MURCIANO-GRANADINA



SIRE CATALOG 2019

Ms. and Co.™

CAPRIGRAN
ASOCIACIÓN NACIONAL DE CRIADORES DE CAPRINO
DE RAZA MURCIANO-GRANADINA

MURCIANO-GRANADINA
Selection and Semen Collection Center





Diputación de Granada
Red de municipios

RAZA AUTÓCTONA 100%
MURCIANO-GRANADINA

CAPRIGRAN
ASOCIACIÓN NACIONAL DE CRIADORES DE CAPRINO DE RAZA MURCIANO-GRANADINA











MURCIANO - GRANADINA (MG GOAT)

1- Brief History



The Murciano-Granadina breed has its origins in the south of Spain in the regions of Granada and Murcia. And results from the crosses of the breeds Murciana and Granadina.

The Granadina goat is one the four populations of domesticated animals mentioned in the XV century agricultural books (Along with the Spanish Stalions, The Iberian pig, and the Merino breed).

The first genealogical flockbook dates back to 1960

In 1934 a group of farmers from Murcia región publish the book "The Murciana Goat and the genealogical Book" which describes the Murciana Breed trying to diferenciate this breed form the granadina breed.

The last references made to the 2 different origin breeds is in 1960 when the Spanish Department of Agriculture approves the geneological book of Murciana and Granadina independently.



In March 28, 1979, the department of agricultura units both breeds in a both breeds decree-law approving the selection squeme and the genealogical book of the breed Murciano-Granadina.



2- Breed characteristics

The purpose of Murciano- Granadina breed is mainly milk production but it is also very important for thew production of suckling kids.

It is the most important dairy goat breed in Spain with about 107,363 animals with 66,500 does in Flockbook .

Characteristics:

Adult weight: Males 140 lbs
Females 110 lbs

Coat color: Black or Dark brown

Early sexual maturity: 7-8 month

MURCIANO - GRANADINA (MG GOAT)

3- Genetic Improvement Program - Data collection

3.1.- Entities involved

The genetic improvemnt program is overseen by the Spamish department of Agriculture and there are several independent entities involved to ensure the independency, reliability and accuracy of the program. Those entities are:

Genetic Laboratory: Animal Breeding Consulting S.L (ABC Genetics)

The genetic Laboratory performs all the DNA paternity testing to all animals flockbook, young replacements and the genotyping of Caseins (Males and Females)

Official Milk Recording:

Milk recording is preformed to all animals belonging to the genetic improvement program. Data collection (milk quantity and components) is made by regional independent entities following ICAR guidelines (A4 or AT4).

Semen Collection Centers (SCC):

Located in the province of Granada the SCC holds all the males used for artificial insemination to spread the high genetics thought the breeders. Aztthe end of 2019 the SCC holds 53 males some proven others iunder prove and 12 under quarantine.

Breeder's Association: CAPRIGRAN

The breeder's association is responsible

- Artificial Insemination
- Linear traits data collection

Geneticists:
Department of Genetics, University of Cordoba.

MURCIANO - GRANADINA (MG GOAT)

3.2.- Genealogy and Milk Production Information

In the genetic evaluation developed via Animal Model with Repeated Observations, a productive file consisting of **90,025** lactations completed and standardized at **210 days** was used, and were recorded on **32,738** goats (average of 2.74 lactations per animal).

	JULY 2019
TOTAL ANIMALS	46.547
VALIDATED LACTATIONS	108.231

3.3.- Genetic evaluation of morphological characters

For the genetic evaluation of morphological characters in 2019, a Univariate Simple Animal Model was used through the use of the MTDFREML software package (Boldman et al., 1995). A total of 647,723 observations were used whose distribution among the different variables measured on a linear scale (1 to 9) was as follows:

TRAIT	NR. OF OBSERVATIONS
STRUCTURE AND CAPACITY:	
Height	38.654
Chest width	38.653
Body depth	38.655
Rump width	38.654
Rump angle	38.654
DAIRY STRUCTURE:	
Angularity	38.655
Bone quality	37.809
UDDER MORPHOLOGY:	
Udder anterior insertion	37.316
Anterior insertion height	37.317
Upper middle ligament	37.319
Udder width	37.319
Udder Depth	37.314
Teat Placement	37.314
Teat Diameter	37.318
LEGS AND FEET:	
Back view legs	38.648
Side view legs	38.648
Mobility	38.634
TOTAL OBSERVATIONS	646.881

MURCIANO - GRANADINA (MG GOAT)

4- Genetic Improvement Program - Results

4.1- Analysis Model for Genetic Evaluation and breeding values:

In this case, an Animal Model with Repeated Observations was applied for the estimation of the genetic values of the sires through the use of the MTDFREML software package (Boldman *et al.*, 1995). The effects included in this analysis model were:

- Fixed effects:
  - Herd-Year Interaction (915 levels),
  - Kidding Month (12 levels),
  - Type of Kidding (5 levels)
- Linear and quadratic covariate: Age of the goat at birth.
- Random effects:
  - Additive genetic value of the animal.
  - Permanent Environmental Effect (26,982 levels).

The response variables were the production in kilograms of milk, fat, protein and total solids, all standardized to 210 days.

4.2- Population Milk Production and Components

The table below shows the results of milk production averages in the 2019 evaluation. All the sires in this catalog come out of the selective nucleus.

	2019		2019 Selective nucleus
Number of Does	46,547		1,536
Validated lactations	108,231		
Total Milk Production:	Standardized Lactation	Natural Lactation	Natural Lactation
Lactation length	210d	291d	303 d
Milk Production	464 kg (1,020 lbs)	640 kg (1,408 lbs)	1,207kg (2,655 lbs)
Fat (%)	5.1		4.98
Protein (%)	3.6		3.58

MURCIANO - GRANADINA (MG GOAT)

5- Understanding Casein Genotype

Protein is one of most important milk components and it is essential for cheese making as it is the main component that determines cheese yield. Caseins represent between 75 to 80% of total milk proteins. There are four different types of casein proteins: αs1-, αs2-, β-, and κ-caseins (alpha s1, alpha s2, beta and kappa, respectively), each type of casein has a different roles during the process of coagulation and maturation.

The milk content of caseins is determined by the genotype of an animal and there are several different possible genetic combinations of alleles (genetic polymorphism) leading to different amounts of caseins in milk.

There are strong alleles leading to a higher amount of casein and weaker alleles leading to lower amount of casein in the milk. The table bellow shows the different alleles for theαs1 and κ-casein.

αs1-Casein Allelic forms	Milk Content αs1-Casein
A, B, C, H, L and M	Strong
E and I	Medium
F, D and G	Weak
O1, O2 and N	Null

Kappa-Casein Allelic forms	Milk Content Kappa-Casein
B	Strong
A	Medium

For example if a buck has the genotype BB

The MG Goat breeder's association has genotyped all the males at the Semen Collection Center for the αs1 and κ-casein.

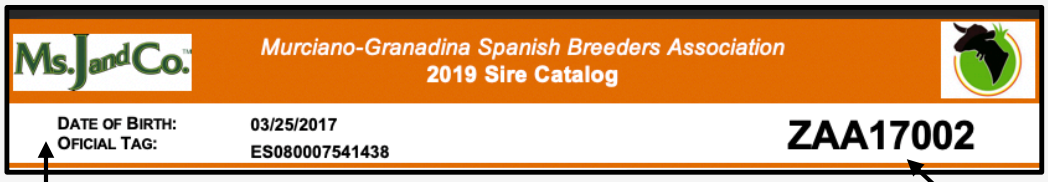
Alfa s1-Caseina: El genotipo BB está asociado a una ALTA producción de proteína y el genotipo EE a una producción MEDIA. Kappa-Caseina: El genotipo BB se asocia a una BUENA calidad de la cuajada, el genotipo AA se asocia a una calidad de la cuajada NORMAL

SIRE INDEX

- All sires have their pedigree confirmed by DNA testing and are genotyped for αs1-Casein and κ-Casein by the Laboratorio de Genética Molecular Aplicada de Córdoba in Córdoba, Spain.
- Origin Farms are clean of Brucelosis, Tuberculosis and Scrapie.
- All the sires of the center are analyzed quarterly of the following diseases:
  - Brucella ovis
  - Brucella melitensis
  - Tuberculosis
  - Paratuberculosis (Johne's disease)
  - CAEV
  - Border disease
  - Q Fever

ANIMAL TAG	START SYSTEM	RELIABILITY	PAGE
ABC15175	**	0.73	11
ABC15176	**	0.61	12
GLV17010	**	0.68	13
GLV17203	**	0.50	14
GPA16616	**	0.56	15
GRF16143	**	0.64	16
GRF17153	**	0.61	17
GRF17198	**	0.58	18
ABC16148	***	0.59	19
ABC16152	***	0.60	20
ABC17160	***	0.61	21
GLV16263	***	0.55	22
GRF15173	***	0.61	23
GLV16156	****	0.61	24
GPA16294	****	0.61	25
GRF15170	****	0.77	26
ZAA17002	****	0.50	27

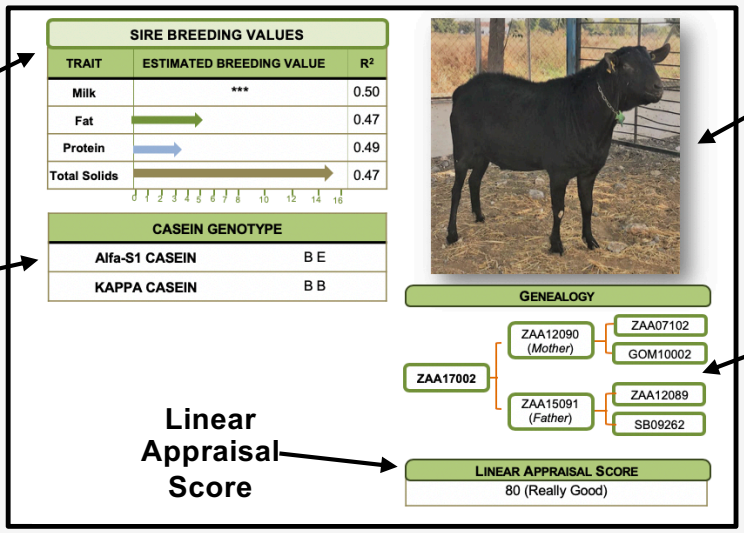
UNDERSTANDING SEMEN CATALOG



DOB and Official Tag (RFID)

Ear Tag number

SIRE INFO



EBV's for milk Production

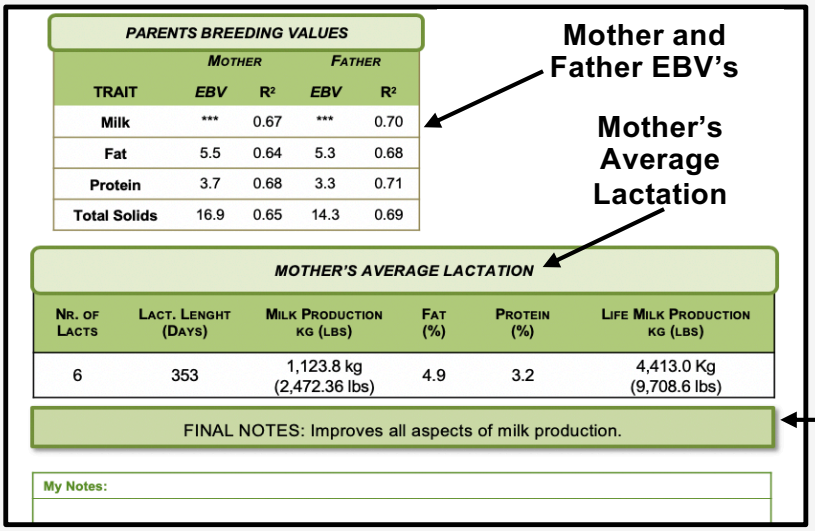
Casein Genotype

Sire Photo

Genealogy

Linear Appraisal Score

PARENTS INFO



Mother and Father EBV's

Mother's Average Lactation

Final notes

DATE OF BIRTH: 11/23/2015
OFICIAL TAG: ES010011641213

ABC15175

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.73
Fat		0.71
Protein		0.74
Total Solids		0.72

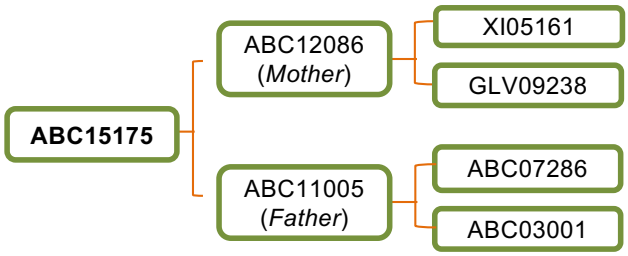




CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A B

GENEALOGY



PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.73	****	0.96
Fat	0.5	0.71	6.5	0.95
Protein	0.5	0.74	4.8	0.96
Total Solids	2.4	0.72	17.4	0.95

LINEAR APPRAISAL SCORE

83 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
3	338	862.47 kg (1,897 lbs)	4.6	3.5	2,587.5 Kg (5,692 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 11/25/2015
OFICIAL TAG: ES010011641211

ABC15176

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.61
Fat		0.60
Protein		0.61
Total Solids		0.60

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	A E
KAPPA CASEIN	A A

GENEALOGY

- ABC15176
  - ABC11166 (*Mother*)
    - ABC10147
    - ABC09200
  - ABC11005 (*Father*)
    - ABC07286
    - ABC03001

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.77	****	0.96
Fat	0.6	0.75	6.5	0.95
Protein	0.1	0.78	4.8	0.96
Total Solids	3.0	0.76	17.4	0.95

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
4	301	910 kg (2,002 lbs)	5.3	3.3	3,639.8 Kg (8,008 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

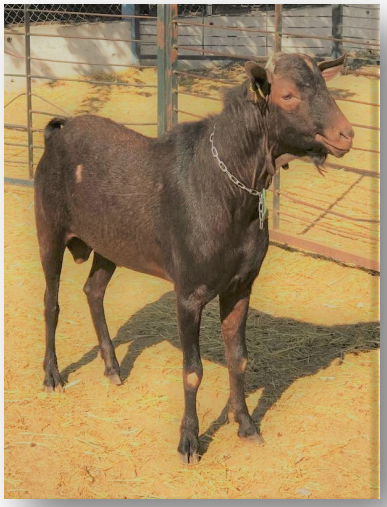
DATE OF BIRTH: 02/06/2017
OFICIAL TAG: ES010011884990

GLV17010

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.68
Fat		0.67
Protein		0.68
Total Solids		0.68

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A A

GENEALOGY

- GLV17010
  - GLV13124 (*Mother*)
    - GLV06204
    - GLV10119
  - GLV12192 (*Father*)
    - GLV06204
    - GLV10119

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	***	0.75	**	0.91
Fat	3.1	0.73	0.9	0.90
Protein	2.8	0.75	0.8	0.91
Total Solids	11.3	0.74	5.4	0.91

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
4	303	1,013.9 kg (2,230 lbs)	4.6	3.4	4,055.4 Kg (8,922 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

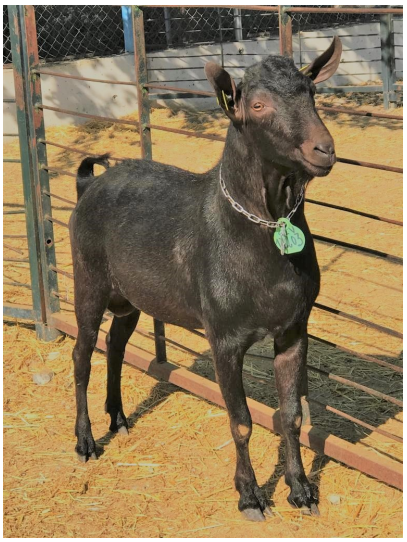
DATE OF BIRTH: 04/13/2017
OFICIAL TAG: ES010021157173

GLV17203

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.50
Fat		0.47
Protein		0.49
Total Solids		0.48

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	B B

GENEALOGY

- GLV17203
  - GLV12232 (*Mother*)
    - GLV11078
    - GLV09201
  - GLV15285 (*Father*)
    - GLV13107
    - GLV13112

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.71	**	0.52
Fat	4.5	0.69	2.3	0.50
Protein	4.7	0.72	1.6	0.52
Total Solids	13.5	0.70	7.4	0.51

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
5	288	1,018.6 kg (2,241 lbs)	5.4	4.0	4,074.4 Kg (8,964 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 08/15/2016
OFICIAL TAG: ES010021091790

GPA16616

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.56
Fat		0.54
Protein		0.56
Total Solids		0.55

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B B
KAPPA CASEIN	A A

GENEALOGY

- GPA16616
  - GPA12037 (*Mother*)
    - GPA09252
    - GPA09202
  - GPA14583 (*Father*)
    - GPA08159
    - GLV09238

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.76	***	0.81
Fat	2.4	0.75	4.4	0.79
Protein	3.0	0.77	3.5	0.82
Total Solids	9.4	0.76	13.0	0.80

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
3	302	889.9 kg (1,957 lbs)	4.2	3.4	5,338.6 Kg (11,745 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 11/21/2016
OFICIAL TAG: ES010011987889

GRF16143

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.64
Fat		0.63
Protein		0.64
Total Solids		0.63

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	B B

GENEALOGY

- GRF16143
  - GRF11041 (*Mother*)
    - AM10286
    - GPA10161
  - SB09262 (*Father*)
    - SB07087
    - DP03465

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.76	****	0.99
Fat	0.8	0.74	5.0	0.99
Protein	0.8	0.77	3.3	0.99
Total Solids	3.5	0.75	14.2	0.99

LINEAR APPRAISAL SCORE

80 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
6	237	881.5 kg (1,939 lbs)	4.7	3.4	4,088.9 Kg (8,995 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

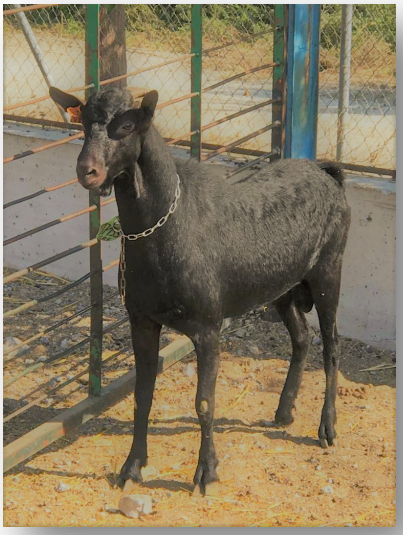
DATE OF BIRTH: 07/27/2017
OFICIAL TAG: ES010010090983

GRF17153

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.61
Fat		0.61
Protein		0.62
Total Solids		0.61

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A B

GENEALOGY

- GRF17153
  - GRF14975 (*Mother*)
    - AM10207
    - GPA10161
  - ABC11009 (*Father*)
    - AM08025
    - GLH09045

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	*****	0.73	**	0.97
Fat	6.7	0.71	1.8	0.97
Protein	5.5	0.74	1.6	0.97
Total Solids	19.8	0.72	5.2	0.97

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
5	291	902.4 kg (1,985 lbs)	5.6	3.7	2.857.5 Kg (6,326 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 10/09/2017
OFICIAL TAG: ES010021307520

GRF17198

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	**	0.58
Fat		0.56
Protein		0.58
Total Solids		0.57





CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A B

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.77	***	0.61
Fat	2.6	0.76	2.5	0.60
Protein	1.5	0.78	2.7	0.61
Total Solids	6.6	0.76	9.7	0.60

GENEALOGY

- GRF17198
  - GRF13042 (*Mother*)
    - AM10275
    - GPA10161
  - GRF15173 (*Father*)
    - GRF11026
    - ABC13236

LINEAR APPRAISAL SCORE

83 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
5	279	842.4 kg (1,853 lbs)	5.1	3.5	3,664.1 Kg (8,061 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 07/01/2016
OFICIAL TAG: ES010011641304

ABC16148

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	***	0.58
Fat		0.58
Protein		0.59
Total Solids		0.58

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	A B
KAPPA CASEIN	A B

GENEALOGY

- ABC16148
  - ABC13065 (*Mother*)
    - ABC11172
    - ABC09312
  - ABC11005 (*Father*)
    - ABC07286
    - ABC03001

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.69	***	0.96
Fat	3.1	0.66	6.5	0.95
Protein	3.1	0.7	4.8	0.96
Total Solids	10.3	0.67	17.4	0.95

LINEAR APPRAISAL SCORE

84 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
3	286	722.7kg (1,590 lbs)	5.1	3.5	2,168.1 Kg (4,770 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 06/26/2016
OFICIAL TAG: ES010011641308

ABC16152

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	***	0.60
Fat		0.60
Protein		0.61
Total Solids		0.60

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A B

GENEALOGY

- ABC16152
  - ABC12356 (*Mother*)
    - ABC09243
    - DP03570
  - ABC11005 (*Father*)
    - ABC07286
    - ABC03001

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	***	0.74	***	0.96
Fat	3.7	0.72	6.5	0.95
Protein	2.7	0.75	4.8	0.96
Total Solids	10.8	0.73	17.4	0.95

LINEAR APPRAISAL SCORE

83 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
3	375	1151.6 kg (2,534 lbs)	5.2	3.4	3,459.9 Kg (7,612 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

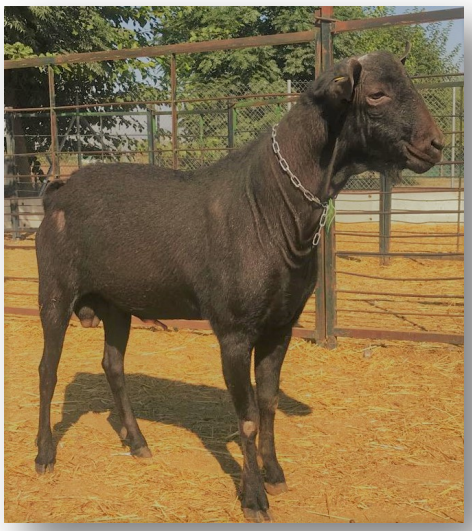
DATE OF BIRTH: 04/20/2017
OFICIAL TAG: ES010011708410

ABC17160

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	***	0.61
Fat		0.60
Protein		0.61
Total Solids		0.61

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A B

GENEALOGY

- ABC17160
  - ABC14062 (*Mother*)
    - ABC09057
    - ABC10012
  - ABC11009 (*Father*)
    - AM08025
    - GLH09045

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	*****	0.74	**	0.97
Fat	4.9	0.72	1.8	0.97
Protein	4.0	0.74	1.6	0.97
Total Solids	17.1	0.73	5.2	0.97

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
2	276	863.5 kg (1,900 lbs)	5.2	3.4	1.727.1 Kg (3,800 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

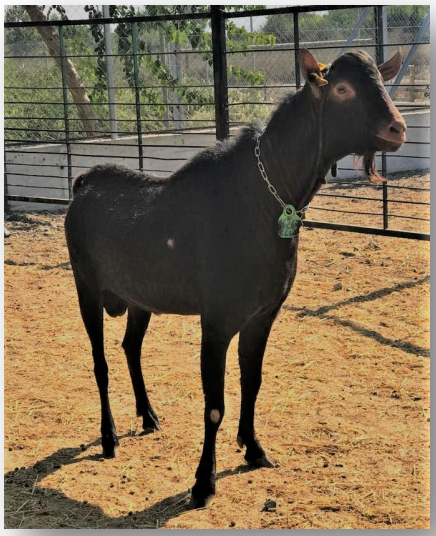
DATE OF BIRTH: 11/03/2016
OFICIAL TAG: ES010011884893

GLV16263

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	***	0.55
Fat		0.54
Protein		0.56
Total Solids		0.55

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	A E
KAPPA CASEIN	A B

GENEALOGY

- GLV16263
  - GLV14025 (*Mother*)
    - GLV10128
    -
  - GLV12195 (*Father*)
    - GLV06204
    - GLV10119

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.64	****	0.91
Fat	3.9	0.62	3.0	0.90
Protein	2.7	0.66	2.6	0.91
Total Solids	11.3	0.63	12.0	0.90

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
3	424	1,326.9 kg (2,920 lbs)	4.9	3.1	3,978.0 Kg (8,752 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 12/20/2015
OFICIAL TAG: ES010011825268

GRF15173

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	***	0.61
Fat		0.60
Protein		0.61
Total Solids		0.60

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A B

GENEALOGY

- GRF15173
  - GRF11026 (*Mother*)
    - AM10178
    - GPA10161
  - ABC13236 (*Father*)
    - ABC09271
    - FH11003

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.81	***	0.95
Fat	1.8	0.80	2.5	0.94
Protein	2.6	0.82	2.7	0.95
Total Solids	7.9	0.80	9.7	0.95

LINEAR APPRAISAL SCORE

78 (Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
6	280	960.1 kg (2,112 lbs)	4.1	3.4	5,760.8 Kg (12,674 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 08/08/2016
OFICIAL TAG: ES010011884786

GLV16156

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	****	0.61
Fat		0.60
Protein		0.61
Total Solids		0.60

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B B
KAPPA CASEIN	B B

GENEALOGY

- GLV16156
  - GLV11107 (*Mother*)
    - GLV06225
    - GLV09007
  - GLV12195 (*Father*)
    - GLV06204
    - GLV10119

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	*****	0.76	****	0.91
Fat	6.3	0.74	3.0	0.90
Protein	5.1	0.77	2.6	0.91
Total Solids	19.0	0.75	12.0	0.90

LINEAR APPRAISAL SCORE

83 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
6	301	991.9 kg (2,182 lbs)	5.0	3.6	5,951.0 Kg (13,092 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 03/29/2016
OFICIAL TAG: ES010021089743

GPA16294

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	****	0.61
Fat		0.60
Protein		0.61
Total Solids		0.60

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	B B

GENEALOGY

- GPA16294
  - GPA10164 (*Mother*)
    - GPA08057
    - GLH07030
  - GPA12202 (*Father*)
    - JYJ06139
    - GLV09238

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	****	0.78	****	0.94
Fat	2.9	0.76	4.3	0.93
Protein	2.6	0.79	3.8	0.94
Total Solids	10.3	0.77	15.5	0.93

LINEAR APPRAISAL SCORE

81 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
6	283	883.3 kg (1,944 lbs)	4.3	3.3	6,183.1 Kg (13,603 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 12/21/2015
OFICIAL TAG: ES010011825274

GRF15170

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	****	0.77
Fat		0.75
Protein		0.78
Total Solids		0.76

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	A B

GENEALOGY

- GRF15170
  - GRF11020 (*Mother*)
    - AM10225
    - GPA10161
  - GRF14156 (*Father*)
    - GRF11024
    - GLV09238

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	**	0.76	*****	0.83
Fat	2.5	0.74	7.3	0.81
Protein	2.0	0.77	5.4	0.84
Total Solids	6.1	0.75	23.3	0.82

LINEAR APPRAISAL SCORE

79 (Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
6	261	797.3 kg (1,754 lbs)	5.1	3.7	4,783.8 Kg (10,524 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

DATE OF BIRTH: 03/25/2017
OFICIAL TAG: ES080007541438

ZAA17002

SIRE BREEDING VALUES

TRAIT	ESTIMATED BREEDING VALUE	R^2
Milk	***	0.50
Fat		0.47
Protein		0.49
Total Solids		0.47

0 1 2 3 4 5 6 7 8 10 12 14 16



CASEIN GENOTYPE

Alfa-S1 CASEIN	B E
KAPPA CASEIN	B B

GENEALOGY

- ZAA17002
  - ZAA12090 (*Mother*)
    - ZAA07102
    - GOM10002
  - ZAA15091 (*Father*)
    - ZAA12089
    - SB09262

PARENTS BREEDING VALUES

	MOTHER		*FATHER*	
TRAIT	*EBV*	R^2	*EBV*	R^2
Milk	****	0.67	***	0.70
Fat	5.5	0.64	5.3	0.68
Protein	3.7	0.68	3.3	0.71
Total Solids	16.9	0.65	14.3	0.69

LINEAR APPRAISAL SCORE

80 (Really Good)

MOTHER'S AVERAGE LACTATION

NR. OF LACTS	LACT. LENGHT (DAYS)	MILK PRODUCTION KG (LBS)	FAT (%)	PROTEIN (%)	LIFE MILK PRODUCTION KG (LBS)
6	353	1,123.8 kg (2,472 lbs)	4.9	3.2	4,413.0 Kg (9,708 lbs)

FINAL NOTES: Improves all aspects of milk production.

My Notes:

Ms. Jand Co.™



For more information please contact:
mariana@msjandco.com