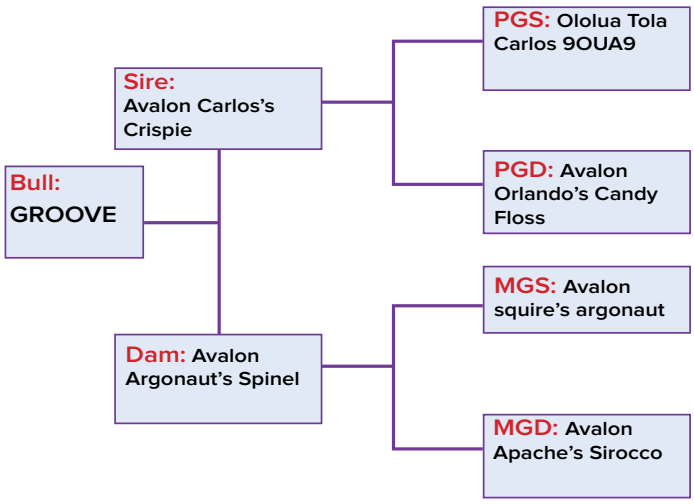
JERSEY

GROOVE			
Original name: Avalon			
Origin: Kenya	**Date of birth:** 07.08.2015	**KLBO Cert No.** 10303. LXXVII	**Breeder:** Avalon Jerseys

Sire

Conformation / Functional / Linear Descriptive Traits

			-1 0 1
Stature	-0.64	Short	
Capacity	-0.26	Low	
Rump Angle	+0.05	Sloped	
Rump Width	-0.25	Narrow	
Legs	+0.08	Curved	
Udder Support	+0.10	Strong	
Fore Udder	+0.11	Strong	
Rear Udder	+0.31	Strong	
Front Teat Placement	+0.17	Close	
Rear Teat Placement	+0.13	Close	
Udder Overall	+0.29	Desirable	
Dairy Conformation	-0.25	Undesirable	



Production of Bull Dam

Lactation No.	Days in Lactation	Total Yield (kg)
1.	295	5,290
2.	300	5,464
3.	302	5,650

GUERNSEY

BRIGHT			
Original name: GENERAL BRIGHT			
Origin: Uganda	**Date of birth:** 12.03.2015	**ID No.:** 326	**Breeder:** NAGRC&DB

Sire

Conformation / Functional / Linear Descriptive Traits			
PTAT +0.00 86%R UDC+0.1 FLC-1.7 108 D / 44 H			
			2 -1 0 1 2
Stature	+0.30	Tall	
Strength	-1.10	Frail	
Body Depth	-0.30	Shallow	
Dairy Form	+0.70	Open Rib	
Rump Angle	+0.00	Sloped	
Thurl Width	-2.20	Narrow	
Rear Legs-Side	+0.10	Sickle	
Rear Legs-Rear	-0.10	Hock In	
Foot Angle	-1.10	Low	
F. Udder Attachment	+0.20	Strong	
Rear Udder Height	+1.20	High	
Rear Udder Width	-0.40	Narrow	
Udder Cleft	+0.10	Strong	
Udder Depth	+1.30	Shallow	
Front Teat Placement	-2.00	Wide	
Teat Length	+3.10	Long	

Bull: General Bright

Sire: Shangrila bolero's nico RegNo. 0073592610

PGS: Millborne Bolero-ET RegNo. 0067709915

PGD: Shangarila Enoch's Golden Reg No. 0061025508

Dam: Shangrila Mr America's Natalie RegNo.0073592644

MGS: Knapps Mr America-ET RegNo. 0048901540

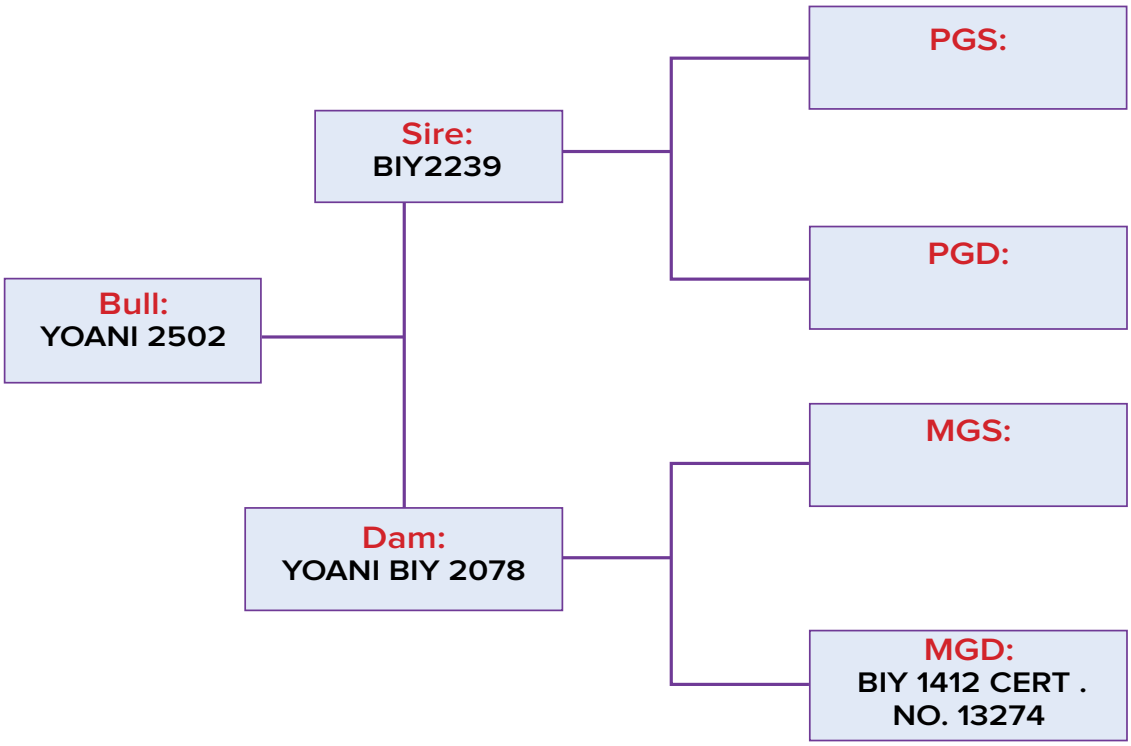
MGD: Shangrila Triump's Kether, RegNo. 0066744939

Production of Bull Dam

Lactation No.	Days in Lactation	Total Yield (kg)
1.	297	6,050
2.	300	7,020
3.	303	7,160

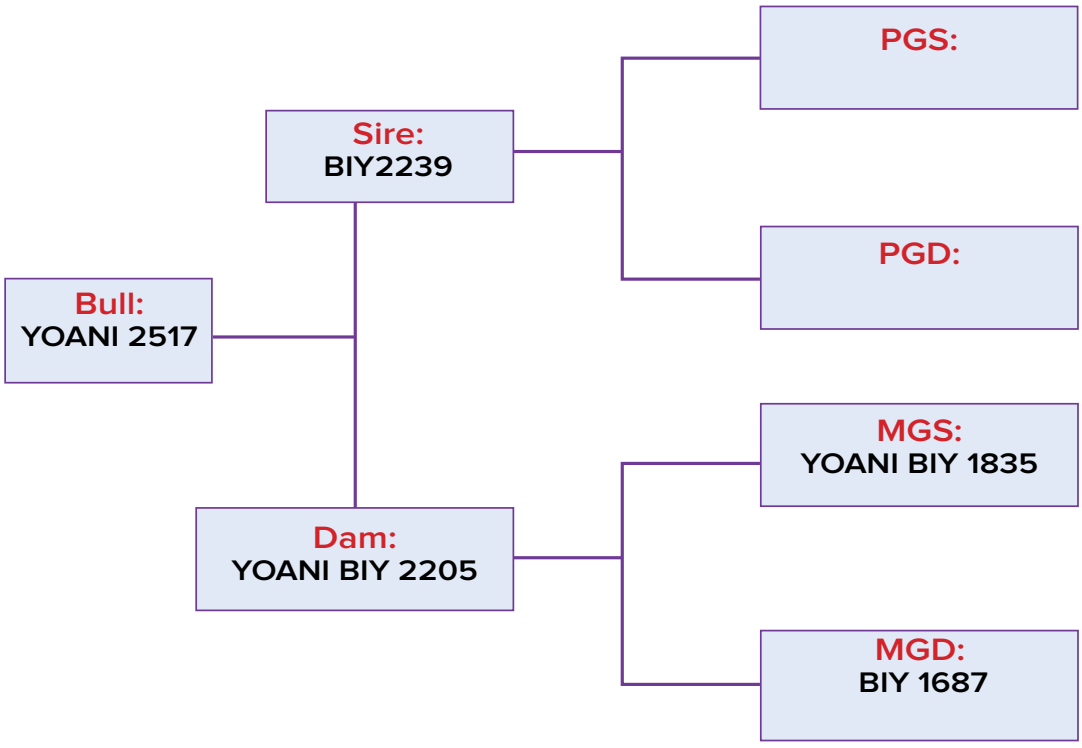
BORAN

YOANI 2502			
Original name: 2502			
Origin: Kenya	**Date of birth:** 07.02.2018	**KLBO Cert No.** 2833.LXXXII	**Breeder:** Stanley & Son Ltd.



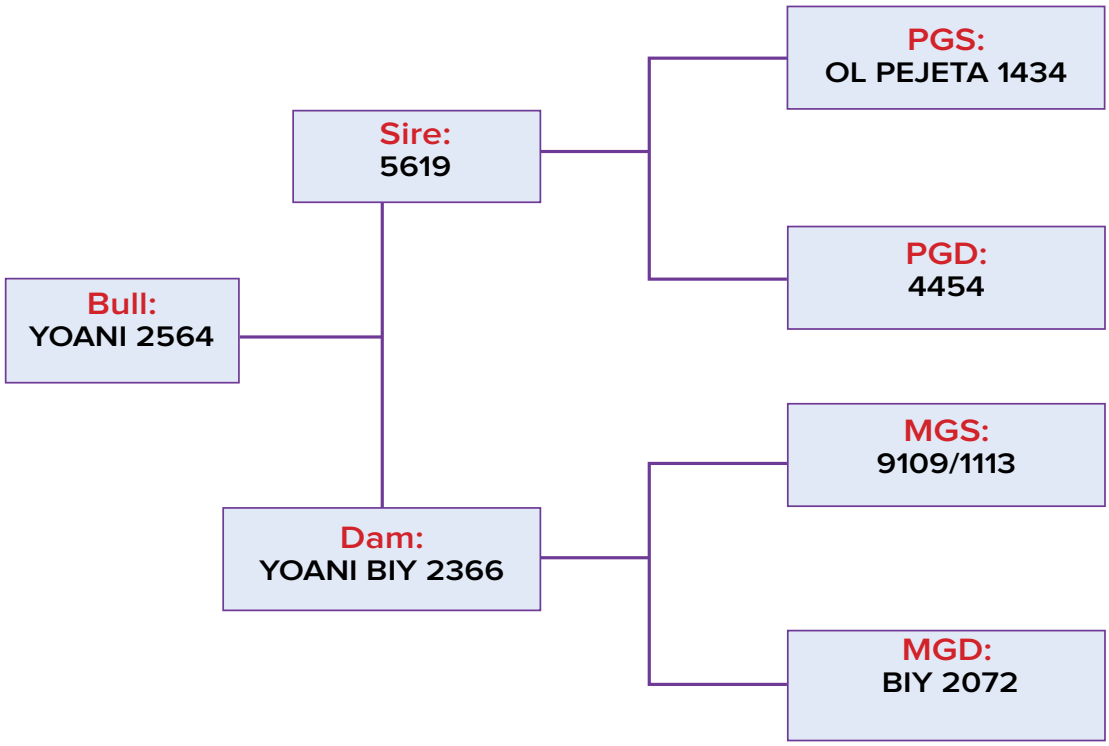
BORAN

YOANI 2517			
Original name: YOANI BIY 2517			
Origin: Kenya	**Date of birth:** 17.04.2018	**KLBO Cert No.** 2832.LXXXII	**Breeder:** Stanley & Son Ltd.



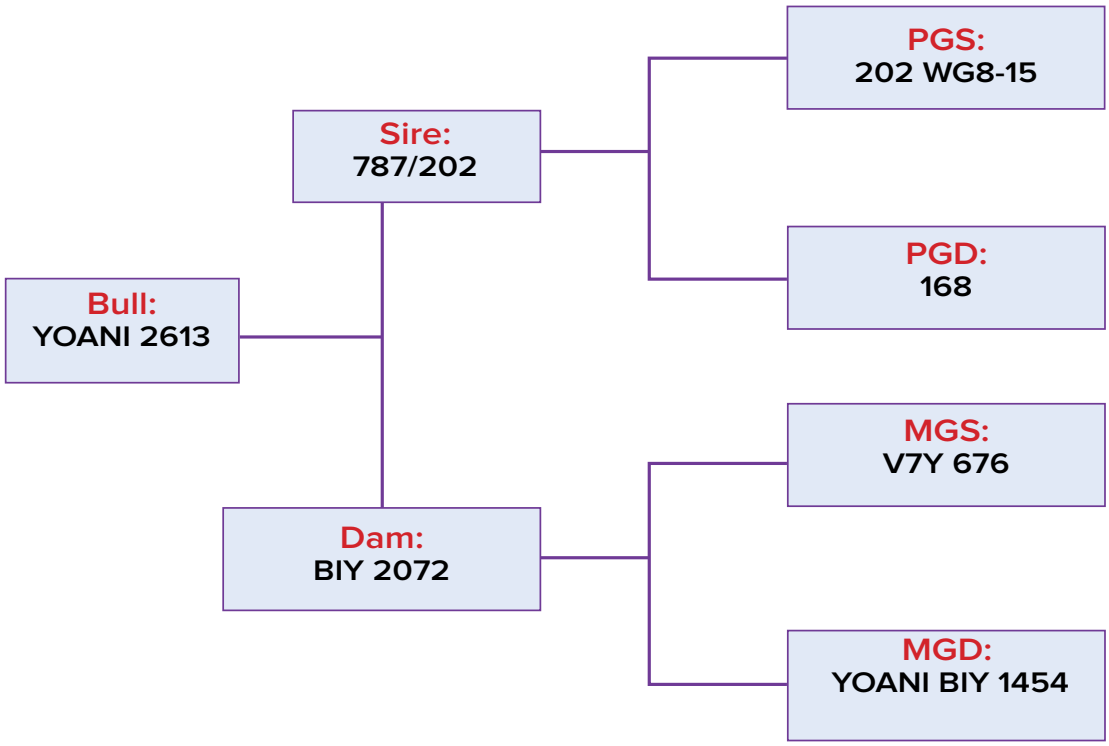
BORAN

YOANI 2564			
Original name: YOANI BIY 2564			
Origin: Kenya	**Date of birth:** 26.11.2018	**KLBO Cert No.** 2935.LXXXII	**Breeder:** Stanley & Son Ltd.



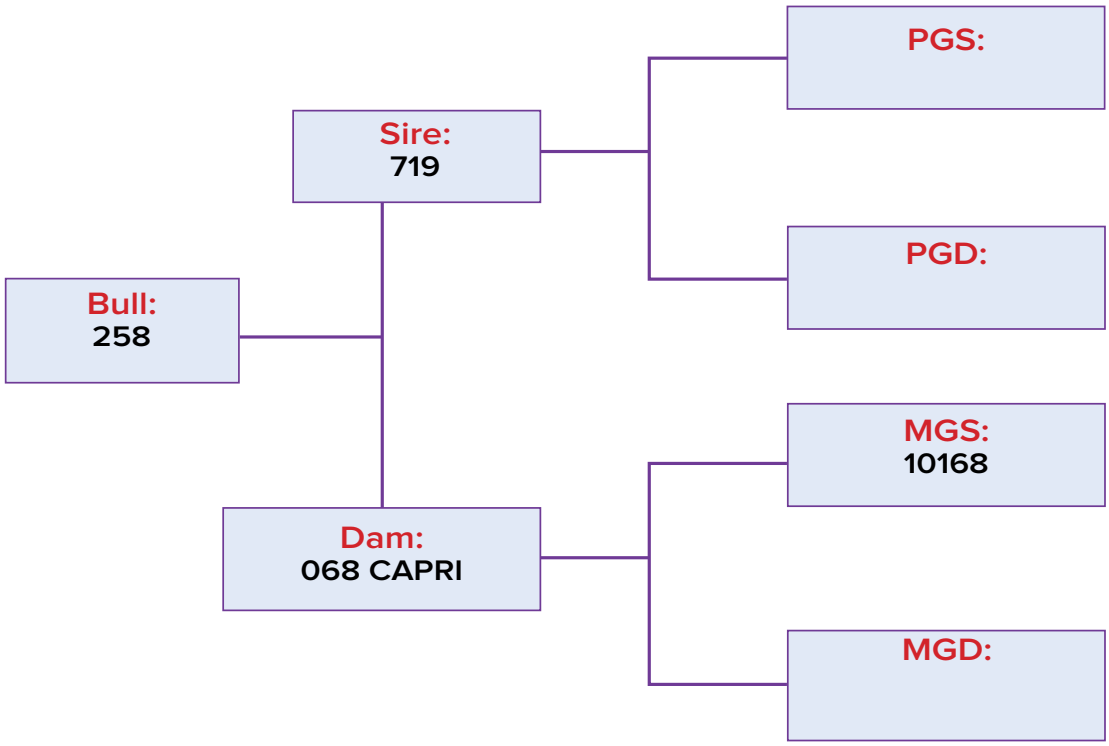
BORAN

YOANI 2613			
Original name: YOANI BIY 2613			
Origin: Kenya	**Date of birth:** 27.06.2019	**KLBO Cert No.** 2931.LXXXIII	**Breeder:** Stanley & Son Ltd.



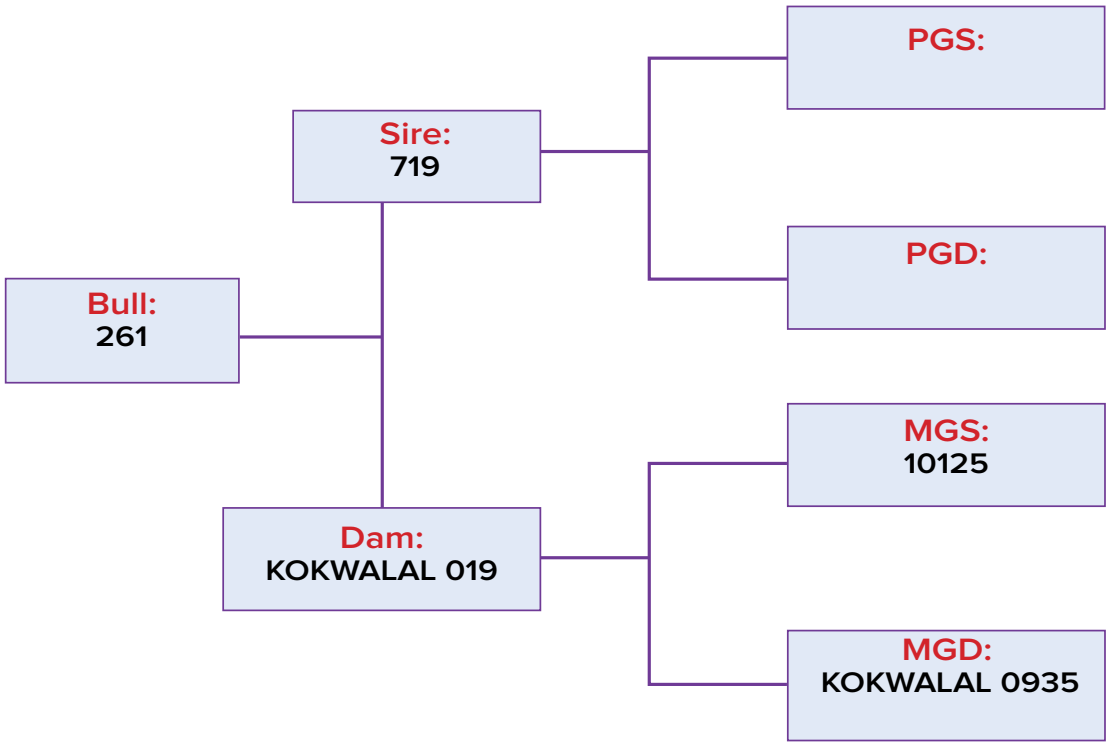
SAHIWAL

DELO 258			
Original name: 258			
Origin: Kenya	**Date of birth:** 23.08.2019	**KLBO Cert No.** PB/2344	**Breeder:** DELORAINE Estates



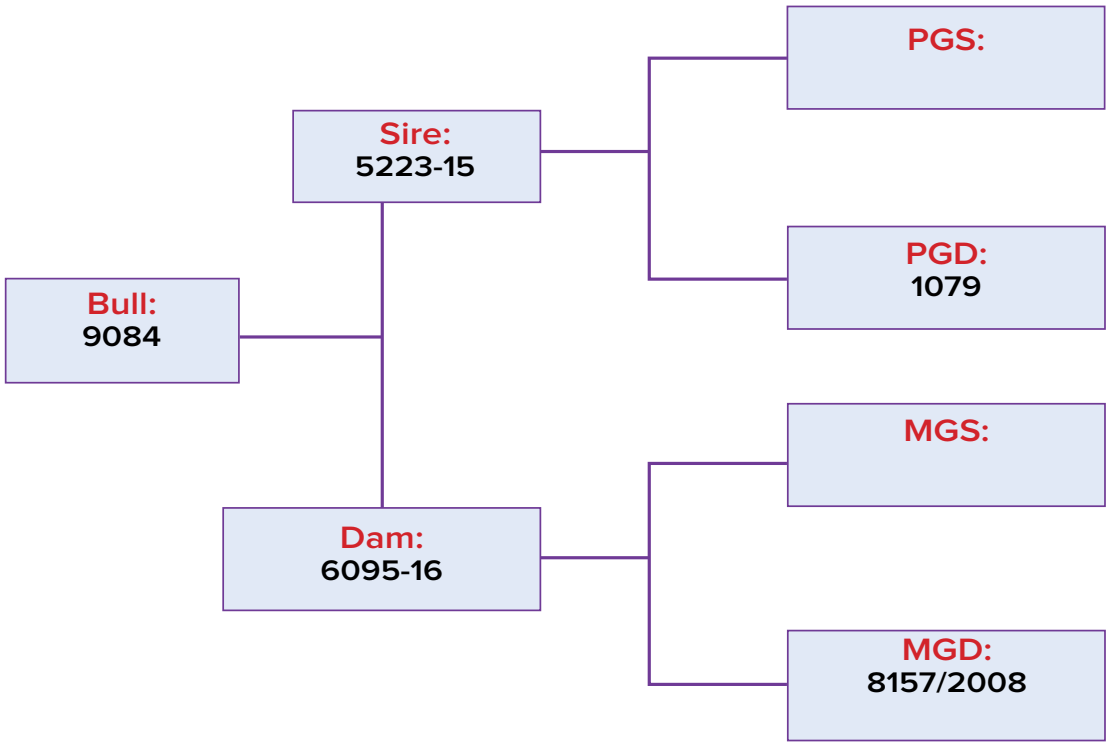
SAHIWAL

DELO 261			
Original name: 261			
Origin: Kenya	**Date of birth:** 08.11.2019	**KLBO Cert No.** PB/2346	**Breeder:** DELORAINE Estates, Kenya



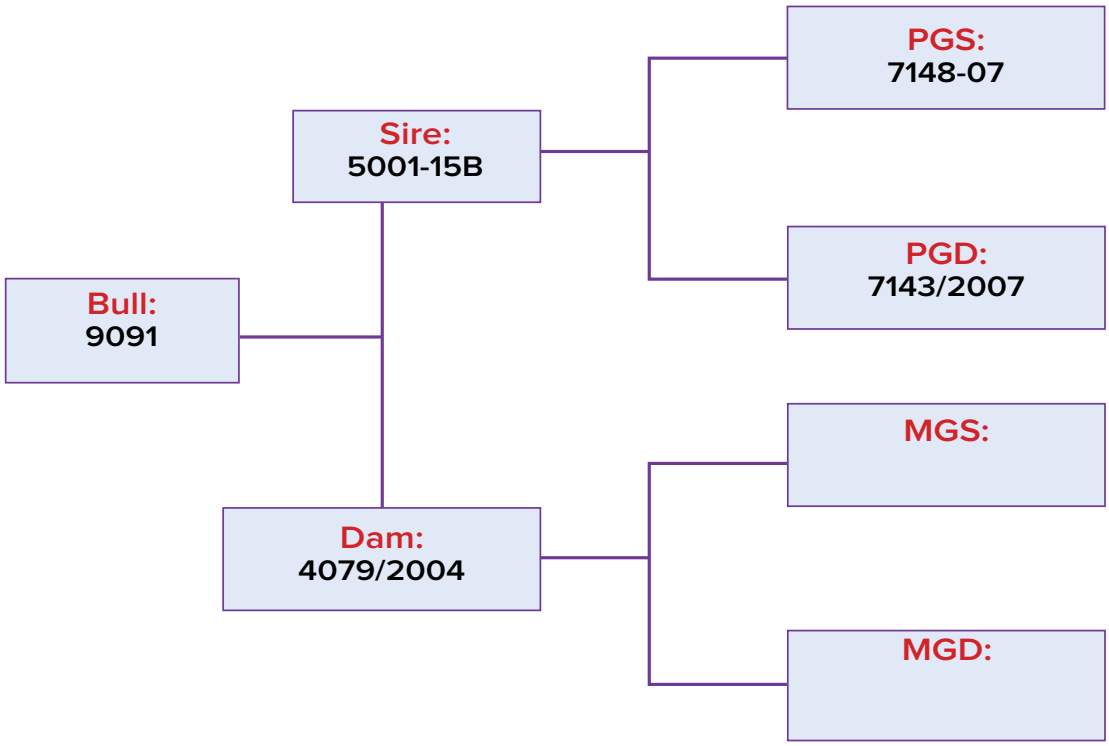
SAHIWAL

KARAMA 9084			
Original name: 9084			
Origin: Kenya	**Date of birth:** 27.05.2019	**KLBA Cert No.** PB/2383	**Breeder:** EL KARAMA Sahiwals Ltd,



SAHIWAL

KARAMA 9091			
Original name: 9091			
Origin: Kenya	**Date of birth:** 05.06.2019	**KLBA Cert No.** PB/2375	**Breeder:** EL KARAMA Sahiwals Ltd.

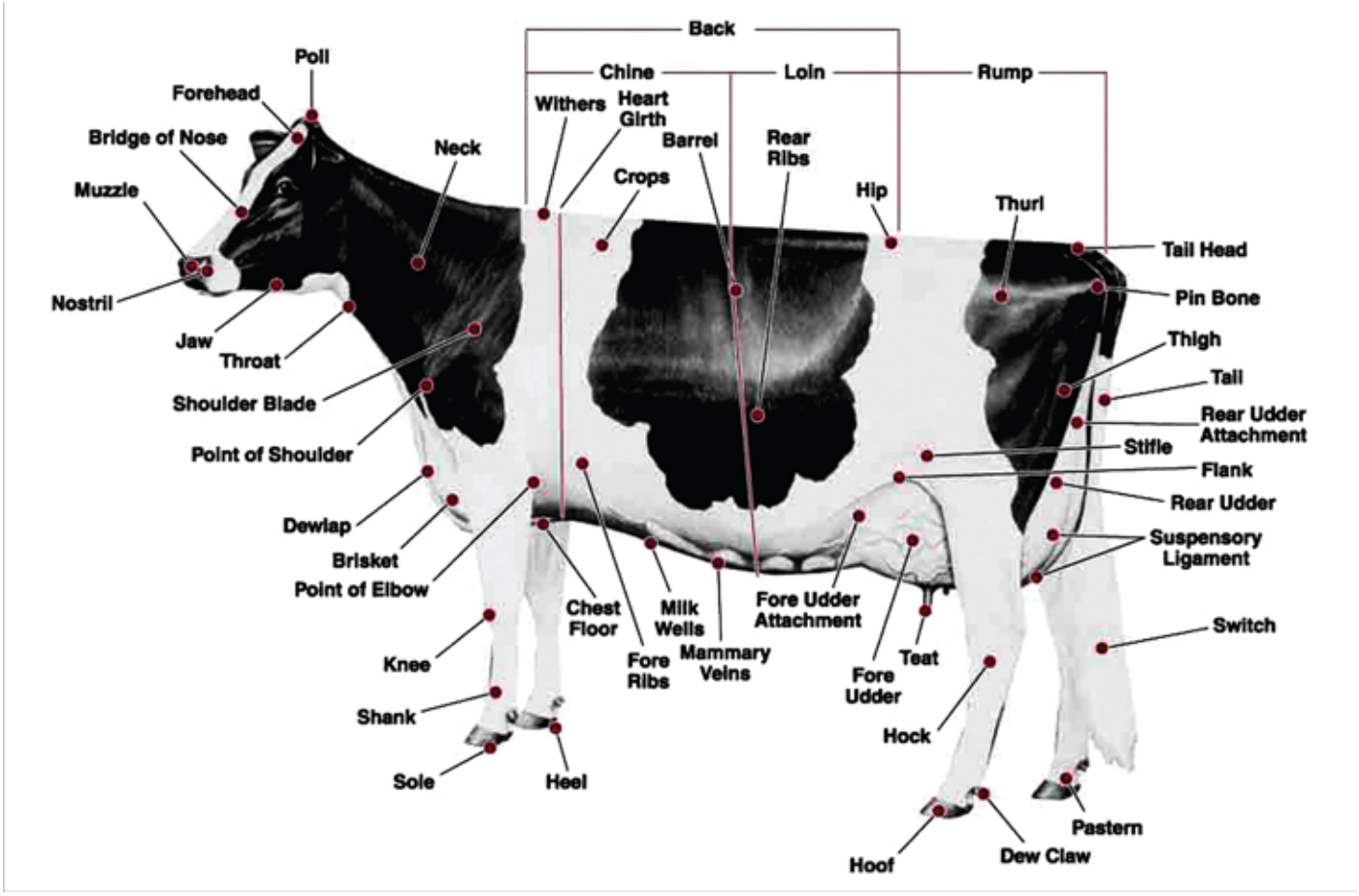


FUNCTIONAL / LINEAR DESCRIPTIVE TRAITS

Functional traits are a species' morphological (form and structure), physiological (cell, tissue and organism functions), or phenological (seasonal biological events) characteristics which impact fitness indirectly via their effects on growth, reproduction and survival.

Each Linear descriptive trait rating is based on a measurement made by the classifier. In most cases, this is not an actual measurement made by a yardstick but by rating an animal's trait within a range of biological extremes. The traits are rated without regard to age, environment or stage of lactation. The 15 functional or Linear Descriptive traits that have been included in this catalogue are called primary traits. They have economic value and are practical traits to select for breed improvement.

PARTS OF A COW



DAIRY CHARACTER

DAIRY FORM

IMPORTANCE: Shows the cow's milking ability. Under good feeding conditions, less excess flesh and fat is an indication of a cow's ability to convert feeds more into milk than into beef. Sharpness and flatness of bone, openness and slant of rib, and length of neck are evaluated by the classifier to assign a dairy form rating

NOT DESIRED

EXTREMELY TIGHT

- Tighter, closer ribbed
- Short thick fleshy neck
- Excess flesh and fat especially in the throat, brisket or dewlap
- Lacks angularity

INTERMEDIATE FORM

DESIRED

EXTREMELY OPEN

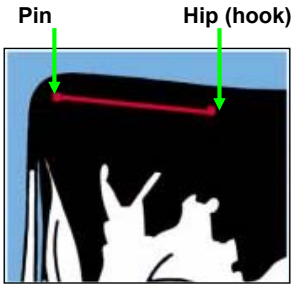
- More openness of ribs
- Long lean neck
- Less excess flesh and fat
- Very angular

FERTILITY

RUMP ANGLE

IMPORTANCE: Indicates how good the drainage of the reproductive tract can be. Ideal rump angle is a slight slope (1.2 inches below the tip). Observing the animal from the side, the classifier notes the angle of the rump structure from hook (hips) to pins. A rating is given based on the degree to which the pins are higher or lower than the hooks.

NOT DESIRED



HIP LOWER THAN PIN

DESIRED
MODERATE RUMP ANGLE

SLIGHT SLOPE FROM HIP TO PIN

RELATIVELY DESIRED
HIGH RUMP ANGLE

HIP HIGHER THAN PIN

- Extreme slope from the hip to the pin
- Not desirable for the height of the rear udder attachment

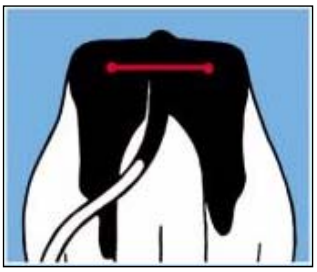
FERTILITY

RUMP WIDTH

IMPORTANCE: Indicates calving ease. The wider the rump, the easier it is for the cow or heifer to calve down (deliver a calf). It is determined through evaluating the distance between the inside wall of pins.

NOT DESIRED

EXTREMELY NARROW



INTERMEDIATE

DESIRED

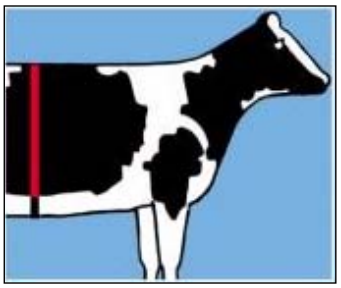
EXTREMELY WIDE

BODY CAPACITY (ROUGHAGE CONSUMPTION)

BODY DEPTH

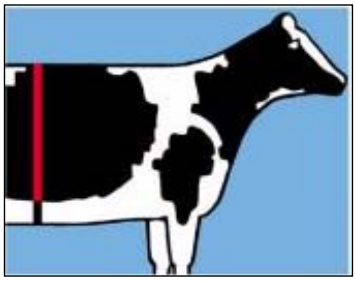
IMPORTANCE: Indicates the cow's capacity to consume large amounts of feeds leading to more milk production. A wide and big mouth, and deep flanks also promote more feed intake. The classifier evaluates depth of body by looking primarily at the rib cage.

NOT DESIRED



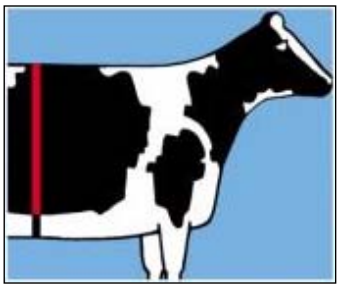
EXTREMELY SHALLOW

- Barrel: long, deep, and wide
- Long and wide ribs



INTERMEDIATE

DESIRED



EXTREMELY DEEP BODY

BODY CAPACITY (STRENGTH)

CHEST WIDTH

IMPORTANCE: Indicates the cow's ability to sustain high production and good general health. In addition to width of the chest, muzzle width and substance of bone in the cow's front end comprise strength.

NOT DESIRED

NARROW & FRAIL

INTERMEDIATE

DESIRED

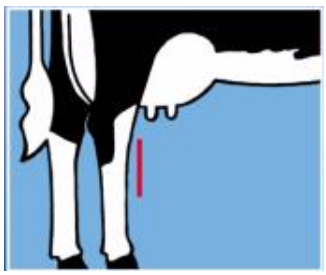
WIDE & STRONG

LONGEVITY

REAR LEGS SET (SIDE VIEW)

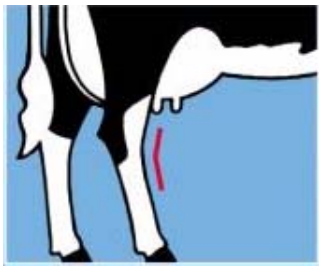
IMPORTANCE: Indicates the durability of the legs and feet hence the longevity and efficiency of a cow. The cow should have good mobility and be able to move smoothly. The classifier evaluates rear legs from the side, noting the amount of set to the hock joint.

NOT DESIRED



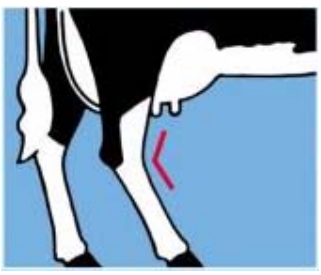
POSTY AND STRAIGHT
Causes too much stress on the legs leading to aggravation of joints

DESIRED



MODERATE SET (CURVE) TO THE HOCK

NOT DESIRED



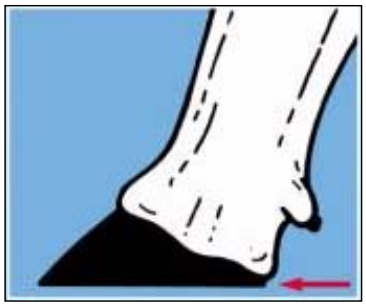
SICKLE
Causes too much stress on the leg muscles and tendons

LONGEVITY

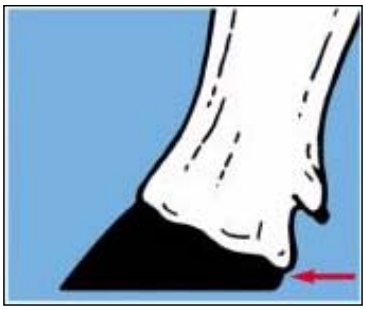
FOOT ANGLE

IMPORTANCE: Indicates the cow's durability and mobility. It also determines how frequent a cow's feet needs trimming. Foot angle ratings are based on the steepness of the angle of the foot as viewed from the side.

NOT DESIRED

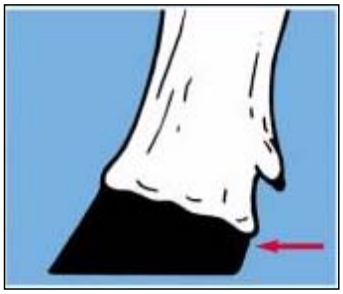


LOW ANGLED
Shallow heel



INTERMEDIATE

DESIRED



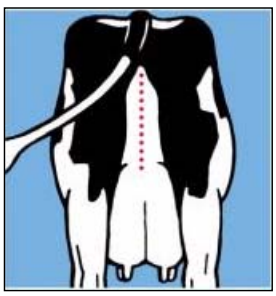
VERY STEEP
Steep claw with a deep heel

MILK PRODUCTION (UDDER)

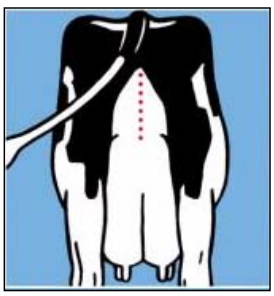
REAR UDDER HEIGHT

IMPORTANCE: Indicates the capacity of the udder. The higher the attachment of the udder, the more udder capacity hence more milk production. The classifier assigns a rating to rear udder height by viewing the cow from the rear. The point of rear udder attachment determines rear udder height.

NOT DESIRED



VERY LOW ATTACHED UDDER
Low udder capacity



INTERMEDIATE

DESIRED

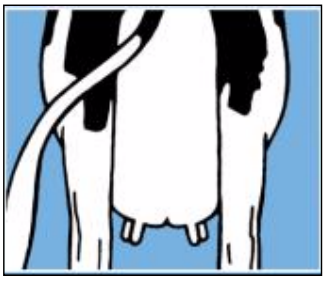
HIGHLY ATTACHED UDDER
More capacious udder

MILK PRODUCTION (UDDER)

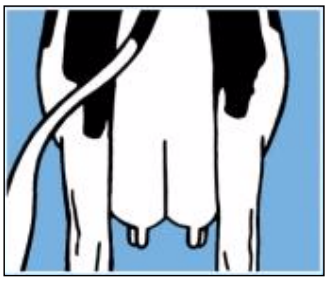
UDDER CLEFT – CENTRAL LIGAMENT

IMPORTANCE: Indicates how easy a cow can be milked and also its susceptibility to udder injury. A clearly defined halving in the udder makes milking easy. A stronger center support minimizes udder injury. A deep udder cleft is an indicator of a strong median suspensory ligament. The strong udder support prevents the udder from becoming too deep. Also helps in proper teat placement. Udder cleft is evaluated by viewing the bottom of the udder.

NOT DESIRED

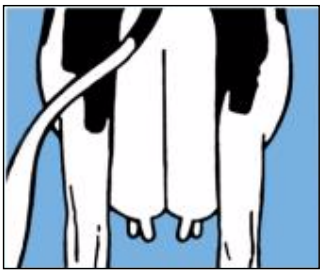


WEAK CLEFT
- Convex to flat floor
- Udder lacking cleavage



INTERMEDIATE
Slight definition

DESIRED



STRONG CLEFT
- Strong median (central) suspensory ligament support
- Deep defined halving

MILK PRODUCTION (UDDER)

FORE UDDER ATTACHMENT

IMPORTANCE: Important to herd life as it affects udder depth and susceptibility of the udder to injury. To determine fore udder attachment ratings, the classifier looks at the strength of the attachment to the body wall by lateral ligaments.

NOT DESIRED

WEAK AND LOOSE

DESIRED

INTERMEDIATE

RELATIVELY DESIRED

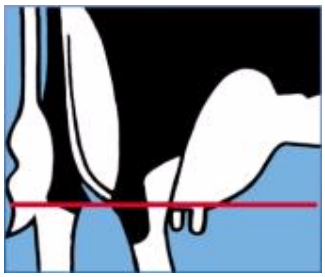
EXTREMELY STRONG AND TIGHT
- Udder held tighter to the body wall
- Very good for longevity, but negatively correlated to milk production

MILK PRODUCTION (UDDER)

UDDER DEPTH

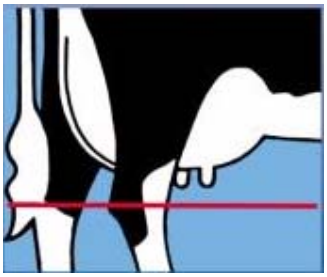
IMPORTANCE: Indicates the capacity of the udder and susceptibility of the udder to injury and mastitis Cows with moderate udder depth stay in the herd longer.

NOT DESIRED



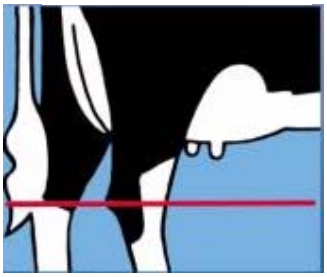
DEEP UDDER FLOOR BELOW HOCKS
Teats susceptible to injury

DESIRED



UDDER FLOOR ABOVE HOCKS

DESIRED



SHALLOW – EXTREME HEIGHT OF UDDER FLOOR ABOVE HOCKS

MILK PRODUCTION (TEATS)

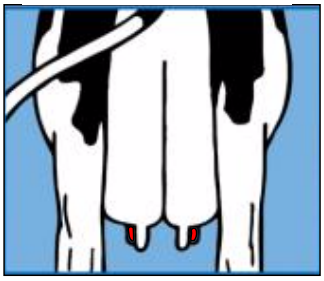
FRONT TEAT PLACEMENT

IMPORTANCE: Proper teat placement makes milking easy and milking completely reduces susceptibility of the teat to injury/mastitis. The rating is assigned as the classifier views the teats from the rear.

NOT DESIRED

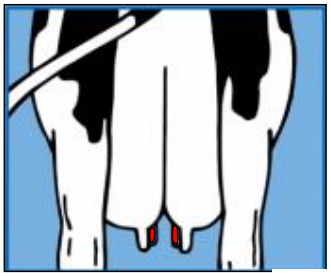
EXTREME PLACEMENT ON OUTSIDE OF QUARTER
Teats placed on the edge of the quarters

DESIRED



CENTRALLY PLACED ON QUARTER

NOT DESIRED



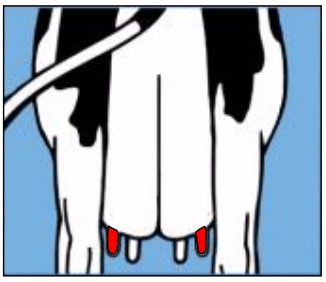
EXTREME PLACEMENT INSIDE QUARTER
Teats hang too close together

MILK PRODUCTION (TEATS)

REAR TEAT PLACEMENT

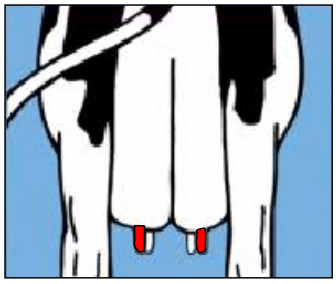
IMPORTANCE: Proper teat placement makes milking easy and reduces susceptibility of the teat to injury

NOT DESIRED



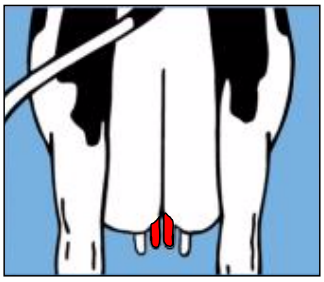
EXTREME PLACEMENT ON OUTSIDE OF QUARTER
Teats placed on the edge of the quarters

DESIRED



CENTRALLY PLACED ON QUARTER

NOT DESIRED



EXTREME PLACEMENT INSIDE QUARTER
Teats hang too close together

MILK PRODUCTION (TEATS)

TEAT SIZE AND SHAPE

IMPORTANCE: Proper teat placement makes milking easy and reduces susceptibility of the teat to injury. Unusual size and shape result in milking problems.

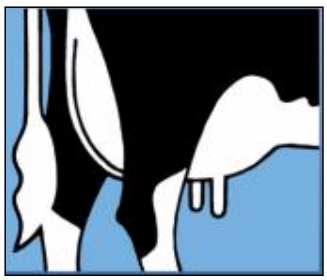
NOT DESIRED

SHORT
Short teats make milking difficult

DESIRED

INTERMEDIATE

NOT DESIRED



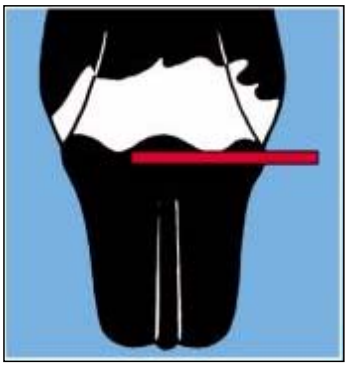
LONG
Long teats are susceptible to injury

STATURE

IMPORTANCE: Related to udder depth. The taller the cow, the higher the udder floor above the hocks (higher udder depth) hence less chances of injuries. Taller cows tend to be bigger, feed more and may be produce more.

- Adequate height including length in leg bones with a long bone pattern is desirable
- Height at withers and hips should be relatively proportionate

Short: 1.30 m
Intermediate: 1.42 m
Tall: 1.54 m



Measured from the top at a point in the middle of the backbone (spine) between hip bone and the vertebrae to the ground.

PARTS OF A COW

PARTS	DESCRIPTION AND DESIRABLE CHARACTERISTICS
Back	Comprises of the chine and the loin. A cow's back should be straight and strong.
Barrel	The entire area below the cow's back, from withers to hips. The barrel should be long, deep, and wide.
Bridge of nose	The part of the head that begins just below the eyes and continues all the way to the muzzle. The bridge of nose should be straight.
Brisket	Part of the cow's chest, the area between, and slightly in front of the legs. Along with the dewlap, the brisket should be lean and clean cut.
Chest Floor	The area between and directly behind the front legs. The chest should be deep and wide.
Chine	The chine relates to the upper spine of a human. It should be sharp and prominent
Crops	The area directly behind the top of the shoulder blade. The crops should have adequate fullness.
Dewclaw	The two small, hoof-like points on the back side of each leg just above each pastern.
Dewlap	The loose skin along the lower part of the neck. The dewlap should be lean and clean cut.
Flank	The area between the rear ribs and the rear legs that adds depth to the body. The flank should be deep and refined.
Fore Udder	The two front quarters of the udder. The fore udder should be firmly attached with moderate length and ample capacity.
Fore Udder Attachment	The line along the top of the fore udder where the fore udder attachment should blend smoothly into the body wall and have adequate length.
Forehead	The area between the eyes. A cow's forehead should be broad and moderately dishes
Heart Girth	The diameter of the front end of the barrel. Almost called the chest. A cow s heart girth should be deep and have a wide floor with well-sprung fore ribs blending into the shoulders.
Heel	Lies at the back of the hoof. A cow's heel should be deep.

Hip	Large, bony structures that stick out on each side of the cow. Sometimes called hooks, or hip bones. The hips should be wide and prominent.
Hock	A joint, which corresponds to your ankle and only bends forward. Hocks should be cleanly molded, free from coarseness and puffiness with adequate flexibility.
Hoof	The hoof of a cow has toes, a split toe. The hoof should be well rounded with closed toes.
Jaw	Identify this characteristic by comparing them almost exactly to the same part of your head and neck. A cow s jaw should be strong and wide.
Knee	The cow's kneel is most similar to our wrist. Kneels should be straight and free from swelling and coarseness.
Loin	Found between the chine and the rump. The loin should be broad, strong, and nearly level.
Milk Veins	Lie along the underbody of the cow, prior to the fore udder.
Milk Wells	Lie along the underbody of a cow, along the chest floor.
Muzzle	The part of the head that looks like it ought to be the cow's nose. A cow's muzzle should be strong and have large, open nostrills.
Neck	Identify this characteristic by comparing them almost exactly to the same part of your head and neck. The neck needs to be long, lean, and smoothly blended into the shoulders.
Pastern	Located between the dewclaws and the top of the hoof, the pastern works like a shock absorber with every step the cow takes. Pasterns should be short and strong with some flexibility.
Pin Bones	Sometimes called pins, are similar to our hips socket.The pins should be clearly difined, wide apart, and set slightly lower than the hip bones.
Point of Elbow	The front leg joint located above the cow's knee. This corresponds exactly to our elbow. The point of elbow needs to be set firmly against the body wall.
Point of Shoulder	Just like our shoulder, the cow s point of shoulder blade. The point of shoulder should be clearly difined with the entire shoulder blade set tightly against the body wall.
Poll	The part of the cow's head located between the horns.

Real Udder	The two rear quarters of the udder. The rear udder should be wide and high while being firmly attached with uniform width from top bottom and slightly rounded to the udder floor.
Rear Udder Attachment	The point between the rear legs and the thighs where the real udder is secured is the real udder attachment.The real udder attachment should be wide, high, and have adequate symmetry and fulness at the top.
Ribs	The cow's ribs create a barrel shape in the middle part of the cow. Her ribs should be wide apart, flat, deep, and slanted towards the rear.
Rump	Begins at the cows hips and ends at the pin bones. Serves as the starting point for the leg and the enclosure for the cows reproductive system. The rump should be long and wide throughout with the pin bones slightly lower than the hip bones.
Sole	Lies along the bottom of the hoof. The sole should be flat.
Stifle	Halfway between the hock and the thurl, it is the cows kneel joint and only bends backward.
Swich	The long, bushy hair at the end of the tail.
Tail	It should be free from coarseness.
Tailhead	Acts as the starting point for the cows tail. The tailhead should be set slightly above and neatly between a cow s pins.
Teats	Four, located at the base of the udder allow milk to be removed from each quarter. Teats should have cylindrical shape and be of uniform size with medium length and diameter.
Thigh	The area long the upper part of the back side of the rear legs. Thighs are lean, incurving to flat, and wide apart from the rear.
Throat	Identify this characteristic by comparing them almost exactly to the same part of your head and neck . The throat should be clean-cut.
Thurl	A joint which attaches the rear leg to the rump. The thurls need to be wide apart and centrally placed between the hip bones and the pin bones.
Top line	Every part of the cow that you might want to call the back combines to form the topline, from the withers to the pin bones. The topline should be straight and strong.
Withers	The area where the chine begins. The withers should be sharp.

For more information Please contact:

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