

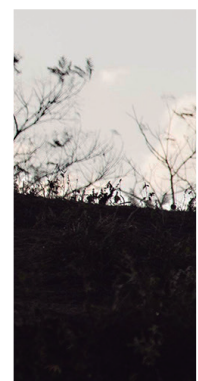
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## National Breeding Program of Guzzerá Cattle for Milk: Progeny Testing, National Zootechnical Archive and MOET Nucleus Results



**CBMG**



**Embrapa**

**Brazilian Agricultural Research Corporation**  
**Embrapa Dairy Cattle**  
**Ministry of Agriculture, Livestock and Food Supply**  
**Centro Brasileiro de Melhoramento Genético do Guzerá**  
**Registered in MAPA nº 001**

## **DOCUMENTS 258**

# National Breeding Program of Guzerá Cattle for Milk: Progeny Testing, National Zootechnical Archive and MOET Nucleus Results

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## Presentation of Embrapa Dairy Cattle

Resilience and overcoming challenges, two words that are very present in our daily lives and that must go hand in hand ... Farmer knows it like no one else! He overcomes the crisis, overcomes the pandemic and continues to produce food for society. Embrapa Dairy Cattle is proud to contribute to the livestock success and, together with the Centro Brasileiro de Melhoramento Genético do Guzerá - CBMG<sup>2</sup>, delivers to society the 22nd edition of the Guzerá sires and dams summary.

This publication is a result of the successful and long-standing partnership between EGL-CBMG<sup>2</sup>, which together since 1994 have been coordinating the National Breeding Program of Guzerá Cattle for Milk –PNMGuL. Similarly, there are many outstanding national and state research institutions, public and private companies focused on agriculture and several collaborating dairy herds to the progeny testing that contribute to the success of the PNMGuL.

This edition highlights the genetic merit of 765 bulls and 586 dams of the Guzerá breed by their milk EPD ranking, in addition to its composition (fat, protein and total solids yield and content), age at first calving, milk production efficiency and other 14 traits of economic relevance for milk production and dual-purpose systems.

Here, technicians and farmers have available an important tool for the continuous improvement of this animal genetic resource in the tropics.

*Paulo do Carmo Martins*  
Head of Embrapa Dairy Cattle



# Solidariedade

so·li·da·ri·e·da·de  
sf

1. Qualidade, característica, condição ou estado de solidário.
2. Sentimento de amor ou compaixão pelos necessitados ou injustiçados, que impede o indivíduo a prestar-lhes ajuda moral ou material.
3. Ligação recíproca entre duas ou mais coisas ou pessoas, que são dependentes entre si.
4. Responsabilidade recíproca entre os membros de uma comunidade, de uma classe ou de uma instituição.
5. Apoio em favor de uma causa ou de um movimento.
6. Compartilhamento de ideias, de doutrinas ou de sentimentos.
7. Reciprocidade de interesses e obrigações.
8. [JURÍDICO] Compromisso jurídico entre as partes de uma obrigação, sejam eles credores ou devedores.
9. [SOCIOLOGICO] Estado ou situação de um grupo que resulta do compartilhamento de atitudes e sentimentos, tornando o grupo uma unidade mais coesa e sólida, com a capacidade de resistir às pressões externas.

## Este anúncio é uma homenagem a esta palavra que sempre nos faz acreditar que juntos somos mais fortes.

O ano de 2020 começou com a sede do CBMG sendo assaltada, de onde foram levados equipamentos e muito da nossa história de dedicação ao Guzerá. Mas graças ao apoio e a ajuda de parceiros fiéis, conseguimos nos reestruturar para continuar o trabalho de melhoramento genético da raça. Então, fica aqui o nosso profundo agradecimento àqueles que nos apoiaram e acima de tudo confiam na seriedade e na qualidade do nosso trabalho.

Muito obrigado:



# Evolution of Zootechnical Indexes of the National Breeding Program of Guzerá Cattle for Milk

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Frank Angelo Tomita Bruneli - Embrapa Dairy Cattle  
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A genetic improvement program, regardless of the species involved, requires continuous monitoring and evaluation of the advances obtained with its selection objectives, as well as of the structure and genetic diversity of the population. This monitoring permits to assess the path taken and to outline new projects for the future. Therefore, we, the technicians involved, are always keeping an eye on the population.

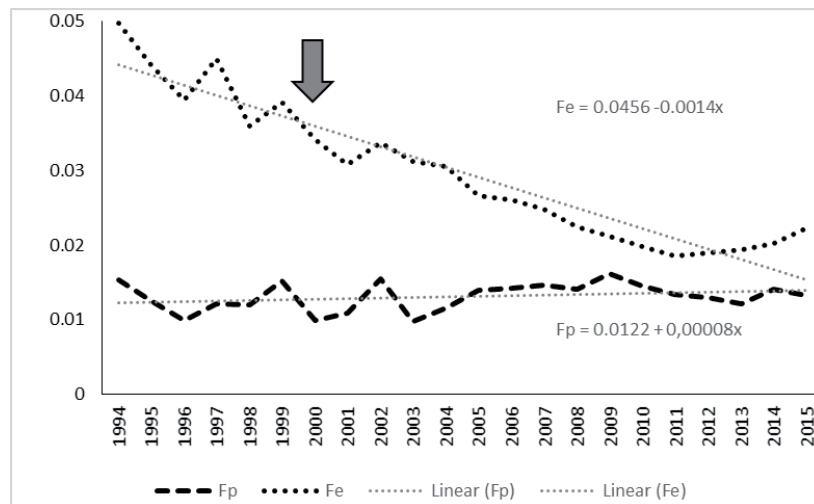
## **What is the current situation of the genetic variability of the Guzera herds?**

To answer this question, we use many tools and indexes that allow us to assess how the population is doing: if there is much consanguineous mating (inbreeding) and substantial circulation or introduction of animals (migration), and if some families are being privileged by selection, etc. This monitoring is called the study of the structure and genetic diversity of the population. The indexes commonly used for this monitoring are the inbreeding coefficient (popularly, consanguinity) and the average relatedness of the animals (which measures the intensity of use of a given animal in the population). These indexes permit to verify the degree of genetic variability, which is fundamental for the selection process since the absence of variation in a given trait of interest in a population suggests that its selection or genetic improvement is not possible.

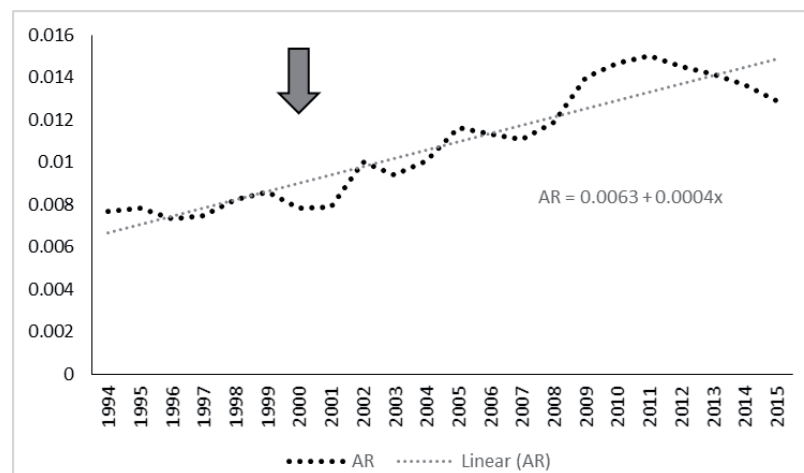
What we have seen over these 25 years of the National Breeding Program of Guzerá Cattle for Milk (PNMGuL) is somewhat encouraging. Evaluation of the inbreeding coefficient revealed important events for the population under selection for milk production. Although the average population inbreeding coefficient ( $F_p$ ) of this population varies over the years, its average value is 0.013 or 1.3%, oscillating between 1 and 2%, which is an acceptable level, showing only a minor increase (Figure 1). This fact reveals the breeder's concern in avoiding mating between related individuals. Figure 1 also shows the impact of the release of the first sire summary in 2000 (arrow), which resulted in an expressive reduction of  $F_p$  in 2003 and 2004. The opportunity given to breeders to use animals from other farms based on accurate information about the genetic merit of the animals probably contributed to the birth of less inbred (consanguineous) animals during this period. It's so refreshing!

In Figure 1, we can observe the trend of the average inbreeding coefficients (dotted line) only for inbred individuals ( $F_e$ ). The average inbreeding coefficient for this group of animals throughout the period was estimated at 3%, a value that is within acceptable limits. In addition, there was a trend towards  $F_e$  decreasing significantly every year. This result again encouraged program and herd leaders since, although the frequency of inbred individuals has increased in this population (reaching 464 inbred animals in 2010), the trend is that mating of closely related individuals (inbreeding or consanguinity) is avoided.





**Figure 1.** Trend of population (Fp) and individual (Fe) inbreeding coefficients in Guzera herds throughout the breeding program for milk production. The arrow indicates the year when the first sire summary was published.



**Figure 2.** Trend of the average relatedness coefficient (AR) of the population in the Guzera herds throughout the breeding program for milk production. The arrow indicates the year when the first sire summary was published.

It is also interesting to note that during the 20 generations detected in the genealogical data, only 0.02% of matings occurred between full-sibs and 1.18% between half-sibs. However, the effective size of the base or founder population (342 animals) that considers only the number of different genomes that contributed to its formation reveals that caution in conducting the matings must continue since the genetic basis of this population is narrow.

When we evaluate the average relatedness coefficient (which reflects the intense use of some animals in the population) over the years (Figure 2), we can clearly note how individuals from a few families are intensely disseminated in the population; hence, there are many relatives of the same or of few animals in the different herds.

This result will be a matter of concern in the coming years since it indicates the risk of bottlenecks, i.e., losses in the contribution of some families to the next generation and the consequent loss of genetic variability (which is fundamental for genetic improvement) and increased likelihood of mating between related individuals (with possible reductions in survival and fertility).

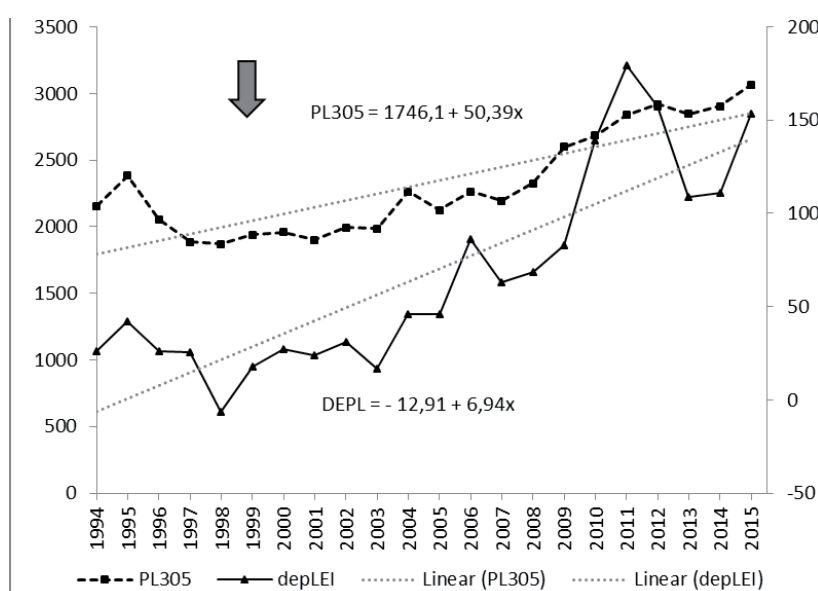
Furthermore, there are a range of traits that have not yet been addressed by breeding programs and that could be targets of selection in the future. Losses of genetic variability in these traits may be occurring if some are genetically correlated with the traits under current selection, i.e., if genes that influence the current selection targets also have an unfavorable influence on future targets of selection.

tion. This may indicate the impossibility of future selection for these traits in a scenario in which they become relevant for the production system.

### Now let us take a look at the traits under selection.

Milk yield is the main trait selected in dairy cattle herds in Brazil. Evaluation of milk yield at 305 days of lactation (MY305) shows an annual increase of approximately 50 kg of milk (Figure 3).

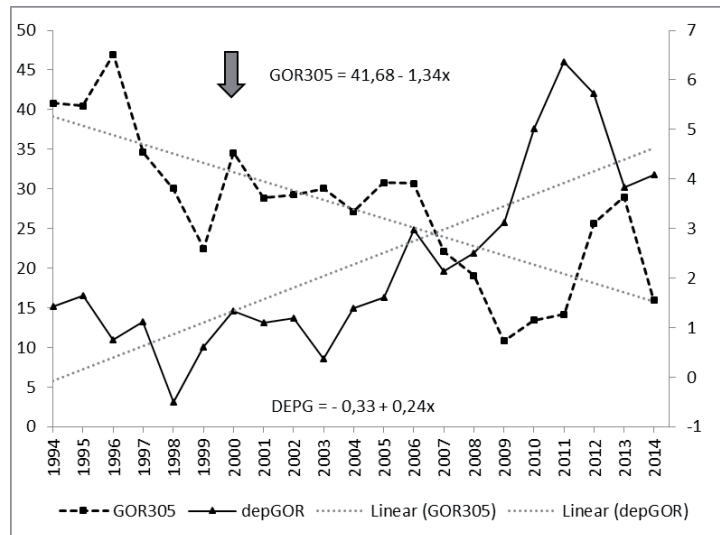
This trend (dotted line) was also observed for the average EPDs (or predicted transmitting ability, which has the same meaning) of this trait, with an increase of about 7 kg of milk per year. We can therefore conclude that the herds participating in the PNMGuL have obtained positive genetic and phenotypic progress. The trends shown in this figure reveal that part of this advance was due to genetic improvement, although more expressive gains could be achieved if a higher selection intensity were employed. The breeding objective of a large part of these herds is dual purpose, a fact that contributes to the result obtained since the larger the number of traits in the selection objectives, considering that the traits of interest are not favorably correlated, the smaller the gains in each of them. The selection objectives must be well chosen, always keeping an eye on the conditions of the production system, the market, and the economic return.



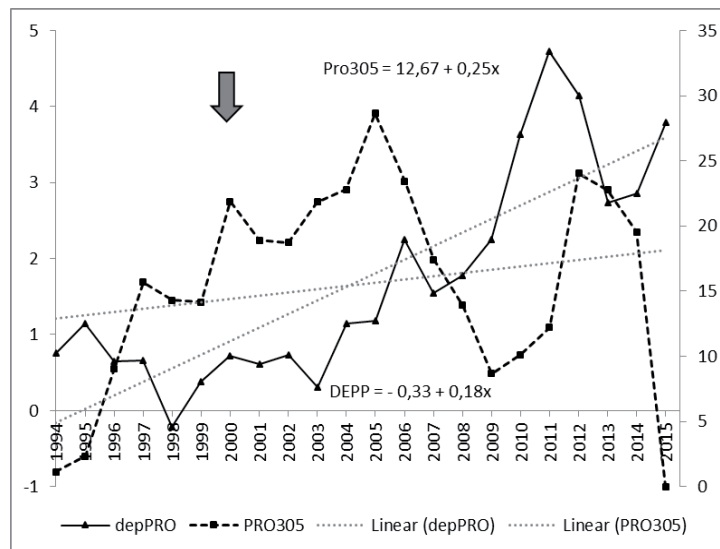
**Figure 3.** Trend of average EPDs (kg) of Guzera cows for milk yield throughout the National Breeding Program of Guzera Cattle for Milk. The arrow indicates the year when the first sire summary was published.

Although milk yield continues to be the main selected traits, it can be observed that, except for fat yield (-1.34 kg per year), the phenotypic trend, although small, was positive for the yield of protein (250 g per year) and total solids (100 g per year) (Figures 4, 5 and 6).

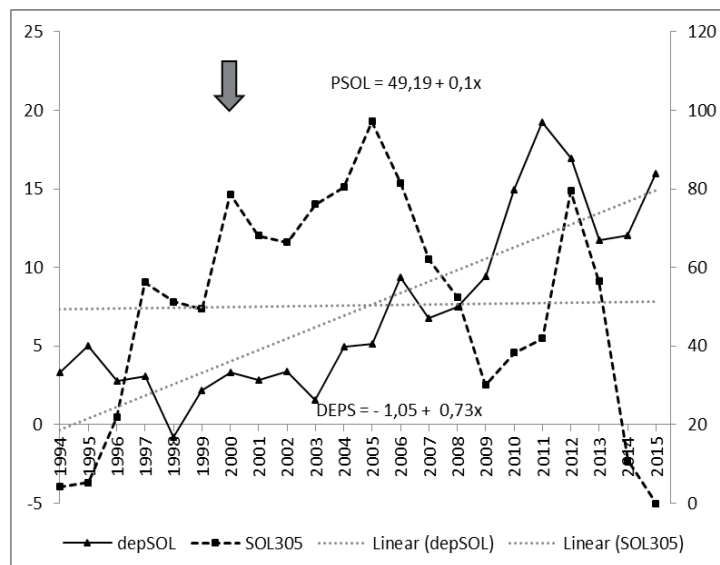
However, when we evaluate the genetic progress, there is a positive genetic trend for all milk components (dotted line). Genetic gains of 240, 180 and 730 g were estimated for fat, protein and total solid yield, respectively. The advances in these components are probably due to their positive correlation with milk yield, i.e., they are influenced by the same genes as milk yield, the target trait of selection. Thus, there is the potential for the production of these components and good management, health and nutrition conditions of the animals are necessary for its expression, especially because the effect of the environment is very important for the expression of the desired phenotypes of dairy traits.



**Figure 4.** Trend of average EPDs (kg) of Guzerá cows for fat yield throughout the National Breeding Program of Guzerá Cattle for Milk. The arrow indicates the year when the first sire summary was published.



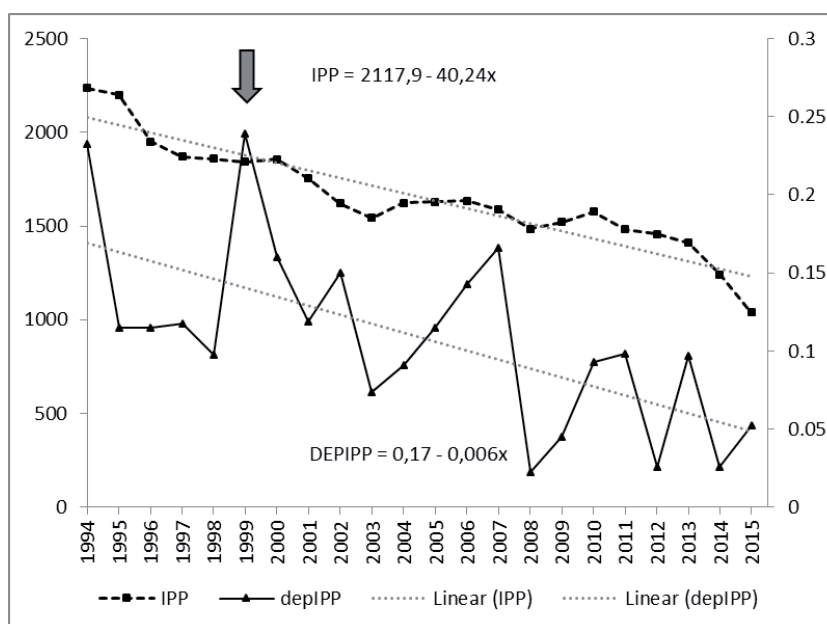
**Figure 5.** Trend of average EPDs (kg) of Guzerá cows for protein yield throughout the National Breeding Program of Guzerá Cattle for Milk. The arrow indicates the year when the first sire summary was published.



**Figure 6.** Trend of average EPDs (kg) of Guzerá cows for total solid yield throughout the National Breeding Program of Guzerá Cattle for Milk. The arrow indicates the year when the first sire summary was published.

Despite these indirect advances, we should reflect on the selection objectives defined for the Guzera breed. The dairy farming scenario started to change in recent years. The industry is now considering the quality of the milk it buys from the producer and consumers are increasingly concerned about what they eat. Is it not time to review the selection objectives of dairy Guzera herds? Volume is important but the yield or content of milk components, as well as the somatic cell count (SCC) that reflects the health of the mammary gland, are becoming more important every day. Why? Because the dairy industry wants to be more efficient in producing milk products and in meeting consumer demands. Therefore, focusing selection decisions on these traits is necessary, even strategic, in dairy herds in order to achieve better product prices and greater profitability of the activity. Regarding the perspective of including SCC in genetic evaluations, like for milk components, it is necessary to increase the information available in the PNMGuL database. This requires the participation and commitment of all parties involved, which should send test-day milk samples to the laboratories for the analysis of milk components and SCC.

Figure 7 shows the phenotypic and genetic trends for age at first calving (AFC). This trait was recently included in the summary and reflects the productive precocity of the animals, which is of great economic importance. Breeding animals with more sexual precocity provides faster return on investment. Although recent, advances occurred in the phenotypic means of this trait, which have declined expressively (-40 days per year) over the years of PNMGuL. This result largely reflects the efforts of breeders in promoting changes in the environment, including health and nutrition actions as well as the use of modern reproduction technologies. Indirectly, although not the target of selection, a genetic change also occurred in the herd that may even be greater from now on because of the availability of the genetic merit of the animals for this trait in the summary. The peak years when AFC increased generally correspond to years of feed shortage due to prolonged and intense dry periods. We also included productive efficiency, which associates milk yield and precocity, as another trait in the last summary (2018) for the combined improvement of these traits. However, the time was not sufficient to evaluate its trend.



**Figure 7.** Trend of average EPDs (kg) of Guzera cows for age at first calving throughout the National Breeding Program of Guzerá Cattle for Milk. The arrow indicates the year when the first sire summary was published.

## **Where are we heading? What do we need?**

We will now comment on the direction to be taken in the PNMGuL. We need to obtain quantitative and qualitative measurements, i.e., accuracy. We need to evolve, or resume, the measurements of the linear system, focusing on functional morphological traits that will allow animals to produce efficiently, an initiative that was started but was lost over time. Our registry needs to assume and commit to this task. Research also needs to identify new phenotypes (traits of interest) and the joint project should start to check them (phenotyping) in order to establish their potential for improvement and for the definition of the most appropriate criterion for their selection. We will thus be preparing to face the future demands of the herds, the industry, and the consumer.

One example of a trait that could be included in the official milk recording system is the body condition score of cows during their lactation, or at least up to 90 days of lactation. Its measurement is easy and inexpensive and the trait can be easily included in the official milk recording system, along with other functional traits. Changes in the body condition score of cows at the beginning of lactation may be associated with a negative energy balance, which occurs in animals with high production levels but with inadequate energy intake. If very severe, a negative energy balance results in production and fertility losses of dairy cows. A scoring system ranging from 1 (very thin) to 5 (very obese) may be easily used by test-day technicians after training of the team.

Taking advantage of what is already available, such as milk yield, we can use slightly more complex models in the evaluations that allow us to detail the environmental effects (management, nutrition) that are inherent to milk recording scheme. These models, called random regression models, are being adopted in many countries for genetic evaluations of productive traits in dairy cattle. Among other aspects, such models permit to increase the accuracy of the breeding values of animals for milk yield, as well as to model certain parameters related to the shape of the animals' lactation curve, such as lactation persistency, a trait widely studied in Zebu cattle. Because of their greater complexity, these models require a larger number of production records of the animals during milk recording scheme, as well as a more detailed description of the management conditions on each test-day milk recording (feeding, type of milking, calf death, cow diseases during milk recording scheme, etc.). These data can be included in the definitions of the contemporary groups, which are so important for genetic evaluations.

Furthermore, the implementation of a broad DNA database is necessary to take advantage of new molecular and genomic tools for the characterization of genotypes of interest (QTL). In addition, the application of statistical tools to genomic and genetic evaluations will ensure greater accuracy and, consequently, genetic gain in the populations under selection.

It continues to be our commitment, as researchers of PNMGuL, to provide the program with scientific tools that will allow its sustainable development, and permit breeders and milk producers to proceed with the efficient selection of their herd in response to market demands so that they will be able to maintain this very important activity.

# Guzerá in the Science

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An adapted breed is an asset. It is a heritage conquered by animals in the environment in which they evolved and by the daily effort of many breeders, over generations. Part of this value comes from how well a breed is scientifically known. The 26 years of the program developed by the Brazilian Center for Genetic Improvement of Guzerá (CBMG<sup>2</sup>), with Progeny Testing, the MOET Nucleus and genetic evaluations, brought the Guzerá breed to a new production level. Today, it is possible to select for the purpose of the animals in your herd using genetic information and, soon, genomic tools.

It has been an honor to participate in this effort. Here, we will highlight some of the work developed in the Guzerá research and discuss some of the future perspectives.

## Molecular Genetic Studies

### Milk for the human health

Over the past few decades, the consumption of milk and dairy products has been the subject of many questions, generating wide debates and a new research agenda. Two aspects have been investigated when talking about milk for human health: proteins and the fatty acid profile.

### Proteins

Although milk and its derivatives are important sources of protein in our diet, the association of milk with autoimmune diseases has been described in the medical literature. In particular, a variant of beta-casein has been implicated in these conditions. There is an allele (that is, a genetic variant) that is considered healthy (the beta-casein A2 allele). The other beta-casein alleles are collectively called “A1” and give rise to a degradation product, BCM-7 (beta-caseomorphine 7), which crosses the gut barriers to blood and from the blood to the brain, what would cause autoimmune reactions. A2 milk does not give rise to BCM7. Digestion of beta-casein A2 is therefore easier. Some cows naturally produce A2 milk. The good news is that most Guzerá animals produce A2 milk.

In addition to beta-casein, there are many other important proteins in cow’s milk and these proteins also have genetic variants that can cause reactions in the human body or affect milk production. We are using data from the complete sequencing of the Guzerá genome to discover the typical variants of the breed in the various proteins that make up milk.

We analyzed seven genes, which encode the main milk proteins: beta-casein (CSN2), kappa-casein (CSN3), alpha-S1 casein (CSN1S1), alpha-S2 casein (CSN1S2), alpha-lactalbumin (LALBA), lactoferrin (LTF) and beta-lactoglobulin (LGB). The LALBA protein is one of the proteins responsible for the synthesis of lactose. LTF is a protein present in various fluids besides milk, such as tears, saliva, seminal plasma, and nasal discharge. It is a highly interesting protein, as it has antimicrobial, anti-inflammatory, antibacterial, antiviral, antifungal, antiparasitic and anticancer activities. There



are studies associating LTF with resistance to mastitis. In milk, LTF is part of the immune protection system transmitted by the cow to the calf through the colostrum and milk.

Among the seven genes listed above, we found out 13 genetic variants, which may have repercussions or functional impact. Of these variants, two affect LALBA and LTF proteins, one in each gene. Now, we need to investigate whether these variants actually affect milk production or composition. Initially, we will investigate the association of variants in the LTF gene \_ some discovered by us and some from the literature\_ with traits of Guzerá milk production. For this study, production data and individual milk samples were collected and we have already developed a method to genotype the variants. We will have news on these topics soon.

## Fats

For decades, milk and milk products have been unfairly criticized because they contain a high content of saturated fats. However, fats, including saturated fats and the so-called cholesterol, play quite a number of important roles in our body. Cholesterol, for example, is so important that our own body produces it. Without cholesterol, it would not be possible, for example, to synthesize vitamin D, steroid hormones, important for reproduction, and bile acids. In fact, cholesterol and other classes of fats are present in the membranes of all our cells. Our brain is composed mainly of fats. A very important class of fats is fatty acids. They are molecules that, in addition to providing energy (2 times more than carbohydrates and proteins), regulate a series of metabolic functions through the modulation or control of gene expression; an area of knowledge known as nutrigenomics. In addition, the generation of energy from fatty acids causes less damage to the cells than that obtained from carbohydrates (sugars). Some fatty acids also modulate the immune system, exerting anti-inflammatory action as in the case of omega-3 fatty acids. Milk and dairy products with regular levels of fat, such as whole milk, cheeses and butter provide numerous biologically active fatty acids, which have properties beneficial to health, some not found in appreciable quantities or even absent in other dietary sources, as in the case of acid conjugated linoleic acid (CLA) and butyric acid, respectively.

Although milk fat is in fact a significant source of saturated fatty acids in the human diet, increasing evidence indicates that eating dairy products with regular levels of fat is not associated with an increased risk of cardiovascular disease, and may further reduce the risk obesity and type 2 diabetes. The fatty acid profile of milk (proportion of different fatty acids in the fat) varies mainly depending on the diet provided to the animals, but there is also considerable variation between animals, consuming the same diet, due to its genetic origin. This individual variation has been extensively studied in Taurine dairy breeds, but very little is known about this issue in Zebu breeds. On this issue, studies conducted by our research group have sought to answer some questions:

Is there an individual variation in the fatty acid profile of the milk of Guzerá cows? A pilot study has shown us that it is true, and that this variation is considerable for some fatty acids of interest to human and animal health. What are the genetic bases behind these individual variations? Recently, a study with a large number of Guzerá cows from different Brazilian herds allowed us to identify genetic variants in key genes of the lipids metabolism, some of them already described in the literature and some new ones. This information may be incorporated into the selection and improvement programs of the Guzerá breed in the future, aiming at the production of milk with high nutraceutical value, that is, value for human health. These promising results will be available soon. In addition, an association study on a genomic scale (that is, another GWAS – Genome-Wide Association Study) will be developed to find out which genes influence these traits.

## Probiotics in Guzerá milk

The use of beneficial or probiotic bacteria has become a common practice in human and animal nutrition. More than this, these healthy microorganisms are powerful allies in the prevention and treatment of many diseases that affect human and farm animals' health. In recent years, it has been shown that there is a diversity of bacteria in the udder of cows, which end up being excreted in milk. These bacteria are important for both the development of the calf and for the processing of dairy products. Some of these bacteria appear to have promising effects in combating other disease-causing bacteria, particularly mastitis. The good news is that, in animals of the Guzerá breed, we have been able to isolate several beneficial bacterial strains, such as *Lactobacillus* and *Lactococcus*, which seem to protect the udder of these animals from the attack of these vile bacteria. The presence of these probiotics helps to explain the low rate of mastitis observed in the Guzerá breed, as well as the low means of somatic cell counts (SCC) found in the Guzerá herds. It is worth remembering that SCC values are directly related to the occurrence of subclinical mastitis, which causes enormous economic losses to the milk chain.

## The temperament

Among other issues, we investigated the genetic component of reactivity (a component of temperament) in Guzerá. We developed a GWAS, which allowed us to identify a region in the genome associated with reactivity in Guzerá. In this region is the dopamine 3 receptor (DRD3) gene, which encodes a protein expressed in the central nervous system. In humans, it was already known that this gene is associated with temperament traits and the results found in Guzerá make a lot of sense. In order to continue this study, we need to sequence a larger number of individuals, whose temperament has been assessed, in the search for the variants that cause the most nervous temperament. Here, it is important to note that, if this gene is involved in the reactivity of Guzerá and humans, it can also contribute to this trait in other breeds. This study then proceeds.

## (Re)telling the story of Guzerá

As for many other breeds, there are some tales about Guzerá evolution in Brazil. In conversations with the Guzerá breeders, it is frequently heard that a relatively small number of animals were brought from India to Brazil, and that there were some specific moments when the number of purebred animals decreased, due to their contribution to the creation of crossbreds or other breeds. This brought up the question about the genetic diversity in Guzerá. In fact, this is a very common question in studies about any breed and also about wildlife animals.

When sampling livestock animals in the field, it is not known whether the animals collected are related, or how closely related they are. The collection of related individuals gives the impression that genetic diversity is less than it actually is. Using data from Guzerá SNPs, we have developed a method to correct this problem. The method worked very well. How we know? We managed to recover the moments in which, according to the breeders' reports, there was a reduction in genetic diversity. In other words, those Guzerá stories are not folklore, they are history!

As a result, this article was published in one of the most important journals in the area of Ecology and Biodiversity Conservation. Therefore, it is not Science helping Guzerá, it is Guzerá helping Science. Great, isn't it?

And after all, what about the genetic diversity of Guzerá? Correcting for the presence of close relatives in the samples, Guzerá breed conserved a good amount of genetic diversity. Genetic diversity

is the best guarantee that a breed can have to go through prolonged droughts, emerging viruses or other forms of environmental stress.

Therefore, molecular research in Guzerá continues. These results reflect the efforts of many students and researchers. They also reflect the support of funding agencies, such as CAPES, CNPq and, mainly, FAPEMIG. However, nothing would have been achieved without the support of CBMG<sup>2</sup> and the breeders. Thank you very much.

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## Quantitative studies

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Any trait that can be evaluated is called a phenotype. Phenotypes can be qualitative or quantitative. Qualitative are the traits that are described with adjectives, such as the shape of the horns (ex: in lyre) or coat pattern (ex: spotted). The quantitative ones are those expressed in numbers, such as production traits (days of lactation, percentage of fat in milk, croup height). The expression of a production trait is determined by the action of several factors, classified as genetic and environmental. In breeding, environment is everything that is not genetic (climate, nutrition, hygiene, health, general management etc.). The term genotype is used to describe everything that is determined by genes. In addition to genotype and environment, there is another factor known as genotype-environment interaction. What would this factor be? In fact, the genome is like a box of Lego pieces. These parts can be used differently, as needed. That is, the genotype is expressed differently according to the environment in which the animal is. The genotype-environment interaction means that the full expression of the genetic potential of an animal is not observed when their genotype (genetic material) is in certain environments. Thus, in each environment the genotype will interact with the existing conditions and result in different phenotypes. Heritability seeks to measure how much of the variation in a quantitative trait is conditioned by genes. Imagine a completely standardized breeding condition, that is, all animals receiving exactly the same treatment (temperature, nutrition, everything the same). Any difference between individuals would be caused by genetic differences between them. In the real world, however, this does not happen. The environment always varies and interacts with the genotype. Thus, there is no certain and fixed heritability value, there is the heritability calculated for a population in a given environmental condition in a given time. In a country the size of Brazil, the environmental variation is enormous. Consequently, preserving the adaptability of the breed becomes a fundamental value, since changes in the environment can represent an additional expense in production.

## Resistance to thermal stress

Over the past few decades, we have seen important environmental changes, with increased temperatures and prolonged droughts in some regions of Brazil. As a result, resistance to thermal stress, a characteristic present in Guzerá, becomes even more important.

To assess the response pattern of Guzerá cattle to thermal stress, we at the Federal University of Rondonópolis and Embrapa Dairy Cattle used historical milk production data on the test-day from the database of the National Guzerá for Milk Improvement Program and climatic data from the

National Meteorological Institute. The climatic variable used was the Temperature and Humidity Index (THI), obtained from the maximum daily temperature and humidity averages. It was observed that the increase in THI causes a reduction in the amount of milk produced. The impacts were -0.037, -0.019 and -0.006 kg of milk/day per unit of change in the THI, for the initial, intermediate and final stages of lactation. This suggests that the genotype-environment interaction can negatively affect milk production.

Heritability estimates ranged from 0.16 to 0.35 over lactation for different values of THI, suggesting the possibility of genetic gains with the selection for milk production at a given THI (environmental conditions of temperature and humidity) and obtaining animals more tolerant to thermal stress. The estimated genetic values for the Guzerá bulls in response to changes in the THI values varied month by month, confirming that the genotype-environment interaction due to thermal stress has an effect on milk production on the test-day. Despite the high dairy performance of Guzerá cattle under thermal stress, as verified in this study, the genetic trend, which evaluated the genetic progress that has occurred for milk production in function of the THI over the years, has shown a progressive reduction in heat tolerance. Therefore, new breeding strategies should be considered to avoid future negative impacts of thermal stress on milk production in Guzerá animals.

We need to improve Guzerá's productive performance without losing its differential in important traits such as adaptive ones, mainly because we are in the tropics, where the environment has extreme and even adverse conditions of temperature and humidity, and Guzerá is able to cope with them very well.

### **Does it make sense to make selection for milk and beef?**

Some breeds proved to be good meat producers, or good milk producers, and others stood out with their double capacity: producing meat and milk (dual purpose). Animal specialization for the production of one or another product was a necessity to meet the growing demand of the world population for food. Genetic improvement tools have evolved, allowing selection based on the genetic values of animals for production to lead to a rapid increase in animal performance to produce meat or milk. Other breeders followed the path of jointly producing meat and milk, based on the potential of some breeds for dual purpose. This issue has always been controversial and many criticize the option of selecting meat and milk production characteristics at the same time, which goes against the specialization model of many countries. The research then decided to check whether this selection is indeed viable, to clarify and guide the breeders.

Guzerá is considered in Brazil as a Zebu breed of dual purpose and performance data on dairy and beef traits have been measured for years in several herds collaborating in the breeding programs of the breed. From this database, researchers and professors at the Department of Animal Sciences at the Federal University of Viçosa and Embrapa Dairy Cattle carried out a comprehensive study to estimate the genetic correlations between beef, milk and reproduction traits, using the database from the National Genetic Improvement Program of Guzerá for Milk and the Zebu Genetic Improvement Program.

The results were very interesting. Heritabilities, as usual, were high for beef traits and moderate for dairy traits, showing, as everyone knows, that direct selection for these traits is possible. The novelty was the genetic correlations between weight, dairy and reproductive traits, which were also favorable and allowed us to verify that, yes, joint selection is possible for these traits. The genetic correlations of weight at weaning, year and yearling with age at first birth ranged from -0.58 to -0.62 (that means, the greater the weight gain, the earlier the animal), showing that the selection for one

trait it will bring favorable and expressive changes in the other. The genetic correlation of weight at different ages with milk production in 305 days, which ranged from 0.25 to 0.36, also showed a favorable relationship between these traits, which allows direct or joint selection for gains in both traits. Likewise, the correlation of milk production in 305 days with age at first delivery was favorable (-0.14).

Therefore, in the Guzerá breed, there is no antagonism that makes concomitant selection for beef, milk and reproduction traits unfeasible. The option to specialize the breed for milk or beef, or to keep selection for both traits, is up to each breeder. Certainly, the genetic gains in each of these traits will not be the same as that of direct selection for only one of them, but it will be possible.

### **Somatic cell count (SCC)**

Another study was carried out with the somatic cell count (SCC) of the milk from Guzerá cows. SCC is related to the occurrence of subclinical mastitis, which brings enormous economic losses to dairy herds. Thus, in order to estimate the relationship of somatic cell counts (SCC) with milk production traits, a study was conducted with the information available in the database of the National Genetic Improvement Program of Guzerá for Milk. In this study, it was found, first, that the average SCC in lactations was  $214.5 \pm 436.4$  thousand cells/mL, a satisfactory average when considering the value of 500 thousand cells/mL defined by IN76 (MAPA, 2018) as the upper limit of quality milk for processing and consumption.

On the other hand, the estimate of heritability for SCC was low (0.08). Low heritability values for SCC have also been found in studies with other breeds. This indicates that SCC has a large contribution from the environment and a small contribution from genetics. This result is also good, because it is easier to improve sanitary management and adopt good hygiene practices for lactating cows than trying to make a genetic improvement so that the cows have less SCC and are more resistant to mastitis. The genetic gain would be small with direct selection to reduce SCC and, consequently, the occurrence of mastitis. On the other hand, the increase in SCC is a defense mechanism of the animal against the presence of infectious agents. As the immune system is closely interconnected, it would not be possible to reduce SCC in milk without affecting other aspects of the animal's defenses, with a great risk to the health of the herd.

In addition, practically null genetic correlations between the milk production traits and SCC were observed, indicating that it would not be possible to improve the SCC through direct selection for the productive traits. This was an initial study, which needs to be carried over with a larger volume of data and other tools and methods of genetic analysis for its definitive conclusion. We reinforce, therefore, that until now, environmental factors, such as adequate nutrition and hygiene when milking lactating animals, are the most important factors and must be worked on in herds to ensure the reduction of the occurrence of mastitis.

### **Some of the scientific papers on Guzerá quantitative traits**

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## Future perspectives

### **The inclusion of Guzerá in the context of production efficiency and quality in the international livestock sector: How precision farming and phenotyping, together with systems biology, can assist in this process**

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The Brazilian agriculture has great international prominence, with Brazil being responsible for 8% of all world agricultural trade and making a fundamental contribution to the resources and raw materials to the sectors involved. The accumulated values in goods and services reached values around 200 billion US dollars, which corresponds to ~20% of the Brazilian Gross Domestic Product (<https://www.cnabrazil.org.br/cna/panorama-do-agro>). It is estimated an increase of 70% in the consumption of products of animal origin in 2050 due to the global population growth (FAO, 2009). In parallel, the international agricultural sector is going through a period of intense changes and the creation of new demands aimed at improving the quality of products, animal welfare and environmental care. Therefore, the development of methodologies, which allow the achievement of these demands, is a crucial step for the success and maintenance of the market.

Guzerá, because it is a dual-purpose breed, demands an even more caution due to possible correlations between traits, whether they are antagonistic or not. The investigation of the biological causes of this relationship between multiple traits should be prioritized in order to assist the more guided and specialized selection for traits of economic interest, as well as reducing the frequency of undesired responses in the selection process. However, to make this possible, a level of precision in measuring traits of interest, as well as an increasing in the frequency of measurement must occur.

In this context, precision farming/phenotyping is a strategic area for the sector. Data from precision phenotyping methodologies have gained considerable prominence due to the wide variety of information that can be obtained precisely. Sensors such as pedometers and collars equipped with accelerometers, imaging systems, and online phenotyping systems on automated milking platforms using proximal infrared (NIR) are clear examples of this technological diversity. The level of animal's activity, the time spent lying down, distinction and counting of feeding and ruminating events, breeding events etc., are examples of activities detectable by 3-axis accelerometers. This information can be integrated into statistical models for the prediction of events such as the number of days required for the animal to reach slaughter weight, feed efficiency calculations, detection of estrus events and detection of animals affected by health changes.

In swine and bovine, the use of image processing obtained using low-cost and non-invasive equipment, such as Kinect® (Microsoft, Redmond, WA), for the measurement of traits such as body weight, carcass yield, thermal stress, septic pododermatitis, behavior and reproduction have already been reported. This type of procedure can assist in optimizing the monitoring of growth, production and behavior of animals in a cost-efficient manner.

The recognition of animals through image and sound systems is also an extremely promising area. These systems may allow, in a near future, the replacement, or even the joint use, of radio frequency identification (RFID). The use of electronic earrings, although extremely useful, can present limitations and flaws when reading the signal emitted by the earring and data storage, which result in loss of information or inconsistent data.

Values such as total yield, percentage of protein and milk fat can be predicted and assessments such as somatic cell count and analysis of biomarkers for mastitis (beta-hydroxybutyrate) and meta-

bolic states, such as ketosis, can be performed using data from NIR and other biosensors on automated milking platforms. In addition, sensors internal to the animal, such as ruminal biosensors, can monitor changes in rumen temperature, pressure and acidity in a continuous and accurate manner, being extremely useful for assessing animal health and production levels. Finally, levels of hormones present in milk, such as progesterone, can be assessed. Consequently, the use of precision farming/phenotyping tools allows generating important information regarding the animal's reproductive status. Pasture assessment and herd monitoring through unmanned aerial vehicles (UAVs) and satellite systems can also strongly assist some sectors due to the common use of open feeding systems based on grazing.

These are just some examples of areas in which precision farming/phenotyping can act and assist the breed's production efficiency and quality. Precision farming has the main objective of increasing production efficiency as well as raising animal and human well-being through the application of advanced information and communication technologies, aiming at the use of resources and the precise control of the production process (BANHAZI et al, 2012). The variety of information generated through precision phenotyping methodologies, in a more homogeneous and high-yield system, can meet the demands present in the evaluation of traits of economic interest for the livestock sector. However, one of the main bottlenecks witnessed in the area of precision phenotyping is the selection of phenotypes with high precision and accuracy in the measurement, as well as the integration of several sources of information in a comprehensive system (GONZALEZ et al, 2018).

Bioinformatics and systems biology can assist in the identification of those phenotypes, which present greater evidence of biological contribution, when interpreting the results. However, it is necessary to weigh the cost / efficiency ratio of adding each of the phenotypes in breeding programs, in order to select those with greater efficiency in selection response and biological representativeness. Thus, it is essential to unravel the different levels of biological information, whether at the level of DNA, gene expression and its regulation, proteins involved in processes of interest, the metabolites generated and used in complex metabolic systems, or even the relationship between microorganisms and the host for production (for example, rumen microbiota and feed efficiency).

Despite its prominent position, the national livestock sector still produces below what its real potential is capable to produce. This can be explained by a reduced application of precision phenotyping technologies for measuring production characteristics, breeding schemes and advanced management strategies (VENTURA et al, 2020). The application of precision phenotyping and systems biology in the agricultural sector has the capacity to raise this potential and help the national livestock sector to better adapt to the current and future demands of the national and international market.

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## Introduction

The National Breeding Program of Guzerá Cattle for Milk (PNMGuL) is a joint program of Embrapa Dairy Cattle and the Brazilian Center for the Genetic Improvement of Guzera Cattle (CBMG<sup>2</sup>/ACGB). Several public and private bodies participate in this program, including semen processing centers, state research companies, the Federal University of Minas Gerais, the National Breeder and Researcher Association, breeders of purebred Guzera cattle, and collaborating farms that use the Guzera breed for crosses. The program received financial support from Embrapa, CBMG<sup>2</sup>, ACGB, ABCZ, CNPq, Fapemig, the Ministry of Agriculture, Livestock and Food Supply, and Guzera cattle breeders.

This program is based on the integration of modern animal breeding tools to confer rapidity and reliability to selection and consists of three integrated information-generating schemes. The first consists of selection carried out by Guzera breeders on farms, who gather information on animals produced by directed breeding using non-selective official test-day milking records. The second, the Multiple Ovulation and Embryo Transfer (MOET) Nucleus, is a scheme characterized by conferring high intensity and rapidity to selection through the evaluation of offspring of cows that are genetically superior for milk production, multiplied by the transfer of embryos. The main goal of the Nucleus is the early identification of genetically superior sires for milk, which will be used directly in herds of the breed and in crosses. These sires can subsequently be included in progeny tests for reassessment and for obtaining additional accuracy. The evaluation of these young sires is based on the performance of their full sisters, paternal and maternal half-sisters, and other relatives. The third scheme is based on the productive performance of the daughters of progeny-tested sires produced by random mating. Although slower than the previous one, this method is the most accurate to evaluate the true genetic potential of a sire for milk production. The data originating from the different sources are genetically connected and are combined in a single archive, the database of Embrapa/CBMG<sup>2</sup>/NZA. The genetic evaluation for milk traits is therefore integrated, unique, and comparative.

Since Guzera is a dual-purpose breed, both the MOET Nucleus and various partner herds of the dairy breeding program also participate in the Genetic Evaluation Program of the Guzera Breed for Beef Production (PAGRG) of ANCP and GEMAC. Consequently, several sires are “double proven”, i.e., they are genetically evaluated for dairy and beef traits. This summary reports for the 11th consecutive year the results of genetic evaluations of beef and reproductive traits in different proven sires for milk.

Conformation and management traits can help the breeder to obtain a herd with better production and economic efficiency. Several of these traits are being measured in the Guzera breed and this summary presents the evaluations of sires that met the accuracy requirements for some of them.

Molecular markers are promising tools that can be used complementarily in selection programs. Caution in the use of these marker in Zebu cattle is necessary since they are still being tested for validation. Since various molecular markers have already been studied in Guzera cattle, the genotypes of different proven sires are presented in the summary, particularly in an attempt to preserve some rare alleles and to assist in selection with due caution.

The economic importance of the different traits evaluated and presented in this summary varies widely across different niche markets and systems in which the breed is used. We decided to present the evaluations for the largest possible number of traits so that producers can choose those that are most appropriate and important for their particular objective and use reliable data in their selection work and breeding schemes. The main goal of the program is to generate technology and to produce

improved animals for production systems that take advantage of the qualities of Guzera cattle and their crossbreeds in order to obtain high production at low cost.

## Traits Evaluated

### Dairy traits

- **305-day milk yield:** the cumulative milk yield at 305 days of lactation. It should be noted that, if lactation has ceased before 305 days, milk yield regardless of the lactation length is assumed as 305-day milk yield.
- **Yield and content of fat, protein and total solids during lactation:** these are the main milk components whose yield is obtained by the laboratory analysis of milk samples collected from tested cows. Total solids, or dry extract, represent the set of milk components without water. Content is a way of expressing the relationship between milk yield and milk component yield in percentage units. The genetic correlation between milk yield and milk component yield is positive and, although high, is not equal to 1 or 100%, i.e., the increase in milk yield is always higher than the increase in milk component yield. Consequently, the genetic correlation between milk yield (kg) and milk component content (%) is negative. Thus, selection focusing only on milk yield may negatively affect the content of milk components.
- **Age at first calving:** the pursuit of reproductive efficiency of the herd is essential to ensure the economic viability of milk production. A cow that conceives at a younger age, i.e., that is precocious, has a longer useful life, reproducing more often in the herd and leaving a larger number of offspring and heifers necessary for replacement in the herd. The main economic consequence of reproductive precocity is the faster return on investment due to the increase in the milk volume produced during the period that cows remain in the herd. Hence, knowing the genetic potential of sires and dams for age at first calving is an important additional information for the genetic improvement of herds in which cows are late.
- **Milk production efficiency:** this trait is defined as the ratio between milk yield (kg) and age at calving (months). The trait reflects the early capacity of milk production of an animal and, indirectly, the economic return associated with the production costs of a replacement female in the herd. Milk production efficiency is also a preliminary indicator of useful life, i.e., it provides information about the probability of extending the productive herd life of an animal, reducing the risk of premature culling. Since it combines two traits, this information should be used when simultaneous selection for precocity and milk yield is desired, i.e., when both traits need to be improved in the herd. The positive expected progeny difference (EPD) thus indicates that the animal is able to leave daughters with a higher milk production potential at younger ages.
- **Response of breeding values for 305-day milk yield to the productive environment:** the breeding value of sires are estimated according the overall management level of the farms. The management level is determined based on the performance of the contemporary groups. This approach considers a genetically different response of animals to different environmental conditions (genotype x environment interaction). Sires whose response achieves reliability of 40% or higher for this trait are then classified as negative sensitive (-), positive sensitive (+), and robust (=). Negative sensitive (-) sires transmit to their daughters genes that favor milk production in herds of low management level (low input use, low-quality feed, basic general management).

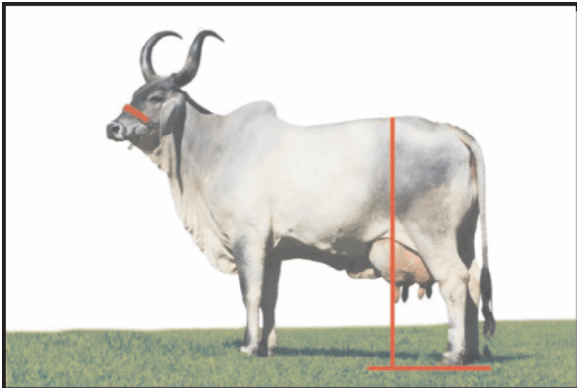
Positive sensitive (+) sires transmit to their daughters genes that favor milk production in herds of high management level (high input use, high-quality feed, excellent general management). On the other hand, robust (=) sires transmit to their daughters milk production genes that are relatively indifferent to changes in the management level of the herds.



## Conformation and management traits

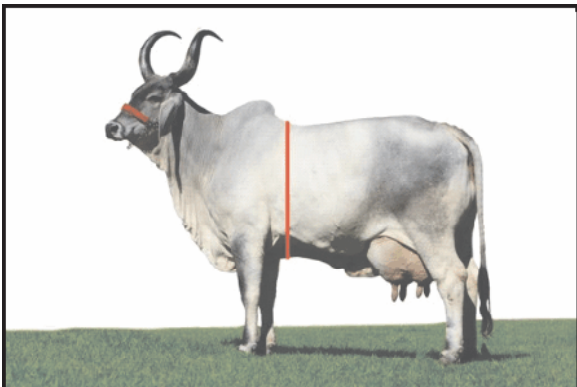
Morphological or linear type traits measured by the program were included according to their functional importance for survival, reproduction, udder health and animal production. So far, it was possible to publish the genetic evaluation for eight of these traits. The traits measured and figures illustrating the positions or sites where these linear measurements are taken are shown below for the traits that have already been evaluated genetically.

- Rump height



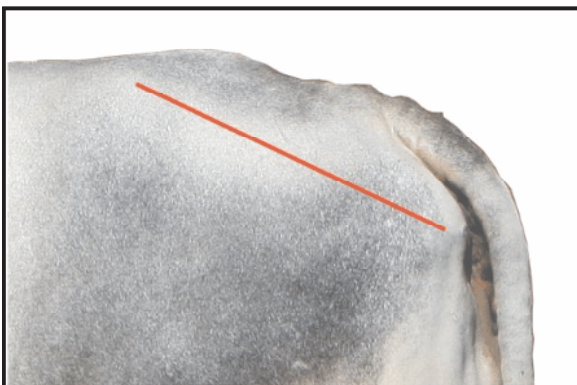
For this trait, it is desired that the hip is sufficiently high to keep the udder away from the ground.

- Heart girth



The heart girth is related to the cardiac, pulmonary and digestive capacity of the animal..

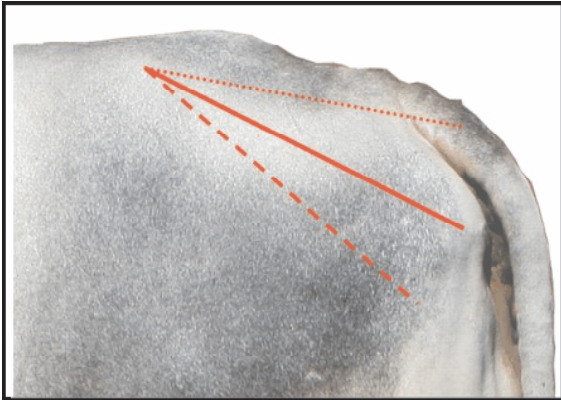
- Body length
- Rump length



This trait is related to dorsal support of the udder.

- Pin bones width
- Hook bones width

- Rump angle



It is measured by means of the inclination between pin and hook. A score above 5 indicates a drained croup and below 5, a flat rump. Extreme values (high or low) are undesired since they can cause calving problems.



- Foot angle
- Rear legs (side view)
- Rear legs (rear view)
- Fore udder attachment
- Rear udder width
- Udder depth
- Teat length



The ideal teat length to facilitate milking is about 7.5 cm. Very long teats impair colostrum feeding by the calf, make milking difficult, and are related to an increased incidence of teat loss and mastitis. Very short teats are also undesired since they impair feeding and milking.

- Teat diameter



Teats with an intermediate to small diameter (3.8 cm) are desirable. Excessively thick teats impair milking and feeding and are therefore undesirable for the breed..

- Navel length
- Milking ease
- Temperament



This trait is related to docility and ease of handling of animals. Scores range from 1 to 5 and values close to 5 are desirable.

## Beef and reproductive traits

- **Age at first calving (AFC):** This trait is an indicator of sexual precocity. Sires with negative EPDs (expressing fewer days to first calving) are desirable.
- **Gestation length (GL):** This trait has economic impacts since it is related to birth weight and calving ease. Negative EPDs indicate a shorter GL and smaller size of the calf at birth.
- **Scrotal circumference at 365 and 450 days (SC365 and SC450):** These traits show a favorable correlation with fertility and sexual precocity. Higher EPDs are associated with more precocious animals and higher fertility.
- **Weight at 120 days (W120):** This trait expresses the preweaning growth potential of animals. Higher EPDs indicate greater growth.
- **Maternal ability at 120 days (MA120):** This trait expresses the maternal ability of the cow during the preweaning period.
- **Weights at 365 and 450 days (W365 and W450):** These traits express the growth potential during the postweaning period. Higher EPDs indicate greater growth.
- **Mature weight (MW):** This trait is defined as weight from 4 to 12 years of age and is related to the maintenance costs and growth rate of the animal. Very high EPDs are associated with high maintenance requirements.
- **Accumulated productivity (ACP):** This trait indicates cow productivity in kg of weaned calves per year while the cow remains in the herd.
- **Rib eye area (REA):** An ultrasound-measured trait related to carcass yield. Medium to high EPDs are desirable.
- **Carcass finishing (ACAB):** Ultrasound-measured traits related to precocity and carcass finishing. High values indicate greater fat accumulation at these sites.
- **Longevity (STAY):** This trait, also known as stayability, expresses the ability of females to remain productive in the herd for a longer period of time. This EPD indicates the probability of a sire to leave daughters that stay in the herd up to 76 months of age and calve at least three times. Higher EPDs are preferable.
- **Percentile (TOP %):** This trait permits the breeder to rank the genetic material used in the list of animals evaluated. The values indicate the rank of the chosen animal within the percentage

range (from best to worst). Thus, a TOP 10% animal is located within the 10% superior animals for that trait.

## Molecular Markers

Molecular markers are variations (or **polymorphisms** or **variants**) in the DNA sequence. They are the result of mutations and are common in all species studied. As a consequence, many genetic differences exist between individuals of any breed or species of interest. Some of these variations occur near or within the sequence of **genes** and may be used to investigate whether a certain gene influences any trait of interest, for example, milk production; hence, the term molecular marker. The variation is “marking” the region of interest that influences that trait.

There are two possibilities of how a molecular marker can influence any trait: 1) the variant directly modifies the function of a gene, or 2) the allele is located near another variant that modifies the function of the gene.

The majority of molecular markers developed so far has been described for taurine breeds. It is important to emphasize that great differences exist between taurine and Zebu breeds not only in their racial characterization, but also in their DNA. Thus, if a molecular marker was identified by “marking” a particular trait in one breed, the same marker may not “mark” this trait in another breed. Molecular markers must therefore be validated for each breed before they can be used in marker-assisted selection of genetically superior animals.

**Kappa-casein:** Kappa-casein is one of the coagulable proteins in milk. This protein stabilizes the casein micelles and determines the quality of the curd. During cheese production, kappa-casein is the main protein responsible for the retraction rate and clot firmness. In taurine cattle, allele **B** has been associated with more efficient clotting and higher cheese yields, which is the most desirable when the milk is destined for the cheese industry. This allele has also been associated with higher milk protein concentration.

**Beta-casein:** Beta-caseins form a group of highly polymorphic milk proteins. The A1 and A2 variants are the most common variants found in cattle herds. The A2 allele has been associated with higher protein content, lower fat content, and higher cheese yields. These proteins are also precursors of opioids produced by the animal itself. Opioids are substances that minimize the effects of animal stress. The A1 allele has been associated with autoimmune diseases, diabetes, heart diseases, autism, schizophrenia, and milk allergy in humans. The A2 allele is therefore considered the most favorable for human health.

**Beta-lactoglobulin:** Beta-lactoglobulin is a milk serum protein. In taurine breeds, allele **A** is related to higher milk production, higher protein content, and lower milk casein concentration. Allele **B** is associated with higher casein concentration, greater fat retention in the clot, higher thermal stability of milk, a higher dry matter content in cheese and, consequently, higher yields of industrial cheese. Thus, the “best” genotype depends on the destination of milk: allele **B** is more desirable if the milk is destined for cheese production and allele **A** if the milk is destined for milk production. It is important to maintain both alleles in the breed as a whole.

**DGAT1 (K232A):** In taurine breeds, allele **A** is associated with higher milk production, higher protein content, a lower content of trans fats, and a higher content of unsaturated fats (healthier). This allele is also associated with lower intramuscular fat deposition (marbling) in the carcass. On the other

hand, allele **K** is associated with lower production of milk with a higher fat percentage and a higher degree of marbling in the carcass.

**Thyroglobulin:** This protein is a precursor of thyroid hormones that regulate the metabolism, growth and development of animals, including the development of the mammary glands. Studies suggest that animals carrying the **T** allele have greater intramuscular fat deposition and consequently a higher degree of marbling in meat.

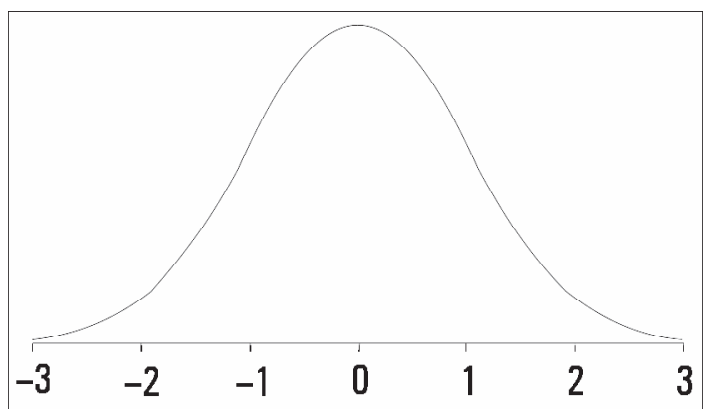
**Prolactin:** This hormone regulates mammary gland development and the onset and maintenance of lactation, as well as milk production. In addition, prolactin influences the activity of genes that encode milk proteins. Genetic variants have been identified in the prolactin gene, which affect variations in milk production and composition. One of these gene variants produces the AA, AG and GG genotypes.

## Concepts

**Expected progeny difference (EPD) (or predicted transmitting ability):** This measure describes the transmission of the genetic potential from a given animal to its offspring and is expressed as the measurement unit of the trait (e.g., kg for milk and weight, days or months for age at first calving). It has a positive or negative sign in relation to a given genetic basis. The EPD is measured based on the expected performance of the sire's daughters in relation to the basis used and is therefore an estimate of half the breeding value of a sire. For example, an EPD of 300 kg for milk yield indicates that, if the sire is used in a population with a genetic level equal to that of the basis, his daughters will produce an average of 300 kg per lactation more than the average of the herd where they produce. Considering two sires, one with an EPD of 300 kg and the other with an EPD of -100 kg, it is expected that in random mating the daughters of the first sire produce an average of 400 kg more than the daughters of the second sire (given that they are contemporaneous herd-mates).

**Standardized expected progeny difference (or standard transmitting ability, STA):** This measure refers to the standardized EPD of a trait, i.e., instead of being expressed as a measurement unit (kg, cm, days, months, etc.), it is expressed as standard deviation units from a normal standard curve. This transformation is done to facilitate visualization and comparison between traits measured in different units. For example, presentation of the EPDs for traits such as milk and fat yield, expressed in the same unit (kg), in the same graph will be very difficult because of the difference in values (+300 kg vs +10 kg). The inclusion of other conformation traits in the graphs, expressed in different units (cm or scores from 1 to 9), is practically impossible. Thus, the logical solution for combining several traits in the same graph is to standardize each of them so that all traits can be presented in the same standard graph. Standardization is obtained by dividing the EPD of the sire by the standard deviation of the EPD of the trait obtained for sires evaluated for conformation and management. The STA thus allow us to know the deviations of the same sire for different traits.

When STA is used, the variation is the same for all traits, while the same is not observed for the variation of EPDs. Thus,



**Figure 1.** Distribution of standard transmitting ability (STA).



68% of the STA values are between -1.0 and +1.0 for any trait; 95% are between -2.0 and +2.0, and 99% are between -3.0 and +3.0. Figure 1, called “Distribution of standard transmitting ability”, is also called a “standard normal distribution” or bell-shaped curve.

Many traits, including production traits, can be represented in this way. In this curve, information for most sires are found at the midpoint (STA = 0). As the value of STA deviates from the average (either to the right or to the left), there are progressively fewer sires. Only 1% of the sires are found at the extremes (-3.0 and +3.0). At point zero, the STA represents the average of the breed for that trait. Knowledge of a sire’s STA permits to predict how far will be his offspring from the average.

**Genetic basis:** The genetic basis is assumed to be “zero”; above this values, animals are classified as positive and, below this value, as negative. As a rule, it is an arbitrarily chosen reference that meets coherent and practical technical criteria, which facilitate the understanding and reasoning of producers for their selection work. The genetic basis can be fixed or flexible. In the case of dairy, conformation and management traits, the genetic basis used is the average of the breeding values in the year studied, i.e., a flexible basis. The genetic basis used in the evaluations of beef traits is formed by founder animals, i.e., those without information from ancestors. Thus, animals with average values for dairy traits in a given year and animals without ancestor information about beef traits have a zero EPD.

**Heritability:** It is a measure of the degree to which a sire or cow is able to genetically influence the expression of traits in their offspring. Greater genetic progress can be achieved for traits that are more heritable. Consequently, for the same selection intensity, much greater genetic progress is expected in matings involving highly heritable traits. Not only the heritability of a trait but also its economic importance in relation to overall economic performance must be taken into account when choosing traits to be included in a selection program. Consequently, breeders can concomitantly change production averages and increase the economic efficiency of the herd for these traits.

**Accuracy or reliability:** This is a measure of association between the estimated breeding value of an animal and its true breeding value. The higher the reliability, the greater the confidence that must be placed in the estimated breeding value of the animal. The degree of reliability depends on the amount of information used to evaluate the animal, including data of the animal itself, its daughters and other relatives, and on the distribution of these data in different environments or herds. In addition, the heritability of a trait is related to the reliability of the information about the animal. High heritabilities of a trait indicate that the information of the individual itself is more reliable for estimating its breeding value. On the other hand, low values indicate the need of including information from relatives in the estimation of breeding values of individuals to improve reliability

**Average coefficient of relationship (AR):** This coefficient is an estimate of the genetic relationship between individuals (animals) of a population because they have one or more common ancestors, i.e., they are related. This information reflects the intensity at which each individual contributes or has contributed genetically to the population and permits to describe its dynamics and structure. Together with knowledge of the inbreeding coefficient (consanguinity), the CR is of great practical utility by assisting in the appropriate selection of animals for breeding in the herd, in minimizing inbreeding and its undesired consequences for the population such as the loss of genetic variability, and in identifying lineages of interest for preservation. High CR values indicate that the individual (sire or dam) has been widely used in the population and that the chance of the sire/dam mating with a relative in this population (herd) is very high. Small or zero values do not necessarily indicate that the individual is little related or unrelated to the population, as they may reflect the lack of knowledge of its complete genealogy or origin (founders and ancestors).

**Response to the production environment:** This measure represents the expected performance of daughters of a sire in a given management environment (environmental gradient), from more to less intensive, in terms of the adoption of technologies, infrastructure, diet, hygiene practices, grazing regime, confinement, etc. The results of this assessment are presented in an easy visual manner. Sires will have only one management column filled out in the case of prediction of satisfactory performance of their offspring in only one management condition (low or high). In the case of prediction of satisfactory performance of their offspring in all managements, i.e., regardless of whether the management is high or low, both management columns will be filled out. See the diagram shown in Figure 2.

Sire's Name	Sire's identification	Environmental gradient*		Reaction**
		Low-input management	High-input management	
Fulano do Zebu	ZEBU1			SENSITIVE (-)
Sicrano do Zebu	ZEBU2			SENSITIVE (+)
Beltrano do Zebu	ZEBU3			ROBUST (=)

\*Environmental gradient: Classification of the management level or pattern

\*\*\*\*Reaction: sensitive (-) = underdemanding animal in environmental conditions, i.e., able to produce in simple environments (low-input management); sensitive (+) = overdemanding animal in environmental conditions, i.e., able to produce in refined environments; Robust (=) animal able to produce in any environment, unregardless of the environment pattern.

**Figure 2.** Schematic representation of the response to the production environment

## Genetic Evaluation

Every selection process implies differential reproduction, with greater multiplication of genetically superior animals and lower multiplication of inferior animals. Thus, the starting point for any selection process is the estimation of the animals' breeding values for decision-making on reproduction and culling. Genetic evaluation comprises a series of statistical analyses that allow us to assess the breeding value of animals, a factor that, together with environmental effects, determines the animal's phenotype. Genetic evaluations of milk production traits, in particular, permit to estimate the breeding value of animals from their own phenotypes in cases of females and/or from ancestors (mother, grandparents), collaterals (sisters, cousins) and offspring in the case of females and males.

## Methodology

The mixed model methodology permits to obtain best linear unbiased predictions (BLUP) of breeding values based on the EPDs of each animal for the different traits measured. The BLUP animal model used in these evaluations is a modern and robust method that produces EPD estimates based on the performance measures of each animal and its relatives, ancestors, collaterals and offspring included in a relationship matrix. In this assessment, all relatives of an animal identified affect its evaluation. Similarly, each individual influences the evaluations of its relatives. The level of influence depends on the degree of relationship between individuals. Offspring, parents and full-sibs (same father and same mother) exert a greater effect on the evaluation of the individual than grandparents, half-sibs, cousins, uncles, and other more distant relatives.

## Dataset, Methodology and Analyses Used in Genetic Evaluations

For genetic evaluation, all lactations at first calving and lactations up to the fifth order were considered given that the first test-day lactation of the cows had terminated due to natural causes. Ongoing lactations lasting more than 140 days were extrapolated to 278 days (average lactation length in the breed) using adjustment factors of the breed and considering the time of calving and average yield of the herd.

To estimate the genetic capacity of an individual, the environment where the cow produced must be taken into consideration, for example, the year and season of calving. Thus, the allocation of test sires to several herds is important so that the performance of their offspring is evaluated under different environmental and management conditions. The offspring of the sires evaluated are therefore distributed across the southeast, northeast, and mid-west regions of Brazil. In addition, their milk production should be adjusted for the effect of age at calving to permit the comparison of cows. For this purpose, milk yields are standardized for two milkings and at 305 days of lactation. Adjusting for non-genetic factors or effects will permit to obtain reliable estimates of the genetic merit of the animal.

The data used originated from **141** herds (**76** purebred and **65** crossbred) participating in the NZA, progeny testing, and MOET Nucleus. The progeny test already includes **200** sires divided into **21** groups that represent the existing genetic lineages in Brazil. The offspring of the sires evaluated are distributed across the southeast, northeast and mid-west regions of the country. In this year, the first-lactation milk yields of offspring of sires from the first to the **17th** group were evaluated. From the MOET nucleus, information of **182** families derived from elite donor cows was used, whose offspring completed their first lactation under standardized conditions on the Taboquinha farm, which hosts the nucleus. The age at first calving data used were obtained from **125** herds (**64** purebred and **61** crossbred) participating in the NZA, progeny testing, and MOET Nucleus.

In this year, milk yield records from **19,485** lactations of **11,821** multiparous cows were initially analyzed. After depuration, **13,698** lactations were used in the genetic evaluations, including 9,204 first-lactation records of **79%** purebred cows and **21%** crossbred cows. Data from **13,698** lactations were used for the genetic evaluation of milk production efficiency. For age at first calving, records of **8,978** lactations were analyzed, **81%** from purebred cows and **19%** from crossbred cows.

The statistical model used for genetic evaluation of the animals included the fixed effects of herd-year of calving, season of calving, breed composition of the sire's daughter, and age of cow at calving. In addition to the error, the effect of the animal (cow, sire, and dam) and of the environment were included as random effects. The genetic evaluations of fat, protein and total solids yields were performed in two-trait analysis with milk yield as anchor trait using animal model procedures. The data were analyzed using the MTDFREML package, which evaluates an individual under an animal model and estimates variance components using the derivative-free restricted maximum likelihood (DFREML) method. A complete relationship matrix that included **28,475** individuals was added for the prediction of the breeding values or EPDs of each animal. The heritability of milk yield was **0.30 ± 0.003**. The genetic basis used, estimated to be zero, corresponds to the average breeding values of all animals evaluated (males and females). The heritability of milk production efficiency was **0.51 ± 0.023**. The heritability of age at first calving was **0.13 ± 0.022** using the complete relationship matrix.

The overall means of the traits evaluated based on the PNMGuL database are reported below. The average lactation length was **283 ± 67** days. The average 305-day milk yield in the Guzera database, adjusted for mature age, was estimated at **2,466 ± 1,298** kg. The average production were **95 ± 46** kg for fat, **67 ± 32** kg for protein, and **242 ± 110** kg for total solids. An average fat content of **4.4**



It is important to note that these data should be used as complementary information in the matings. Deviations of the conformation and management traits to the right or left indicate genetic progress in the chosen direction. For example, if a cow has very large teats (above the average), it is desirable to expose her to a sire with a negative STA for teat length in order to correct this defect in the future generation. However, if the cow has very small teats, the desirable will be exposing her to a sire with a positive STA. The same logic applies to the other traits.

The database possesses approximately 291,000 weight records, 53,000 records of scrotal circumference, and 54,000 animals are registered in the relationship matrix, which belong to 79 herds evaluated. In addition to animals for dairy cattle evaluation, this database also include animals for exclusive evaluation of beef traits.

The EPDs are estimated by the mixed model methodology under an animal model, which allows to use all available information of the animal (pedigree, own performance and that of its parents), as well as to obtain the best non-biased predictors (BLUP) for all EPDs. Accuracy is calculated following the norms of the Beef Improvement Federation (BIF), which indicates the relationship between the estimated and the true breeding value of each animal, i.e., it is related to the degree of confidence in the EPD.

The single-step genomic BLUP method (ssGBLUP) is used for this evaluation, employing a multitrait animal model. The method permits the inclusion of molecular data in conjunction with all available information on the animal. In ssGBLUP, all molecular markers and phenotypic data of genotyped and non-genotyped animals are considered simultaneously, permitting their inclusion in the prediction of genomic breeding values for direct and maternal effects for all animals involved in the analysis, with or without a production record.

The following table shows the equivalence of true accuracies (used in the dairy evaluations) and BIF accuracies (used in the beef evaluations).

**Table 2.** Equivalence of Real and BIF reliabilities - (%).

<b>Real (%)</b>	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	99	100
<b>BIF (%)</b>	1	2	3	5	6	8	11	13	16	20	24	29	34	40	47	56	69	86	100

## Results of Genetic Evaluation

Table 3 shows the results of genetic evaluation of milk yield, age at first calving and milk production efficiency for the groups of sires undergoing progeny testing, young sires of the MOET Nucleus, and sires whose data on the production of their daughters are included in the database of Embrapa/CBMG<sup>2</sup>/NZA. This publication includes only sires that, when evaluated by progeny testing for milk production, had a reliability greater than 0.50 and first-lactation daughters in at least three herds that, when evaluated based on their siblings in the MOET, also had a reliability greater than 0.50 and at least one full-sib with lactation measured in the nucleus.

Table 4 shows the results of new sires and MOET families included in the 2021 genetic evaluation.

Table 5 shows the results of genetic evaluation of yields and content of fat, protein and total solids for the groups of sires undergoing progeny testing, young sires of the MOET Nucleus, and sires whose data on the production of their daughters are included in the database of Embrapa/CBMG<sup>2</sup>/NZA.

Table 6 shows the genotyping results of some genetic markers for Guzerá breed sires.



Table 7 shows the results of genetic evaluation of cows used in the genetic evaluation of sires up to the fifth lactation given that they had been evaluated in the first lactation, obtained in the habitual management of the farms in contemporary groups within the minimal requirements of the program, i.e., three contemporaneous cows of at least two sires.

Table 8 shows the results of genetic evaluation of Guzera sires for milk production according to the management level of the herds, i.e., the response to the productive environment.

Table 9 shows the results of the performance of double proven sires in genetic evaluations for growth, carcass and functional traits.

Table 10 shows the results of the performance of double proven sires in genetic evaluations for reproductive traits.

Table 11 shows the partner farms of purebred cattle.

Table 12 shows the partner farms of crossbred cattle.

Table 13 shows the batteries of sires in the progeny testing.

**Table 3.** Results of genetic evaluation for milk yield, age at first calving (AFC) and milk production efficiency (MPE) in the progeny testing (PT), MOET Nucleus and NZA performed in 2021 and coordinated by Embrapa/CBMG<sup>2</sup>.

Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	EPD										Database				
				MIN	Milk kg	MAX	Rel.	Rank	AFC Days	Rel.	Rank	MPE kg/month	Rel.		ND	NH	FS	HS
1	Humaitá X Guerra	REMANSO TE TABOQUINHA	18 / 8 / 2004	548	656	764	92	360	82	13	15	95	58	12	4	154	2,6	MOET/NZA
2	Édipo X Vanusa	HUMAITÁ TE TABOQUINHA	20 / 6 / 1996	498	575	652	96	399	91	7	16	98	148	37	1	184	2,6	MOET/PT
3	Sulfo X Tentativa	Cabal, Cabojé, Changai e Chui FIV TABOQUINHA	25 / 5 / 2014	321	560	799	61	306	51	20	14	66			1	75	2,2	MOET
4	Abaeeté X HungriaTABO	SULFO TE TABOQUINHA	5 / 5 / 2006	431	532	633	93	318	83	1	19	96	73	7	3	122	2,6	MOET/NZA
5	Humaitá X Guiana	Bandung, Bem e Bem-Belo FIV TABOQUINHA	28 / 10 / 2013	269	502	735	63	348	56	16	15	66			3	153	2,5	MOET
6	TABO1776	RABI TE TABOQUINHA	6 / 7 / 2004	299	494	689	74	313	64	6	17	80	8	3				PT
7	Obus X Naira	Sabre, Sacho, Sabiro e Sulco TE TABOQUINHA	19 / 3 / 2006	243	479	715	62	351	54	26	13	65			2	64	2,3	MOET
8	Sulfo X Réstia	Acádio, Ageu, Alecrim, Alfieu, Alpino e Alpos FIV TABOQUINHA	11 / 4 / 2012	228	464	700	62	254	54	17	15	65			4	79	2,2	MOET
9	Sulfo X Queratina	Abaeeté, Almirante, Audacioso e Bretão FIV da META, Ambicioso TABO e Bambu, Belize e Buzio FIV TABOQUINHA	19 / 4 / 2011	212	442	672	64	295	55	15	15	67			2	92	2,5	MOET
10	LKW223	GARIBO LEMBRANÇA	8 / 11 / 2008	247	418	569	80	219	67	10	16	86	14	3				PT
11	Sulfo X Queratina	BICUDO FIV TABOQUINHA	10 / 11 / 2012	179	402	625	66	309	56	14	15	70	1	1	2	92	2,5	MOET/PT
12	Trono X Quiborana	Ajax FIV TABOQUINHA	13 / 4 / 2012	161	397	633	62	316	54	18	14	66			6	49	1,9	MOET
13	Humaitá X Flecha	Quartel TE TABOQUINHA	25 / 8 / 2003	139	375	611	62	382	57	78	9	65			2	153	2,4	MOET
14	Humaitá X Legião	Rami, Ravelo, Recife, Reino e Reno TE TABOQUINHA	15 / 8 / 2004	137	373	609	62	315	56	59	10	65			2	153	2,7	MOET
15	Ouriço X LavandaTABO	Troféu TE TABOQUINHA	23 / 12 / 2006	138	365	592	65	164	56	71	9	68			2	47	2,0	MOET
16	Humaitá X Guerra	Ramadã e Rei TE TABOQUINHA	17 / 8 / 2004	137	364	591	65	347	60	95	8	67			4	154	2,6	MOET
17	JFT3102	CABO FIV JF	28 / 9 / 2009	163	362	561	73	95	62	23	13	79	6	3				PT
18	Abaeeté X HungriaTABO	Samurai, Sândalo, Sarrão, Solar e Sovou TE TABOQUINHA	13 / 4 / 2006	126	346	566	67	242	62	56	10	69			3	122	2,5	MOET
19	Estílio X Hester	OURIÇO TE TABOQUINHA	4 / 11 / 2001	217	344	471	89	195	77	83	8	93	33	12	3	77	2,3	MOET/PT
20	AghaKhan X Suma	Bloco FIV TABOQUINHA	10 / 11 / 2012	106	342	578	62	152	52	34	12	66			6	48	1,5	MOET
21	PEAC28	CRAVO PEAC	17 / 2 / 1997	207	340	473	88	210	79	21	13	92	18	10				NZA
22	Abaeeté X Nona	Aires FIV TABOQUINHA	10 / 2 / 2012	116	339	562	66	214	60	42	11	69			2	122	2,5	MOET
23	Perseus X TabaTABO	Baguari, Balbo e Bem-Dele FIV TABOQUINHA	28 / 10 / 2013	96	332	568	62	92	54	43	11	66			1	45	2,3	MOET
24	JFPA222	URIEL IBITURUNA	21 / 3 / 2008	190	323	456	88	125	73	5	17	93	38	6				PT
25	Abaeeté X Lacinia	Tabule TE TABOQUINHA	19 / 7 / 2006	87	323	559	62	163	56	79	9	65			1	106	2,1	MOET
26	Perseus X UrugaJF	HUM SONHO ARGEU	25 / 9 / 2006	146	322	498	79	40	67	11	16	86			3	48	2,8	MOET/NZA
27	AVPG124	CID 4 MENINOS	22 / 9 / 2011	116	322	528	71	264	62	41	11	77	4	4				PT
28	8301	CUBITO G.I DA ND	17 / 11 / 1971	235	321	407	95	2	89	27	12	97	117	20				NZA
29	Pacifico X Jangada	Quermes, Quiculo e Quitute TE TABOQUINHA	26 / 12 / 2003	92	319	546	65	294	57	94	8	68			4	71	2,5	MOET
30	Nepal X Parma	Zen FIV DAS FLORES	1 / 11 / 2011	82	318	554	62	323	53	46	11	66			2	60	2,4	MOET
31	Novaseita X Suma	Abu, Amado e Amerino FIV TABOQUINHA	9 / 4 / 2012	79	318	557	61	332	51	73	9	66			1	41	1,7	MOET
32	TABO1099	NAIRÓBI TABOQUINHA	30 / 8 / 2000	189	316	443	89	319	79	110	7	93	34	4				NZA
33	Estílio X Primazia	NAQUE TE TABOQUINHA	29 / 9 / 2000	189	316	443	89	31	78	62	9	93	39	14	3	74	1,7	MOET/PT
34	JFT2433	NÁPOLE TE JF	25 / 12 / 2004	181	314	447	88	248	76	2	18	93	39	10				PT
35	Osasco X NuvernJF	OBUS TE TABOQUINHA	28 / 11 / 2001	204	312	420	92	312	82	61	9	95	56	15	3	69	2,9	MOET/PT

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Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	EPD										Database		
				MIN	Milk kg	MAX	Rel.	Rank	AFC Days	Rel.	Rank	MPE kg/month	Rel.		ND	NH
36	Humaitá X JazidaTABO	Diamante, Ouro, Rubi e Topásio da VIC, e Radial, Tango, Tupi, Ubi, Urso, Xangô, Xaxado e Xodô TE TABOQUINHA	13 / 7 /2004	84	311	538	65	276	58	72	9	67	5	162	2,3	MOET
37	A1462	PACÍFICO DE ALAGOINHA	8 / 6 /1998	213	307	401	94	390	84	48	10	96	66	17	3,4	PT
38	Pacifico X IndiaTABO	QUIMAO TE TABOQUINHA	27 / 2 /2004	152	305	458	84	241	69	64	9	90	21	8	75	2,2
39	Calice X VirtudeTABO	Bastardo e Bem-Só FIV TABOQUINHA	28 / 10 /2013	75	305	535	64	151	54	24	13	68	3	33	2,7	MOET
40	Cubito X Uralita	Belzebu, Bem-Ativo, Bem-Feliz, Bem-Querer, Benzão e Brongô FIV TABOQUINHA	28 / 10 /2013	67	303	539	62	13	54	44	11	66	1	121	1,7	MOET
41	Pacifico X Ninhadas	Argos FIV TABOQUINHA	3 / 12 /2010	66	302	538	62	288	51	100	8	66	1	72	2,5	MOET
42	Pequi X NonatABO	TRONO TE TABOQUINHA	30 / 10 /2006	174	301	428	89	376	78	8	16	94	41	9	112	2,4
43	Perseus X NonatABO	Album, Atento, Ático, Atlas e Átomo FIV TABOQUINHA	29 / 2 /2012	73	300	527	65	149	58	33	12	68	1	60	2,7	MOET
44	Naque X Itupava	Valproso ALAGOINHA TE	28 / 4 /2004	53	292	531	61	203	51	143	6	66	1	42	1,5	MOET
45	JFT2351	NEPAL TE JF	27 / 8 /2004	176	291	406	91	329	82	28	12	95	55	10	2,5	PT
46	Corsário X Naira	Sarango, Sarapatel, Sarué, Sovado e Surrel TE TABOQUINHA	27 / 5 /2006	45	290	535	59	237	51	60	10	64	2	25	2,1	MOET
47	Édipo X Vanusa	Huno TE TABOQUINHA	17 / 6 /1996	59	289	519	64	327	59	75	9	66	1	184	2,1	MOET
48	Obus X Rabeca	Barbante, Beirut e Brasão FIV META, e Bene, Beijo e Brasil FIV TABOQUINHA	11 / 1 /2013	54	281	508	65	285	58	69	9	68	4	78	2,7	MOET
49	Oriente X HungriaTABO	Simi e Ston TE TABOQUINHA	31 / 12 /2005	47	280	513	63	265	56	102	8	66	1	52	2,6	MOET
50	Labrador X HungriaTABO	ÓLEO TE TABOQUINHA	10 / 6 /2002	141	279	417	87	43	73	63	9	92	27	10	148	2,2
51	Pacifico X RabecaTABO	Árabe FIV TABOQUINHA	4 / 12 /2010	55	278	501	66	342	59	55	10	69	2	88	3,0	MOET
52	Aloprado X Opção	Uxi TE TABOQUINHA	2 / 2 /2008	44	277	510	63	304	55	105	8	65	4	89	1,7	MOET
53	Obus X Nagola	Soto e Turbo TE TABOQUINHA	18 / 6 /2006	43	276	509	63	292	55	103	8	66	3	60	2,6	MOET
54	Cubito X NaçãoTABO	Sedenho e Tirol TE TABOQUINHA	8 / 6 /2006	42	272	502	64	67	56	97	8	67	1	129	1,5	MOET
55	Estilite X Queratina	Blindado FIV META, e Besse, Boato e Boêdo FIV TABOQUINHA	13 / 1 /2013	37	270	503	63	166	53	45	11	66	6	47	1,9	MOET
56	Nairóbi X IndiaTABO	Sapoti, Saque, Sopro, Tabaco e Taccapo TE TABOQUINHA	4 / 5 /2006	34	270	506	62	211	53	182	5	66	2	43	1,6	MOET
57	Humaitá X OcaUF	Fabuloso, Faiadam, Falenus e Fano TE SADE, Gallieu, Garoto, Gentil TE CIPO, e Sarará, Seguro, Sósia, Suaçuí e Skol TE TABOQUINHA	4 / 6 /2006	30	269	508	61	394	55	121	7	64	6	155	2,5	MOET
58	Pacifico X IndiaTABO	Quinante TE TABOQUINHA	27 / 2 /2004	36	266	496	64	277	56	140	6	67	3	75	2,2	MOET
59	Quilata X Bohemia	Gibraltar TE DE SADERE	5 / 10 /2007	18	266	514	58	59	48	81	9	63	1	25	1,9	MOET
60	CNS4995	ABAE TÊS	22 / 4 /1996	188	265	342	96	138	7	82	8	97	104	18	2,6	NZA
61	Calice X Virgem	Bem-Indo FIV TABOQUINHA	2 / 11 /2013	22	261	500	61	29	51	25	13	66	1	29	2,2	MOET
62	MAPZ74	NEON SANTA CECILIA	4 / 8 /2009	66	258	450	75	205	62	40	11	81	8	5	1,6	PT
63	Perseus X Opção	Bem-Dito, Bem-Você, Blande, Bodega e Boro FIV TABOQUINHA	31 / 10 /2013	25	258	491	63	222	4	57	10	66	2	49	2,6	MOET
64	A2389	ESTILO DE ALAGOINHA	27 / 5 /1988	163	257	351	94	33	87	108	7	96	61	14	2,3	PT
65	Abaeatê X HungriaTABO	SALOID TE TABOQUINHA	20 / 5 /2006	79	255	431	79	181	69	30	12	84	10	1	122	2,5

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Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	Milk				EPD				MPE kg/month	Rel.	ND	NH	FS	HS	AR %	Database
				MIN	MAX	Rel.	Rank	AFC Days	Rel.	Rank	Rel.								
66	Estilo X RabecaTABO	Zeno, Zero, Zeus, Zine e Zóide FIV TABOQUINHA	21 / 11 / 2010	33	473	67	129	-9	60	91	8	69	4	83	2,4	MOET			
67	Cubito X VioletaTABO	Bato, Bem-Amor, Bem-Dizer, Bem-Seu e Boninka FIV TABOQUINHA	30 / 10 / 2013	12	490	61	24	-29	54	47	11	64	4	122	1,4	MOET			
68	Instinto X Imersa	Orleão, Ormuz, Pará e Pakar TE TABOQUINHA	20 / 5 / 2002	20	480	64	291	13	58	138	6	67	4	102	2,0	MOET			
69	Navegante X LavandaTABO	Quarteto, Quelóide, Querosene, Querubim e Quiabeiro TE TABOQUINHA	30 / 5 / 2004	20	480	64	207	1	56	139	6	67	2	48	1,4	MOET			
70	Odre X HungriaTABO	Retiro TE TABOQUINHA	12 / 6 / 2005	20	480	64	106	-13	56	96	8	67	1	39	2,3	MOET			
71	MDV/G6318	METEORO IID	30 / 5 / 2002	35	461	69	322	18	56	169	5	75	3	0,9	NZA				
72	MDV/G6511	ORÓ D	19 / 8 / 2004	55	439	75	188	-1	58	68	9	83	3	0,8	NZA				
73	Faro X ParmaFLORES	Zetta, Zeus e Zumbi FIV DAS FLORES	6 / 11 / 2011	9	481	62	279	11	53	77	9	66	1	51	2,3	MOET			
74	Faro X NepaTABO	Sashimi, Serão, Sushi, Tabu, Tapuia e Tatu TE TABOQUINHA	9 / 6 / 2006	6	484	61	165	-4	54	119	7	65	4	52	1,9	MOET			
75	UNI/439	ESCOTERO FIV UNIUBE	1 / 3 / 2011	64	416	79	44	-23	66	4	18	85	13	4	1,1	PT			
76	Ouriço X JustaTABO	Relevo e Susão TE TABO, e Zico FIV TABOQUINHA	25 / 5 / 2005	7	473	63	184	-2	53	180	5	66	5	49	1,8	MOET			
77	Cálice X Rabeca	Bacharel, Baguari e Boletó FIV META, e Benito e Babacu FIV TABOQUINHA	25 / 8 / 2013	3	475	62	155	-5	53	19	14	66	2	50	2,6	MOET			
78	A1463	QUILATE DE ALAGOINHA	14 / 2 / 1999	100	376	87	371	29	73	85	8	91	26	9	2,4	PT			
79	Oriente X NapaTABO	Sael TABOQUINHA	25 / 3 / 2006	-4	480	60	141	-7	53	147	6	64	2	40	2,2	MOET			
80	Labrador X HungriaTABO	Atômico CAL, e Olé, Olhar, Organdi, Xoco e Xuu TE TABOQUINHA	7 / 6 / 2002	12	458	66	69	-19	60	92	8	68	5	148	2,2	MOET			
81	Acari X Lagoa	Banto e Berilo FIV TABOQUINHA	10 / 11 / 2012	-1	471	62	209	1	53	178	5	66	3	39	1,2	MOET			
82	Cubito X Tuia	Bem-Nosso FIV TABOQUINHA	3 / 11 / 2013	-1	471	62	37	-25	55	58	10	65	2	122	1,6	MOET			
83	Faro X SulpaTETABO	Bem-Achado e Bem-Bonito FIV TABOQUINHA	29 / 10 / 2013	-10	480	59	228	4	52	80	9	63	1	49	2,4	MOET			
84	CNS6629	PAPADO S	28 / 7 / 2004	38	428	74	97	-14	59	39	11	82	11	4	2,0	NZA			
85	CALG133	ÚMIDO DA CALCIOLÂNDIA	31 / 7 / 2005	38	428	74	320	18	62	88	8	80	5	5	2,7	PT			
86	Nairóbi X Primazia	Quepe, Quiasma e Quindim TE TABOQUINHA	27 / 11 / 2003	-1	465	63	224	4	56	174	5	67	2	47	1,6	MOET			
87	Aloprado X Opção	URZAL TE TABOQUINHA	2 / 2 / 2008	11	451	67	321	18	57	90	8	72	2	1	1,7	MOET/NZA			
88	JFT3094	CÁLICE FIV JF	25 / 9 / 2009	91	367	87	71	-18	73	3	18	92	28	7	2,7	PT			
89	Cubito X JustaTABO	Turu TE TABOQUINHA	2 / 12 / 2006	-1	459	64	20	-31	56	98	8	67	1	133	1,2	MOET			
90	Perseus X NonaTABO	ATIVO FIV TABOQUINHA	13 / 3 / 2012	8	448	67	198	0	59	54	10	71	1	1	2,7	MOET/PT			
91	Cubito X Jacutinga	Timão, Túnel, Turco, Turfe, Tutano e Tzar TE TABOQUINHA	26 / 11 / 2006	-3	457	64	12	-38	58	76	9	66	4	130	1,7	MOET			
92	Acari X QueratinaTABO	Xênio, Xico, Xingu e Xuku TE TABOQUINHA	11 / 10 / 2009	-6	460	63	154	-5	54	99	8	67	6	43	1,8	MOET			
93	TABO1467	PÓLO TE TABOQUINHA	21 / 11 / 2002	63	389	82	282	12	70	161	5	88	15	4	2,5	PT			
94	Pequi X NonaTABO	Tejo, Tel, Teseu, Tibet, Togo, Trunfo, Tudor e Tupina TE TABOQUINHA	25 / 10 / 2006	3	449	66	270	10	60	70	9	68	6	112	2,3	MOET			
95	Nairóbi X JustaTABO	Tufo TE TABOQUINHA	15 / 12 / 2006	-1	453	65	244	6	56	173	5	68	5	50	1,9	MOET			
96	A2667	ALOPRADO D	18 / 8 / 1991	130	318	94	162	-4	83	107	7	97	82	7	1,2	NZA			
97	Aloprado X NaçãoTABO	Ufo, Urau, Uste e Ular TE TABOQUINHA	2 / 2 / 2008	-9	457	63	245	6	54	141	6	67	2	94	1,6	MOET			
98	RussoJF X Rabeca	Al Capone FIV DA META	12 / 12 / 2012	-4	450	65	193	0	62	12	15	79	5	201	0,0	MOET			
99	JFT2452	ADONAI TE JF	26 / 1 / 2005	49	391	80	39	-24	68	38	11	86	12	8	2,1	PT			

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Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	Milk				EPD				MPE kg/month	Rel.	ND	NH	FS	HS	AR %	Database
				MIN	MAX	Rel.	Rank	AFC Days	Rel.	Rank	Rel.								
100	Nero S X Salema	Caique, Calote, Câmbio e Cáspio FIV TABOQUINHA	24 / 5 / 2014	-40	480	54	100	-14	45	8	59	2	8	2,1	MOET				
101	Opus X Gaiolalis	Tropel TE TABOQUINHA	30 / 12 / 2006	-35	473	56	177	-3	46	7	61	2	28	1,4	MOET				
102	TABO1716	QUILATE TABOQUINHA	15 / 1 / 2004	55	381	82	73	-18	66	8	89	20	6	1,6	PT				
103	Horto X PlatinaJF	Orient, Olor, Oriental, Orion e Ouvinte TE TABOQUINHA	20 / 11 / 2001	-19	447	63	310	16	55	5	66	5	105	1,5	MOET				
104	A5873	OSASCO 4M	4 / 11 / 1995	115	303	94	289	13	87	5	96	53	14	2,7	PT				
105	LKW319	IPÉ FIV BOA LEMBRANÇA	13 / 3 / 2010	-2	208	418	358	25	59	7	77	6	3	2,7	PT				
106	Acarri X Quadriga	Xare, Xaréu e Xopotó TE TABOQUINHA	22 / 11 / 2009	-28	444	62	157	-5	52	7	65	4	33	1,8	MOET				
107	Trigueiro X Itaipava	Ralo e Soberbo ALAGOINHA TE	7 / 7 / 2000	-29	443	62	287	12	52	2	66	1	58	1,4	MOET				
108	Estilo X Hester	Opaco e Oxum TE TABOQUINHA	27 / 10 / 2001	-18	428	66	234	5	59	4	68	3	77	2,2	MOET				
109	Capitão-Mor X NaçãoTABO	Sinai TE TABOQUINHA	31 / 12 / 2005	-28	438	63	134	-8	55	5	66	3	71	1,6	MOET				
110	Naque X HeteiaTABO	Rateio e Recuo TE TABOQUINHA	8 / 11 / 2004	-34	444	61	114	-12	52	5	65	2	43	1,9	MOET				
111	Estilo X Primazia	Nanquim e Navegante TE TABOQUINHA	19 / 9 / 2000	-17	423	67	74	-18	61	5	69	3	74	1,6	MOET				
112	A1437	ÉDIPLO DE ALAGOINHA	29 / 8 / 1988	135	267	97	393	40	93	5	98	182	29	3,5	PT				
113	JFPA465	CAMBUCI IBITURUNA	9 / 12 / 2009	45	351	84	5	-46	70	16	89	21	3	2,5	PT				
114	Horto X Jamaica	Quarty, Quartzo, Relator, Rubi e Sentão ALAGOINHA TE	21 / 3 / 1999	-15	411	69	383	33	61	4	71	2	106	2,3	MOET				
115	Urutu X Banqueta	RUSO TE JF	31 / 10 / 2003	120	274	96	42	-23	90	11	98	179	20	4	101	2,7	MOET/NZA		
116	Horto X TravessiaD	Jataí, Jatobá e Javali D	16 / 10 / 2000	-33	427	64	260	8	54	2	68	3	102	1,4	MOET				
117	Édipo X GaitaJF	CIGANO PEAC	19 / 1 / 1997	43	349	84	263	9	72	7	89	32	15	7	190	2,3	MOET/PT		
118	Osasco X Manágua	Sagrado DE ALAGOINHA	22 / 12 / 2001	-42	430	62	261	8	54	5	66	2	57	2,3	MOET				
119	Labrador X HungriaTABO	ÓPUS TE TABOQUINHA	11 / 6 / 2002	50	336	86	124	-9	74	7	91	24	6	5	148	2,2	MOET/PT		
120	A1443	HORTO DE ALAGOINHA	9 / 4 / 1991	104	276	95	396	42	87	5	97	98	19	1,9	PT				
121	JFT2488	ATLAS TE JF	3 / 3 / 2005	46	332	86	94	-14	73	10	91	27	12	2,7	PT				
122	DSM3371	ESTILETE DA MS	5 / 5 / 1996	46	332	86	79	-17	73	11	91	28	7	1,3	NZA				
123	Ag119	CAPTÃO-MOR D	10 / 7 / 1993	86	288	93	18	-32	83	6	96	59	13	1,2	PT				
124	Aloprado X Osa	Uai, Única e Ural TE TABOQUINHA	31 / 1 / 2008	-49	423	62	344	22	54	4	66	42	10	3	86	1,6	MOET		
125	5800	PERSEU S	23 / 9 / 1994	85	287	93	34	-25	86	11	96	3	87	1,6	NZA				
126	Nairóbi X JazidaTABO	Quinho, Quino e Quiton TE TABOQUINHA	28 / 1 / 2004	-46	408	65	172	-3	58	5	69	1	48	2,2	MOET				
127	Quilate X Lauda	Ulisque e Umbral TE TABOQUINHA	14 / 9 / 2007	-64	426	59	131	-9	48	6	64	4	28	1,5	MOET				
128	Capitão-Mor X Legião	Ramal TE TABOQUINHA	4 / 1 / 2005	-60	418	61	48	-23	53	5	65	2	64	2,0	MOET				
129	Édipo X Galileia	INSTINTO TE TABOQUINHA	30 / 4 / 1997	84	272	94	216	4	87	6	96	92	23	3	189	2,3	MOET/PT		
130	Nepal X Nega	Xaumi TABOQUINHA	25 / 11 / 2009	-64	420	60	230	4	51	6	65	1	58	2,3	MOET				
131	Aloprado X OrihaTABO	Urutai, Uruxi e Uybaç TE TABOQUINHA	31 / 1 / 2008	-56	410	63	227	4	54	4	66	3	87	1,6	MOET				
132	CNS6391	NGAÔ TE S	23 / 8 / 2003	-9	351	78	65	-20	68	10	85	11	6	2,3	NZA				
133	Pacifico X IndiaTABO	QUASAR TE TABOQUINHA	15 / 5 / 2004	-17	359	76	233	5	65	4	82	9	6	3	75	2,2	MOET/NZA		
134	973	ALBATROZ	17 / 12 / 1959	-19	369	76	143	-7	49	3	84	13	3	0,6	NZA				
135	CNS7275	BACÃO S	3 / 4 / 2007	-37	375	71	190	-1	54	5	80	8	3	1,8	PT				
136	Opus X Lauda	Trismo TE TABOQUINHA	31 / 12 / 2006	-73	411	60	159	-5	50	6	64	2	32	1,8	MOET				
137	Perseus X UrugaJF	HUM SONHO AMON	22 / 9 / 2006	-53	387	67	91	-15	59	7	71	1	1	3	48	2,8	MOET/NZA		
138	Notável X Abaiba	Bisturi FIV META, e Ituanu FIV BOA FAMILIA	15 / 6 / 2013	-76	408	60	121	-10	51	6	64	3	53	1,6	MOET				
139	M.S.Ementhal X BohemiaSADERE	Gothar FIV de SADERE	1 / 10 / 2007	-92	422	55	192	-1	46	7	60	2	10	2,0	MOET				

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Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	EPD					Milk kg	MAX	Rel.	Rank	AFC Days	Rel.	Rank	MPE kg/month	Rel.	ND	NH	FS	HS	AR %	Database
				MIN	Rel.	Rank	Days	Rel.															
140	LVP598	NOTÁVEL DA NOVA FLORESTA	1 / 6 / 2001	-3	81	397	43	66	162	5	87	21	9	2.4	PT								
141	Osasco X Vassoura	RESPLENDOR TE DA NOVA FLORESTA	8 / 7 / 2005	-35	73	307	16	60	196	4	79	5	3	62	2.1	MOET/NZA							
142	A6181	GARANTIDO D	24 / 6 / 1997	-39	72	375	29	49	223	3	80	9	3	106	2.0	NZA							
143	Abateá X Ilha	Decreto FIV DO ROSÁRIO	17 / 5 / 2007	-69	63	331	20	57	142	6	66	2	1	33	1.4	MOET							
144	Perseus X Vedella	Bem-Ti-Vi, Bem-Vosso e Butan FIV TABOQUINHA	5 / 11 / 2013	-72	62	156	-5	53	74	9	66	1	45	2.3	MOET								
145	Nepal X Queimada	Beeihoven FIV META, e Balac e Bangui FIV TABOQUINHA	9 / 4 / 2013	-76	62	343	22	55	101	8	66	7	78	1.7	MOET								
146	Tamarindo X Lisboa	HUM SONHO BASSEIN	2 / 9 / 2007	-77	62	87	-16	51	117	7	69	2	1	33	1.4	MOET/NZA							
147	Perseus X UrtigaJF	Hum Sonho Abadi, e Mandarim e Mandim FIV JF	20 / 9 / 2006	-71	65	76	-18	58	93	8	68	3	48	2.8	MOET								
148	Perseus X Elegância	Bragam FIV TABOQUINHA	22 / 10 / 2013	-83	61	107	-13	55	104	8	65	2	45	2.7	MOET								
149	WEME73	DOM FIV BOA FAMÍLIA	24 / 2 / 2009	-25	78	102	-13	64	52	10	84	13	4	0.9	NZA								
150	Instinto X MedalhaTABO	Salém, Samba, Sandrine, Sargom e Surate TE TABOQUINHA	8 / 12 / 2005	-68	66	111	-12	60	134	6	69	5	104	2.6	MOET								
151	SAV84	GIM FIV DE SADERE	20 / 3 / 2007	-55	71	278	11	53	133	6	78	9	7	1.7	PT								
152	Nairóbi X JustatABO	TUCO TE TABOQUINHA	18 / 12 / 2006	-42	75	206	1	61	132	6	81	6	2	5	1.9	MOET/PT							
153	A2633	TRIGUEIRO D	31 / 12 / 1989	46	93	186	-1	84	245	2	96	55	12	1.4	PT								
154	LDCV391	FARO TE DA MORUMBI	7 / 12 / 1996	25	146	231	5	81	109	7	94	46	11	2.2	NZA								
155	5799	PAREDAÃO S	14 / 7 / 1994	-11	84	26	-28	68	218	3	89	16	6	1.9	NZA								
156	Osasco X NuvemJF	Obi e Ornató TE TABOQUINHA	27 / 11 / 2001	-85	65	284	12	60	202	4	67	3	69	2.7	MOET								
157	Pequi X Gaiolalis	Tupã TE TABOQUINHA	29 / 11 / 2006	-104	59	229	4	51	150	6	63	2	98	1.4	MOET								
158	Urutu X Primazia	QUIEVE TABOQUINHA	29 / 8 / 2003	-55	74	187	-1	65	167	5	79	4	2	4	109	1.5	MOET/NZA						
159	Faro X Jacutinga	Safari, Sagu, Saló e Sapé TE TABOQUINHA	25 / 3 / 2006	-88	65	139	-7	58	136	6	68	1	59	2.3	MOET								
160	Urutu X Banqueta	Capitão do Mato, Cobra Norato, Sucuri, Urutu FIV da VIC, Marechal FIV GUAMA, e Ruivo TE JF	26 / 10 / 2003	-86	66	32	-26	62	135	6	68	4	101	2.5	MOET								
161	A1453	LORD DE ALAGOINHA	13 / 9 / 1994	-41	79	274	11	61	359	-2	85	7	3	1.6	NZA								
162	Aloprado X JazidatABO	Seul TE TABOQUINHA	27 / 4 / 2006	-95	64	99	-14	55	176	5	67	1	96	1.7	MOET								
163	Paredão X OrilhaTABO	Xantum e Xiré TABOQUINHA	15 / 11 / 2009	-110	59	137	-8	48	269	2	64	1	21	1.9	MOET								
164	Oriente X JustatABO	Serião e Sinal TE TABOQUINHA	6 / 9 / 2005	-96	64	175	-3	55	204	4	67	2	50	2.1	MOET								
165	Labrador X NaçãoTABO	Zambi FIV TABOQUINHA	13 / 8 / 2010	-97	64	68	-20	56	205	4	67	3	142	2.0	MOET								
166	Osasco X NuvemJF	ORIENTE TE TABOQUINHA	28 / 11 / 2001	5	89	194	0	79	158	5	93	34	11	3	69	2.8	MOET/PT						
167	Capitão-Mor X JaulatABO	SAROM TE TABOQUINHA	24 / 12 / 2005	-78	70	96	-14	61	168	5	76	4	1	6	73	1.8	MOET/NZA						
168	Russo X OratABO	Acre, Ameno, Apolo e Zopo FIV TABOQUINHA	21 / 11 / 2010	-100	64	197	0	59	137	6	67	5	184	2.7	MOET								
169	Oriente X DivaTEROS	Vacu TE DO ROSÁRIO	11 / 2 / 2006	-109	61	297	14	54	209	4	65	3	39	2.5	MOET								
170	Édipo X Galileia	Ilanque, Iaque e Ímpio TE TABOQUINHA	11 / 7 / 1996	-101	64	220	4	59	236	3	66	3	189	2.1	MOET								
171	UNI052	AGHA KHAN FIV	21 / 10 / 2007	1	89	3	-56	77	29	12	94	38	4	0.7	PT								
172	Urutu X Primazia	QUEBEC TE TABOQUINHA	20 / 8 / 2003	-74	73	81	-17	65	198	4	78	4	2	4	109	1.5	MOET/NZA						
173	Capitão-Mor X Usurad	Jaborandi, Jaguane, Jaguaribano, Japu, Jaraguá e Jaraguá D	1 / 10 / 2000	-106	64	86	-16	55	258	2	68	2	66	0.9	MOET								
174	LKW225	GARBO BOA LEMBRANÇA	27 / 11 / 2008	-109	63	161	-5	47	53	10	72	4	3	1.2	NZA								

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Milk Rank	Sire's ID or MOET Families	Sire's Name	Milk kg	EPD										Database			
				MIN	MAX	Rel.	Rank	AFC Days	Rel.	Rank	MPE kg/month	Rel.	ND		NH	FS	HS
176	Urutu X Primazia	Quadro, Quarill e Quieto TE TABOQUINHA	123	-97	343	67	104	-13	61	229	3	69	4	109	1,5	MOET	
177	FNFA960	HIDRANTE FIV NF	122	-45	289	81	251	7	66	67	9	86	8	15	1,5	PT	
178	Estilo X ArapongaNF	JOIO TE TABOQUINHA	122	-88	332	70	46	-23	61	225	3	76	4	1	67	1,4	
179	Osasco X Honrosa	Oásis, Oboé e Ogum TE TABOQUINHA	120	-110	350	64	171	-3	59	233	3	67	4	58	2,2	MOET	
180	Guriri X Lapa	Redator, Sabre e Sândalo ALAGOINHA TE	120	-110	350	64	311	16	54	234	3	67	4	46	2,3	MOET	
181	Acari X JustaTABO	Abrigo e Afêito FIV TABOQUINHA	119	-117	355	62	115	-12	51	206	4	66	2	40	1,3	MOET	
182	Édipo X Jarra	Inquieto, Jacuí, Jaipur, Jajú, Jairo, Jato e Jogo TE TABOQUINHA	117	-96	330	69	377	30	64	255	2	71	7	191	2,2	MOET	
183	Guriri X Primazia	Niquel TE TABOQUINHA	116	-114	346	64	189	-1	57	232	3	67	3	53	1,7	MOET	
184	Capitão-Mor X JazidaTABO	Sadraque, Sharon, Siroco e Sundare TE TABOQUINHA	116	-114	346	64	28	-28	56	203	4	67	3	73	1,6	MOET	
185	Acari X OrilhaTABO	Xerez e Xinxim TE TABOQUINHA	116	-126	358	60	169	-4	49	243	3	64	1	29	1,5	MOET	
186	JFT2422	NOTÁVEL TE JF	0	0	230	91	84	-16	81	128	6	95	47	15	2,7	PT	
187	Osasco X Honrosa	ODRE TE TABOQUINHA	115	-28	258	86	6	-43	75	160	5	91	21	8	58	2,2	
188	IHL146	ELETRO	115	-65	295	78	401	49	65	163	5	85	12	4	2,1	MOET/PT NZA	
189	Urutu X MedalhaTABO	Refen, Rupestre, Ruste e Rustico TE TABOQUINHA	115	-105	335	67	55	-21	61	170	5	70	2	108	2,5	MOET	
190	Quilate X Horda	Quiloto TE TABOQUINHA	115	-124	354	61	185	-2	52	212	4	64	1	34	2,7	MOET	
191	Trigueiro X Derramada4M	ÍNDIO TE DO ROSÁRIO	114	-85	313	73	253	7	61	195	4	80	9	1	58	1,3	
192	9957	NAVEGANTE	113	-8	234	90	272	11	81	280	1	93	34	7	0,9	NZA	
193	Capitão-Mor X NaraJF	Olivedo TE TABOQUINHA	112	-124	348	62	255	7	53	291	1	66	1	65	1,5	MOET	
194	Abaele X Ilha	DICK FIV DO ROSÁRIO	111	-77	299	76	373	29	63	164	5	83	11	6	2	106	2,1
195	Nairóbi X Colombina	Batoque e Batuque FIV JF, Boêmio FIV IBIT, e Topo e Torilo TE TABOQUINHA	111	-122	344	63	296	14	55	231	3	67	2	46	2,4	MOET	
196	Naque X Vassoura	Sinhô TE TABOQUINHA	111	-128	350	61	167	-4	52	242	3	64	3	48	1,5	MOET	
197	A6104	ALMA DE GATO D	110	-74	294	77	374	29	53	331	-1	85	8	4	0,5	PT	
198	Estilo X ArapongaNF	Jaó, Japão, Jasão, Jograí, Judó e Jungo TE TABOQUINHA	110	-120	340	64	47	-23	57	262	2	67	4	67	1,4	MOET	
199	Trigueiro X Derramada4M	Marte e Mava TE TABOQUINHA	109	-136	354	59	258	7	52	273	2	62	3	58	1,3	MOET	
200	ROS522	OURO TE DO ROSÁRIO	108	-55	271	82	218	4	68	219	3	88	24	3	1,8	PT	
201	8182	NAVARRO S	106	-42	254	85	9	-40	73	217	3	91	30	3	1,0	NZA	
202	Labrador X Legião	Sabor e Sabujo TE TABOQUINHA	106	-124	336	64	16	-35	57	175	5	67	1	135	2,4	MOET	
203	Tamarindo X EstrelaJF	Ugli, Umô, Umari, Umbu, Umiri, Urucum e Uxi FIV IBITURUNA	106	-136	348	60	135	-8	52	186	5	64	3	42	1,4	MOET	
204	Hábil X Limeira	Rebate, Rincão, Rodes e Rumo TE TABOQUINHA	105	-134	344	61	191	-1	54	267	2	65	1	77	2,6	MOET	
205	Capitão-Mor X JaulaTABO	Salim, Sardes, Sarigão e Solon TE TABOQUINHA	104	-126	334	64	77	-18	57	238	3	66	6	73	1,8	MOET	
206	Guriri X Emboaba	Palco e Pilsen TE TABOQUINHA	104	-135	343	61	176	-3	52	211	4	64	4	48	1,6	MOET	
207	Édipo X GaitaJP	Champion, Clero e Combate PEAC, e Ray e Reto TE DA CALCILÂNDIA	103	-127	333	64	308	16	57	235	3	66	7	190	2,3	MOET	
208	5295	ACARI RF	102	-31	235	88	63	-20	75	157	5	93	24	5	1,1	NZA	
209	Hábil X Jamaica	Ubaldo, Urocôra e Vaticano ALAGOINHA TE	101	-126	328	65	200	0	58	261	2	68	1	83	2,9	MOET	

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Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	Milk			EPD			Rel.	Rank	MPE kg/month	Rel.	ND	NH	FS	HS	AR %	Database
				MIN	MAX	Rel.	Rank	AFC Days	Rel.										
210	Instinto X Harmônica	Sumário e Suez TE TABOQUINHA	8 / 12 / 2005	-136	336	62	202	0	53	265	2	66	96	17	1	96	1,8	MOET	
211	1389	URUTU	18 / 8 / 1983	21	175	96	83	-16	89	188	4	97	17				2,1	NZA	
212	Acari X VeiaRF	Elxir e Embealado TE RF	27 / 6 / 2010	-156	352	56	82	-17	45	151	6	61				26	1,0	MOET	
213	Horto X Horda	OCRE TE TABOQUINHA	9 / 3 / 2002	-108	298	72	213	3	64	197	4	78	5	5	3	106	2,4	MOET/PT	
214	Pequi X Heister	Súdio TE TABOQUINHA	31 / 5 / 2006	-128	318	66	330	20	59	230	3	69				110	2,1	MOET	
215	9974	JÓQUEI TE JP	22 / 11 / 1991	-98	286	75	384	34	59	312	0	81	4	4	4		1,4	PT	
216	Édipo X Jarra	JEQUIÁ TE TABOQUINHA	17 / 12 / 1997	-34	220	80	190	19	80	190	4	93	47	20	7	191	2,3	MOET/PT	
217	JFT3157	CAIM JF	20 / 12 / 2009	-70	256	82	89	-15	68	22	13	89	21	6			2,3	PT	
218	Horto X Horda	Orinoco, Osmã, Oviêdo e Oxumaré TE TABOQUINHA	9 / 3 / 2002	-142	324	63	235	5	57	237	3	66	3	3	106	2,4	MOET		
219	GUZA365	ASTRAL	7 / 9 / 1999	-90	270	78	75	-18	58	357	-2	86	16	3			0,6	NZA	
220	Jequiá X Haia	Piauí e Quimo TE TABOQUINHA	26 / 5 / 2003	-152	332	60	340	21	53	270	2	63				51	2,2	MOET	
221	Trigueiro X Jarra	Dirêto, Jirau, Liber e Lual TE TABOQUINHA	10 / 5 / 1999	-128	306	68	268	10	61	318	0	70	2	2	64	1,2	MOET		
222	Faro X Queimada	Barão FIV META, e Beni e Bilbao FIV TABOQUINHA	12 / 1 / 2013	-148	324	62	305	15	54	144	6	65	4	3	5	69	1,6	MOET	
223	HUM4	HUM SONHO ABSOLUTO	4 / 9 / 2006	-113	285	73	54	-21	63	89	8	78				2,8	NZA		
224	5465	MAGNUM S	22 / 4 / 1982	-95	265	78	118	-10	59	221	3	85	8	3			1,0	NZA	
225	Pequi X Jacutinga	Tuiuiu TE TABOQUINHA	14 / 12 / 2006	-145	315	64	150	-6	57	177	5	67	2	2	107	2,3	MOET		
226	Seridó X Mariflora	GURURI TE TABOQUINHA	30 / 5 / 1995	-31	199	91	259	8	82	214	3	94	40	5	4	126	2,5	MOET/NZA	
227	A6430	DANDI JP	16 / 2 / 1996	-114	276	74	372	29	65	313	0	79	6	3			3,2	NZA	
228	HUM51	HUM SONHO BALBECK	18 / 11 / 2008	-155	317	62	60	-21	47	32	12	71	4	4			1,7	PT	
229	MDV/G6458	NOVA SEITA D	12 / 11 / 2003	-59	217	87	178	-2	74	130	6	92	31	7	3	39	2,5	NZA	
230	Oriente X Diva TEROS	VELUDO DO ROSÁRIO	12 / 2 / 2006	-137	289	69	275	11	59	226	3	75	4	1	3		2,5	MOET/NZA	
231	A989	IBERICO JP	15 / 10 / 1990	-53	274	89	398	45	79	247	2	93	17	5			1,0	NZA	
232	Cubito X Almofada	Exame e Executivo TE DO CIPÓ	1 / 6 / 2004	-159	307	63	19	-32	55	263	2	66	3	3	130	0,7	MOET		
233	Homero X Diva TEROS	OCIDENTE DO ROSÁRIO	1 / 1 / 2005	-159	307	63	226	4	54	228	3	69	2	1	1	20	2,6	MOET/NZA	
234	MDV/G6822	RAPA PÉ D	10 / 5 / 2007	-118	258	76	112	-12	56	87	8	84	15	7			0,6	NZA	
235	Corsário X Tuiha	Acari e Aloés FIV TABOQUINHA	11 / 4 / 2012	-183	313	58	168	-4	50	187	5	80	2	2	20	2,3	MOET		
236	A1449	JAGUNÇO DE ALAGOINHA	16 / 9 / 1993	-120	248	77	336	21	63	307	0	84	7	4			2,2	PT	
237	Odre X Harmônica	Semita, Sensor e Sultão TE TABOQUINHA	22 / 8 / 2005	-181	309	59	49	-23	48	268	2	65	21	6	1	25	1,7	MOET	
238	Tamarindo X Hastie	HUM SONHO BECOR	18 / 8 / 2007	-180	304	60	57	-21	50	118	7	65	1	1	1	34	1,5	MOET/NZA	
239	9956	PALÁCIO	2 / 10 / 1988	-87	209	85	101	-13	71	282	1	91	22	4			0,5	NZA	
240	Urutu X JauliaTABO	Trope, Trote, Trovão, Truste, Tubel e Tucano TE TABOQUINHA	20 / 12 / 2006	-167	287	65	119	-10	59	260	2	68				110	2,2	MOET	
241	HUM24	HUM SONHO ABADON	24 / 9 / 2006	-98	208	84	11	-39	72	65	9	89	21	6			2,1	PT	
242	Capitão-Mor X NaraJF	OROS TE TABOQUINHA	19 / 1 / 2002	-149	257	72	269	10	60	253	2	78	4	3	1	65	1,5	MOET/PT	
243	Homero X Manágua	Vadio ALAGOINHA TE	20 / 4 / 2004	-194	302	58	145	-7	49	271	2	63	1	1	19	2,4	MOET		
244	A336	FOGO RF	8 / 6 / 1992	-127	233	78	368	28	65	305	0	85	14	3			1,2	NZA	
245	Édipo X Jarra	JONAS TE TABOQUINHA	26 / 12 / 1997	-131	237	77	379	31	68	311	0	81	6	2	7	191	2,2	MOET/NZA	
246	Tamarindo X Hastie	Hum Sonho Bandor	1 / 9 / 2007	-195	301	58	58	-21	49	123	7	62	1	1	34	1,5	MOET		
247	Maranhão X JustaTABO	Remã, Remido, Remo, Remoto e Repuxo TE TABOQUINHA	29 / 3 / 2005	-190	288	61	142	-7	51	240	3	65	1	1	54	2,0	MOET		
248	Cassino X Balaica4M	Mestre TE TABOQUINHA	15 / 9 / 1999	-189	283	62	352	24	53	239	3	65	5	70	1,5	MOET			
249	Fundador X CoroaNF	Jafar, Jamais e Justo TE TABOQUINHA	26 / 9 / 1997	-198	292	59	160	-5	48	325	0	64	3	3	30	0,7	MOET		
250	NES22	GUZERÁ DA BARRA 2	14 / 8 / 1998	-213	307	54	30	-27	41	122	7	63	3	3			1,1	NZA	
251	Urutu X Acauá	NEHERU TE JF	23 / 8 / 2004	-138	230	77	362	26	66	284	1	83	10	5	3	103	2,1	MOET/NZA	
252	Urutu X NaraJF	OFURÔ TE TABOQUINHA	23 / 4 / 2002	-153	245	73	196	0	63	286	1	79	5	3	4	102	1,9	MOET/NZA	

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Milk Rank	Sire's ID or MOET Families	Sire's Name	Milk kg	EPD						MPE kg/month	Rel.	ND	NH	FS	HS	AR %	Database
				MIN	MAX	Rank	AFC Days	Rel.	Rank								
		Birthdate*															
253	JFT3253	OASIS FIV JF	45	248	153	-5	59	31	12	78	6	3			2.0	PT	
254	TABO637	IAGO TE TABOQUINHA	45	275	225	4	55	256	2	70	3	3		2.4	NZA		
255	Heteu X Jamaica	Urso e Uji ALAGOINHA TE	45	284	298	14	52	324	0	65		1	27	2.4	MOET		
256	7655	NAMBU JP	44	165	354	25	79	350	-2	93	17	9		1.1	NZA		
257	Corsário X Hester	Falsa TE de SADERE e Taco TE TABOQUINHA	44	283	257	7	52	266	2	65		3	33	2.2	MOET		
258	Pequi X Gazala	Truque e Tucho TE TABOQUINHA	44	286	303	15	55	244	3	63		2	97	2.2	MOET		
259	Édipo X Jarra	DUNGA TE DO ROSÁRIO	43	214	380	32	71	304	0	85	12	2	7	191	2.2	MOET/NZA	
260	TABO866	LABRADOR TABOQUINHA	42	128	1	-58	89	154	5	97	130	31		2.1	PT		
261	Seridó X Nóbrega	Haiti, Heli, Hangar, Haras, Harém, Havaí e Hereu TE TABOQUINHA	39	259	357	25	59	343	-1	69		4	123	2.2	MOET		
262	Instituto X Imerisa	PEQUI TE TABOQUINHA	38	132	240	6	86	155	5	97	94	20	4	102	2.2	MOET/PT	
263	MDVG5360	GIBÃO D	38	196	387	35	65	192	4	89	22	5		0.5	NZA		
264	Capitão-Mor X Usurad	JANARID	37	152	88	-15	81	189	4	95	47	13	2	66	1.0	MOET/PT	
265	ROS614	VERNIZ TE DO ROSÁRIO	37	213	103	-13	64	222	3	85	18	6		2.2	PT		
266	LVPS59	JOÁ DA NOVA FLORESTA	37	229	363	26	63	165	5	82	12	6		2.1	PT		
267	Orós X JaulaTABO	Relento TE TABOQUINHA	37	291	215	3	48	274	2	60		1	18	1.9	MOET		
268	Seridó X Marítima	DEDAL TE DO ROSÁRIO	28	149	324	19	82	277	1	94	60	4	4	126	2.5	MOET/NZA	
269	Homero X DivaTeros	Lacre, Lathio e Litio TE DO ROSÁRIO	28	276	247	6	51	296	1	62		1	20	2.6	MOET		
270	A6134	DESENGASO D	26	159	126	-9	66	299	0	93	28	9		0.5	PT		
271	Barbante X Gallieira	DECOTE TE DO ROSÁRIO	26	197	80	14	71	220	3	85	11	2	2	85	2.2	MOET/NZA	
272	Estilo X ArapongãNF	JABUTI TE TABOQUINHA	23	156	17	-34	76	249	2	92	36	11	4	67	1.4	MOET/PT	
273	Opus X Roma	Urais e Ulfar FIV IBITURUNA	21	263	108	-13	50	294	1	64		4	32	2.0	MOET		
274	Jequiá X Ilharga	Objeto e Pitu TE TABOQUINHA	21	269	266	9	50	295	1	63		2	50	2.0	MOET		
275	Barbante X Babilônia	HIFEM TE TABOQUINHA	20	223	127	-9	62	315	0	76	2	1	4	83	2.1	MOET/NZA	
276	A5843	OLENTE 4M	19	199	105	-13	58	333	-1	85	17	4		0.0	NZA		
277	Cassino X Balalaica4M	MATIPÓ TE TABOQUINHA	18	248	349	24	55	257	2	69	1	1	5	70	1.5	MOET/NZA	
278	CNS5519	CABUL III S	17	111	25	-28	86	213	3	96	90	14		2.9	NZA		
279	HQB258	MARCA SOLE MENTAL	16	229	350	24	54	224	3	77	5	3		1.7	NZA		
280	Navegante X Relvajf	Mar e Motor TE TABOQUINHA	16	252	339	21	55	323	0	65		4	40	1.5	MOET		
281	Édipo X Almoçada	ENREDO TE DO CIPÓ	15	242	328	19	58	342	-1	69	1	1	3	195	2.0	MOET/NZA	
282	Urutu X Acauá	Natan JF	15	245	243	6	57	290	1	66		3	103	2.1	MOET		
283	CNS4923	TAMARINDO S	12	145	22	-30	76	159	5	93	32	6		1.3	NZA		
284	Tamarindo X Hastie	HUM SONHO BARUC	10	194	66	-20	64	50	10	85	15	3	1	34	1.5	MOET/PT	
285	Barbante X Babilônia	Hertz, Hilo, Hindu, Hino, Hípico e Hirto TE TABOQUINHA	10	223	148	-6	59	339	-1	72		4	83	2.1	MOET		
286	Nobre X Jamaica	Rabino e Rebelde ALAGOINHA TE	10	237	223	4	57	320	0	68		1	59	2.5	MOET		
287	Hábil X JaulaTABO	Rito, Rival, Roque, Rosto, Rubi, Rude e Sino TE TABOQUINHA	9	242	98	-14	57	292	1	66		2	89	2.7	MOET		
288	9346	TRICÓ	9	260	109	-13	37	377	-3	66	3	3		0.2	NZA		
289	A2731	GAVIÃO DA NOVA FLORESTA	8	135	370	29	76	279	1	93	38	9		1.6	PT		
290	JFT3045	CAIO FIV JF	8	200	35	-25	64	131	6	81	6	3		2.8	PT		
291	Seridó X Jeitosa	Hélicos TE TABOQUINHA	7	240	302	15	57	368	-2	65		4	121	2.0	MOET		
292	CNS5614	DELITO S	6	239	238	5	47	227	3	73	7	3		1.0	NZA		
293	Cassino X Emboaba	Mombaça TABOQUINHA	6	248	286	12	55	293	1	64		1	73	1.7	MOET		
294	A6120	CABO DE GUERRA D	4	184	128	-9	60	358	-2	85	11	5		0.8	PT		
295	A2118	DESPACHO S	3	191	90	-15	63	362	-2	82	4	3		1.9	NZA		
296	CNS6135	MARABÁ S	2	150	15	-36	70	84	8	91	25	6		1.3	NZA		

(to be continued...)

((continuation...))

Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	Milk			EPD					Rel.	Rank	MPE kg/month	Rel.	ND	NH	FS	HS	AR %	Database
				MIN	MAX	Rel.	Rank	AFC Days	Rel.	Rank											
298	Urutu X Colombina	Ben, Big FIV JF, Boiru FIV IBITURUNA, e Gramado e Hifen FIV do CIPÓ	24 / 11 / 2006	-229	231	64	173	-3	57	289	1	67	289	1	67	3	108	2,3	MOET		
299	Cassino X CoroaNF	Nago, Nero e Nitro TE TABOQUINHA	6 / 11 / 2000	-235	231	63	236	5	55	322	0	66	322	0	66	2	73	1,6	MOET		
300	Maranhão X Medusa	Rato, Raptor, Rasgo, Rebolo, Recato e Reduta TE TABOQUINHA	31 / 10 / 2004	-244	240	60	56	-21	52	241	3	64	241	3	64	6	44	2,0	MOET		
301	Homero X Florença	Real TE TABOQUINHA	11 / 11 / 2004	-244	240	60	78	-18	52	326	0	64	326	0	64	2	18	2,3	MOET		
302	FNFA753	HAMAL NF	12 / 3 / 2010	-220	214	68	85	-16	56	254	2	75	254	2	75	4	3	1,4	PT		
303	Heteu X Iara	Cururu DER e Oslo TE TABOQUINHA	20 / 5 / 2002	-251	245	58	204	0	50	327	0	62	327	0	62	4	24	2,1	MOET		
304	Barbante X Tarawalis	HABIL TE TABOQUINHA	15 / 7 / 1995	-98	90	94	38	-24	87	275	1	96	275	1	96	75	12	5	84	3,1	
305	FNF5873	PLEBEU NF	7 / 5 / 1998	-154	142	85	53	-21	71	250	2	91	250	2	91	32	11	1,7	PT		
306	Heteu X Jade TE	Pejo, Poente e Proteu TE TABOQUINHA	7 / 3 / 2003	-257	245	57	144	-7	49	348	-1	62	348	-1	62	3	24	1,7	MOET		
307	Cassino X Baialaica4M	INGLÊS TE ROSÁRIO	29 / 4 / 2000	-175	159	81	366	27	68	283	1	87	283	1	87	18	3	5	70	1,5	
308	JFT2077	PREFEITO JF	22 / 9 / 2001	-230	210	67	21	-31	54	199	4	74	199	4	74	4	3	1,7	NZA		
309	UNI0236	CAIRO	11 / 6 / 2009	-176	150	82	4	-55	69	113	7	88	113	7	88	17	6	2,2	PT		
310	A337	FUNDADOR TE RF	29 / 12 / 1992	-177	149	82	328	19	67	330	-1	88	330	-1	88	22	9	1,0	PT		
311	FNF5697	PATRONO NF	1 / 11 / 1997	-198	170	77	252	7	65	361	-2	83	361	-2	83	10	3	2,3	NZA		
312	5892	VAIDOZO	1 / 5 / 1995	-158	128	86	64	-20	73	351	-2	91	351	-2	91	31	5	1,1	NZA		
313	Seridó X Chinesa S	FENOMENAL PEAC	5 / 9 / 2000	-218	188	72	300	15	62	314	0	77	314	0	77	5	1	2	119	2,4	
314	Destaque X Uralita	Aice e Amostra FIV TABOQUINHA	13 / 4 / 2012	-260	230	59	346	23	48	210	4	64	210	4	64	1	20	2,4	MOET		
315	Virtual X Jacutinga	QUARUP TE TABOQUINHA	18 / 8 / 2003	-222	190	71	120	-10	58	287	1	77	287	1	77	3	1	2	28	1,7	
316	Barbante X Tarawalis	Hoje, Hobos, Hobby e Honor TE TABOQUINHA	15 / 4 / 1996	-236	198	68	45	-23	64	319	0	70	319	0	70	5	84	2,9	MOET		
317	GUZA522	ACAJACA TE	31 / 5 / 2002	-191	151	80	386	35	67	303	0	86	303	0	86	15	4	0,8	NZA		
318	7866	SERIDÓ JA	24 / 8 / 1982	-88	44	97	389	36	92	298	0	98	298	0	98	117	22	3,8	NZA		
319	Cassino X CoroaNF	NEPAL TE TABOQUINHA	10 / 11 / 2000	-239	195	68	199	0	59	316	0	74	316	0	74	3	2	2	73	1,6	
320	Barbante X Galileia	DEGRAU TE DO ROSÁRIO	15 / 11 / 1997	-233	187	70	41	-24	64	317	0	72	317	0	72	1	1	2	85	2,2	
321	Seridó X Marítima	Dólar ROS, e Hiper e Hippius TE TABOQUINHA	14 / 2 / 1996	-243	197	67	293	14	63	365	-2	68	365	-2	68	4	126	2,4	MOET		
322	A914	BURGUÊS S	30 / 10 / 1987	-235	177	71	130	-9	59	376	-3	77	376	-3	77	4	3	2,1	NZA		
323	A2664	GITANO DE ALAGOINHA	20 / 1 / 1990	-160	94	89	356	25	68	386	-5	93	386	-5	93	41	9	1,5	PT		
324	A2621	SACADO D	26 / 2 / 1988	-149	81	91	273	11	79	278	1	94	278	1	94	33	9	0,9	PT		
325	5736	ACARAJÉ S	10 / 6 / 1986	-206	136	80	283	12	66	389	-5	86	389	-5	86	11	3	1,8	NZA		
326	Naque X Uruguaiana	Fael, Faicão e Foguete FIV GUGA, e Imã, Insbruck e Iziah FIV BOA FAMÍLIA	3 / 2 / 2013	-284	212	58	70	-19	50	272	2	62	272	2	62	2	19	2,1	MOET		
327	Seridó X Chinesa S	MARANHÃO TE PEAC	28 / 2 / 2001	-171	95	88	123	-9	77	248	2	93	248	2	93	38	11	2	119	2,5	
328	TABO2935	VALENTE TABOQUINHA	4 / 10 / 2008	-237	161	73	301	15	59	114	7	80	114	7	80	7	3	1,8	PT		
329	A6121	CANDEIRO D	18 / 2 / 1993	-182	-39	146	86	-6	70	216	3	91	216	3	91	25	5	0,6	NZA		
330	Cassino X Dica	Macedó e Quirion TE TABOQUINHA	26 / 5 / 2000	-279	109	61	369	28	54	347	-1	64	347	-1	64	4	70	1,9	MOET		
331	Barbante X Galileia	DEVOTO TE ROSÁRIO	20 / 11 / 1997	-179	97	87	132	-8	76	300	0	92	300	0	92	35	13	2	85	2,2	
332	Nobre X Babilônia	Negal TE TABOQUINHA	22 / 4 / 2001	-280	192	62	136	-8	50	367	-2	66	367	-2	66	1	56	1,5	MOET		
333	JFPA92	MAESTRO IBITURUNA	7 / 6 / 2006	-225	127	79	212	3	66	251	2	85	251	2	85	17	4	2,0	PT		
334	5735	ALADIM S	11 / 7 / 1986	-205	101	84	7	-43	74	329	-1	89	329	-1	89	12	4	2,3	NZA		
335	AFGF184	HAITI TE S.CLARAMAR	14 / 8 / 2004	-270	164	68	183	-2	60	338	-1	74	338	-1	74	4	3	2,0	NZA		
336	5088	DRAKAR S	31 / 10 / 1979	-198	88	86	133	-8	72	372	-3	91	372	-3	91	16	9	2,2	NZA		
337	JFPA20	ALINHADO TE IBITURUNA	21 / 10 / 2005	-251	139	74	290	13	59	310	0	81	310	0	81	9	6	2,0	PT		
338	Seridó X Colombina	Afinado, Alagano FIV PEAC e Galeto CIPÓ, Midas TE IBIT., e Selko TE TABOQUINHA	22 / 6 / 2005	-286	168	65	345	23	59	344	-1	68	344	-1	68	3	129	3,1	MOET		
339	A2033	VIRTUAL TEOTÔNIO	31 / 12 / 1994	-208	88	85	267	10	68	352	-2	91	352	-2	91	15	6	0,9	PT		

(to be continued...)



(continuation...)

Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	EPD										Database				
				MIN	Milk kg	MAX	Rel.	Rank	AFC Days	Rel.	Rank	MPE kg/month	Rel.		ND	NH	FS	HS
340	Imperial X Nóbrega	Galego RF	17 / 6 / 1993	-291	-61	169	64	338	21	55	384	-4	67	2	48	1,0	MOET	
341	Nobre X Usurad	Lampeão, Legação, Lenhador, Louvado e Luzeiro D	1 / 3 / 2001	-296	-63	170	63	140	-7	53	366	-2	67	3	58	1,4	MOET	
342	Seridó X Chinesas	Faro e Martelo TE PEAC	11 / 12 / 2000	-297	-64	169	63	201	0	57	346	-1	65	2	119	2,4	MOET	
343	4790	CAIRO JP	12 / 6 / 1995	-208	-65	78	86	385	35	72	301	0	91	9	1,0	PT		
344	Seridó X Marítima	DARDO TE DO ROSÁRIO	21 / 3 / 1997	-208	-65	78	86	232	5	77	328	-1	91	27	2,4	MOET/NZA		
345	HANC311	CORSÁRIO DA VEREDA	7 / 11 / 2001	-223	-65	93	83	52	-21	71	4	89	17	6	2,3	PT		
346	5775	RADIAL TE TABOQUINHA	24 / 3 / 1994	-262	-67	128	74	110	-12	61	363	-2	80	10	1,0	PT		
347	5563	VAIDOSO JP	4 / 2 / 1980	-163	-69	25	94	341	22	84	276	1	96	64	1,3	NZA		
348	Barbante X Tarawalls	HOMERO TE TABOQUINHA	7 / 5 / 1996	-235	-72	91	82	72	-18	73	356	-2	87	15	2	84	2,9	
349	Nobre X CoroaNF	MARACATU TABOQUINHA	22 / 7 / 1999	-272	-73	126	73	23	-29	61	336	-1	80	7	1	59	1,4	
350	Cassino X CoroaNF	CASSINO DO CIPÓ	13 / 1 / 2002	-253	-77	99	79	250	7	67	332	-1	85	14	6	73	1,6	
351	9940	BARBANTE JF	15 / 12 / 1987	-157	-80	-3	96	116	-10	92	297	0	98	78	17	3,6	PT	
352	GUZA454	CASSINO	5 / 10 / 2001	-222	-84	54	87	280	12	74	215	3	92	27	5	2,2	NZA	
353	TABO2122	SERENO TABOQUINHA	4 / 9 / 2005	-215	-88	39	89	365	27	77	129	6	93	39	6	1,5	PT	
354	Urutu X Colombina	TINO TE TABOQUINHA	1 / 2 / 2007	-315	-92	131	66	174	-3	57	341	-1	70	1	3	108	2,3	
355	A1447	IMPULSIVO DE ALAGOINHA	10 / 10 / 1992	-208	-93	22	91	333	21	79	246	2	94	45	13	1,7	PT	
356	MVB20	IMABROUK DA VIC	15 / 1 / 2002	-289	-94	101	74	27	-28	56	285	1	82	10	6	1,3	NZA	
357	9323	QUERO QUERO	27 / 1 / 1979	-253	-100	53	84	179	-2	73	395	-6	89	8	5	1,7	NZA	
358	Imperial X Nóbrega	ÉXITO TE TABOQUINHA	23 / 6 / 1993	-258	-105	48	84	334	21	70	374	-3	89	20	7	2	48	1,0
359	9491	FALATÓRIO DE NAVIRAI	2 / 10 / 1987	-363	-106	151	55	62	-21	38	345	-1	65	3	3	0,8	NZA	
360	9951	CASSINO JF	26 / 12 / 1988	-206	-112	-18	94	392	39	87	349	-2	96	65	10	2,7	NZA	
361	JFT1619	NAVAL JF	1 / 11 / 1994	-288	-112	64	79	335	21	68	306	0	85	9	4	2,1	NZA	
362	Seridó X Jeitosa	HETEU TE TABOQUINHA	2 / 12 / 1995	-284	-117	50	81	217	4	71	380	-4	87	19	2	2,1	MOET/NZA	
363	7962	EMBORNAL D	9 / 7 / 1977	-262	-119	24	86	388	35	64	387	-5	91	22	5	0,4	NZA	
364	Imperial X Marítima	QUARTZO TE	6 / 12 / 1993	-339	-126	87	69	221	4	59	394	-5	74	2	1	3	51	1,2
365	8341	TRIGUEIRO JA	15 / 8 / 1972	-331	-128	75	72	367	27	50	400	-8	80	5	3	0,5	NZA	
366	9754	PARAISO JF	27 / 6 / 1991	-251	-130	-9	90	361	26	80	371	-3	93	34	11	3,1	PT	
367	A2804	HORIZONTE NF	9 / 1 / 1992	-293	-130	33	82	249	7	69	354	-2	88	15	8	2,5	PT	
368	Navegante X RelvaJF	MIRADOR TE TABOQUINHA	11 / 5 / 2000	-312	-132	48	78	299	15	64	381	-4	84	13	6	4	40	1,6
369	JAU2994	RANCHO JA	28 / 11 / 2000	-357	-134	89	66	246	6	52	382	-4	72	3	3	1,5	NZA	
370	GUZA834	HOTEL TE	12 / 10 / 2005	-280	-137	6	86	50	-22	72	281	1	91	27	6	1,9	NZA	
371	A6174	CABUL S	17 / 5 / 1978	-321	-137	47	77	117	-10	60	390	-5	84	7	4	1,5	NZA	
372	5558	LAGO DE ALAGOINHA	2 / 3 / 1994	-277	-139	-1	87	355	25	73	378	-4	91	42	4	2,4	NZA	
373	A6719	CADUCEU S	5 / 6 / 1978	-333	-141	51	75	8	-42	61	335	-1	81	6	4	1,5	NZA	
374	PEACA91	EDITOR	2 / 9 / 1993	-341	-149	43	75	113	-12	55	334	-1	84	18	3	0,4	NZA	
375	OPTZ119	NATURALISMO TE PEAC	30 / 12 / 2003	-390	-157	76	63	317	17	50	340	-1	71	3	3	2,2	NZA	
376	CNS5827	IRIL POIOT	10 / 10 / 2008	-385	-158	69	65	51	-22	46	288	1	75	6	3	0,2	PT	
377	FUA S	FUA S	3 / 11 / 2000	-342	-171	0	80	182	-2	63	355	-2	87	17	6	1,0	NZA	
378	CNS6042	GOBBO IT	1 / 9 / 1998	-364	-180	4	77	378	30	58	360	-2	84	12	3	0,5	NZA	
379	WEME133	MAGO TE S	23 / 9 / 2002	-408	-181	46	65	158	-5	50	364	-2	73	5	3	1,2	NZA	
380	DTOS278	ELTORO BOA FAMÍLIA	11 / 8 / 2010	-436	-182	72	56	239	5	40	321	0	66	8	3	0,5	NZA	
381	JAJA2755	NOBRE JF	14 / 7 / 2001	-436	-191	54	59	92	-14	83	370	-3	95	51	10	2,3	PT	
382	FAFM792	JOAZEIRO DA BARRA	4 / 7 / 1999	-395	-207	-19	76	314	17	60	308	0	83	7	6	1,5	NZA	
383	7963	SIGNO AM	16 / 8 / 1999	-307	-213	-119	94	402	51	82	401	-10	96	73	8	1,9	NZA	
384	7556	ADORNO	12 / 8 / 1989	-217	-4	69	122	-10	49	393	-5	77	5	3	0,6	NZA		
385	A133	IMPERIAL JA	28 / 5 / 1985	-339	-224	-109	91	364	27	80	385	-5	94	42	14	1,4	PT	
386	A2726	PINCEL JA	27 / 7 / 1992	-434	-228	-22	71	381	32	59	392	-5	78	3	3	1,7	NZA	
387	JAJ3188	JUAZEIRO JA	25 / 8 / 2003	-416	-232	-48	77	403	60	61	375	-3	85	10	4	0,9	NZA	
388	JARS726	ADVENTO TE JA	8 / 2 / 2005	-433	-234	-35	73	256	7	52	309	0	82	10	4	0,9	NZA	
389	A5255	MORENO	26 / 5 / 1988	-505	-237	31	51	353	24	34	403	-11	63	4	3	0,0	NZA	
390	A951	CABUL II S	20 / 6 / 1988	-417	-250	-83	81	10	-40	67	399	-8	87	13	6	2,1	PT	
391	JAU2690	CANCUN JA	17 / 11 / 1995	-433	-266	-99	81	395	41	63	302	0	88	16	3	1,0	NZA	

(to be continued...)

(continuation...)

Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	EPD										Database				
				MIN	Milk kg	MAX	Rel.	Rank	AFC Days	Rel.	Rank	MPE kg/month	Rel.		ND	NH	FS	HS
394	JFT2049	PSIU JF	23 / 6 / 2001	-475	-272	-69	72	337	59	398	21	59	79	6	4	4	2,3	PT
395	Seridó X Chinesa S	FUSO TE PEAC	2 / 12 / 2000	-434	-276	-118	83	170	71	388	-3	71	88	21	2	2	119	MOET/NZA
396	CNS5027	ACASO S	23 / 6 / 1996	-455	-292	-129	82	147	60	373	-6	60	89	20	4	4	1,1	NZA
397	Nobre X Marfima	JECA TE TABOQUINHA	26 / 5 / 1998	-490	-295	-100	74	36	63	402	-25	63	81	8	1	2	1,7	MOET/NZA
398	ROES1	BESOURO ROE	31 / 8 / 1999	-512	-295	-78	68	262	50	396	8	50	77	6	3	3	0,4	NZA
399	IMPO1	GANGES IMPORTADO	17 / 9 / 2010	-488	-296	-104	75	208	1	252	1	54	84	14	5	5	0,1	NZA
400	JA4196	MONTENEGRO FIV JA	3 / 8 / 2011	-519	-306	-93	69	271	10	337	10	51	78	7	3	3	1,0	PT
401	A5230	SAPUCAÍ JA	21 / 1 / 1987	-468	-320	-172	85	180	-2	379	-2	72	90	12	8	8	2,4	PT
402	A2708	TAITI JA	29 / 8 / 1989	-547	-363	-179	77	400	61	397	48	61	83	5	3	3	1,9	NZA
403	A119	DESAFIO JA	16 / 3 / 1981	-583	-380	-177	72	359	52	391	25	52	80	8	3	3	0,5	NZA

\*Birthdate: to MOET Families, birthdate was referred as the first-born among full siblings.

**Table 4.** List of new sires and MOET families of the Guzera breed with the results of genetic evaluation for milk yield, age at first calving (AFC) and milk production efficiency (MPE) in the progeny testing (PT), MOET Nucleus and NZA performed in 2021 and coordinated by Embrapa/CBMG<sup>2</sup>.

Milk Rank	Sire's ID or MOET Families	Sire's Name	Birthdate*	Milk kg		MAX	Rel.	Rank.	AFC Days	Rel.	Rank.	MPE kg/month	Rel.	ND	NH	FS	HS	AR %	Database
				MIN															
11	Sulfo X Queratina	BICUDO FIV TABOQUINHA	10 / 11 / 2012	179	402	625	66	309	16	56	14	15	70	1	1	2	92	2.5	MOET/PT
27	AVPG124	CID 4 MENINOS	22 / 9 / 2011	116	322	528	71	264	9	62	41	11	77	4	4			2.3	PT
90	Perseus X NonaTABO	ATIVO FIV TABOQUINHA	13 / 3 / 2012	8	228	448	67	198	0	59	54	10	71	1	1	1	60	2.7	MOET/PT
135	CNS7275	BAÇÃO S	3 / 4 / 2007	-37	169	375	71	190	-1	54	166	5	80	8	3			1.8	PT
253	JFT3253	OASIS FIV JF	3 / 10 / 2010	-158	45	248	72	153	-5	59	31	12	78	6	3			2.0	PT
302	FNFA753	HAMAL NF	12 / 3 / 2010	-220	-3	214	68	85	-16	56	254	2	75	4	3			1.4	PT
328	TABO2935	VALENTE TABOQUINHA	4 / 10 / 2008	-237	-38	161	73	301	15	59	114	7	80	7	3			1.8	PT
380	WEME133	ELTORO BOA FAMILIA	11 / 8 / 2010	-436	-182	72	56	239	5	40	321	0	66	8	3			0.5	NZA
382	DT05278	JOAZEIRO DA BARRA	4 / 7 / 2001	-436	-191	54	59	61	-21	40	383	-4	69	5	3			0.4	NZA
393	JAJ2690	CANCUN JA	17 / 11 / 1995	-433	-266	-99	81	395	41	63	302	0	88	16	3			1.0	NZA
400	JAJ4196	MONTENEGRO FIV JA	3 / 8 / 2011	-519	-306	-93	69	271	10	51	337	-1	78	7	3			1.0	PT

\*Birth date: to MOET Families, birth date was referred as the first-born among full siblings

**Table 5. Results of genetic evaluation for fat, protein and total solids yield and content in the progeny testing (PT), MOET Nucleus and NZA performed in 2021 and coordinated by Embrapa/CBMG<sup>2</sup>.**

Sire's ID or MOET Families	Sire's Name	EPD										Milk Rank.		
		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
CNS4895	ABAETÉ S	75	9,369	45	0,103	39	8,412	66	0,024	80	26,279	255	-0,068	60
Abaeté X HungriaTABO	Samurai, Sândalo, Sarrafo, Solar e Soveu TE TABOQUINHA	38	11,394	192	0,020	22	9,572	318	-0,065	37	34,124	382	-0,273	18
Abaeté X Ilha	Decreto FIV DO ROSÁRIO	158	5,729	99	0,063	133	4,905	139	-0,009	152	16,589	276	-0,089	143
Abaeté X Lacinia	Tabule TE TABOQUINHA	37	11,527	82	0,074	28	9,194	221	-0,036	39	33,869	298	-0,115	25
Abaetés X Nona	Aires FIV TABOQUINHA	19	13,076	16	0,148	14	10,404	78	0,019	22	36,594	151	0,009	22
GUZA522	ACAIAÇA TE	291	-0,103	247	-0,007	310	-0,418	94	0,015	306	-1,110	51	0,091	317
5736	ACARAJÉ S	327	-1,743	331	-0,065	321	-0,954	114	0,005	320	-3,878	91	0,053	325
5295	ACARI RF	207	3,830	129	0,048	205	2,722	143	-0,011	202	11,329	172	-0,004	208
Acari X JustatABO	Abrigo e Aleito FIV TABOQUINHA	214	3,565	250	-0,010	191	3,170	269	0,051	191	12,260	351	-0,180	181
Acari X Lagoa	Banto e Benilo FIV TABOQUINHA	59	10,126	10	0,156	78	6,681	205	-0,030	74	26,951	137	0,015	81
Acari X OrilhaTABO	Xerez e Xinim TE TABOQUINHA	200	4,041	146	0,040	189	3,185	165	-0,020	190	12,378	229	-0,050	185
Acari X Quadriga	Xare, Xaréu e Xopotó TE TABOQUINHA	120	7,537	138	0,044	109	5,649	297	-0,058	110	23,188	233	-0,054	106
Acari X QueratinaTABO	Xênio, Xico, Xingu e Xuku TE TABOQUINHA	104	8,131	151	0,038	80	6,605	230	-0,040	79	26,284	168	0,001	92
Acari X VeiaRF	Elxir e Embalado TE RF	218	3,360	169	0,030	212	2,545	173	-0,021	210	10,291	208	-0,035	212
CNS5027	ACASO S	397	-11,535	400	-0,156	398	-8,497	127	-0,002	396	-32,678	153	0,007	396
JFT2452	ADONAI TE JF	109	7,934	188	0,023	110	5,620	392	-0,134	106	23,512	350	-0,174	99
7556	ADORNO	385	-8,605	373	-0,099	386	-6,171	17	0,063	384	-24,520	66	0,078	386
JAR5726	ADVENTO TE JA	388	-9,166	387	-0,126	390	-6,794	112	0,005	389	-26,064	90	0,054	390
UNIUS2	AGHA KHAN FIV	169	5,137	86	0,071	156	4,127	53	0,033	159	15,583	46	0,099	171
AgghaKhan X Suma	Bloco FIV TABOQUINHA	15	13,541	31	0,118	17	10,094	142	-0,011	15	39,305	70	0,074	20
5735	ALADIM S	331	-2,029	267	-0,018	344	-2,203	254	-0,047	336	-6,406	234	-0,055	334
973	ALBATROZ	127	7,076	53	0,089	134	4,858	164	-0,020	127	19,501	133	0,018	134
JFPA20	ALINHADO TE IBITURUNA	330	-2,002	225	0,005	340	-1,924	59	0,028	335	-6,401	16	0,154	337
A6104	ALIMA DE GATO D	165	5,303	39	0,109	193	3,147	42	0,038	189	12,491	23	0,132	197
A2687	ALOPRADO D	81	9,044	167	0,030	81	6,555	326	-0,068	77	26,423	191	-0,022	96
Aloprado X JazidatABO	Seul TE TABOQUINHA	178	4,786	217	0,013	174	3,480	260	-0,049	175	13,797	275	-0,087	162
Aloprado X NaçãoTABO	Ufo, Urau, Uste e Utar TE TABOQUINHA	89	8,812	91	0,068	103	6,023	315	-0,063	91	24,669	257	-0,070	97
Aloprado X Opção	Uxi TE TABOQUINHA	39	11,232	42	0,105	44	8,072	228	-0,039	41	32,973	63	0,081	52
Aloprado X OrilhaTABO	Urutai, Uruxi e Uybaç TE TABOQUINHA	135	6,648	164	0,031	125	5,102	257	-0,048	125	19,926	239	-0,059	131
Aloprado X Osa	Uai, Única e Urai TE TABOQUINHA	131	7,022	115	0,056	120	5,206	236	-0,041	123	20,276	197	-0,027	124
GUZA365	ASTRAL	217	3,400	62	0,085	220	2,295	166	-0,020	220	8,751	254	-0,067	219
Perseu X NonaTABO	ATIVO FIV TABOQUINHA	69	9,644	50	0,095	73	6,845	144	-0,011	78	26,398	96	0,049	90
JFT2488	ATLAS TE JF	118	7,618	133	0,046	129	5,006	351	-0,079	118	21,170	251	-0,065	121
CNS7275	BAÇÃO S	149	6,173	110	0,059	144	4,572	153	-0,016	137	18,434	190	-0,021	135
9940	BARBANTE JF	365	-5,346	385	-0,124	361	-3,369	307	-0,060	361	-13,460	354	-0,183	351
Barbante X Babilônia	Hertz, Hilo, Hindu, Hino, Hípico e Hirto TE TABOQUINHA	315	-1,117	320	-0,058	308	-0,380	231	-0,040	308	-1,421	286	-0,102	285
Barbante X Tarawalls	Hoje, Holes, Hobby e Honor TE TABOQUINHA	334	-2,203	323	-0,062	331	-1,288	255	-0,048	327	-4,524	303	-0,120	316
ROES1	BESOURO ROE	398	-11,639	396	-0,146	400	-8,533	49	0,034	398	-33,316	114	0,036	398
Sulfo X Queratina	BICUDO FIV TABOQUINHA	20	13,008	243	-0,005	11	11,533	345	-0,075	12	42,485	363	-0,225	11
A914	BURGUÉS S	318	-1,430	301	-0,039	316	-0,652	111	0,006	319	-3,624	108	0,038	322
A6120	CABO DE GUERRA D	243	1,996	196	0,020	277	0,293	119	0,001	280	1,372	155	0,006	294
JFT3102	CABO FIV JF	29	11,965	202	0,017	26	9,203	394	-0,142	30	35,410	396	-0,330	17
A951	CABUL II S	390	-9,201	325	-0,062	393	-7,271	69	0,023	390	-26,396	7	0,225	392
CNS5319	CABUL III S	269	0,911	282	-0,027	285	0,055	265	-0,050	272	2,627	185	-0,012	278

(to be continued...)

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Sire's ID or MOET Families	Sire's Name	EPD										Milk Rank.		
		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
9737	CABUL S	368	-5,691	333	-0,066	368	-4,080	101	0,011	369	-15,554	123	0,028	371
5558	CADUCEU S	363	-5,155	270	-0,020	371	-4,303	110	0,007	368	-15,495	59	0,084	373
JFT3157	CAIM JF	233	2,491	233	0,002	225	2,118	250	-0,046	226	8,345	52	-0,065	217
JFT3045	CAIO FIV JF	292	-0,132	328	-0,063	302	-0,217	264	-0,050	289	0,538	224	-0,047	290
UNI0236	CAIRO	273	0,728	222	0,008	301	-0,209	98	0,013	290	0,239	42	0,105	309
4790	CAIRO JP	332	-2,046	298	-0,037	335	-1,596	63	0,025	341	-7,735	158	0,005	343
JFT3094	CÁLICE FIV JF	86	8,875	75	0,076	99	6,064	361	-0,087	86	25,000	253	-0,067	88
Cálice X Rabeca	Bacharel, Baguari e Boletto FIV META, e Benito e Babacu FIV TABOQUINHA	100	8,243	216	0,013	105	5,921	381	-0,113	101	23,837	343	-0,166	77
Cálice X Virgem	Bem-Lindo FIV TABOQUINHA	43	11,053	11	0,152	58	7,357	267	-0,051	53	30,232	116	0,033	61
Cálice X Virtude TABO	Bastardo e Bem-Só FIV TABOQUINHA	40	11,179	96	0,066	46	8,009	367	-0,102	42	32,740	302	-0,120	39
JFPA465	CAMBUCHIBITURUNA	113	7,787	28	0,121	130	5,004	275	-0,053	122	20,307	171	-0,004	113
JAU2690	CANCUN JA	392	-9,715	345	-0,078	394	-7,361	26	0,052	394	-29,555	78	0,067	393
A6121	CANDEIRO D	311	-0,812	180	0,027	313	-0,551	6	0,085	317	-3,147	53	0,087	329
A6119	CAPITÃO-MOR D	79	9,156	203	0,129	96	6,121	33	0,045	99	23,878	13	0,175	123
Capitão-Mor X Jaula TABO	Salim, Sardes, Saigão e Solon TE TABOQUINHA	177	4,797	141	0,043	168	3,665	39	0,039	179	13,377	67	0,076	205
Capitão-Mor X Jazida TABO	Sadiraque, Sharon, Siroco e Sundare TE TABOQUINHA	176	4,841	101	0,062	186	3,264	106	0,008	187	12,525	147	0,011	184
Capitão-Mor X Legião	Ramai TE TABOQUINHA	128	7,063	122	0,052	115	5,411	124	-0,001	120	20,567	136	0,017	128
Capitão-Mor X Nação TABO	Sinai TE TABOQUINHA	87	8,868	32	0,118	107	5,806	135	-0,007	108	23,396	122	0,029	109
Capitão-Mor X Nara JF	Oliveiro TE TABOQUINHA	174	4,863	112	0,058	179	3,373	120	0,001	183	13,157	100	0,046	193
Capitão-Mor X Usurad	Jaborandi, Jaguane, Jaguaribano, Japu, Jaraguá e Jargão D	155	5,897	67	0,078	157	4,060	76	0,020	162	14,695	212	-0,037	173
GUZA454	CASSINO	352	-3,932	347	-0,079	354	-2,732	128	-0,003	347	-9,671	93	0,051	352
Cassino X Coroa NF	CASSINO DO CIPÓ	348	-3,704	363	-0,092	356	-2,799	272	-0,051	352	-10,738	321	-0,135	350
9951	CASSINO JF	364	-5,274	356	-0,085	367	-4,019	303	-0,060	366	-14,485	205	-0,034	360
Cassino X Balalaica 4M	Mestre TE TABOQUINHA	257	1,516	204	0,017	265	0,949	225	-0,036	258	4,271	200	-0,030	248
Cassino X Coroa NF	Nago, Nero e Nitro TE TABOQUINHA	310	-0,779	302	-0,040	314	-0,602	308	-0,061	313	-2,212	311	-0,125	299
Cassino X Dica	Maceió e Quiron TE TABOQUINHA	324	-1,558	277	-0,024	333	-1,462	177	-0,021	329	-5,178	119	0,032	330
Cassino X Emboaba	Mombaca TABOQUINHA	287	0,118	283	-0,027	293	-0,128	179	-0,022	295	-0,337	170	-0,002	293
Cassino X Primazia CL	Jaguar, Jalião, Jalo, Jambo, Mascate e Mordomo TE TABOQUINHA	295	-0,230	236	0,001	312	-0,429	171	-0,020	300	-0,678	157	0,005	297
AVPG124	CID 4 MENINOS	35	11,614	153	0,038	42	8,277	369	-0,103	33	34,795	296	-0,113	27
Édipo X Gaita JP	CIGANO PEAC	132	6,851	276	-0,024	140	4,688	372	-0,104	136	18,496	379	-0,268	117
HANC311	CORSÁRIO DA VEREDA	333	-2,162	287	-0,030	341	-2,008	319	-0,066	333	-5,938	165	0,002	345
Corsário X Hester	Falsia TE de SADERE e Taco TE TABOQUINHA	240	2,124	142	0,042	237	1,769	140	-0,009	236	7,187	39	0,107	257
Corsário X Naira	Sarango, Sarapatei, Sarué, Sovado e Surrel TE TABOQUINHA	52	10,514	185	0,023	53	7,623	383	-0,116	46	31,580	326	-0,142	46
Corsário X Tulha	Acari e Aloés FIV TABOQUINHA	235	2,400	240	-0,002	245	1,637	294	-0,057	237	6,977	238	-0,059	235
PEAC28	CRAVO PEAC	21	12,852	136	0,045	31	9,109	397	-0,145	20	38,018	333	-0,150	21
8301	CUBITO G.I DA ND	34	11,691	98	0,064	30	9,149	352	-0,080	31	35,052	323	-0,139	28
Cubito X Almofada	Exame e Executivo TE DO CIPÓ	228	2,806	223	0,007	222	2,230	133	-0,006	230	8,105	195	-0,023	232
Cubito X Jacutinga	Timão, Túnel, Turco, Turfe, Tutano e Tzar TE TABOQUINHA	111	7,863	175	0,028	85	6,394	256	-0,048	93	24,379	261	-0,075	91
Cubito X Justa TABO	Turu TE TABOQUINHA	121	7,496	239	-0,002	87	6,383	358	-0,085	98	24,122	370	-0,247	89
Cubito X Nação TABO	Sedenho e Tirol TE TABOQUINHA	58	10,135	59	0,085	60	7,320	329	-0,069	61	28,983	313	-0,128	54
Cubito X Tuia	Bem-Nosso FIV TABOQUINHA	98	8,467	198	0,019	82	6,535	301	-0,059	87	24,974	316	-0,131	82

(to be continued...)



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Sire's ID or MOET Families	Sire's Name	EPD										Milk Rank.		
		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
<b>Cubito X Uralita</b>	Belzebu, Bem-Ativo, Bem-Feliz, Bem-Querer, Benzão e Brongo FIV TABOQUINHA	44	11,039	106	0,061	43	8,158	359	-0,086	43	32,443	310	-0,125	40
<b>Cubito X VioletaTABO</b>	Bato, Bem-Amor, Bem-Dizer, Bem-Seu e Borinka FIV TABOQUINHA	78	9,235	118	0,054	70	7,082	340	-0,073	70	27,510	283	-0,101	67
A6430	<b>DANDI JP</b>	231	2,529	359	-0,088	223	2,131	284	-0,055	233	7,785	345	-0,168	227
Seridó X Marítima	<b>DARDO TE DO ROSÁRIO</b>	345	-3,157	367	-0,095	329	-1,278	87	0,017	342	-7,952	230	-0,050	344
Barbante X Gallieia	<b>DECOTE TE DO ROSÁRIO</b>	307	0,406	336	-0,069	294	-0,128	323	-0,068	298	-0,542	318	-0,134	271
Seridó X Marítima	<b>DEDAL TE DO ROSÁRIO</b>	280	0,406	289	-0,032	250	1,414	24	0,053	275	2,175	241	-0,059	268
Barbante X Gallieia	<b>DEGRAU TE DO ROSÁRIO</b>	340	-2,511	371	-0,097	334	-1,488	302	-0,059	334	-5,960	337	-0,155	320
CNS5614	<b>DELITO S</b>	286	0,177	143	0,041	286	0,036	85	0,017	288	0,607	115	0,035	292
A119	<b>DESAFIO JA</b>	403	-14,782	384	-0,121	403	-10,862	15	0,068	403	-42,704	55	0,086	403
A6134	<b>DESENGASO D</b>	297	-0,248	318	-0,055	266	0,919	102	0,010	270	0,237	188	-0,016	270
A2118	<b>DESPACHO S</b>	293	-0,152	279	-0,025	288	0,023	194	-0,027	292	0,157	145	0,012	295
<b>Destaque X Uralita</b>	Alice e Amostira FIV TABOQUINHA	313	-0,911	322	-0,061	309	-0,401	117	0,004	309	-1,976	192	-0,022	314
Barbante X Gallieia	<b>DEVOTO TE ROSÁRIO</b>	346	-3,407	378	-0,114	342	-2,024	324	-0,068	344	-8,079	361	-0,220	331
Abaeeté X Ilha	<b>DICK FIV DO ROSÁRIO</b>	212	3,673	205	0,016	177	3,454	137	-0,009	212	10,184	289	-0,106	194
JAJA2755	<b>DINAMARQUES TE JA</b>	381	-7,355	364	-0,092	375	-4,604	4	0,087	381	-20,890	32	0,121	363
WEME73	<b>DOM FIV BOA FAMÍLIA</b>	136	6,648	77	0,076	141	4,632	170	-0,020	140	18,252	179	-0,008	149
5088	<b>DRAKAR S</b>	337	-2,369	312	-0,050	339	-1,796	122	-0,001	322	-4,177	9	0,195	336
Édipo X Jarra	<b>DUNGA TE DO ROSÁRIO</b>	259	1,494	392	-0,136	271	0,530	391	-0,132	264	3,356	391	-0,307	259
A1437	<b>ÉDPO DE ALAGOINHA</b>	146	6,276	381	-0,119	162	3,880	401	-0,173	149	17,367	400	-0,419	112
<b>Édipo X Gaita JP</b>	Champion, Cleo e Combate PEAC, e Ray e Reto TE DA CALCILÂNDIA	221	3,234	368	-0,096	226	2,107	364	-0,096	225	8,410	375	-0,262	207
<b>Édipo X Gallieia</b>	Ianque, Iaque e Impio TE TABOQUINHA	208	3,752	360	-0,089	216	2,469	387	-0,120	207	10,727	385	-0,276	170
<b>Édipo X Jarra</b>	Inquieto, Jacuí, Jaipur, Jaú, Jarro, Jato e Jogo TE TABOQUINHA	192	4,427	308	-0,044	213	2,512	360	-0,086	203	11,252	359	-0,190	182
<b>Édipo X Vanusa</b>	Huno TE TABOQUINHA	82	8,996	344	-0,078	77	6,762	395	-0,142	69	27,600	399	-0,351	47
A6719	<b>EDITOR</b>	371	-5,996	329	-0,064	370	-4,202	12	0,076	372	-16,678	30	0,122	374
IHL146	<b>ELETRO</b>	241	2,114	388	-0,128	231	1,978	373	-0,105	224	8,442	365	-0,228	188
WEME133	<b>ELTORO BOA FAMÍLIA</b>	379	-7,137	361	-0,090	378	-5,085	58	0,029	379	-20,274	110	0,037	380
7962	<b>ELBORNAL D</b>	366	-5,532	365	-0,094	359	-3,212	19	0,060	363	-13,753	227	-0,048	363
Édipo X Almoada	<b>ENREDO TE DO CIPÓ</b>	285	0,186	355	-0,085	307	-0,355	276	-0,053	297	-0,522	342	-0,164	281
UNI0439	<b>ESCOTEIRO FIV UNIUBE</b>	90	8,760	70	0,078	76	6,773	281	-0,054	81	26,035	273	-0,086	75
DSM3371	<b>ESTILETE DA MS</b>	116	7,687	27	0,123	119	5,227	155	-0,016	119	20,669	216	-0,041	122
<b>Estilete X Queratina</b>	Blindado FIV META, e Besse, Boato e Boédo FIV TABOQUINHA	60	10,059	78	0,076	50	7,858	240	-0,043	47	30,954	189	-0,018	55
A2389	<b>ESTILO DE ALAGOINHA</b>	49	10,597	73	0,076	79	6,673	336	-0,072	51	30,361	101	0,045	64
<b>Estilo X ArapongaNF</b>	Jaó, Japão, Jassão, Jograí, Judó e Jungo TE TABOQUINHA	187	4,512	158	0,035	204	2,742	239	-0,042	184	12,873	146	0,011	198
<b>Estilo X Hester</b>	Opaco e Oxum TE TABOQUINHA	97	8,504	49	0,095	97	6,109	145	-0,013	85	25,336	25	0,128	108
<b>Estilo X Primazia</b>	Nanquim e Navegante TE TABOQUINHA	108	8,056	168	0,030	117	5,340	343	-0,074	111	22,999	209	-0,035	111
<b>Estilo X RabecaTABO</b>	Zeno, Zero, Zeus, Zine e Zóide FIV TABOQUINHA	80	9,104	215	0,013	94	6,225	374	-0,105	75	26,518	293	-0,110	66
Imperial X Nóbrega	<b>ÉXITO TE TABOQUINHA</b>	369	-5,842	377	-0,113	363	-3,537	232	-0,040	362	-13,648	268	-0,082	358
9491	<b>FALATÓRIO DE NAVIRAI</b>	354	-0,030	249	-0,008	360	-3,295	47	0,036	358	-12,338	45	0,100	359
LDCV391	<b>FARO TE DA MORUMBI</b>	168	5,254	154	0,038	118	5,294	16	0,066	145	17,762	49	0,092	154
<b>Faro X Jacutinga</b>	Safari, Sagu, Saloi e Sapê TE TABOQUINHA	183	4,645	210	0,015	148	4,467	64	0,025	157	15,734	106	0,041	159
<b>Faro X NapaTABO</b>	Sashimi, Serão, Sushi, Tabu, Tapuia e Tatu TE TABOQUINHA	77	9,327	87	0,070	61	7,284	136	-0,008	63	28,589	159	0,003	74
<b>Faro X ParmaFLORES</b>	Zetta, Zeus e Zumbi FIV DAS FLORES	67	9,794	63	0,084	45	8,017	52	0,033	55	29,982	47	0,098	73

(to be continued...)

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Sire's ID or MOET Families	Sire's Name	EPD										Milk Rank.		
		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
Faro X Queimada	Barão FIV META, e Beni e Bilbaio FIV TABOQUINHA	201	4,030	68	0,078	190	3,173	28	0,051	200	11,531	43	0,104	222
Faro X SulpaTETABO	Bem-Achado e Bem-Bonito FIV TABOQUINHA	110	7,878	172	0,029	69	7,122	116	0,004	92	24,595	279	-0,091	83
Seridó X ChinesaS	FENOMENAL PEAC	302	-0,417	209	0,016	268	0,628	60	0,026	291	0,202	83	0,061	313
A336	FOGO RF	256	1,525	187	0,023	259	1,177	131	-0,005	254	4,966	262	-0,075	244
CNS5827	FUÁ S	375	-6,742	330	-0,064	377	-5,033	77	0,020	376	-18,883	94	0,050	377
A337	FUNDADOR TE RF	316	-1,275	259	-0,013	319	-0,786	222	-0,036	321	-4,098	304	-0,121	310
Fundador X CoroaNF	Jeljar, Jamsais e Justo TE TABOQUINHA	263	1,221	242	-0,004	264	1,015	261	-0,049	267	2,982	346	-0,168	249
Seridó X ChinesaS	FUSO TE PEAC	393	-10,657	395	-0,145	391	-6,928	9	0,081	393	-29,412	35	0,113	395
IMPO1	GANGES IMPORTADO	395	-11,086	376	-0,105	397	-8,465	18	0,061	397	-33,067	26	0,127	399
A6181	GARANTIDO D	129	7,056	40	0,108	137	4,726	67	0,024	132	18,790	98	0,047	142
LKW225	GARBO BOA LEMBRANÇA	190	4,459	159	0,034	199	2,947	289	-0,056	192	12,086	281	-0,096	174
LKW223	GARI BOA LEMBRANÇA	7	16,568	2	0,181	10	11,596	339	-0,073	10	45,241	291	-0,110	10
AZ731	GAVIÃO DA NOVA FLORESTA	265	0,980	220	0,009	261	1,106	14	0,073	278	1,574	103	0,045	289
7963	GENTIL JA	391	-9,470	383	-0,120	388	-6,680	118	0,002	391	-26,887	332	-0,150	385
MDV/G5360	GIBÃO D	223	3,132	37	0,112	246	1,610	89	0,016	245	5,873	29	0,123	263
SAV94	GIM FIV DE SADERE	160	5,545	160	0,034	152	4,235	227	-0,037	154	16,127	242	-0,060	151
A2664	GITANO DE ALAGOINHA	328	-1,822	266	-0,017	326	-1,129	92	0,016	328	-5,058	282	-0,097	323
ITG1235	GOBBO IT	378	-7,119	372	-0,097	381	-5,212	103	0,010	378	-19,903	79	0,064	378
Seridó X Maritima	GURRI TE TABOQUINHA	245	1,952	339	-0,073	201	2,870	80	0,018	228	8,190	174	-0,006	226
Gurri X Emboaba	Palco e Pilsen TE TABOQUINHA	211	3,731	272	-0,021	183	3,316	81	0,018	204	11,001	142	0,012	206
Gurri X Lapa	Redator, Sabre e Sândalo ALAGOINHA TE	185	4,601	227	0,004	171	3,562	162	-0,019	177	13,515	196	-0,026	180
Gurri X Primazia	Niquel TE TABOQUINHA	209	3,733	310	-0,045	178	3,439	203	-0,029	195	11,914	243	-0,061	183
NES22	GUZERÁ DA BARRA 2	253	1,767	211	0,015	255	1,221	192	-0,026	248	5,344	164	0,002	250
Barbante X Tarawalis	HÁBIL TE TABOQUINHA	342	-2,587	370	-0,096	327	-1,146	368	-0,102	323	-4,279	380	-0,271	304
Hábil X Jamaica	Ubaldo, Urocóra e Vaitcano ALAGOINHA TE	238	2,333	327	-0,063	238	1,765	380	-0,112	229	8,109	374	-0,261	209
Hábil X JaulaTABO	Rito, Rival, Roque, Rosto, Rubi, Rude e Sino TE TABOQUINHA	314	-1,074	338	-0,070	287	0,032	219	-0,035	303	-0,702	329	-0,148	287
Hábil X Limeira	Rebate, Rincão, Rodas e Rumo TE TABOQUINHA	237	2,335	346	-0,079	230	2,010	366	-0,100	223	8,565	369	-0,243	204
AFGF184	HAITI TE S. CLARAMAR	341	-2,516	309	-0,044	322	-0,971	57	0,030	340	-7,616	144	0,012	335
FNFA753	HAMAL NF	267	0,946	130	0,048	282	0,092	108	0,007	277	1,577	44	0,100	302
Seridó X Jeitosa	HETEU TE TABOQUINHA	357	-4,254	311	-0,046	346	-2,311	10	0,080	353	-10,757	11	0,191	362
Heteu X Iara	Cururu DER e Oslo TE TABOQUINHA	306	-0,666	337	-0,070	299	-0,173	185	-0,024	304	-0,964	248	-0,064	303
Heteu X JadeTE	Pejo, Poente e Proteu TE TABOQUINHA	288	0,056	253	-0,012	281	0,183	91	0,016	286	0,710	38	0,107	306
Heteu X Jamaica	Urso e Útil ALAGOINHA TE	258	1,499	300	-0,039	258	1,183	176	-0,021	250	4,871	199	-0,030	255
FNFA960	HIDRANTE FIV NF	173	4,927	145	0,040	173	3,533	268	-0,051	174	13,905	250	-0,065	177
Barbante X Babilônia	HIFEM TE TABOQUINHA	309	-0,757	314	-0,052	292	-0,117	237	-0,041	296	-0,389	287	-0,104	275
Barbante X Tarawalis	HOMERO TE TABOQUINHA	358	-4,295	379	-0,114	352	-2,690	311	-0,062	350	-10,288	340	-0,159	348
Homero X DivaTEROS	Lacre, Latino e Lítio TE DO ROSÁRIO	283	0,309	321	-0,061	291	-0,026	306	-0,060	283	0,984	328	-0,146	269
Homero X Florença	Real TE TABOQUINHA	296	-0,241	290	-0,032	305	-0,273	214	-0,033	307	-1,136	258	-0,071	301
Homero X Manágua	Vadio ALAGOINHA TE	249	1,900	190	0,022	263	1,026	273	-0,052	251	4,848	285	-0,102	243
A2804	HORIZONTE NF	361	-4,879	324	-0,062	351	-2,680	8	0,081	360	-13,128	58	0,084	367
A1443	HORTO DE ALAGOINHA	56	10,185	4	0,176	111	5,593	249	-0,046	97	24,163	73	0,070	120
Horto X Horda	Orinoco, Osmã, Oviedo e Oxumaré TE TABOQUINHA	197	4,274	71	0,077	221	2,241	197	-0,028	209	10,424	176	-0,008	218
Horto X Jamaica	Quary, Quartz, Relator, Rubi e Serião ALAGOINHA TE	92	8,719	84	0,073	123	5,135	357	-0,084	112	22,330	280	-0,091	114
Horto X PlatinaJF	Oliente, Olor, Oriental, Órion e Ouvrinte TE TABOQUINHA	64	9,947	8	0,158	89	6,290	160	-0,019	76	26,467	28	0,125	103

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		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
Horto X TravessiaD	Jataí, Jatobá e Javali D	72	9,660	18	0,141	108	5,750	253	-0,047	100	23,851	130	0,020	116
GUZA834	HOTEL TE	372	-6,221	375	-0,104	369	-4,134	93	0,015	370	-15,983	139	0,014	370
HUM24	HUM SONHO ABADON	236	2,396	128	0,048	239	1,744	35	0,042	242	6,126	64	0,081	241
HUM4	HUM SONHO ABSOLUTO	220	3,250	186	0,023	218	2,356	217	-0,034	215	9,771	149	0,010	223
Perseus X UrugaJF	HUM SONHO AMON	144	6,332	131	0,047	147	4,517	282	-0,055	134	18,589	228	-0,050	137
Perseus X UrugaJF	HUM SONHO ARGEU	24	12,494	24	0,128	33	8,986	332	-0,069	26	36,122	223	-0,047	26
HUM51	HUM SONHO BALBECK	234	2,484	208	0,016	228	2,062	233	-0,041	222	8,581	245	-0,062	228
Tamarindo X Haste	HUM SONHO BARUC	284	0,301	241	-0,004	284	0,055	271	-0,051	177	1,626	177	-0,008	284
Tamarindo X Lisboa	HUM SONHO BASSEIN	147	6,274	61	0,085	155	4,130	293	-0,057	143	18,009	154	0,006	146
Tamarindo X Haste	HUM SONHO BECOR	239	2,280	177	0,028	247	1,570	300	-0,058	235	7,377	187	-0,016	238
Edipo X Vanusa	HUMAITÁ TE TABOQUINHA	4	18,247	349	-0,080	4	13,872	403	-0,258	3	56,667	403	-0,473	2
Humaitá X Flecha	Quartel TE TABOQUINHA	27	12,372	271	-0,021	20	9,784	389	-0,126	17	38,542	367	-0,236	13
Humaitá X Guerra	Ramadã e Rei TE TABOQUINHA	31	11,757	274	-0,023	29	9,182	393	-0,136	28	35,758	383	-0,275	16
Humaitá X Guiana	Bandung, Bem e Bem-Belo FIV TABOQUINHA	5	17,164	114	0,056	6	13,393	390	-0,131	6	51,680	371	-0,251	5
Humaitá X JazidaTABO	Diamante, Ouro, Rubi e Topásio da VIC, e Radial, Tango, Tupi, Ubi, Urso, Xangô, Xaxado e Xodô TE TABOQUINHA	74	9,387	306	-0,042	68	7,139	396	-0,144	62	28,919	394	-0,313	36
Humaitá X Legião	Rami, Raveio, Recife, Reino e Reno TE TABOQUINHA	36	11,609	315	-0,053	24	9,286	399	-0,153	21	36,961	392	-0,307	14
Humaitá X OcaJF	SADÉ, Galileu, Garoto, Gentil TE CIPO, e Sarará, Seguro, Sósia, Suaçuí e Skol TE TABOQUINHA	106	8,090	326	-0,063	84	6,445	388	-0,120	82	25,971	360	-0,211	57
TABO637	IAGO TE TABOQUINHA	266	0,978	369	-0,096	272	0,474	356	-0,083	270	2,793	381	-0,271	254
A989	IBERICO JP	204	3,932	191	0,021	209	2,608	54	0,033	231	7,758	184	-0,012	231
A133	IMPERIAL JA	394	-10,799	399	-0,152	392	-7,198	215	-0,033	392	-28,397	349	-0,174	387
Imperial X Nóbrega	Galego RF	351	-3,907	352	-0,082	345	-2,264	212	-0,032	345	-8,713	274	-0,086	340
A1447	IMPULSIVO DE ALAGOINHA	326	-1,738	206	0,016	353	-2,706	134	-0,006	348	-9,838	201	-0,032	355
Trigueiro X Derramada4M	ÍNDIO TE DO ROSÁRIO	140	6,481	21	0,135	164	3,846	95	0,014	165	14,414	37	0,107	191
Cassino X Baialaica4M	INGLÊS TE ROSÁRIO	305	-0,574	224	0,005	315	-0,616	168	-0,020	310	-2,054	118	0,032	307
Edipo X Galileia	INSTINTO TE TABOQUINHA	157	5,776	299	-0,037	180	3,373	400	-0,157	163	14,689	397	-0,346	129
Instinto X Harmônica	Sumário e Suez TE TABOQUINHA	229	2,735	303	-0,041	236	1,770	384	-0,116	231	7,980	384	-0,275	210
Instinto X Imersa	Orfeão, Ormuz, Pará e Pakar TE TABOQUINHA	99	8,349	238	-0,002	95	6,188	386	-0,120	90	24,672	389	-0,293	68
Instinto X MedalhaTABO	Salém, Samba, Sandrine, Sargom e Surate TE TABOQUINHA	161	5,509	193	0,020	176	3,454	334	-0,071	171	14,092	341	-0,161	150
LKW319	IPÊ FIV BOA LEMBRANÇA	137	6,644	265	-0,016	122	5,175	355	-0,083	117	21,322	322	-0,136	105
OTPZ119	IRIL POI OT	370	-5,924	284	-0,027	372	-4,386	40	0,039	373	-17,417	21	0,135	376
Estilo X ArapongaNF	JABUTI TE TABOQUINHA	268	0,929	218	0,013	278	0,290	259	-0,048	269	2,852	182	-0,011	272
A1449	JAGUNÇO DE ALAGOINHA	251	1,837	342	-0,078	267	0,797	348	-0,078	255	4,449	356	-0,187	236
Capião-Mor X UsuraD	JANARID	232	2,509	232	0,002	241	1,714	34	0,045	257	4,297	211	-0,036	264
Nobre X Marítima	JECA TE TABOQUINHA	400	-12,659	390	-0,133	401	-9,417	290	-0,056	401	-36,775	364	-0,225	397
Edipo X Jarra	JEQUIÁ TE TABOQUINHA	210	3,732	286	-0,029	234	1,862	337	-0,072	219	9,301	308	-0,124	216
Jequiá X Haia	Jequiá X Ilharg	216	3,439	252	-0,012	211	2,582	172	-0,021	211	10,216	180	-0,009	220
LVP559	Objeto e Pitu TE TABOQUINHA	276	0,660	263	-0,015	275	0,358	210	-0,032	274	2,183	263	-0,075	274
DT05278	JOÃO DA NOVA FLORESTA	244	1,957	234	0,001	229	2,021	31	0,046	244	6,056	143	0,012	266
Estilo X ArapongaNF	JOAZEIRO DA BARRA	382	-7,404	362	-0,090	382	-5,461	51	0,033	382	-21,688	104	0,045	382
Edipo X Jarra	JOIO TE TABOQUINHA	172	5,009	149	-0,039	195	3,113	244	-0,043	169	14,255	150	0,009	178
9974	JÓQUEI TE JP	215	3,530	155	0,038	214	2,499	158	-0,017	221	8,668	295	-0,113	215
JAJ3188	JUAZEIRO JA	387	-8,697	357	-0,086	385	-6,106	25	0,052	387	-25,375	88	0,056	389
TABO866	LABRADOR TABOQUINHA	188	4,491	33	0,117	235	1,789	74	0,021	218	9,344	4	0,240	260

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		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
Labrador X HungriaTABO	Atômico CAL, e Olé, Olhar, Organdi, Xoco e Xuu TE TABOQUINHA	83	8,955	178	0,027	93	6,260	320	-0,066	83	25,657	300	-0,120	80
Labrador X Legião	Sabor e Sabujo TE TABOQUINHA	179	4,731	134	0,046	187	3,245	148	-0,013	181	13,300	95	0,049	202
Labrador X NaçãoTABO	Zambi FIV TABOQUINHA	138	6,536	38	0,112	170	3,640	161	-0,019	153	16,129	82	0,061	165
A6174	LAGO DE ALAGOINHA	373	-6,595	403	-0,209	380	-5,118	313	-0,063	377	-19,284	373	-0,259	372
A1453	LORD DE ALAGOINHA	142	6,402	163	0,031	160	3,911	223	-0,036	160	15,559	270	-0,084	161
M.S.Ementhal X BohemiaSADERE	Gothar FIV de SADERE	153	5,921	182	0,026	151	4,285	288	-0,056	147	17,484	260	-0,074	139
MVB20	MABROUK DA VIC	350	-3,774	351	-0,081	355	-2,748	86	0,017	351	-10,614	89	0,055	356
JFPA92	MAESTRO IBITURUNA	339	-2,477	183	0,025	338	-1,788	100	0,011	339	-7,393	81	0,063	333
5465	MAGNUM S	213	3,625	79	0,076	206	2,650	129	-0,004	208	10,509	105	0,044	224
CNS6042	MAGO TE S	380	-7,264	366	-0,095	379	-5,109	72	0,023	380	-20,334	148	0,011	379
CNS6135	MARABÁ S	290	-0,073	203	0,017	300	-0,191	184	-0,023	282	1,075	85	0,061	296
Nobre X CoroaNF	MARACATU TABOQUINHA	347	-3,542	358	-0,087	357	-2,818	376	-0,106	354	-10,925	398	-0,347	349
Seridó X ChinesaS	MARANHÃO TE PEAC	323	-1,552	245	-0,007	297	-0,156	27	0,052	315	-2,613	127	0,023	327
Maranhão X JustaTABO	Remã, Remido, Remo, Remoto e Repuxo TE TABOQUINHA	271	0,874	297	-0,037	240	1,731	167	-0,020	249	5,290	344	-0,166	247
Maranhão X Medusa	Rato, Raptor, Rasgo, Rebolo, Rescato e Reduta TE TABOQUINHA	308	-0,721	261	-0,014	283	0,089	109	0,007	299	-0,559	222	-0,046	300
HOB258	MARCA SOL EMENTHAL	298	-0,268	257	-0,013	296	-0,154	191	-0,026	293	-0,047	169	0,000	279
Cassino X Balalaica4M	MATIPÓ TE TABOQUINHA	281	0,358	237	0,000	289	0,009	159	-0,018	285	0,801	178	-0,008	277
MDVG6318	METEORO ID	63	10,036	80	0,075	62	7,250	251	-0,047	67	28,083	284	-0,079	71
Navegante X RelvaJF	MIRADOR TE TABOQUINHA	359	-4,306	212	0,015	366	-3,795	29	0,050	364	-13,970	41	0,106	368
JAJ4196	MONTENEGRO FIV JA	399	-11,736	391	-0,134	399	-8,512	21	0,059	389	-33,949	60	0,084	400
A5255	MORENO	389	-9,173	397	-0,149	387	-6,621	48	0,035	388	-25,866	288	-0,104	391
TABO1099	NAIROBÍ TABOQUINHA	30	11,842	81	0,074	32	9,001	322	-0,067	36	34,160	315	-0,130	32
Nairóbi X Colômbina	Batoque e Batoque FIV JF, Boêmio FIV IBIT, e Topo e Torilo TE TABOQUINHA	205	3,893	251	-0,012	203	2,785	283	-0,055	198	11,572	247	-0,064	195
Nairóbi X ÍndiaTABO	Sapoti, Saque, Sopro, Tabaco e Tacape TE TABOQUINHA	51	10,545	94	0,067	52	7,663	266	-0,051	57	29,585	277	-0,090	56
Nairóbi X JazidaTABO	Quinino, Quino e Quiton TE TABOQUINHA	148	6,185	157	0,035	138	4,703	258	-0,048	146	17,666	325	-0,142	126
Nairóbi X JustaTABO	Tufo TE TABOQUINHA	119	7,571	226	0,004	88	6,309	350	-0,079	105	23,676	368	-0,243	95
Nairóbi X Primazia	Quepe, Quiasma e Quindim TE TABOQUINHA	94	8,678	174	0,029	83	6,505	335	-0,071	89	24,899	306	-0,123	86
7655	NAMBU JP	222	3,222	170	0,030	243	1,696	71	0,023	256	4,327	198	-0,028	256
JFT2433	NAPOLE TE JF	17	13,286	29	0,119	21	9,624	151	-0,014	19	38,382	62	0,081	34
Pacifico X Palma	NAQUE TE JF	203	3,964	124	0,050	197	3,095	182	-0,022	182	13,285	50	0,092	175
Estilo X Primazia	NAQUE TE TABOQUINHA	28	12,251	120	0,053	36	8,495	375	-0,106	29	35,525	301	-0,120	33
Naque X HetaiaTABO	Rateio e Recuo TE TABOQUINHA	105	8,104	117	0,055	100	6,061	207	-0,030	102	23,757	166	0,001	110
Naque X Itupava	Valcrosos ALAGOINHA TE	32	11,715	36	0,112	48	7,991	354	-0,082	44	32,282	282	-0,110	44
Naque X Uruguiana	Fael, Falcão e Foguete FIV GUGA, e Imã, Insbruck e Iziah FIV BOA FAMÍLIA	329	-1,841	254	-0,012	332	-1,450	199	-0,028	325	-4,508	99	0,047	326
Naque X Vassoura	Sinhô TE TABOQUINHA	193	4,415	165	0,030	196	3,101	149	-0,013	185	12,756	156	0,005	196
PEAC491	NATURALISMO TE PEAC	377	-6,959	380	-0,119	376	-4,956	188	-0,025	375	-18,422	129	0,022	375
JFT1619	NAVAL JF	360	-4,664	268	-0,018	365	-3,738	32	0,046	359	-12,668	5	0,230	361
8182	NAVARRO S	195	4,314	55	0,088	198	3,039	310	-0,062	194	11,997	68	0,075	201
9957	NAVAGANTE	159	5,668	111	0,058	172	3,550	104	0,009	167	14,333	97	0,047	192
Navegante X LavandataTABO	Quartelo, Queióide, Querosene, Querubim e Quiabeiro TE TABOQUINHA	57	10,153	43	0,104	67	7,165	154	-0,016	71	27,217	218	-0,043	69

(to be continued...)

(continuation...)

Sire's ID or MOET Families	Sire's Name	EPD										Milk Rank.		
		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
<b>Navegante X RelvaJF</b>	Mar e Motor TE TABOQUINHA	261	1,284	127	0,049	273	0,411	97	0,013	273	2,421	48	0,094	280
Urutu X Acauã	NEHERU TE JF	254	1,605	125	0,050	262	1,104	75	0,020	259	3,989	33	0,116	251
MAPZ74	NEON SANTA CECILIA	65	9,889	74	0,076	54	7,545	248	-0,045	59	29,279	244	-0,061	62
JFT2351	NEPAL TE JF	22	12,685	3	0,180	19	9,852	13	0,074	32	34,832	8	0,201	45
Cassino X CoroaNF	NEPAL TE TABOQUINHA	322	-1,549	305	-0,042	328	-1,201	280	-0,053	326	-4,517	297	-0,113	319
Nepal X Nega	Xaumi TABOQUINHA	126	7,087	48	0,098	112	5,532	90	0,016	121	20,335	18	0,152	130
Nepal X Parma	Zen FIV DAS FLORES	16	13,510	9	0,156	15	10,295	45	0,036	18	38,517	17	0,152	30
<b>Nepal X Queimada</b>	Beethoven FIV META, e Balac e Bangui FIV TABOQUINHA	115	7,746	14	0,150	114	5,451	22	0,054	124	20,067	14	0,159	145
<b>Neros X Salema</b>	Calque, Calote, Cãmbio e Cãspio FIV TABOQUINHA	84	8,925	66	0,078	86	6,391	235	-0,041	84	25,574	160	0,003	100
CNS6391	NGAÔ TE S	150	6,094	123	0,050	121	5,176	178	-0,022	148	17,446	256	-0,069	132
5791	NOBRE JF	383	-8,060	340	-0,075	389	-6,692	377	-0,107	385	-24,720	388	-0,282	381
<b>Nobre X Babilônia</b>	Negal TE TABOQUINHA	338	-2,474	292	-0,034	343	-2,042	316	-0,064	337	-7,051	335	-0,151	332
<b>Nobre X Jamaica</b>	Rabino e Rebelde ALAGOINHA TE	301	-0,404	316	-0,053	323	-1,008	382	-0,115	311	-2,111	378	-0,266	286
<b>Nobre X UsuraD</b>	Lampeão, Legação, Lenhador, Louvado e Luzéiro D	343	-2,712	278	-0,024	347	-2,347	292	-0,057	346	-9,604	377	-0,265	341
LVP398	NOTÁVEL DA NOVA FLORESTA	164	5,347	386	-0,125	165	3,839	379	-0,111	156	15,787	387	-0,280	140
JFT2422	NOTÁVEL TE JF	166	5,285	176	0,028	192	3,157	341	-0,073	173	13,912	235	-0,056	186
<b>Notável X Aabalba</b>	Bisturi FIV META, e Ituaño FIV BOA FAMÍLIA	133	6,746	93	0,068	142	4,619	291	-0,057	130	19,092	278	-0,090	138
MDV/G6458	NOVA SEITA D	224	3,102	219	0,009	208	2,609	126	-0,002	213	10,131	167	0,001	229
<b>Novaseita X Suma</b>	Abu, Amado e Amerino FIV TABOQUINHA	23	12,524	56	0,088	23	9,335	195	-0,028	24	36,579	124	0,025	31
JFT3253	OASIS FIV JF	260	1,492	199	0,019	260	1,107	130	-0,005	253	4,550	173	-0,005	253
Osasco X NuvemJF	OBUS TE TABOQUINHA	12	14,519	1	0,220	16	10,224	79	0,018	16	38,747	12	0,184	35
<b>Obus X Nagola</b>	Soto e Turbo TE TABOQUINHA	47	10,605	109	0,059	51	7,734	314	-0,063	54	30,097	259	-0,074	53
<b>Obus X Naira</b>	Sabre, Sacho, Saibro e Sulco TE TABOQUINHA	3	18,854	15	0,148	5	13,739	344	-0,074	4	53,922	231	-0,051	7
<b>Obus X Rabeca</b>	Barbante, Beirute e Brasão FIV META, e Bene, Beijo e Brasil FIV TABOQUINHA	42	11,065	60	0,085	47	8,001	304	-0,060	49	30,711	215	-0,041	48
Homero X DivaTEROS	OCIDENTE DO ROSÁRIO	242	2,088	295	-0,036	253	1,284	321	-0,066	243	6,116	336	-0,153	233
Horto X Horda	OCRE TE TABOQUINHA	191	4,445	58	0,087	217	2,403	206	-0,030	205	10,869	134	0,018	213
Osasco X Honrosa	ODRE TE TABOQUINHA	184	4,623	156	0,036	194	3,118	241	-0,043	197	11,604	219	-0,043	187
<b>Odre X Harmônica</b>	Semita, Sensor e Sultão TE TABOQUINHA	246	1,951	246	-0,007	248	1,491	298	-0,058	246	5,834	307	-0,123	237
<b>Odre X HungriaTABO</b>	Retiro TE TABOQUINHA	102	8,170	280	-0,026	90	6,290	363	-0,093	94	24,299	372	-0,253	70
Urutu X NaraJF	OFURÔ TE TABOQUINHA	264	1,068	264	-0,015	252	1,290	163	-0,019	262	3,661	232	-0,052	252
A5843	OLENTE 4M	270	0,897	105	0,061	269	0,624	36	0,042	263	3,402	3	0,240	276
Labrador X HungriaTABO	ÓLEO TE TABOQUINHA	48	10,601	83	0,073	57	7,447	234	-0,041	50	30,510	269	-0,084	50
Labrador X HungriaTABO	ÓPUS TE TABOQUINHA	117	7,642	103	0,061	126	5,075	208	-0,031	116	21,462	236	-0,056	119
<b>Opus X Gaiolalis</b>	Tropel TE TABOQUINHA	93	8,704	47	0,099	102	6,029	211	-0,032	95	24,272	221	-0,045	101
<b>Opus X Lauda</b>	Trismo TE TABOQUINHA	141	6,419	195	0,020	150	4,337	277	-0,053	144	17,987	320	-0,135	136
<b>Opus X Roma</b>	Urtais e Ulltar FIV IBITUUNA	272	0,832	269	-0,020	276	0,309	132	-0,005	266	2,989	40	0,106	273
Osasco X NuvemJF	ORIENTE TE TABOQUINHA	122	7,264	5	0,173	124	5,117	1	0,125	133	18,640	1	0,400	166
<b>Oriente X DivaTEROS</b>	Vacu TE DO ROSÁRIO	151	6,088	65	0,083	163	3,877	50	0,033	161	15,458	22	0,134	169
<b>Oriente X HungriaTABO</b>	Simi e Sion TE TABOQUINHA	54	10,342	116	0,055	49	7,924	150	-0,014	52	30,305	214	-0,039	49
<b>Oriente X JustaTABO</b>	Sertão e Sinal TE TABOQUINHA	167	5,282	119	0,054	149	4,367	83	0,017	155	15,916	128	0,022	164

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		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
Oriente X NapaTABO	Sael TABOQUINHA	55	10,333	19	0,138	64	7,195	73	0,022	60	29,028	15	0,157	79
MDVG6511	ORÓ D	61	10,045	30	0,119	65	7,194	202	-0,029	64	28,553	61	0,082	72
Capitão-Mor X NaraJF	ORÓS TE TABOQUINHA	230	2,628	200	0,018	242	1,712	96	0,013	239	6,665	75	0,070	242
Orós X JaulaTABO	Relento TE TABOQUINHA	255	1,534	258	-0,013	249	1,460	68	0,023	252	4,770	126	0,023	267
A5873	OSASCO 4M	76	9,349	17	0,143	92	6,268	88	0,016	109	23,226	56	0,085	104
Osasco X Honrosa	Oásis, Oboé e Ogum TE TABOQUINHA	175	4,845	108	0,060	182	3,334	224	-0,036	193	12,002	194	-0,023	179
Osasco X Manáguá	Sagrado DE ALAGOINHA	91	8,722	13	0,150	113	5,055	147	-0,013	115	21,605	131	0,020	118
Osasco X NuvenJF	Obi e Ornato TE TABOQUINHA	125	7,098	26	0,127	128	5,055	20	0,060	139	18,346	6	0,229	156
Estilo X Hester	OURIÇO TE TABOQUINHA	14	13,904	6	0,170	18	10,032	138	-0,009	13	41,228	10	0,194	19
Ouriço X JustaTABO	Relievo e Susto TE TABO, e Zico FIV TABOQUINHA	96	8,602	121	0,052	74	6,825	263	-0,050	72	27,210	267	-0,081	76
Ouriço X LavandaTABO	Troféu TE TABOQUINHA	13	14,270	7	0,160	13	10,406	189	-0,025	14	40,665	120	0,031	15
ROS522	OURO TE DO ROSÁRIO	206	3,842	214	0,014	210	2,600	299	-0,058	201	11,529	204	-0,034	200
A1462	PACIFICO DE ALAGOINHA	62	10,036	181	0,026	40	8,334	325	-0,068	38	33,915	206	-0,034	37
Pacifico X IndiaTABO	Quinante TE TABOQUINHA	70	9,642	139	0,044	59	7,330	270	-0,051	58	29,463	217	-0,042	58
Pacifico X Jangada	Quermes, Quiculo e Quitute TE TABOQUINHA	33	11,705	57	0,087	27	9,200	200	-0,028	25	36,191	86	0,058	29
Pacifico X NinhadaS	Argos FIV TABOQUINHA	50	10,579	97	0,065	41	8,320	262	-0,049	40	33,457	246	-0,063	41
Pacifico X RabecaTABO	Árabe FIV TABOQUINHA	88	8,823	255	-0,012	71	7,056	370	-0,103	66	28,295	330	-0,150	51
9956	PALÁCIO	225	3,072	89	0,069	233	1,900	70	0,023	232	7,811	27	0,125	239
CNS6629	PAPADO S	95	8,610	132	0,046	63	7,233	113	0,005	73	27,037	138	0,014	84
9754	PARAISO JF	376	-6,759	394	-0,142	374	-4,523	193	-0,027	371	-16,229	132	0,019	366
5799	PAREDAO S	170	5,133	137	0,045	154	4,175	181	-0,022	158	15,637	203	-0,034	155
Paredão X OrilhaTABO	Xantim e Xiré TABOQUINHA	181	4,692	152	0,038	159	3,912	190	-0,025	164	14,532	249	-0,065	163
FINF5697	PERSEUS X OrilhaTABO	317	-1,338	374	-0,102	330	-1,281	296	-0,057	324	-4,336	347	-0,169	311
Instinto X Imersa	PEQUI TE TABOQUINHA	304	-0,461	389	-0,130	306	-0,273	371	-0,104	294	-0,307	393	-0,307	262
Pequi X Gaiolais	Tupã TE TABOQUINHA	182	4,652	230	0,003	181	3,355	327	-0,068	178	13,491	348	-0,171	157
Pequi X Gazela	Truque e Tucho TE TABOQUINHA	225	0,674	354	-0,083	257	1,191	218	-0,035	261	3,788	319	-0,134	258
Pequi X Hester	Súditio TE TABOQUINHA	277	2,975	248	-0,008	207	2,637	201	-0,028	214	10,106	226	-0,048	214
Pequi X Jacutinga	Tuiuuiu TE TABOQUINHA	252	1,788	335	-0,069	244	1,683	305	-0,060	238	6,803	339	-0,159	225
Pequi X NonaTABO	Tejo, Tei, Teseu, Tibet, Togo, Trunfo, Tudor e Tupina TE TABOQUINHA	103	8,161	162	0,032	101	6,061	247	-0,045	107	23,405	294	-0,111	94
5800	PERSEUS X Elegância	107	8,062	76	0,076	116	5,354	285	-0,055	113	21,939	183	-0,012	125
Perseus X NonaTABO	Bragam FIV TABOQUINHA	139	6,525	107	0,060	135	4,811	157	-0,017	142	18,162	162	0,002	148
Perseus X Opcão	Álbun, Atento, Ático, Atlas e Átomo FIV TABOQUINHA	26	12,422	22	0,135	34	8,874	169	-0,020	34	34,424	111	0,037	43
Perseus X UrtigaJF	Bem-Dito, Bem-Você, Blande, Bodega e Boro FIV TABOQUINHA	46	10,741	25	0,128	56	7,472	213	-0,033	48	30,731	54	0,086	63
Perseus X Vedella	Baguari, Balbo e Bem-Dele FIV TABOQUINHA	18	13,256	12	0,150	25	9,238	274	-0,053	23	36,589	207	-0,035	23
A2726	PERSEUS X UrtigaJF	156	5,879	144	0,040	153	4,184	278	-0,053	150	17,294	225	-0,048	147
FNF5873	PERSEUS X Vedella	143	6,341	161	0,033	136	4,746	252	-0,047	135	18,501	272	-0,085	144
TABO1467	PINCEL JA	386	-8,607	353	-0,082	383	-5,971	11	0,078	386	-24,765	34	0,115	388
JFT2077	PLEBEU NF	294	-0,217	197	0,020	303	-0,227	121	-0,001	301	-0,685	80	0,064	305
JFT2049	PÓLO TE TABOQUINHA	112	-0,858	244	-0,007	106	-0,657	156	-0,016	156	-2,211	175	-0,007	308
Imperial X Marítima	PREFEITO JF	396	-11,489	401	-0,173	395	-8,288	187	-0,024	395	-31,740	193	-0,022	394
Virtual X Jacutinga	PSIU JF	374	-6,730	348	-0,079	373	-4,418	183	-0,022	374	-18,050	324	-0,141	364
	QUARTZO TE TABOQUINHA	319	-1,451	313	-0,051	311	-0,418	198	-0,028	314	-2,604	271	-0,084	315
	QUARUP TE TABOQUINHA	319	-1,451	313	-0,051	311	-0,418	198	-0,028	314	-2,604	271	-0,084	315

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Pacifico X IndiaTABO	QUASAR TE TABOQUINHA	152	5,955	260	-0,014	139	4,694	243	-0,043	129	19,132	213	-0,039	133
Urutu X Primazia	QUEBEC TE TABOQUINHA	186	4,547	256	-0,012	169	3,665	245	-0,044	176	13,715	314	-0,128	172
9323	QUERO QUERO	355	-4,062	285	-0,028	350	-2,651	44	0,038	357	-11,682	113	0,036	357
Urutu X Primazia	QUIEVE TABOQUINHA	171	5,033	179	0,027	161	3,901	209	-0,031	166	14,408	240	-0,059	158
A1463	QUILATE DE ALAGOINHA	71	9,629	100	0,062	98	6,078	346	-0,076	88	24,966	331	-0,101	78
TABO1716	QUILATE TABOQUINHA	85	8,905	88	0,069	91	6,280	330	-0,069	96	24,189	284	-0,101	102
Quiate X Bohemia	Gibraltar TE DE SADERE	53	10,507	95	0,067	55	7,502	347	-0,077	56	29,602	309	-0,124	59
Quiate X Horda	Quioto TE TABOQUINHA	202	3,996	215	0,020	206	2,484	242	-0,043	206	10,825	299	-0,117	190
Quiate X Lauda	Uisque e Umbral TE TABOQUINHA	130	7,050	184	0,024	131	4,940	338	-0,072	128	19,351	338	-0,157	127
Pacifico X IndiaTABO	QUIMAO TE TABOQUINHA	45	10,892	102	0,062	37	8,487	287	-0,056	35	34,160	266	-0,081	38
TABO1776	RABI TE TABOQUINHA	8	16,493	171	0,029	8	12,718	398	-0,153	7	50,862	376	-0,263	6
5775	RADIAL TE TABOQUINHA	356	-4,223	382	-0,120	349	-2,545	312	-0,062	349	-10,050	353	-0,182	346
JAJ2994	RANCHO JA	367	-5,562	341	-0,076	362	-3,417	46	0,036	367	-14,531	92	0,053	369
MDVG6822	RAPA PE D	226	3,049	140	0,044	224	2,122	125	-0,001	227	8,297	102	0,045	234
Humaitá X Guerra	REMANSO TE TABOQUINHA	1	22,743	72	0,076	1	17,034	402	-0,217	1	66,316	401	-0,446	1
Osasco X Vassoura	RESPLENDOR TE DA NOVA FLORESTA	124	7,222	34	0,117	127	5,056	41	0,038	131	18,855	65	0,080	141
Urutu X Banquete	RUSSO TE JF	134	6,716	85	0,072	143	4,581	365	-0,097	141	18,242	355	-0,185	115
Russo X OratABO	Acre, Ameno, Apolo e Zopo FIV TABOQUINHA	162	5,498	64	0,083	166	3,744	175	-0,021	172	14,069	125	0,024	168
RussoJF X Rabeca	Al Capone FIV DA META	123	7,240	201	0,018	132	4,930	385	-0,119	126	19,802	362	-0,224	98
A2621	SACADO D	278	0,504	52	0,092	298	-0,162	2	0,117	305	-1,016	2	0,260	324
Abateé X HungriaTABO	SALOIO TE TABOQUINHA	114	7,760	296	-0,037	72	6,953	246	-0,045	104	23,721	386	-0,277	65
A5230	SAPUCAI JA	401	-12,855	402	-0,178	396	-8,404	7	0,084	400	-34,905	57	0,085	401
Capitão-Mor X JaulaTABO	SAROM TE TABOQUINHA	154	5,906	113	0,057	146	4,528	56	0,031	151	16,718	84	0,061	167
TABO2122	SERENO TABOQUINHA	349	-3,728	334	-0,067	348	-2,359	115	0,005	356	-11,613	305	-0,121	353
7866	SERIDÓ JA	303	-0,442	294	-0,034	256	1,206	3	0,107	287	0,615	19	0,146	318
Seridó X ChinesaS	Faro e Martelo TE PEAC	336	-2,320	291	-0,034	320	-0,851	30	0,049	331	-5,380	76	0,070	342
Seridó X Colombina	Alfado, Alagoano FIV PEAC e Galeto CIPO, Midas TE IBIT, e Selko TE TABOQUINHA	335	-2,250	332	-0,066	325	-1,113	55	0,032	330	-5,201	69	0,075	338
Seridó X Jeitosa	Hélios TE TABOQUINHA	277	0,563	221	0,009	254	1,237	23	0,054	268	2,928	24	0,129	291
Seridó X Maritima	Dólar ROS, e Hiper e Hippius TE TABOQUINHA	320	-1,458	317	-0,053	295	-0,129	37	0,042	318	-3,187	152	0,008	321
Seridó X Nóbrega	Haiti, Halo, Hengar, Haras, Harém, Havaí e Hereu TE TABOQUINHA	262	1,272	275	-0,023	232	1,939	43	0,038	247	5,793	71	0,074	261
FAFM792	SIGNO AM	384	-8,323	383	-0,139	384	-6,056	180	-0,022	383	-22,890	87	0,056	384
Abateé X HungriaTABO	SULFO TE TABOQUINHA	6	16,726	231	0,003	3	14,883	362	-0,092	5	52,766	402	-0,468	4
Sulfo X Queratina	Abateé, Almirante, Audacioso e Bretão FIV da META, Ambicioso TABO e Bambu, Belize e Búzio FIV TABOQUINHA	11	14,579	207	0,016	9	12,686	353	-0,080	9	47,002	366	-0,232	9
Sulfo X Réstia	Acádio, Ageu, Alecrim, Alfeu, Alpino e Alpos FIV TABOQUINHA	9	15,580	148	0,039	7	13,021	349	-0,079	8	48,582	390	-0,294	8
Sulfo X Tentativa	Cabai, Cabole, Changat e Chui FIV TABOQUINHA	2	19,697	54	0,088	2	16,105	378	-0,109	2	58,678	395	-0,318	3
A2708	TAITI JA	402	-13,975	398	-0,151	402	-9,847	5	0,087	402	-40,132	31	0,121	402
CNS4923	TAMARINDO S	279	0,411	229	0,004	290	-0,005	331	-0,069	279	1,494	141	0,013	283
Tamarindo X EstrelaJF	Ugli, Ulmo Umari, Umbu, Umiri, Urucum e Uxi FIV IBITURUNA	180	4,720	150	0,039	185	3,266	196	-0,028	180	13,325	121	0,030	203
Tamarindo X Haeste	Hum Sonho Bander	248	1,912	189	0,023	251	1,308	295	-0,057	240	6,329	186	-0,015	246
Urutu X Colombina	TINO TE TABOQUINHA	353	-4,015	343	-0,078	358	-2,900	123	-0,001	355	-11,149	135	0,018	354
9346	TRICÓ	289	0,015	293	-0,034	280	0,233	105	0,008	281	1,145	107	0,041	288
A2633	TRIGUEIRO D	101	8,206	44	0,104	145	4,553	174	-0,021	138	18,434	117	0,033	153
8341	TRIGUEIRO JA	362	-4,917	307	-0,043	364	-3,582	61	0,026	365	-14,186	109	0,037	365

(to be continued...)

(continuation...)

Sire's ID or MOET Families	Sire's Name	EPD										Milk Rank.		
		Rank.	Fat kg	Rank.	Fat %	Rank.	Protein kg	Rank.	Protein %	Rank.	T. Solids kg		Rank.	T. Solids %
Trigueiro X Derramada4M	Marte e Mava TE TABOQUINHA	145	6,312	46	0,102	167	3,710	107	0,007	170	14,106	74	0,070	199
Trigueiro X Itulpava	Raio e Soberbo ALAGOINHA TE Direito, Jirau, Liber e Lual TE TABOQUINHA	68	9,693	20	0,138	104	6,020	229	-0,039	103	23,736	202	-0,034	107
Trigueiro X Jarra	Pequi X NonaTABO TRONO TE TABOQUINHA	163	5,391	92	0,068	202	2,848	141	-0,010	196	11,786	112	0,036	221
Trono X Quiborana	Alax FIV TABOQUINHA	41	11,106	166	0,030	38	8,428	328	-0,069	45	32,025	352	-0,182	42
Nairóbi X JustatABO	TUCO TE TABOQUINHA	10	15,251	35	0,113	12	11,257	309	-0,061	11	43,082	327	-0,143	12
CALG133	ÚMIDO DA CALCILÁNDIA	189	4,484	262	-0,015	158	3,989	317	-0,064	168	14,324	357	-0,188	152
JFPA222	URIEL IBITURUNA	66	9,812	51	0,093	66	7,191	186	-0,024	65	28,532	36	0,108	85
1389	URUTU	25	12,483	41	0,107	35	8,495	333	-0,070	27	35,842	265	-0,081	24
Urutu X Acauá	Natan JF	219	3,312	135	0,045	200	2,934	82	0,018	216	9,646	163	0,002	211
Urutu X Banqueta	Capitão do Mato, Cobra Norato, Sucuri, Urutu FIV da VIC, Marechal FIV GUAMA, e Ruivo TE JF	282	0,342	147	0,039	279	0,273	99	0,011	284	0,862	77	0,067	282
Urutu X Colombina	Ben, Big FIV JF, Boiru FIV IBITURUNA, e Gramado e Hifen FIV do CIPÓ	198	4,255	173	0,029	184	3,306	279	-0,053	188	12,494	317	-0,132	160
Urutu X JaulatABO	Tropo, Trote, Trovão, Truste, Tubel e Tucano TE TABOQUINHA	300	-0,373	281	-0,026	304	-0,249	146	-0,013	302	-0,685	161	0,003	298
Urutu X MedalhaTABO	Refen, Rupestre, Rustie e Rústico TE TABOQUINHA	250	1,876	235	0,001	227	2,072	62	0,025	241	6,261	181	-0,011	240
Urutu X Primazia	Quadro, Quartil e Quieto TE TABOQUINHA	196	4,277	104	0,061	188	3,234	84	0,017	199	11,570	140	0,013	189
Aloprado X Opção	URZAL TE TABOQUINHA	194	4,414	213	0,014	175	3,471	204	-0,029	186	12,641	237	-0,057	176
5863	VAIDOSO JP	73	9,505	69	0,078	75	6,803	216	-0,033	68	28,041	52	0,088	87
5892	VAIDOSO	299	-0,303	90	0,069	336	-1,654	65	0,025	338	-7,061	72	0,072	347
TABO2935	VALENTE TABOQUINHA	321	-1,529	319	-0,056	318	-0,707	152	-0,014	316	-2,815	220	-0,044	312
Oriente X DivaTEROS	VELUDO DO ROSÁRIO	325	-1,580	304	-0,041	324	-1,038	220	-0,035	332	-5,835	290	-0,106	328
ROS614	VERNIZ TE DO ROSÁRIO	199	4,041	126	0,049	219	2,356	38	0,041	217	9,460	20	0,143	230
A2033	VIRTUAL TEOTÔNIO	274	0,726	273	-0,021	274	0,388	226	-0,037	271	2,556	210	-0,035	265
		344	-3,026	288	-0,030	337	-1,694	238	-0,041	343	-8,061	334	-0,151	339

\* Sire's Name: results are presented in alphabetical order from sire's name or families' name

**Table 6.** Results of genotyping of some genetic markers for Guzera breed sires.

Sire's Identification	Sire's Name	Molecular Markers					
		KCS	BCS	LGB	DGAT1 K232A	PRL	TG
METG8	ABAETÉ FIV DA META	AA	A2A2	.	.	.	.
JFPA1174	ABARÉ IBITURUNA	AA	A2A2	.	.	.	.
TABO3711	ABU FIV TABOQUINHA	.	A2A2	.	.	.	.
TABO3714	ACAJU FIV TABOQUINHA	.	A2A2	.	.	.	.
JFT2452	ADONAI TE JF	AB	A2A2	BB	KK	BB	.
UNIU52	AGHA KHAN FIV	AA	.	BB	.	.	.
JFPA20	ALINHADO TE IBITURUNA	AA	.	BB	KK	AB	.
JFT2518	ALMIRANTE JF	AA	.	.	.	.	.
A2687	ALOPRADO D	AA	.	BB	KK	AB	.
TABO3716	ALPINO FIV TABOQUINHA	.	A2A2	.	.	.	.
JFPA1136	AMON IBITURUNA	BB	A1A2	.	.	.	.
JFPA1182	AQUILES IBITURUNA	AB	A1A2	.	.	.	.
DTOO65	ASCRI FIV PEIXE BRANCO	BB	.	BB	KK	BB	.
TABO3689	ATIVO FIV TABOQUINHA	.	A2A2	.	.	.	.
JFT2488	ATLAS TE JF	AB	A2A2	BB	KK	AB	.
DTOO67	AZIZ FIV PEIXE BRANCO	.	A1A2	.	.	.	.
CNS7275	BACAO S	AA	.	AB	.	.	.
METG40	BACHAREL FIV DA META	AA	A2A2	.	.	.	.
METG66	BALANCETE FIV DA META	AB	A2A2	.	.	.	.
DTOO70	BALIFAX FIV PEIXE BRANCO	AB	A1A2	AB	KK	BB	.
9940	BARBANTE JF	AB	.	BB	KK	BB	CC
METG36	BEETHOVEN FIV DA META	AA	A2A2	.	.	.	.
METG44	BEMENTHAL FIV DA META	AA	A2A2	.	.	.	.
DTOO111	BERILO FIV PEIXE BRANCO	AA	A2A2	.	.	.	.
TABO3835	BICUDO FIV TABOQUINHA	.	A2A2	.	.	.	.
METG50	BISTURI FIV DA META	AA	A2A2	.	.	.	.
METG77	BIZANTINO FIV DA META	AB	A2A2	.	.	.	.
METG18	BLINDADO FIV DA META	AA	A2A2	.	.	.	.
METG83	BLOG FIV DA META	AA	A2A2	.	.	.	.
JFPA184	BOIEIRO IBITURUNA	AB	A2A2	AB	.	.	.
A6120	CABO DE GUERRA D	AA	.	BB	KK	BB	.
JFT3102	CABO FIV JF	.	A2A2	.	.	.	.
5558	CADUCEU S	AA	.	BB	KK	AB	.
JFT3157	CAIM JF	.	A2A2	.	.	.	.
JFT3045	CAIO FIV JF	AB	A2A2	BB	.	.	.
JFT3094	CÁLICE FIV JF	AA	A2A2	AB	.	.	.
JFPA465	CAMBUCI IBITURUNA	AA	A2A2	.	.	.	.
A6119	CAPITÃO-MOR D	AA	.	BB	KK	BB	CC
CIPO41	CASSINO DO CIPÓ	AA	.	AB	KK	AB	.
9951	CASSINO JF	AA	.	BB	KK	BB	CC
HANC311	CORSÁRIO DA VEREDA	AB	.	.	KK	BB	.
PEAC28	CRAVO PEAC	AB	.	.	KK	AB	.
8301	CUBITO G.I DA ND	AB	.	AB	KK	AB	CC
ROS18	DEDAL TE DO ROSÁRIO	AB	.	BB	KK	.	.
JCGU50	DENIS CAMARÃO	AA	.	BB	.	.	.
ROS34	DEVOTO DO ROSÁRIO	AB	.	AB	KK	BB	CC
ROS780	DICK FIV DO ROSÁRIO	AA	.	BB	.	.	.
METG92	DIVIDENDO FIV DA META	AA	A2A2	.	.	.	.
AVPG241	DOLAR 4 MENINOS	.	A2A2	.	.	.	.
FCGP604	DÓLAR TE EMPARN	AA	A2A2	BB	.	.	.
WEME73	DOM FIV BOA FAMILIA	AB	A2A2	.	.	.	.
ROS39	DUNGA TE DO ROSÁRIO	AB	.	BB	KK	AA	CC
A1437	ÉDIPO A	AA	.	AB	KK	AB	CC
AVPG325	EGEU 4 MENINOS	.	A1A2	.	.	.	.

(to be continued...)

(continuation...)

Sire's Identification	Sire's Name	Molecular Markers					
		KCS	BCS	LGB	DGAT1 K232A	PRL	TG
IVAG1823	ENDEREÇO VILLEFORT	.	A2A2	.	.	.	.
CIPO121	ENREDO TE DO CIPÓ	AB	.	.	KK	AB	.
IVAG2053	ESMINGO VILLEFORT	.	A2A2	.	.	.	.
A2389	ESTILO A	AA	.	BB	KK	BB	CC
IVAG2074	ESTRAVO VILLEFORT	.	A2A2	.	.	.	.
IVAG2022	EVEREST VILLEFORT	.	A2A2	.	.	.	.
IVAG2269	EXBAIANO VILLEFORT	.	A2A2	.	.	.	.
5762	ÊXITO TE	AA	.	AB	KK	AB	CC
IVAG2818	FABULOSO VILLEFORT	.	A1A2	.	.	.	.
IVAG2735	FAGUEIRO VILLEFORT	.	A2A2	.	.	.	.
IVAG2342	FALANTE VILLEFORT	.	A2A2	.	.	.	.
DTO5054	FANTASTICO DA BARRA	AA	A2A2	.	.	.	.
FCGP679	FANTOCHE DA EMPARN	.	A2A2	.	.	.	.
A337	FUNDADOR RF	AA	.	AB	KK	AB	CC
LKW223	GARI BOA LEMBRANÇA	AA	.	BB	.	.	.
A2731	GAVIÃO DA NOVA FLORESTA	AA	.	AB	KK	AB	.
JON130	GENUINO DA J. NATAL	AA	A2A2	.	.	.	.
IVAG3206	GIBA VILLEFORT	.	A2A2	.	.	.	.
SAV105	GIBRALTAR TE DE SADERE	AA	.	AB	KK	AB	TC
SAVI94	GIM FIV DE SADERE	AA	.	BB	.	.	.
FCGP707	GIRASOL DA EMPARN	.	A2A2	.	.	.	.
A2664	GITANO A	AA	.	BB	KK	BB	.
FCGP719	GLADIADOR DA EMPARN	.	A2A2	.	.	.	.
SAV104	GLOBO FIV DE SADERE	AA	.	BB	KK	AB	CC
FCGP715	GOLEIRO DA EMPARN	.	A2A2	.	.	.	.
IVAG3205	GOLFO VILLEFORT	.	A2A2	.	.	.	.
FCGP696	GORILA DA EMPARN	.	A2A2	.	.	.	.
SAV103	GOTHAR FIV DE SADERE	AA	.	BB	KK	BB	CC
LKW219	GREGO BOA LEMBRANÇA	AA	A2A2	BB	.	.	.
IHL178	GULOSO	AB	.	AB	.	.	.
5882	GURIRI TE TABOQUINHA	BB	.	BB	KK	AB	CC
5883	HÁBIL TE TABOQUINHA	AB	.	BB	KK	BB	CC
FCGP727	HADRON DA EMPARN	.	A2A2	.	.	.	.
FNFA753	HAMAL NF	AA	A2A2	.	.	.	.
FCGP746	HAMON DA EMPARN	.	A2A2	.	.	.	.
FCGP747	HARMON DA EMPARN	.	A2A2	.	.	.	.
FCGP729	HEBREU DA EMPARN	.	A2A2	.	.	.	.
FCGP735	HEBRON DA EMPARN	.	A2A2	.	.	.	.
SAV120	HELÍACO FIV SADERE	AA	.	BB	KK	AB	TC
FCGP748	HÉRCULES DA EMPARN	.	A2A2	.	.	.	.
FCGP743	HERDEIRO DA EMPARN	.	A2A2	.	.	.	.
FCGP752	HEREDITÁRIO DA EMPARN	.	A2A2	.	.	.	.
GZF77	HERMES FIV DO GUGA	BB	A2A2	.	.	.	.
TABO538	HETEU TE TABOQUINHA	AA	.	BB	KK	AB	CC
FNFA960	HIDRANTE FIV NF	AA	A2A2	.	.	.	.
TABO618	HOMERO TE TABOQUINHA	AA	.	BB	KK	.	.
FCGP749	HONESTO DA EMPARN	.	A2A2	.	.	.	.
A2804	HORIZONTE NF	AA	.	BB	KK	BB	.
FNFA878	HORTÊNCIO FIV NF	AA	A2A2	.	.	.	.
A1443	HORTO A	AA	.	AB	KK	AB	CC
FCGP728	HORTO DA EMPARN	.	A2A2	.	.	.	.
FENG96	HOTAN DO BRAVO	AA	A1A2	.	.	.	.
FCGP741	HUGO DA EMPARN	.	A2A2	.	.	.	.
HUM24	HUM SONHO ABADON	AA	A2A2	AA	KK	BB	.
HUM51	HUM SONHO BALBECK	AB	.	BB	.	.	.
HUM34	HUM SONHO BARÃO	AB	.	BB	.	.	.
HUM38	HUM SONHO BARUC	AA	.	AB	.	.	.
TABO636	HUMAITÁ TE TABOQUINHA	AA	A2A2	BB	KK	AB	CC

(to be continued...)

(continuation...)

Sire's Identification	Sire's Name	Molecular Markers					
		KCS	BCS	LGB	DGAT1 K232A	PRL	TG
LKW243	HUMORISTA FIV	AB	A1A2	BB	.	.	.
FNFA1176	ÍCARO NF	AA	A2A2	.	.	.	.
FCGP756	ÍDOLO DA EMPARN	.	A2A2	.	.	.	.
A133	IMPERIAL JÁ	AA	.	AB	KK	BB	CC
UNIU1152	IMPLACAVEL FIV UNIUBE	.	A2A2	.	.	.	.
ROS128	INDEX DO ROSÁRIO	AA	.	.	KK	AB	.
ROS108	ÍNDIO	AA	.	BB	KK	AB	CC
FCGP761	ÍNDIO DA EMPARN	.	A2A2	.	.	.	.
ROS116	INGLÊS TE DO ROSÁRIO	AA	.	BB	KK	AB	.
TABO727	INSTINTO TABOQUINHA	AB	.	AB	KK	BB	CC
OTPZ119	IRIL POI OT	AA	A2A2	BB	.	.	.
TABO747	JABUTI TE TABOQUINHA	AA	.	BB	KK	.	.
A1449	JAGUNÇO A	AA	.	AB	KK	AB	.
MDVG6066	JANARI D	AA	.	BB	KK	BB	CC
TABO812	JEQUIÁ TE TABOQUINHA	AA	.	BB	KK	AB	CC
DTO5278	JOAZEIRO DA BARRA	AA	A1A2	.	.	.	.
TABO785	JOIO TE TABOQUINHA	AA	.	BB	KK	AB	.
TABO818	JONAS TE TABOQUINHA	AA	.	.	KK	AB	.
9974	JÓQUEI TE JP	AA	.	BB	KK	AB	.
TABO866	LABRADOR TE TABOQUINHA	AA	A2A2	AB	KK	BB	CC
FNFA2161	LAURINO FIV NF	AA	A2A2	.	.	.	.
WEME313	LAZIO BOA FAMILIA	BB	A2A2	.	.	.	.
WEME305	LEITEIRO BOA FAMILIA	BB	A2A2	.	.	.	.
FNFA2156	LEVIANO FIV NF	AA	A2A2	.	.	.	.
JUZZ73	LOBO DA JUZZ	.	A2A2	.	.	.	.
MABI1096	MAAB AGUERRIDO FIV	AA	A2A2	.	.	.	.
JFPA92	MAESTRO IBITURUNA	AA	.	BB	KK	AB	.
JFPA1248	MAGNO IBITURUNA	AB	A2A2	.	.	.	.
FNFA2577	MANANCIAL NF	AA	A2A2	.	.	.	.
JFPA1284	MANGANO IBITURUNA	BB	A1A2	.	.	.	.
FNFA2547	MANSO FIV NF	AA	A2A2	.	.	.	.
PEAC211	MARANHÃO TE PEAC	AB	.	BB	KK	BB	CC
IVAG4552	MARRONE VILLEFORT	.	A2A2	.	.	.	.
JFT3864	MEXICANO JF	.	A2A2	.	.	.	.
TABO1058	MIRADOR TE TABOQUINHA	AA	.	BB	KK	BB	CC
JA4196	MONTENEGRO FIV JÁ	.	A2A2	.	.	.	.
TABO1099	NAIROBI TABOQUINHA	AA	A2A2	AB	KK	BB	CC
JFT2433	NÁPOLE TE JF	BB	A2A2	BB	KK	AA	.
IVAG4829	NAPOLE VILLEFORT	.	A2A2	.	.	.	.
JFT2302	NAQUE TE JF	AA	.	BB	KK	BB	.
TABO1117	NAQUE TE TABOQUINHA	AA	A2A2	BB	KK	BB	.
TAL5966	NATALINO DA TEOTÔNIO	BB	A2A2	BB	.	.	.
MDVG6472	NECESSÁRIO D	.	A2A2	.	.	.	.
JFT2349	NEHERU TE JF	AA	A2A2	.	KK	AB	.
MAIA1306	NEÓFITO MAIA	AB	A2A2	.	.	.	.
JFT2351	NEPAL TE JF	AA	A2A2	.	.	BB	.
TABO1132	NEPAL TE TABOQUINHA	AA	.	.	KK	BB	.
IVAG4823	NERO VILLEFORT	.	A2A2	.	.	.	.
JFPA1043	NICOLA IBITURUNA	AA	A2A2	.	.	.	.
5791	NOBRE JF	AA	.	BB	KK	AA	CC
IVAG4836	NORTON VILLEFORT	.	A2A2	.	.	.	.
LVPS98	NOTÁVEL DA NOVA FLORESTA	AA	.	BB	KK	BB	.
JFT2422	NOTÁVEL TE JF	AA	A2A2	BB	KK	BB	.
TABO1301	OBUS TE TABOQUINHA	AB	A2A2	BB	KK	BB	CC
TABO1345	OCRE TE TABOQUINHA	AA	.	BB	KK	BB	CC
TABO1231	ODRE TE TABOQUINHA	AA	.	AB	KK	BB	CC
TABO1364	ÓLEO TE TABOQUINHA	AA	A2A2	AB	KK	.	TC
JFT3311	OPIO FIV JF	.	A2A2	.	.	.	.

(to be continued...)



(continuation...)

Sire's Identification	Sire's Name	Molecular Markers					
		KCS	BCS	LGB	DGAT1 K232A	PRL	TG
TABO1367	OPUS TE TABOQUINHA	AA	.	AB	KK	BB	CC
TABO1302	ORIENTE TE TABOQUINHA	AB	.	BB	KK	BB	CC
JFPA560	ÓRION IBITURUNA	BB	A2A2	.	.	.	.
TABO1329	OROS TE TABOQUINHA	AA	.	BB	KK	BB	CC
MMMMMA5873	OSASCO 4M	AA	.	BB	KK	BB	CC
TABO1272	OURIÇO TE TABOQUINHA	AA	A2A2	BB	KK	BB	CC
ROS522	OURO TE DO ROSÁRIO	AB	.	BB	KK	AA	.
A1462	PACÍFICO A	AB	.	AB	KK	BB	CC
JFT3343	PAIOL FIV JF	.	A1A2	.	.	.	.
LKW1008	PANAMA FIV BOA LEMBRANÇA	.	A2A2	.	.	.	.
9754	PARAÍSO JF	AA	.	AB	KK	BB	.
LKW1026	PAYSANDU FIV BOA LEMBRANÇA	.	A2A2	.	.	.	.
TABO1406	PEQUI TE TABOQUINHA	AA	A2A2	AB	KK	BB	CC
FNF5873	PLEBEU NF	AA	A2A2	.	KK	AA	.
TABO1467	PÓLO TE TABOQUINHA	AA	A2A2	.	KK	BB	.
JUZZ110	PREFERIDO FIV DA JUZZ	.	A2A2	.	.	.	.
IVAG5461	PRESIDENTE VILLEFORT	.	A2A2	.	.	.	.
ROS206	PUPILO DO ROSÁRIO	AA	.	.	KK	AB	.
TABO1745	QUASAR TE TABOQUINHA	.	A1A2	.	.	.	.
A1463	QUILATE A	AA	.	BB	KK	AB	TC
TABO1716	QUILATE TABOQUINHA	AA	.	BB	KK	AB	.
TABO1726	QUIMÃO TE TABOQUINHA	AB	A2A2	AB	KK	BB	CC
LKW1958	QUÍMICO FIV BOA LEMBRANÇA	AA	A2A2	.	.	.	.
TABO1678	QUINDIM TE TABOQUINHA	AA	.	BB	KK	AB	CC
TABO1608	QUIOTO TABOQUINHA	AA	.	AB	KK	AA	.
JAJ3652	QUITO FIV JÁ	AA	.	AA	.	.	.
TABO1776	RABI TE TABOQUINHA	AA	A2A2	BB	KK	AA	.
5775	RADIAL TE	AB	.	AB	KK	BB	.
TABO1780	RADIAL TE TABOQUINHA	AB	.	AB	KK	BB	CC
JUZZ151	REFLEXO DA JUZZ	.	A2A2	.	.	.	.
JFT2230	REINO TE JF	AA	.	.	KK	AB	.
TABO1836	REINO TE TABOQUINHA	AA	.	AB	KK	AB	.
TABO1835	REMANSO TE TABOQUINHA	AA	A2A2	BB	KK	AB	CC
JFT2261	RUSO TE JF	.	A2A2	.	.	.	.
TABO2343	SALOIO TE TABOQUINHA	AA	A2A2	.	.	AB	.
A5230	SAPUCAÍ JÁ	AA	.	BB	KK	AB	.
TABO2124	SENTIDO TABOQUINHA	.	A2A2	.	.	.	.
TABO2122	SERENO TABOQUINHA	AA	A2A2	BB	KK	BB	.
7866	SERIDÓ JÁ	AB	.	BB	KK	BB	CC
TABO2145	SINO TE TABOQUINHA	AA	.	.	KK	.	.
TABO2308	SULCO TE TABOQUINHA	AA	.	AB	.	.	.
TABO2333	SULFO TE TABOQUINHA	.	A2A2	.	.	.	.
JCRK17	SUMAUMA EURO FIV	.	A2A2	.	.	.	.
CNS9789	TENENTE S	.	A2A2	.	.	.	.
DTO5989	TREZNO DA BARRA	AB	A1A2	.	.	.	.
A2633	TRIGUEIRO D	AA	.	BB	KK	BB	CC
TABO2510	TRONO TE TABOQUINHA	AA	A1A2	AB	KK	BB	.
JUZZ179	TROPECO DA JUZZ	.	A2A2	.	.	.	.
TABO2624	TUCO TE TABOQUINHA	AA	A2A2	BB	KK	AB	.
TABO2567	TUISTE TE TABOQUINHA	BB	A2A2	AB	.	.	.
TABO2547	TUTTI TABOQUINHA	BB	.	.	KK	AA	.
ROS342	UÍSQUE DO ROSÁRIO	AA	.	BB	KK	AA	.
JFPA255	ULANO IBITURUNA	AA	A2A2	.	.	.	.
DTO6123	UMBRO DA BARRA	AA	A2A2	.	.	.	.
CALG133	ÚMIDO CAL	AB	A2A2	BB	KK	BB	.
JFPA222	URIEL IBITURUNA	AA	A2A2	BB	.	.	.
EMGA983	URSO-A (TE)	AA	.	AB	KK	AB	.
A2656	URUGUAI	AA	.	BB	.	.	.

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Sire's Identification	Sire's Name	Molecular Markers					
		KCS	BCS	LGB	DGAT1 K232A	PRL	TG
1389	URUTU	AA	.	AB	KK	AB	TC
MVB953	URUTU FIV DA VIC	.	A2A2	.	.	.	.
5563	VAIDOSO JP	AA	.	AB	KK	AB	.
TABO2935	VALENTE TABOQUINHA	AA	.	BB	KA	BB	.
A2029	VALOR DA TEOTÔNIO	AA	.	AA	.	.	.
ROS614	VERNIZ TE DO ROSÁRIO	AA	.	BB	.	.	.
A2033	VIRTUAL DA TEOTÔNIO	AA	.	AB	KK	AA	TT
TABO3245	XAXIM FIV TABOQUINHA	.	A2A2	.	.	.	.

**Table 7.** List of Guzera cows with EPDs for milk yield greater than +300 kg, age at first calving (AFC, in days), and milk production efficiency (MPE, in kg/month) among participants in the 2021 genetic evaluation of sires.

Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC	Rel. (%)	MPE	Rel. (%)
1	LKW395	LAJE FIV BOA LEMBRANÇA	6 / 1 / 2011	TABO1835	REMANSO TE TABOQUINHA	LKW85	CUBANA DA BOA LEMBRANÇA	966	77	-19	60	30	87
2	UNI1274	LINGUAGEM UNIUBE	22 / 9 / 2016	JFT2433	NÁPOLE TE JF	LKW380	JAQUEIA FIV BOA LEMBRANÇA	837	70	11	57	35	79
3	TABO3452	ARAXÁ FIV TABOQUINHA	4 / 12 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO947	LAGOA TE TABOQUINHA	803	78	28	61	18	89
4	TABO3390	ZORRA FIV TABOQUINHA	10 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO947	LAGOA TE TABOQUINHA	779	78	21	60	18	89
5	LKW380	JAQUEIA FIV BOA LEMBRANÇA	19 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	LKW106	CIRANDA DA BOA LEMBRANÇA	772	73	14	60	24	81
6	LKW774	NADIRA BOA LEMBRANÇA	1 / 11 / 2013	LKW436	LICOR FIV BOA LEMBRANÇA	LKW395	LAJE FIV BOA LEMBRANÇA	763	74	-16	56	23	86
7	TABO3679	ATLÂNTIDA TABOQUINHA	4 / 3 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO2685	TENTATIVA TABOQUINHA	739	74	14	57	21	85
8	LKW378	JURUÁ FIV BOA LEMBRANÇA	17 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	LKW106	CIRANDA DA BOA LEMBRANÇA	719	74	11	60	26	82
9	JFT3257	ORQUÍDEA FIV JF	10 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	JFT2263	BARBARA TE JF	707	76	20	59	14	88
10	TABO4359	DÁLIA FIV TABOQUINHA	8 / 6 / 2015	TABO2333	SULFO TE TABOQUINHA	TABO1154	NAIRA TABOQUINHA	694	73	27	61	23	81
11	TABO3364	ZACA TABOQUINHA	19 / 10 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO2218	SINDA TE TABOQUINHA	689	76	8	57	16	88
12	DRK125	ESTRELA FIV TERRA PROMETIDA	24 / 2 / 2015	TABO636	HUMAITÁ TE TABOQUINHA	SULAT75	JAMBASA ILHA FUNDA	667	68	27	59	17	76
13	TABO4351	DESTEMIDA TABOQUINHA	23 / 3 / 2015	TABO1776	RABI TE TABOQUINHA	TABO2312	SUMA TE TABOQUINHA	664	70	35	57	21	80
14	LKW1048	QUILHA FIV BOA LEMBRANÇA	18 / 3 / 2016	TABO636	HUMAITÁ TE TABOQUINHA	JFT2981	UTA FIV JF	661	71	20	60	22	80
15	TABO3972	BEM-BEM FIV TABOQUINHA	28 / 10 / 2013	JFT3094	CÁLICE FIV JF	TABO2900	VIRTUDE TABOQUINHA	658	76	-1	59	24	86
16	METG74	BROA-DE-LEITE FIV DA META	14 / 11 / 2013	TABO636	HUMAITÁ TE TABOQUINHA	TABO1749	QUERATINA TE TABOQUINHA	653	72	28	59	24	80
17	TABO1154	NAIRA TABOQUINHA	22 / 12 / 2000	TABO636	HUMAITÁ TE TABOQUINHA	TABO691	ÍNDIA TABOQUINHA	646	81	31	69	17	87
18	EMGA1377	GARÇA - A	10 / 3 / 2011	A1437	ÉDIPPO DA ALAGOINHA	EMGA1111	ALEMANHA-A	616	78	30	56	13	88
19	TABO4207	CAMALHA TABOQUINHA	2 / 6 / 2014	TABO1835	REMANSO TE TABOQUINHA	TABO2355	SÁUVA TE TABOQUINHA	613	75	-2	59	21	86
20	TABO3422	ZINA FIV TABOQUINHA	19 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO1410	PÁDUA TE TABOQUINHA	611	78	22	60	14	89
21	JFT3729	ESPIGA FIV JF	18 / 1 / 2012	TABO1364	ÓLEO TE TABOQUINHA	JFT2263	BÁRBARA TE JF	611	75	-22	57	18	87
22	TABO3402	ZABAI FIV TABOQUINHA	17 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO947	LAGOA TE TABOQUINHA	604	78	16	60	14	89
23	MATZ644	XERETA FIV SANTA CECÍLIA	2 / 3 / 2016	TABO636	HUMAITÁ TE TABOQUINHA	MAPZ327	PORCELANA FIV SANTA CECÍLIA	602	71	25	61	29	80
24	DRK124	ESMERALDA FIV TERRA PROMETIDA	24 / 2 / 2015	TABO636	HUMAITÁ TE TABOQUINHA	SULAT75	JAMBASA ILHA FUNDA	600	68	23	59	19	76
25	TABO3405	ZANGA FIV TABOQUINHA	18 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO947	LAGOA TE TABOQUINHA	599	72	41	60	13	80
26	TABO3741	ANSIOSA TABOQUINHA	13 / 4 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO1293	ÓTICA TE TABOQUINHA	595	71	14	59	20	80
27	JFPA617	PINK FIV IBITURUNA	22 / 3 / 2011	TABO1364	ÓLEO TE TABOQUINHA	JFT2473	ATENA TE JF	591	77	-4	57	16	89
28	TABO3992	BEM-INHA FIV TABOQUINHA	31 / 10 / 2013	TABO636	HUMAITÁ TE TABOQUINHA	CIPO354	GUIANA FIV DO CIPO	589	71	24	61	19	80
29	TABO2685	TENTATIVA TABOQUINHA	25 / 6 / 2007	TABO1099	NAIROBI TABOQUINHA	TABO1760	QUIBORANA TE TABOQUINHA	588	80	12	60	9	91
30	UNI1077	HAMA UNIUBE	25 / 12 / 2014	LKW444	LUXO FIV BOA LEMBRANÇA	BAGA137	SAFADINHA FIV 2MS	587	69	2	51	20	83
31	JUZ237	FABULA DA JUZZ	4 / 7 / 2012	JFT2261	RUSSO TE JF	JUZZ1	ALABA FIV DA JUZZ	585	74	1	59	13	84
32	LKW1035	NANY FIV BOA LEMBRANÇA	1 / 8 / 2014	TABO636	HUMAITÁ TE TABOQUINHA	FNFA649	GRANA FIV NF	581	75	7	61	23	85
33	EMGA1111	ALEMANHA-A	10 / 10 / 2005	5583	VAIDOSO JP	I7661	MUSA DE ALAGOINHA	579	79	19	59	15	89
34	TABO4148	CATANGA TABOQUINHA	9 / 2 / 2014	HUM28	HUM SONHO ARGEU	CIPO354	GUIANA FIV DO CIPO	578	74	-21	56	23	85
35	TABO3735	ALMA FIV TABOQUINHA	13 / 4 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO1760	QUIBORANA TE TABOQUINHA	578	71	19	59	22	80
36	IHL108	DONDOCA	6 / 11 / 2005	TABO636	HUMAITÁ TE TABOQUINHA	LVP990	MOCINHA DA N.FLOR.	576	86	25	73	16	92
37	LKW460	HUM SONHO AMBUA	16 / 9 / 2006	TABO1301	OBUS TE TABOQUINHA	TFS224	HARMALA TF	575	74	2	55	15	85
38	LKW460	LIGA FIV BOA LEMBRANÇA	1 / 2 / 2011	TABO1835	REMANSO TE TABOQUINHA	IHL46	CAMIURÇA	570	74	33	57	13	85
39	FNFA877	HOSPEDEIRA FIV NF	3 / 7 / 2010	TABO1835	REMANSO TE TABOQUINHA	FNF7139	UBA NF	565	76	19	59	11	86
40	TABO4363	DENSA FIV TABOQUINHA	26 / 6 / 2015	TABO2333	SULFO TE TABOQUINHA	TABO1178	NONA TABOQUINHA	565	72	12	60	22	82
41	TABO2735	UFANIA TABOQUINHA	9 / 9 / 2007	TABO1726	QUIMÃO TE TABOQUINHA	TABO1842	REDOMA TE TABOQUINHA	564	80	4	59	9	92
42	TABO3261	XUVA TABOQUINHA	1 / 4 / 2010	TABO2333	SULFO TE TABOQUINHA	TABO2006	RESTIA TE TABOQUINHA	561	75	9	59	16	85
43	TABO2312	SUMA TE TABOQUINHA	25 / 3 / 2006	TABO1301	OBUS TE TABOQUINHA	TABO1154	NAIRA TABOQUINHA	556	83	43	67	11	91
44	LKW1014	PAQUITA FIV BOA LEMBRANÇA	8 / 12 / 2015	TABO636	HUMAITÁ TE TABOQUINHA	LKW502	LEA FIV BOA LEMBRANÇA	556	70	8	59	20	79
45	TABO4018	BEM-LA FIV TABOQUINHA	2 / 11 / 2013	TABO636	HUMAITÁ TE TABOQUINHA	CIPO354	GUIANA FIV DO CIPO	555	75	15	61	20	85
46	TABO3970	BÉLGICA FIV TABOQUINHA	27 / 10 / 2013	5800	PERSEU S	TABO2444	TULIPA TE TABOQUINHA	555	74	-3	59	22	85
47	AVPG213	DINA 4 MENINOS	30 / 6 / 2012	MDVG6511	ORO D	IHL108	DONDOCA	553	74	10	54	17	85
48	TABO4153	CHAVIANA TABOQUINHA	15 / 2 / 2014	HUM28	HUM SONHO ARGEU	TABO2375	TABA TE TABOQUINHA	552	73	-18	54	20	85
49	METG65	BACIA DE LEITE FIV DA META	2 / 11 / 2013	TABO636	HUMAITÁ TE TABOQUINHA	TABO1749	QUERATINA TE TABOQUINHA	551	72	23	62	19	80
50	TABO3559	AMAZONAS TABOQUINHA	18 / 7 / 2011	TABO2333	SULFO TE TABOQUINHA	MELU36	BITOCA MONTE CRISTO	549	75	20	54	16	88
51	LKW839	OLINA BOA LEMBRANÇA	1 / 5 / 2014	LKW444	LUXO FIV BOA LEMBRANÇA	IHL43	CIBELE	549	70	22	50	19	83
52	TABO3864	BULANDA TABOQUINHA	3 / 12 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO1053	MALIBU TE TABOQUINHA	546	78	17	58	19	90
53	TABO2626	TRIGA TE TABOQUINHA	19 / 12 / 2006	TABO1272	OURICO TE TABOQUINHA	TABO886	LAVANDA TABOQUINHA	542	79	-8	62	9	90
54	AVPG146	CAIÇARA 4 MENINOS	14 / 11 / 2011	JFT2261	RUSSO TE JF	IHL108	DONDOCA	542	78	-12	64	17	89

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Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE	Rel. (%)
55	TABO3976	BEM-CA FIV TABOQUINHA	28 / 10 / 2013	TABO636	HUMAITÁ TE TABOQUINHA	CIPO354	GUIANA FIV DO CIPO	540	75	28	61	17	85
56	TABO3436	ZUNDA FIV TABOQUINHA	23 / 11 / 2010	TABO1364	ÓLEO TE TABOQUINHA	TABO1293	ÓTICA TE TABOQUINHA	537	76	-3	56	13	88
57	GNEL3	AGATHA FIV DA BOMAR	20 / 11 / 2009	TABO1835	REMANSO TE TABOQUINHA	JFT2258	RENA TE JF	536	70	-6	58	21	78
58	LKW400	LUMA FIV BOA LEMBRANÇA	14 / 1 / 2011	TABO1835	REMANSO TE TABOQUINHA	LKW85	CUBANA DA BOA LEMBRANÇA	533	72	-9	59	13	80
59	EMGA1422	GURIA-A	11 / 10 / 2011	8301	CUBITO G.I DA ND	I7661	MUSA DE ALAGOINHA	532	73	-11	61	16	80
60	TABO3224	XANDANGA TABOQUINHA	26 / 12 / 2009	TABO2124	SENTIDO TABOQUINHA	TABO1056	MÁGICA TE TABOQUINHA	530	72	34	53	13	85
61	JFT2981	UTA FIV JF	20 / 8 / 2008	PEAC28	CRAVO PEAC	CNS5266	BIBA S	529	76	-16	59	15	86
62	TABO3736	ALMADA FIV TABOQUINHA	13 / 4 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO2006	RESITIA TE TABOQUINHA	528	71	5	59	20	79
63	TABO3673	ARTICA FIV TABOQUINHA	10 / 2 / 2012	CNS4995	ABAETÉ S	TABO1178	NONA TABOQUINHA	526	73	-2	64	23	81
64	JFPA542	ONDA FIV IBITURUNA	17 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO947	LAGOA TE TABOQUINHA	525	77	27	61	11	86
65	TABO4287	DIRETORA TABOQUINHA	18 / 11 / 2014	TABO2854	URZAL TE TABOQUINHA	TABO3452	ARAXÁ FIV TABOQUINHA	525	69	27	52	16	78
66	WSPV1972	1972 DO MINEIRÃO	16 / 4 / 2011	DSM3371	ESTILETE DA MS	TABO1797	ROLETA TABOQUINHA	524	89	-26	50	24	81
67	LKW1212	SIGLA BOA LEMBRANÇA	14 / 5 / 2017	AVPG241	DOLAR 4 MENINOS	LKW378	JURUÁ FIV BOA LEMBRANÇA	521	65	8	45	23	75
68	TABO3376	ZOADA TABOQUINHA	29 / 10 / 2010	TABO2333	SULFO TE TABOQUINHA	TABO1703	QUITINA TE TABOQUINHA	519	78	14	58	14	91
69	TABO3761	ARDÓSIA TABOQUINHA	28 / 6 / 2012	TABO1776	RABI TE TABOQUINHA	TABO1724	QUERENA TE TABOQUINHA	518	77	13	53	19	77
70	EMGA965	URCA-A	22 / 2 / 2003	A1462	PACÍFICO-A	EMGA860	QUILHA	517	77	18	58	16	87
71	LKW85	CUBANA DA BOA LEMBRANÇA	22 / 1 / 2004	8301	CUBITO G.I DA ND	JBP416	MARIALVA JBP	516	80	-45	65	14	89
72	EMGA1429	GELEIA-A	20 / 10 / 2011	8301	CUBITO G.I DA ND	I7661	MUSA DE ALAGOINHA	516	73	-21	62	16	81
73	TABO3704	ALVARÁ FIV TABOQUINHA	7 / 4 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO1760	QUIBORANA TE TABOQUINHA	515	75	16	59	19	85
74	TABO3987	BEM-EU FIV TABOQUINHA	31 / 10 / 2013	8301	CUBITO G.I DA ND	TABO2304	SALEMA TE TABOQUINHA	515	74	-13	59	18	84
75	ESEJ1192	RARA TE ESJ	21 / 5 / 2014	TABO2333	SULFO TE TABOQUINHA	TABO2292	SEDNA TE TABOQUINHA	515	67	21	55	15	75
76	LKW540	MIRRA FIV BOA LEMBRANÇA	4 / 1 / 2012	JFT2488	ATLAS TE JF	LKW154	DOGERA BOA LEMBRANÇA	511	76	-20	59	20	87
77	TABO3882	BIRMÂNIA TABOQUINHA	19 / 12 / 2012	TABO1301	OBUS TE TABOQUINHA	TABO1639	QUANTIA TABOQUINHA	510	76	-14	57	20	88
78	TABO3969	BEJA FLOR FIV TABOQUINHA	28 / 10 / 2013	8301	CUBITO G.I DA ND	TABO2757	URALITA TABOQUINHA	510	75	-43	59	20	85
79	TABO3596	ARGENTINA TABOQUINHA	8 / 10 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2900	VIRTUDE TABOQUINHA	509	73	15	61	17	81
80	TABO3184	XATRIA TABOQUINHA	25 / 11 / 2009	TABO2333	SULFO TE TABOQUINHA	TABO1349	OPA TE TABOQUINHA	508	77	7	58	10	89
81	TABO3893	BURMA FIV TABOQUINHA	25 / 12 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO1749	QUERATINA TE TABOQUINHA	507	76	9	60	18	86
82	TABO3496	ANATOLIA TABOQUINHA	17 / 2 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO1293	ÓTICA TE TABOQUINHA	507	71	13	59	14	80
83	LKW324	IRONIA BOA LEMBRANÇA	29 / 4 / 2010	MDV6066	JANARI D	LKW85	CUBANA DA BOA LEMBRANÇA	506	77	-35	60	19	87
84	I7661	MUSA DE ALAGOINHA	14 / 4 / 1995	7866	SERIDO JA	F5549	CIGANA DE ALAGOINHA	503	87	27	72	7	94
85	JFPA1259	MALU IBITURUNA	10 / 5 / 2016	JFPA222	URIEL IBITURUNA	JFPA617	PINK FIV IBITURUNA	503	69	-9	54	22	79
86	IVAG1747	EDEMCIAR VILLEFORT	11 / 6 / 2010	DSM3371	ESTILETE DA MS	IVAG1	ABAIBA DO VILLEFORT	503	63	11	52	17	72
87	AVPG153	CORNETA 4 MENINOS	19 / 11 / 2011	JFT2261	RUSSO TE JF	IHL108	DONDOCA	500	76	5	63	14	86
88	IVAG1963	EQUACA VILLEFORT	6 / 9 / 2010	5295	ACARI F	IVAG1	ABAIBA DO VILLEFORT	498	67	3	53	20	77
89	TABO3814	BELÉM FIV TABOQUINHA	6 / 11 / 2012	UNIU52	AGHA KHAN FIV	TABO2312	SUMA TE TABOQUINHA	497	71	-9	58	21	80
90	I8013	DOMADORA D	10 / 11 / 1994	A2887	ALOPRADO D	G9513	TAREFA D	496	81	24	56	2	94
91	EMGA873	SERVILHA-A	12 / 11 / 2001	A1443	HORTO DE ALAGOINHA	I7661	MUSA DE ALAGOINHA	495	81	40	64	11	90
92	JFT3097	CAJUADA FIV JF	27 / 9 / 2009	JFT2422	NOTAVEL TE JF	JFT2263	BARBARA TE JF	495	78	-38	64	20	85
93	METG41	BILIRRUBINA FIV DA META	2 / 9 / 2013	TABO2333	SULFO TE TABOQUINHA	TABO1749	QUERATINA TE TABOQUINHA	495	72	7	60	19	80
94	ESEJ1195	RIFA TE ESJ	27 / 5 / 2014	TABO2333	SULFO TE TABOQUINHA	TABO2292	SEDNA TE TABOQUINHA	495	67	12	55	16	75
95	CALG652	FACULDADE CAL	3 / 12 / 2012	JFT2261	RUSSO TE JF	CALG439	ANGRA CAL	493	75	-17	60	17	85
96	TABO1760	QUIBORANA TE TABOQUINHA	3 / 6 / 2004	9957	NAVEGANTE	TABO886	LAVANDA TABOQUINHA	492	80	3	67	13	87
97	LKW415	LIDA FIV BOA LEMBRANÇA	27 / 1 / 2011	TABO1835	REMANSO TE TABOQUINHA	IHL46	CAMURÇA	492	78	35	57	9	90
98	TABO3569	AMADA TABOQUINHA	8 / 9 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO1582	QUARTA TE TABOQUINHA	491	72	32	61	15	80
99	TABO4152	GENOBITA TABOQUINHA	15 / 2 / 2014	HUM28	HUM SONHO ARGEU	TABO1938	REFEICA TABOQUINHA	490	72	-19	53	19	85
100	IHL139	ELUMA	21 / 8 / 2006	TABO636	HUMAITÁ TE TABOQUINHA	IHL2	AMETISTA	490	67	44	57	13	76
101	JFT3712	PANTERA FIV JF	10 / 9 / 2011	JFT2422	NOTAVEL TE JF	JFT2263	BARBARA TE JF	489	78	-26	62	16	88
102	TABO2304	SALEMA TE TABOQUINHA	25 / 3 / 2006	TABO1301	OBUS TE TABOQUINHA	TABO1154	NAIRA TABOQUINHA	489	75	27	62	13	83
103	VMP444	VEREDA DAS FLORES	1 / 11 / 2012	TABO2333	SULFO TE TABOQUINHA	VMP388	QUINTANA DAS FLORES	489	70	35	57	13	80
104	TABO3669	AGÊNCIA FIV TABOQUINHA	17 / 1 / 2012	JFT2261	RUSSO TE JF	TABO1178	NONA TABOQUINHA	488	79	-3	64	16	89
105	TABO2117	SUSPEITA	30 / 8 / 2005	TABO636	HUMAITÁ TE TABOQUINHA	TABO1070	MANGABA TE TABOQUINHA	488	77	43	61	13	86
106	TABO3727	ALSACIA FIV TABOQUINHA	13 / 4 / 2012	JFT2351	NEPAL TE JF	TABO2787	URUPEMA TABOQUINHA	486	74	3	57	17	85
107	TABO4069	BIBIANA FIV TABOQUINHA	6 / 11 / 2013	5800	PERSEU S	TABO1266	OPCAO TE TABOQUINHA	486	72	4	61	20	80
108	APAY13	REGATA APAN	30 / 8 / 2017	JFT2433	NOTAVEL TE JF	FNFA880	HÍBRIDA FIV NF	485	65	15	48	21	73
109	TABO1293	ÓTICA TE TABOQUINHA	23 / 11 / 2001	A1443	HORTO DE ALAGOINHA	J873	PLATINA JF	483	80	10	63	10	88
110	JFT3254	ORILHA FIV JF	5 / 11 / 2010	A1437	EDIPO DA ALAGOINHA	JFT2203	RASURA TE JF	483	74	19	60	-3	84
111	LKW228	GARAPA BOA LEMBRANÇA	29 / 11 / 2008	A1437	EDIPO DA ALAGOINHA	LKW85	CUBANA DA BOA LEMBRANÇA	482	80	-15	70	13	87

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Milk Rank.	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE	Rel. (%)
112	AVPG150	CINEMA 4 MENINOS	16 / 11 / 2011	JFT2261	RUSSO TE JF	IHL108	DONDOCA	482	73	-15	63	25	80
113	AVPG467	FANTASIA 4 MENINOS	1 / 1 / 2014	LKW436	LICOR FIV BOA LEMBRANÇA	CIPO324	GRAVIOLA FIV DO CIPÓ	482	68	-7	52	17	78
114	TABO4305	DESARMADA TABOQUINHA	31 / 12 / 2014	UNIUI439	ESCOTEIRO FIV UNIUBE	TABO3372	ZIAR TABOQUINHA	482	68	-12	53	21	78
115	CALG229	UTUZADA CAL	5 / 12 / 2005	TABO636	HUMAITÁ TE TABOQUINHA	JFT2096	EMBOABA JF	480	78	38	63	12	89
116	AVPG469	FIGA 4 MENINOS	2 / 1 / 2014	LKW436	LICOR FIV BOA LEMBRANÇA	CIPO324	GRAVIOLA FIV DO CIPÓ	480	73	-6	52	15	85
117	AVPG308	EPOCA 4 MENINOS	6 / 1 / 2013	8301	CUBITO G.I DA ND	IHL147	ESBELTA	480	72	-13	61	16	80
118	ESEJ1193	RICA TE ESJ	21 / 5 / 2014	TABO2333	SULFO TE TABOQUINHA	TABO2292	SEDNA TE TABOQUINHA	480	67	21	55	14	75
119	TABO2375	TABA TE TABOQUINHA	10 / 7 / 2006	TABO1099	NAIROBITÁ TE TABOQUINHA	TABO691	ÍNDIA TABOQUINHA	477	78	-5	61	11	87
120	JFT2357	NIAGARA TE JF	8 / 9 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	JFT1906	CALÇADA JF	476	74	52	64	11	82
121	I7740	ONDINA-A	2 / 11 / 1997	A1437	EDIPO DA ALAGOINHA	I7609	LISBOA-A	475	85	65	69	8	93
122	EMGA1445	GINGA-A	19 / 11 / 2011	JFT2261	RUSSO TE JF	I7661	MUSA DE ALAGOINHA	475	73	2	62	16	80
123	LKW1012	PARADA FIV BOA LEMBRANÇA	4 / 12 / 2015	TABO636	HUMAITÁ TE TABOQUINHA	LKW502	LEA FIV BOA LEMBRANÇA	475	71	-1	59	23	79
124	TABO03312	ZULIMIRA TABOQUINHA	2 / 9 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO2691	UVAIA TABOQUINHA	473	69	29	57	12	79
125	LKW424	LETRA FIV BOA LEMBRANÇA	1 / 2 / 2011	MDV/G6458	NOVA SEITA D	MMMM5883	ONDINA 4M	472	77	4	56	11	90
126	FNFA1520	INSPECTORA FIV NF	15 / 10 / 2011	TABO1835	REMANSO TE TABOQUINHA	FNF7139	UBA NF	472	75	19	58	11	84
127	CALG215	UTUFUZ CAL	5 / 11 / 2005	TABO636	HUMAITÁ TE TABOQUINHA	PEAC181	FELICIDADE TE PEAC	471	77	14	60	13	88
128	IHL128	ESMERALDA	9 / 5 / 2006	TABO636	HUMAITÁ TE TABOQUINHA	MRM175	DELTA TE MRM	470	77	62	64	8	86
129	UNIUI372	LACUNA FIV UNIUBE	11 / 12 / 2016	TABO2333	SULFO TE TABOQUINHA	LKW313	IMA BOA LEMBRANÇA	470	71	1	58	18	79
130	TABO3558	APLICADA TABOQUINHA	27 / 6 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2831	ULA TE TABOQUINHA	470	69	8	57	17	78
131	TABO3281	ZANIA FIV TABOQUINHA	6 / 8 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO982	MOLDURA TABOQUINHA	468	74	27	56	10	85
132	TABO4146	CALUNGA TABOQUINHA	16 / 2 / 2014	HUM28	HUM SONHO ARGEU	TABO2444	TULIPA TE TABOQUINHA	468	72	-7	53	18	84
133	MAP2663	XIMENA FIV SANTA CECÍLIA	16 / 3 / 2016	TABO636	HUMAITÁ TE TABOQUINHA	MAP2327	PORCELANA FIV SANTA CECÍLIA	464	71	36	61	17	79
134	GNEL89	DIVINA DA BOMAR	18 / 3 / 2012	TABO2988	VELEIRO TABOQUINHA	GNEL2	ABELHA FIV DA BOMAR	464	69	-6	40	12	83
135	JFT3582	RANCHARIA FIV JF	7 / 7 / 2013	JFT2261	RUSSO TE JF	JFT2423	NIRVANA TE JF	463	76	-13	62	17	86
136	TABO4262	DEDICADA TABOQUINHA	15 / 7 / 2014	TABO1301	OBUS TE TABOQUINHA	TABO2751	UBATINGA TABOQUINHA	463	74	3	57	17	85
137	IVAG4356	MAGICA VILLEFORT	7 / 9 / 2013	TABO1835	REMANSO TE TABOQUINHA	IVAG1607	ELANCE VILLEFORT	463	67	8	55	15	76
138	EMGA1202	CHELITA-A	18 / 3 / 2007	A1462	PACIFICO-A	I7740	ONDINA-A	462	78	64	61	9	89
139	FCGP556	CAUCANA DA EMPARN	10 / 4 / 2007	TABO636	HUMAITÁ TE TABOQUINHA	FCGP460	TIMBAÚBA DA EMPARN	460	79	64	64	10	89
140	TABO03329	ZACARIAS TABOQUINHA	16 / 9 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO2753	UALA TABOQUINHA	459	77	4	58	9	89
141	ESEJ1116	PRECIOSA TE ESJ	18 / 11 / 2013	TABO2333	SULFO TE TABOQUINHA	TABO1628	QUADRIGA TABOQUINHA	459	72	16	60	16	80
142	TABO03731	ANAJA FIV TABOQUINHA	13 / 4 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO1760	QUIBORANA TE TABOQUINHA	459	71	15	59	19	80
143	IHL147	ESBELTA	15 / 11 / 2006	TABO636	HUMAITÁ TE TABOQUINHA	MRM298	FIBRA MRM	458	81	35	69	14	87
144	AVPG365	DICA 4 MENINOS	5 / 11 / 2012	8301	CUBITO G.I DA ND	CIPO324	GRAVIOLA FIV DO CIPÓ	456	78	-48	59	18	90
145	TABO03570	ALAGOAS TABOQUINHA	19 / 8 / 2010	TABO2333	SULFO TE TABOQUINHA	FNF9677	FERVURA FIV NF	456	69	27	55	17	79
146	GNEL11	BAILARINA DA BOMAR	18 / 9 / 2010	JFT2422	NOTAVEL TE JF	TABO1366	OLA TE TABOQUINHA	455	70	-15	58	17	79
147	AVPG266	DIVISA 4 MENINOS	1 / 11 / 2012	A1462	PACIFICO-A	TABO1847	RAIA TE TABOQUINHA	454	73	35	62	12	81
148	TABO4236	CAMADA TABOQUINHA	9 / 6 / 2014	HUM28	HUM SONHO ARGEU	TABO2078	SELVA TE TABOQUINHA	454	67	-27	53	21	78
149	TABO1842	REDOMA TE TABOQUINHA	20 / 8 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	TABO893	LEGIÃO TABOQUINHA	453	75	15	63	9	83
150	SULA1801	ROMILDA ILHA FUNDA	9 / 12 / 2012	TABO1301	OBUS TE TABOQUINHA	SULA643	INVOCADA ILHA FUNDA	452	73	17	57	10	84
151	TABO03539	ARMÊNIA TABOQUINHA	12 / 5 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO1628	QUADRIGA TABOQUINHA	452	72	13	60	14	80
152	ESEJ1107	PITOMBA TE ESJ	12 / 11 / 2013	TABO2333	SULFO TE TABOQUINHA	TABO1628	QUADRIGA TABOQUINHA	451	72	16	60	16	80
153	TABO2000	RESINA TE TABOQUINHA	12 / 5 / 2005	TABO1272	OURIÇO TE TABOQUINHA	TABO833	JUSTA TABOQUINHA	449	75	-6	58	12	85
154	TABO03745	APATITA FIV TABOQUINHA	13 / 4 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO2006	RESTIA TE TABOQUINHA	449	71	7	59	16	79
155	TABO03808	BEATA FIV TABOQUINHA	7 / 11 / 2012	TABO1301	OBUS TE TABOQUINHA	TABO2346	SEBE TE TABOQUINHA	449	70	14	57	18	79
156	FNFA880	HIBRIDA FIV NF	6 / 7 / 2010	TABO1835	REMANSO TE TABOQUINHA	FNF7139	UBA NF	448	71	22	54	7	80
157	JFPA1258	MIA IBITURUNA	5 / 5 / 2016	JFPA222	URIEL IBITURUNA	JFPA542	ONDA FIV IBITURUNA	448	70	7	56	19	79
158	CALG439	ANGRA CAL	19 / 3 / 2009	TABO866	LABRADOR TABOQUINHA	TABO632	HUNGRIA TE TABOQUINHA	446	79	-19	65	16	89
159	TABO2416	TANGA TABOQUINHA	16 / 8 / 2006	TABO1301	OBUS TE TABOQUINHA	TABO1582	QUARTA TE TABOQUINHA	445	77	37	59	6	89
160	TABO03278	ZANA FIV TABOQUINHA	1 / 8 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO982	MOLDURA TABOQUINHA	445	77	18	56	6	89
161	MAP2327	PORCELANA FIV SANTA CECÍLIA	5 / 4 / 2011	TABO2510	TRONO TE TABOQUINHA	MRM298	FIBRA MRM	445	74	20	62	22	82
162	METG1	ALFA FIV DA META	6 / 10 / 2011	TABO1835	REMANSO TE TABOQUINHA	FNF7139	UBA NF	445	71	29	59	8	79
163	UNIUI1148	IGARAUNA FIV UNIUBE	14 / 12 / 2015	JFT2261	RUSSO TE JF	IVAG2748	FLUORADA VILLEFORT	444	69	3	60	18	78
164	CALG280	VAQUEJADA CAL	12 / 4 / 2006	TABO636	HUMAITÁ TE TABOQUINHA	I7621	LADY DE ALAGOINHA	443	77	34	62	8	89
165	TABO3590	ARAUCANA TABOQUINHA	4 / 10 / 2011	TABO2510	TRONO TE TABOQUINHA	TABO1349	OPA TE TABOQUINHA	441	77	14	57	14	89
166	LKW345	JACUIMA FIV BOA LEMBRANÇA	28 / 6 / 2010	A6119	CAPITÃO-MOR D	LKW154	DOCERA BOA LEMBRANÇA	441	74	-31	56	12	85
167	TABO3444	ALIADA FIV TABOQUINHA	4 / 12 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO947	LAGOA TE TABOQUINHA	441	72	16	60	9	80
168	GZF78	HATUNA FIV DO GUGA	23 / 10 / 2015	JFT2433	NAPOLE TE JF	CALG295	VARRAJA CAL	441	71	9	58	18	80

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Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE EPD	Rel. (%)
169	LKW539	MALETA FIV BOA LEMBRANÇA	4 / 1 / 2012	8301	CUBITO G.1 DA ND	TABO2117	SUSPEITA TABOQUINHA	441	70	-7	53	17	78
170	JFT3730	ESPONJA FIV JF	22 / 1 / 2012	TABO1364	ÓLEO TE TABOQUINHA	JFT2263	BARBARA TE JF	437	74	-31	57	13	84
171	SULA2292	TITITI ILHA FUNDA	14 / 12 / 2014	SULA1298	NAVEGANTE ILHA FUNDA	SULA1646	QUELLI SULA	437	64	-1	50	17	76
172	TABO4049	BERNADETE FIV TABOQUINHA	5 / 11 / 2013	5800	PERSEU S	TABO1178	NONA TABOQUINHA	436	76	-5	62	18	86
173	WSPV1843	1843 F 10 DO MINEIRAO	10 / 8 / 2010	DSM3371	ESTILETE DA MS	TABO1333	OROPA TE TABOQUINHA	435	77	-1	54	15	90
174	LKW446	LIMEIRA FIV BOA LEMBRANÇA	7 / 3 / 2011	8301	CUBITO G.1 DA ND	LKW114	CONDENSA DA BOA LEMBRANÇA	434	70	-24	59	18	79
175	TABO3262	XABEL TABOQUINHA	19 / 3 / 2010	TABO2333	SULFO TE TABOQUINHA	TABO1730	QUINTILHA TE TABOQUINHA	433	74	24	58	10	85
176	TABO3722	ALOIA FIV TABOQUINHA	13 / 4 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO1760	QUIBORANA TE TABOQUINHA	430	75	18	59	18	85
177	LKW820	NAPOLITANA BOA LEMBRANÇA	25 / 12 / 2013	LKW223	GARI BOA LEMBRANÇA	LKW160	ETAPA FIV BOA LEMBRANÇA	430	72	-5	52	16	84
178	TABO632	HUNGRIA TE TABOQUINHA	8 / 6 / 1996	A1437	EDIPO DA ALAGOINHA	A3920	VANUSA	428	89	19	80	12	93
179	CIPO354	GUIANA FIV DO CIPÓ	17 / 11 / 2006	CNS4985	ABAE T S	JAJ2638	GAROTA JA	428	81	2	65	14	89
180	FCGP546	EMPARN CANAA	4 / 12 / 2006	TABO1117	NAQUE TE TABOQUINHA	FCGP349	PADIOLA DA EMPARN	428	80	-9	56	10	92
181	TABO3362	ZONA FIV TABOQUINHA	17 / 10 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO1089	NACIOLA TABOQUINHA	428	77	17	62	10	86
182	TABO3457	ATRIZ FIV TABOQUINHA	4 / 12 / 2010	TABO1364	ÓLEO TE TABOQUINHA	TABO1293	ÓTICA TABOQUINHA	427	76	-11	56	9	88
183	TABO2345	SARTA TE TABOQUINHA	1 / 6 / 2006	HANC311	CORSARIO DA VEREDA	TABO1154	NAIRA TABOQUINHA	427	70	13	57	13	79
184	TABO3542	ADAMA FIV TABOQUINHA	23 / 5 / 2011	JFT2261	RUSSO TE JF	TABO632	HUNGRIA TE TABOQUINHA	425	79	4	64	14	89
185	FNFA2870	NOBREZA FIV NF	17 / 2 / 2015	TABO636	HUMAITÁ TE TABOQUINHA	FNF7139	UBA NF	425	72	38	62	9	79
186	TABO3548	ARQUITETA TABOQUINHA	5 / 6 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2224	SABOIA TABOQUINHA	425	71	4	59	15	79
187	LKW823	ODISSEIA FIV BOA LEMBRANÇA	4 / 2 / 2014	TABO636	HUMAITÁ TE TABOQUINHA	LVPS90	MOCINHA DA N.FLOR.	425	69	56	59	11	78
188	TABO4268	DENGOSA TABOQUINHA	5 / 8 / 2014	TABO1835	REMANSO TE TABOQUINHA	TABO3126	XUXA TE TABOQUINHA	425	69	4	55	13	79
189	TABO4177	CROATA FIV TABOQUINHA	20 / 5 / 2014	5572	NERO S	TABO1154	NAIRA TABOQUINHA	425	67	-21	54	18	78
190	TABO3565	ARAGUAIA TABOQUINHA	29 / 8 / 2011	TABO1726	QUIMÃO TE TABOQUINHA	CIPO287	GELATINA FIV DO CIPÓ	424	77	5	54	13	90
191	LVPS191	QUARTELA DA NOVA FLORESTA	21 / 12 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	MMMM5875	OFENSIVA 4M	424	69	0	59	11	77
192	LKW944	PRATA BOA LEMBRANÇA	15 / 4 / 2015	CNS7275	BAÇÃO S	LKW277	HEVEA FIV	424	66	15	50	15	77
193	TABO3449	ANDINA FIV TABOQUINHA	4 / 12 / 2010	A1462	PACIFICO-A	CNS6431	NINHADA S	423	78	7	57	11	91
194	EMGA1700	JANETE - A	27 / 7 / 2014	EMGA1103	ALADO-A	EMGA1161	BEM-TE-VI-A	423	73	12	51	14	85
195	LKW1057	QUIASTRA FIV BOA LEMBRANÇA	18 / 4 / 2016	JFT3094	CALICE FIV JF	IHL85	DIVA	423	73	-15	57	30	84
196	TABO3573	ANDORINHA TABOQUINHA	15 / 9 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2930	VIAGEM TABOQUINHA	423	73	-1	63	15	81
197	AVPG245	DEBUTANTE 4 MENINOS	25 / 1 / 2012	8301	CUBITO G.1 DA ND	IHL108	DONDOCA	422	72	0	61	12	80
198	TABO1724	QUERENA TE TABOQUINHA	24 / 2 / 2004	A1462	PACIFICO-A	TABO691	ÍNDIA TABOQUINHA	422	75	7	63	13	83
199	EMGA1536	HANCE A	6 / 11 / 2011	8301	CUBITO G.1 DA ND	I7728	OLIMPIADA-A	422	72	-4	58	10	80
200	TABO3811	BEJA FIV TABOQUINHA	5 / 11 / 2012	UNIUI52	AGHA KHAN FIV	TABO2312	SUMA TE TABOQUINHA	422	71	-2	58	16	80
201	EMGA860	QUILHA	9 / 9 / 1999	A1460	NEGUS-A	I7708	NUBIA DE ALAGOINHA	420	79	20	53	9	92
202	LKW313	IMA BOA LEMBRANÇA	18 / 1 / 2010	A2389	ESTILO DA ALAGOINHA	LKW106	CIRANDA DA BOA LEMBRANÇA	420	78	-14	62	10	89
203	MDVG6324	MANDRAGOA D	7 / 6 / 2002	A2687	ALOPRADO D	3855	CAMELIA D	420	75	-3	52	9	89
204	TABO3534	ADRIA FIV TABOQUINHA	2 / 5 / 2011	TABO2510	TRONO TE TABOQUINHA	TABO632	HUNGRIA TE TABOQUINHA	420	73	36	62	15	80
205	TABO1582	QUARTA TE TABOQUINHA	20 / 8 / 2003	TABO636	HUMAITÁ TE TABOQUINHA	J653	FLECHA	419	75	36	64	9	83
206	WFM1668	IDENTIDADE FIV DO CIRNE	12 / 2 / 2011	TABO636	HUMAITÁ TE TABOQUINHA	WFM1053	VARETA DO CIRNE	419	68	-3	53	16	79
207	EMGA870	SUECIA-A	11 / 11 / 2001	A1462	PACIFICO-A	I7621	LADY DE ALAGOINHA	418	76	32	59	10	86
208	TABO3721	ALPACA FIV TABOQUINHA	13 / 4 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO1760	QUIBORANA TE TABOQUINHA	418	71	18	59	16	80
209	TABO1366	OLA TE TABOQUINHA	11 / 6 / 2002	TABO866	LABRADOR TABOQUINHA	TABO632	HUNGRIA TE TABOQUINHA	417	75	-18	65	14	82
210	UNIUI238	LAGUNA FIV UNIUBE	16 / 8 / 2016	TABO636	HUMAITÁ TE TABOQUINHA	UNIUI806	GRANA RAJASTHAN FIV UNIUBE	417	69	4	57	22	78
211	JFT2358	NORA TE JF	10 / 9 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	JFT1906	CALÇADA JF	416	76	41	65	11	83
212	EMGA1383	GAMELA - A	23 / 4 / 2011	EMGA1103	ALADO-A	EMGA1258	DIANA-A	416	72	33	51	11	84
213	JFT3319	PALOMA JF	28 / 1 / 2011	JFT2737	MANDARI FIV JF	JFT2311	NICARAGUA JF	416	70	46	52	12	83
214	EMGA1480	HALA-A	23 / 1 / 2012	JFT2261	RUSSO TE JF	EMGA909	TABUADA-A	415	79	7	62	12	89
215	TABO2751	UBATINGA TABOQUINHA	28 / 9 / 2007	CNS4985	ABAE T S	TABO1130	NIRVANA TABOQUINHA	415	75	-14	62	15	83
216	UNIUI432	ESPANHOLA FIV UNIUBE	21 / 1 / 2011	TABO1835	REMANSO TE TABOQUINHA	MABI491	MAAB JITANA	415	73	-4	53	12	85
217	TABO3754	ASSOMBRA TABOQUINHA	19 / 5 / 2012	TABO2333	SULFO TE TABOQUINHA	CNS6431	NINHADA S	414	71	6	58	14	80
218	TABO1178	NONA TABOQUINHA	18 / 6 / 2001	A5873	OSASCO 4M	TABO322	FRAGATA	413	87	14	76	13	92
219	TABO2444	TULIPA TE TABOQUINHA	11 / 9 / 2006	TABO1467	POLO TE TABOQUINHA	JAJ2638	GAROTA JA	412	76	15	60	14	84
220	C5812	HUM SONHO AMADA	10 / 10 / 2006	5882	VAIDOZO	JAJ2638	GAROTA JA	412	70	-25	49	19	83
221	EMGA1169	BELGICA-A	25 / 7 / 2006	EMGA952	URÂNIO-A	EMGA955	URCA-A	411	75	-10	52	12	88
222	IVAG281	BODEGA DO VILLEFORT	25 / 12 / 2007	CNS6391	NGAO TE S	TABO886	LAVANDA TABOQUINHA	411	69	-11	56	16	78
223	JFT3283	OIANA FIV JF	23 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	JFT2112	ESPADA JF	410	77	-7	57	6	88
224	TABO3034	VENDA TABOQUINHA	8 / 7 / 2009	LVPS203	RESPLENDOR TE N.FLOR	TABO1561	QUARTILHA TABOQUINHA	410	75	26	49	9	90
225	CIPO324	GRAVIOLA FIV DO CIPÓ	4 / 9 / 2006	TABO1301	OBUS TE TABOQUINHA	CNS5266	BIBA S	409	80	-8	63	8	88

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Milk Rank.	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE EPD	Rel. (%)
226	METG12	ALGEBRA FIV DA META	4 / 12 / 2012	JFT2261	RUSSO TE JF	TABO1826	RABECA TE TABOQUINHA	409	75	-18	62	17	85
227	APAY1	LEMBRANCA APAN	10 / 10 / 2012	TABO1364	OLEO TE TABOQUINHA	FINFA880	HIBRIDA FIV NF	409	69	0	48	9	80
228	TABO2698	URCA TABOQUINHA	24 / 7 / 2007	TABO1835	REMANSO TE TABOQUINHA	TABO1743	QUITANDEIRA TABO	408	71	9	58	10	79
229	LKW1001	PEPITA FIV BOA LEMBRANCA	13 / 11 / 2015	JFT2433	NÁPOLE TE JF	IHL85	DIVA	407	69	6	57	22	79
230	JUZZ40	FIBRA FIV DA JUZZ	8 / 7 / 2012	JFT2261	RUSSO TE JF	JUZZ1	ALABA FIV DA JUZZ	407	68	6	58	15	76
231	EMGA1799	MALHADA-A	4 / 5 / 2016	EMGA1361	FIEL-A	EMGA1429	GELEIA-A	406	63	-9	45	15	75
232	LKW733	NATURA FIV BOA LEMBRANCA	10 / 8 / 2013	UNI0439	ESCOTTEIRO FIV UNIUBE	LKW228	GARAPA BOA LEMBRANCA	405	71	-27	59	18	80
233	WRP15	FLAMULA FIV 5B	16 / 6 / 2009	TABO636	HUMAITA TE TABOQUINHA	WFM1095	VIDRACA DO CIRNE	405	67	17	56	10	75
234	CNS8775	MARISTA S	17 / 9 / 2012	MDV/G6458	NOVA SEITA D	CNS7563	CAMBOUA II S	404	71	-2	52	10	84
235	WFM1672	IDADE FIV DO CIRNE	18 / 2 / 2011	TABO636	HUMAITA TE TABOQUINHA	WFM715	NORTISTA DO CIRNE	404	63	20	53	11	72
236	JAUX161	HUNGARA FIV JA	15 / 5 / 2010	A1437	EDIPO DA ALAGOINHA	JAJ3362	ENCANTADA JA	402	74	20	59	13	85
237	I7728	OLIMPIADA-A	24 / 9 / 1997	A1446	EPSON DE ALAGOINHA	F5885	ITUVAVA DE ALAGOINHA	401	82	15	57	6	93
238	EMGA1327	ESPANHA-A	23 / 11 / 2009	EMGA1182	BAURU-A	EMGA1049	VIGA-A (TE)	401	80	-3	54	9	93
239	JAUX94	CARTUCHEIRA FIV JA	3 / 12 / 2008	A2389	ESTILO DA ALAGOINHA	JAJ3199	COTIA JA	401	80	-44	62	10	90
240	AVPG652	NAIA 4 MENINOS	8 / 10 / 2016	8301	CUBITO G.I DA ND	FINFA587	GATINHA FIV NF	401	70	-18	60	19	78
241	WEME306	LAVANDA FIV BOA FAMILIA	8 / 8 / 2015	JFT3157	CAIM JF	CALG295	VARAJA CAL	401	70	-16	57	22	79
242	AVPG163	CONVERSA 4 MENINOS	16 / 12 / 2011	A1462	PACIFICO-A	IHL108	DONDOCA	399	77	34	62	10	86
243	JFT3093	CANJA FIV JF	24 / 9 / 2009	JFT2422	NOTAVEL TE JF	JFT2263	BARBARA TE JF	399	75	-29	62	11	85
244	TABO3404	ZANE FIV TABOQUINHA	18 / 11 / 2010	TABO1272	OURIÇO TE TABOQUINHA	TABO833	JUSTA TABOQUINHA	399	75	-2	58	12	85
245	JFPA746	POLINIA FIV IBITURUNA	30 / 12 / 2011	JFT2351	NEPAL TE JF	JFPA74	MUSA TE IBITURUNA	399	74	22	58	11	85
246	AVPG381	DECIDIDA 4 MENINOS	20 / 10 / 2012	JFT2261	RUSSO TE JF	CIPO303	GALILEIA FIV DO CIPO	398	76	-2	62	13	86
247	TABO3829	AMERICANA TABOQUINHA	25 / 11 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2787	URUPEMA TABOQUINHA	398	70	8	57	14	79
248	MAPZ566	UTINGA SANTA CECÍLIA	18 / 4 / 2014	MDV/G6511	ORO D	MAPZ99	NAISA SANTA CECÍLIA	397	74	-15	51	15	88
249	TABO2006	RESTIA TE TABOQUINHA	7 / 6 / 2005	TABO1272	OURIÇO TE TABOQUINHA	TABO833	JUSTA TABOQUINHA	396	78	-4	64	12	86
250	TABO2327	SEQUOIA TABOQUINHA	25 / 4 / 2006	LDCV391	FARO TE DA MORUMBI	TABO1154	NAIRA TABOQUINHA	396	73	17	60	13	82
251	FNFA1340	INFANCIA FIV NF	23 / 3 / 2011	8301	CUBITO G.I DA ND	FINF7139	UBA NF	395	76	-20	61	11	86
252	TABO3515	AQUARELA TABOQUINHA	14 / 3 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2384	TABUA TE TABOQUINHA	395	75	26	59	11	85
253	EMGA1702	JARDINEIRA-A	27 / 8 / 2014	EMGA1182	BAURU-A	EMGA1286	DEVA-A	395	66	42	49	10	77
254	LKW462	LINDOIA FIV BOA LEMBRANCA	15 / 3 / 2011	8301	CUBITO G.I DA ND	LKW114	CONDENSA DA BOA LEMBRANCA	394	74	0	59	9	85
255	LKW406	LATA FIV BOA LEMBRANCA	17 / 1 / 2011	TABO1835	REMANSO TE TABOQUINHA	IHL46	CAMURÇA	394	70	33	57	9	79
256	TABO4184	CABOCLA FIV TABOQUINHA	24 / 5 / 2014	JFT2351	NEPAL TE JF	TABO2444	TULIPA TE TABOQUINHA	393	70	21	58	14	79
257	TABO3583	ANTILHAS TABOQUINHA	27 / 9 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2355	SAUVA TE TABOQUINHA	392	74	0	57	13	85
258	LKW277	HEVEA FIV	13 / 7 / 2009	A5873	OSASCO 4M	MMMM5883	ONDINA 4M	392	73	14	62	12	81
259	JFPA546	ÓTICA FIV IBITURUNA	18 / 11 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO1410	PADUA TE TABOQUINHA	392	72	20	60	8	80
260	TABO3083	XIRIRICA TABOQUINHA	12 / 10 / 2009	TABO1835	REMANSO TE TABOQUINHA	TABO2218	SINDA TE TABOQUINHA	392	70	-1	57	9	79
261	CALG295	VARAJA CAL	23 / 4 / 2006	TABO727	INSTINTO TE TABOQUINHA	I7700	NOBREZA-A	391	82	5	67	11	91
262	EMGA1333	FLORESTA-A	1 / 1 / 2010	A1437	EDIPO DA ALAGOINHA	I7728	OLIMPIADA-A	391	80	21	62	10	91
263	LKW863	OSTRA BOA LEMBRANCA	18 / 8 / 2014	JFT3094	CÁLICE FIV JF	LKW228	GARAPA BOA LEMBRANCA	391	71	-21	58	19	80
264	LKW1047	QUIARA FIV BOA LEMBRANCA	16 / 3 / 2016	PEAC28	CRAVO PEAC	LKW378	JURUA FIV BOA LEMBRANCA	391	69	10	56	15	78
265	FIEG4	INGARA AC DA FIEL	29 / 4 / 2011	TABO1835	REMANSO TE TABOQUINHA	TF-S224	HARMALA TF	390	73	7	53	6	85
266	ESEJ1200	RESERVA TE ESJ	1 / 6 / 2014	TABO2333	SULFO TE TABOQUINHA	TABO2292	SEDNA TE TABOQUINHA	390	67	11	55	13	75
267	TABO2887	VADIACÃO TABOQUINHA	1 / 8 / 2008	TABO1726	QUIMÃO TE TABOQUINHA	TABO1968	RUIVA TE TABOQUINHA	389	72	13	55	8	84
268	I7621	LADY DE ALAGOINHA	30 / 1 / 1994	A1443	HORTO DE ALAGOINHA	F5676	ESMERALDA ALAGOINHA	388	83	28	61	2	93
269	VMP388	QUINTANA DAS FLORES	27 / 10 / 2006	TABO1301	OBUS TE TABOQUINHA	VMP296	LÓGICA DAS FLORES	388	77	18	58	5	89
270	JCGU266	FLOR DA SERRA FIV CAMARÃO	14 / 2 / 2011	A1462	PACIFICO-A	PEAC215	MACEDONEA TE PEAC	388	73	14	57	9	83
271	TABO1779	RADIA TE TABOQUINHA	13 / 7 / 2004	TABO636	HUMAITA TE TABOQUINHA	TABO821	JAZIDA TABOQUINHA	388	73	5	63	14	80
272	TABO2992	VIOLENTA TABOQUINHA	28 / 2 / 2009	CNS4995	ABAETÉ S	TABO1178	NONA TABOQUINHA	388	70	64	64	11	80
273	IVAG275	BIVA DO VILLEFORT	21 / 12 / 2007	CNS6391	NGAO TE S	TABO886	LAVANDA TABOQUINHA	388	72	-24	56	16	83
274	TABO3709	AMÉRICA FIV TABOQUINHA	10 / 4 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO2006	RESTIA TE TABOQUINHA	388	71	6	59	14	79
275	LKW404	UA FIV BOA LEMBRANCA	16 / 1 / 2011	TABO1835	REMANSO TE TABOQUINHA	LKW169	ESOCIA BOA LEMBRANCA	388	69	2	55	12	78
276	CALG267	VALÉCULA CAL	14 / 1 / 2006	TABO727	INSTINTO TE TABOQUINHA	EMGA877	SEIVA-A	387	78	1	61	12	87
277	EMGA1167	BAGDÁ-A	21 / 7 / 2006	A1462	PACIFICO-A	EMGA846	QUIETA	387	77	73	58	9	88
278	JFPA899	REGATA IBITURUNA	18 / 6 / 2013	JFPA222	URIEL IBITURUNA	JFPA289	ULA-ULA IBITURUNA	387	76	-9	55	14	88
279	TABO2938	VAIVEM TABOQUINHA	4 / 10 / 2008	TABO2124	SENTILDO TABOQUINHA	TABO1842	REDOMA TE TABOQUINHA	387	72	20	53	7	84
280	TABO4003	BEM-OLA FIV TABOQUINHA	31 / 10 / 2013	5600	PERSEU S	TABO2375	TABA TE TABOQUINHA	387	71	-16	59	15	80
281	TABO4171	CHICHA FIV TABOQUINHA	19 / 5 / 2014	TABO636	HUMAITA TE TABOQUINHA	CIPO43	CARTELA DO CIPO	387	71	27	61	11	80
282	TABO886	LAVANDA TABOQUINHA	20 / 11 / 1998	TABO488	HARLEM TE TABOQUINHA	TABO442	GUERRA TE TABOQUINHA	386	84	-8	71	10	90

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Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE EPD	Rel. (%)
283	I7682	MIMOSA DE ALAGOINHA	11 / 8 / 1995	A1446	EPSON DE ALAGOINHA	F5448	CAMELIA DA ALAGOINHA	386	80	25	54	3	93
284	MAP299	NAISA SANTA CECILIA	4 / 10 / 2009	8301	CUBITO G.I DA ND	MRM298	NICA TABOQUINHA	386	78	-27	62	16	87
285	TABO2281	SERICITA TABOQUINHA	10 / 1 / 2006	TABO1272	OURICO TE TABOQUINHA	MRM1167	NICA TABOQUINHA	386	74	12	58	6	86
286	JFPA74	MUSA TE IBITURUNA	8 / 4 / 2006	TABO636	HUMAITA TE TABOQUINHA	CNS5372	CALORIA S	386	74	13	63	12	82
287	GZF83	IUGOSLAVIA DO GUGA	4 / 2 / 2016	IVAG2735	FAGUEIRO VILLEFORT	GZF28	ESLOVENIA DO GUGA	386	69	-8	50	14	83
288	EMGA1420	GALERIA-A	10 / 10 / 2011	8301	CUBITO G.I DA ND	EMGA909	TABUADA-A	385	77	-19	62	14	86
289	FCGP584	CANGUARETAMA DA EMPARN	28 / 12 / 2007	TABO1301	OBUS TE TABOQUINHA	FCGP349	PADJOLA DA EMPARN	384	76	2	56	10	86
290	MET662	BRILHANTINA FIV DA META	1 / 11 / 2013	TABO2510	TRONO TE TABOQUINHA	HUM22	HUM SONHO ALIANÇA	384	68	-2	56	19	77
291	TABO3667	AFERIDA TABOQUINHA	7 / 1 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO2861	UTUABA TABOQUINHA	383	76	1	57	14	88
292	MVB990	ESMERALDA DA VIC	15 / 9 / 2009	TABO636	HUMAITA TE TABOQUINHA	TABO821	JAZIDA TABOQUINHA	383	71	23	62	10	77
293	TABO3670	ALFAFA FIV TABOQUINHA	28 / 1 / 2012	TABO2510	TRONO TE TABOQUINHA	CNS6431	NINHADA S	383	70	7	55	17	79
294	VMP446	VITA FIV DAS FLORES	5 / 11 / 2012	UNI052	AGHA KHAN FIV	VMP377	PARMA DAS FLORES	383	70	-16	56	18	79
295	JFPA608	PITANGA IBITURUNA	11 / 3 / 2011	JFT2351	NEPAL TE JF	JFT2516	ABAIJA JF	383	69	15	56	15	78
296	ACT390	GARANTIDA	26 / 1 / 2006	TABO636	HUMAITA TE TABOQUINHA	ACT183	CARAVELÁ	383	65	36	50	7	73
297	EMGA1161	BEM-TE-VIA	25 / 6 / 2006	A1463	QUILATE-A	I7689	MARINA DE ALAGOINHA	382	81	17	60	10	91
298	METG31	BARBACENA FIV DA META	8 / 2 / 2013	DSM3371	ESTILETE DA MS	TABO1749	QUERATINA TE TABOQUINHA	382	71	8	58	14	79
299	TABO2900	VRTUDE TABOQUINHA	27 / 8 / 2008	CNS5319	CABUL III S	TABO1847	RAIA TE TABOQUINHA	381	82	5	66	8	92
300	TABO3352	ZANZAR TABOQUINHA	9 / 10 / 2010	JFT2261	RUSSO TE JF	TABO2735	UFANIA TABOQUINHA	381	79	-12	60	8	91
301	TABO856	LACINIA TABOQUINHA	8 / 7 / 1998	A2389	ESTILO A	A3920	VANUSA	381	73	-1	62	10	81
302	EMGA886	TABOCA-A	22 / 1 / 2002	A1462	PACIFICO-A	I7708	NUBIA DE ALAGOINHA	380	82	25	60	9	92
303	MDV6475	NOCAO D	15 / 12 / 2003	MDVG5360	GIBAO D	I8013	DOMADORA D	380	73	31	51	7	84
304	TABO4340	DACIA FIV TABOQUINHA	26 / 1 / 2015	TABO2333	SULFO TE TABOQUINHA	TABO1178	NONA TABOQUINHA	380	72	12	60	13	79
305	TABO3960	BANDELETA FIV TABOQUINHA	21 / 10 / 2013	TABO636	HUMAITA TE TABOQUINHA	CIPO287	GELATINA FIV DO CIPÓ	380	71	26	60	13	79
306	WRP66	FADINHA 5B	14 / 5 / 2012	WEME94	DAVI FIV BOA FAMILIA	LKW174	FADA BOA LEMBRANÇA	380	70	-15	38	1	85
307	TABO4119	CALUNIA TABOQUINHA	8 / 1 / 2014	TABO2333	SULFO TE TABOQUINHA	TABO1374	PARATI TABOQUINHA	378	70	-10	58	15	79
308	TABO3486	ABSOLUTA TABOQUINHA	7 / 1 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO1613	QUIXABA TABOQUINHA	377	77	-6	60	14	89
309	LUKG49	CABOTAGEM FIV	2 / 7 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO691	INDIA TABOQUINHA	377	75	14	59	7	85
310	CNS9624	TAKA S	15 / 6 / 2015	CNS6629	PAPADO S	JFT3097	CAJUADA FIV JF	377	85	-26	50	15	74
311	EMGA877	SEIVA-A	22 / 11 / 2001	A1462	PACIFICO-A	I7658	MEDALHA DE ALAGOINHA	376	84	17	64	8	94
312	TABO1850	ROCA TE TABOQUINHA	27 / 8 / 2004	TABO636	HUMAITA TE TABOQUINHA	TABO893	LEGAO TABOQUINHA	376	71	16	61	9	79
313	GCBS12	AMADA FIV	2 / 9 / 2011	8301	CUBITO G.I DA ND	JFT2303	NEGA TE JF	376	68	-41	59	15	74
314	JFT2356	NOVATA TE JF	8 / 9 / 2004	TABO636	HUMAITA TE TABOQUINHA	JFT1906	CALÇADA JF	375	78	22	64	10	87
315	LKW431	LINDA FIV BOA LEMBRANÇA	4 / 2 / 2011	TABO1835	REMANSO TE TABOQUINHA	IHL46	CAMURÇA	375	70	29	57	9	79
316	APAY4	NEULAMA APAN	18 / 1 / 2014	TABO1364	OLEO TE TABOQUINHA	FNFA880	HIBRIDIA FIV NF	375	67	0	48	10	77
317	EMGA1405	GOLADA-A	27 / 7 / 2011	EMGA1182	BAURU-A	EMGA1196	BOLIVIA-A	374	78	30	54	9	90
318	BPSS37	CALIFORNIA FIV BPS	12 / 5 / 2007	PEAC28	CRAVO PEAC	JFT2124	ESTRELA JF	374	69	8	52	11	78
319	DRIK34	FELICIDADE TERRA PROMETIDA	16 / 10 / 2015	WEME122	ETO FIV BOA FAMILIA	WEIME198	DRIKA DOM BOA FAMILIA	374	66	-12	39	15	79
320	SAV36	DANCA TE DA SADERE	16 / 10 / 2004	TABO636	HUMAITA TE TABOQUINHA	TABO610	HONESTA TABOQUINHA	373	72	38	62	10	80
321	LKW929	OCARINA FIV BOA LEMBRANÇA	7 / 12 / 2014	JFT3094	CÁLICE FIV JF	LKW228	GARAPA BOA LEMBRANÇA	372	71	-12	58	17	80
322	DRIK28	FAMA TERRA PROMETIDA	24 / 4 / 2015	JFT2351	NEPAL TE JF	SULA775	JAMBASA ILHA FUNDA	372	68	25	57	11	77
323	TABO3734	ALIANÇA FIV TABOQUINHA	13 / 4 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO1760	QUIBORANA TE TABOQUINHA	371	71	17	59	14	80
324	JUZZ38	FOLHA FIV DA JUZZ	4 / 7 / 2012	JFT2261	RUSSO TE JF	JUZZ1	ALABA FIV DA JUZZ	371	70	7	59	13	77
325	TABO3633	AÇAI FIV TABOQUINHA	4 / 12 / 2011	TABO1301	OBUS TE TABOQUINHA	TABO1178	NONA TABOQUINHA	370	79	9	67	12	88
326	EMGA1747	LEDA A	26 / 6 / 2015	EMGA1103	ALADO-A	EMGA1099	AGENDA-A	370	68	-10	49	15	79
327	CALG213	UTURRAZ CAL	4 / 11 / 2005	TABO636	HUMAITA TE TABOQUINHA	PEAC181	FELICIDADE TE PEAC	369	75	15	60	10	85
328	TABO947	LAGOA TE TABOQUINHA	11 / 5 / 1999	A2633	TRIGUEIRO D	G8740	JARRA	368	86	21	73	5	92
329	MAP2104	NAVEGA SANTA CECILIA	5 / 10 / 2009	8301	CUBITO G.I DA ND	MRM298	FIBRA MRM	368	75	-12	61	10	85
330	TABO3375	ZONAL TABOQUINHA	29 / 10 / 2010	TABO2333	SULFO TE TABOQUINHA	TABO1349	OPATA TE TABOQUINHA	368	75	7	58	9	85
331	AVPG151	CHAPATI 4 MENINOS	17 / 11 / 2011	JFT2261	RUSSO TE JF	IHL108	DONDOCA	367	73	-4	63	13	80
332	EMGA1258	DJANA-A	13 / 5 / 2008	A1462	PACIFICO-A	EMGA959	UMAITA-A	367	73	4	57	13	82
333	MAP2525	TATA SANTA CECILIA	18 / 9 / 2013	UNI0439	ESCOTEIRO FIV UNIUBE	MAP2145	MAGALY SANTA CECILIA	366	64	-26	51	21	76
334	CALG476	AVELÁ CAL	5 / 4 / 2009	5882	GURURI TE TABOQUINHA	LVPS67	LUMINOSA DA N.FLOR.	365	74	-6	56	11	86
335	MAP2349	PARADA FIV SANTA CECILIA	1 / 4 / 2011	TABO2510	TRONO TE TABOQUINHA	MRM298	FIBRA MRM	365	72	26	60	15	80
336	ROSA126	URCA TE DO ROSÁRIO	9 / 7 / 2003	TABO636	HUMAITA TE TABOQUINHA	A476	NUBIA DO ROSÁRIO	365	72	35	60	8	80
337	TABO4313	DECORADA TABOQUINHA	8 / 1 / 2015	TABO2567	TUISTE TE TABOQUINHA	TABO3572	AMIZADE TABOQUINHA	364	67	1	53	18	77
338	HUM3	HUM SONHO ALINA	1 / 9 / 2006	8301	CUBITO G.I DA ND	G8791	PALMA JF	363	76	-41	60	12	86
339	TABO2382	TABOCA TE TABOQUINHA	19 / 7 / 2006	A2687	ALOPRADO D	TAB691	IMERSA TABOQUINHA	363	75	10	62	10	83

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Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE	Rel. (%)
340	EMGA1358	FUMACA-A	18 / 9 / 2010	EMGA1209	CANDE-A	EMGA1161	BEM-TE-VI-A	362	78	31	54	10	90
341	TABO1379	PATYCA TABOQUINHA	12 / 7 / 2002	TABO636	HUMAITÁ TE TABOQUINHA	JFT2503	JUA TABOQUINHA	362	75	12	62	10	83
342	JFPAY48	PACI FIV IBITURUNA	31 / 12 / 2011	JFT2351	NEPAL TE JF	TABO442	GUERRA TE TABOQUINHA	362	74	12	58	11	85
343	TABO1834	RAMA TE TABOQUINHA	17 / 8 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	TABO2292	SEDNA TE TABOQUINHA	362	73	16	65	9	80
344	ESEJ1190	RACA TE ESJ	15 / 5 / 2014	TABO2333	SULFO TE TABOQUINHA	TABO2312	SUMA TE TABOQUINHA	361	67	11	55	12	75
345	TABO3813	BELA FIV TABOQUINHA	5 / 11 / 2012	UNIUS2	AGHA KHAN FIV	MRM346	FRANCESA MRM	361	68	51	50	11	80
346	LKW650	MIRAGEM BOA LEMBRANÇA	15 / 12 / 2012	LKW245	HADOQUE FIV BOA LEMBRANÇA	WFM1179	ACUTI DO CIRNE	361	68	-18	57	11	78
347	WEME70	DEVA FIV BOA FAMILIA	21 / 2 / 2009	8301	CUBITO G.I DA ND	JFT2311	NICARAGUA JF	361	62	7	47	14	75
348	JFT3077	CAMBRAIA JF	20 / 8 / 2009	CNS6575	PANCHO S	TABO1550	QUEIMADA TABOQUINHA	360	78	38	58	3	91
349	TABO2399	TACHA TABOQUINHA	1 / 8 / 2006	TABO1301	OBUS TE TABOQUINHA	FNF7139	UBA NF	360	76	-3	60	9	86
350	FNFA1291	IVANA FIV NF	6 / 4 / 2011	A6119	CAPITÃO-MOR D	JFT1725	AXÉ JF	360	72	-19	53	8	84
351	JFPA326	UMBAUBA IBITURUNA	28 / 11 / 2008	JFPA48	ARGENTO FIV IBITURUNA	TABO1192	OFERTA TABOQUINHA	360	71	-1	51	13	84
352	TABO3653	ZEITONA TABOQUINHA	19 / 12 / 2011	JFT2403	NANDI TE JF	EMGA877	SEIVA-A	359	73	31	61	9	81
353	EMGA1810	LAVANDA FIV A	9 / 11 / 2015	TABO636	HUMAITÁ TE TABOQUINHA	SULA321	FESTA ILHA FUNDA	359	70	16	53	13	79
354	IVAGZ716	FIXA VILLEFORT	15 / 8 / 2011	TABO636	HUMAITÁ TE TABOQUINHA	JFT2356	NOVATA TE JF	358	70	8	58	14	79
355	JFPA370	CABROCHA IBITURUNA	25 / 6 / 2009	JFT2433	NAPOLE TE JF	I7613	JAMAICA ALAGOINHA	358	82	-9	61	9	93
356	EMGA1049	VIGA-A (TE)	17 / 5 / 2004	A6119	CAPITÃO-MOR D	JAJ2800	OCEANIA JA	358	82	-11	68	16	89
357	LKW106	GIRANDA DA BOA LEMBRANÇA	29 / 7 / 2004	8301	CUBITO G.I DA ND	IHL108	DONDOCA	358	76	-6	63	12	86
358	AVPG147	CERES 4 MENINOS	14 / 11 / 2011	JFT2261	RUSSO TE JF	TABO1679	QUIJARA TE TABOQUINHA	358	70	19	57	12	79
359	TABO3609	ATRAÇÃO TABOQUINHA	2 / 11 / 2011	TABO2333	SULFO TE TABOQUINHA	JFT1974	OLARIA JF	357	75	18	61	11	85
360	JFT2587	ATLANTA TE JF	31 / 10 / 2005	TABO636	HUMAITÁ TE TABOQUINHA	IHL108	DONDOCA	357	73	23	63	9	80
361	AVPG230	DISCRETA 4 MENINOS	8 / 9 / 2012	1389	URUTU	CALG216	UTUEFICAZ CAL	357	69	-2	48	8	82
362	JCGU136	FACEIRA CAMARAO	8 / 1 / 2011	MDVG6822	RAPA PÉ D	RIFAINA TABOQUINHA	RIFAINA TABOQUINHA	357	69	5	57	14	79
363	TABO3786	BELINDA TABOQUINHA	28 / 10 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO3593	ÁLGEBRA TABOQUINHA	357	66	-7	53	18	77
364	TABO4318	DEMOCRATA TABOQUINHA	12 / 1 / 2015	TABO2567	TUISTE TE TABOQUINHA	TABO442	GUERRA TE TABOQUINHA	356	83	33	70	7	90
365	TABO1847	RAIA TE TABOQUINHA	25 / 8 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	F5884	JANGADA DE ALAGOINHA	355	81	44	60	4	92
366	I7715	NEBULOSA DE ALAGOINHA	7 / 12 / 1996	A989	IBERICO	JFT1889	URTIGA JF	355	76	-11	63	11	86
367	HUM7	HUM SONHO ANNI	18 / 9 / 2006	5800	PERSEU S	QUEIMADA	QUEIMADA	355	71	14	60	21	86
368	METG9	ATITUDE FIV DA META	6 / 11 / 2012	JFT2351	NEPAL TE JF	JFPA899	REGATA IBITURUNA	355	70	-3	56	18	79
369	JFPA1309	MURIEL IBITURUNA	8 / 11 / 2016	JFT2433	NAPOLE TE JF	HUM32	HUM SONHO AMBUIA	355	68	8	45	7	82
370	HUM79	HUM SONHO CAMBINDA	20 / 10 / 2009	GUZA883	IDEAL	TABO1847	RAIA TE TABOQUINHA	354	75	12	59	11	85
371	AVPG253	DEDICACAO 4 MENINOS	1 / 10 / 2012	A2887	ALOPRADO D	JFT2368	NORA TE JF	354	70	20	56	16	85
372	JFT3566	RAPOSA FIV JF	2 / 7 / 2013	JFT2261	RUSSO TE JF	JFPA303	UCCA IBITURUNA	354	69	-28	49	12	82
373	JFPA1257	MANILA IBITURUNA	28 / 4 / 2016	JFT2433	NAPOLE TE JF	HUM58	HUM SONHO CAAT	354	78	23	62	13	89
374	METG55	BONECA DA META	9 / 6 / 2013	GUZA1171	EDUCADO	MRM298	FIBRA MRM	353	78	23	62	13	89
375	MAPZ579	UCHA FIV SANTA CECILIA	6 / 9 / 2014	TABO636	HUMAITÁ TE TABOQUINHA	TABO1350	ORILHA TE TABOQUINHA	353	77	-7	56	8	80
376	TABO3175	XE TE TABOQUINHA	23 / 11 / 2009	5295	ACARI RF	GATO26	DUQUEZA	353	77	25	62	4	86
377	JUZZ1	ALABA FIV DA JUZZ	30 / 8 / 2010	TABO636	HUMAITÁ TE TABOQUINHA	TABO1333	OROPA TE TABOQUINHA	353	70	15	59	11	77
378	WSPV1837	1837 F 10 DO MINEIRAO	2 / 7 / 2010	CNS4995	ABAETÉ S	JFT2457	ANDAIA TE JF	353	67	16	54	7	78
379	JFT3032	CASSIA JF	25 / 2 / 2009	JFT2543	ALIBI TE JF	TABO760	JANGADA TABOQUINHA	352	86	10	72	11	92
380	TABO1749	QUERATINA TE TABOQUINHA	21 / 5 / 2004	A1462	PACIFICO-A	JFT1906	CALÇADA JF	351	81	-8	67	12	89
381	JFT2423	NIRVANA TE JF	18 / 12 / 2004	5800	PERSEU S	JAJX94	CARTUCHEIRA FIV JA	351	65	-17	50	15	77
382	UNIU1336	LIBELULA FIV UNIUBE	2 / 11 / 2016	AVPG407	EDIPO 4 MENINOS	FCGP436	SABINA DA EMPARN	350	79	-29	54	7	92
383	FCGP497	VASTIDÃO DA EMPARN	23 / 5 / 2004	TABO747	JABUTI TE TABOQUINHA	TABO2287	SHARIFA TE TABOQUINHA	350	76	18	57	8	88
384	TABO2978	VALETA TABOQUINHA	7 / 1 / 2009	JFT2351	NEPAL TE JF	JFT1541	RECEITA JF	350	72	60	61	8	80
385	JFT2311	NICARAGUA JF	22 / 2 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	TABO1740	QUINANGA TABOQUINHA	349	78	-11	62	10	89
386	TABO3372	ZIAR TABOQUINHA	28 / 10 / 2010	JFT2261	RUSSO TE JF	LKW276	HAICAL FIV	349	76	-32	58	13	88
387	LKW714	NELICA BOA LEMBRANÇA	4 / 5 / 2013	8301	AGHA KHAN FIV	I7728	OLIMPIADA-A	349	73	-24	59	10	81
388	EMGA1447	GRANADA FIV A	20 / 11 / 2011	TABO2510	TRONO TE TABOQUINHA	WEME64	DANA FIV BOA FAMILIA	349	72	-7	56	13	83
389	WEME301	LED FIV BOA FAMILIA	6 / 4 / 2015	CNS4995	ABAETÉ S	IVAG1	ABAIA DO VILLEFORT	349	68	13	58	12	76
390	IVAG4217	MURIEL VILLEFORT	17 / 8 / 2013	CNS4995	URUTU	IHL108	DONDOCA	348	78	11	63	8	89
391	AVPG118	CIRANDA 4 MENINOS	13 / 9 / 2011	1389	URUTU	JFT2254	RESSACA TE JF	347	73	-5	52	13	84
392	IVAG117	BAINHA DO VILLEFORT	8 / 10 / 2007	CNS8827	FUÁ S	WFM1119	ABAIA DO CIRNE	347	68	24	54	6	78
393	WEME184	FÊNIX FIV BOA FAMILIA	4 / 11 / 2011	TABO1835	REMANSO TE TABOQUINHA	EMGA1196	BOLIVIA-A	346	77	12	54	9	89
394	EMGA1524	HEBE- A	11 / 7 / 2012	EMGA1182	BAURUA	I7700	NOBREZA-A	345	79	9	61	9	90
395	CALG333	VESICULA CAL	15 / 8 / 2006	TABO727	INSTINTO TE TABOQUINHA	VMP304	MATILDE DAS FLORES	345	79	17	63	10	88
396	VMP377	PARMA DAS FLORES	23 / 11 / 2005	TABO1302	ORIENTE TE TABOQUINHA								

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Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE EPD	Rel. (%)
397	TABO3975	BEMBONITA FIV TABOQUINHA	28 / 10 / 2013	JFT3094	CALICE FIV JF	TABO2900	VIRTUDE TABOQUINHA	345	72	-1	59	14	81
398	TABO1109	NAPA TE TABOQUINHA	17 / 9 / 2000	A2389	ESTILO DA ALAGOINHA	I7268	PRIMAZIA	344	80	-14	69	7	86
399	TABO3599	ARIETA TABOQUINHA	10 / 10 / 2011	TABO2510	TRONO TE TABOQUINHA	TABO2243	SALVA TE TABOQUINHA	344	74	9	57	14	85
400	EMGA1296	ESPADA-A	3 / 4 / 2009	A1462	PACIFICO-A	EMGA846	QUIETA	344	73	73	58	9	81
401	EMGA1739	LUMA A	5 / 5 / 2015	TABO1301	OBUS TE TABOQUINHA	EMGA1420	GALERIA-A	344	68	-8	58	12	79
402	AVPG204	DELI 4 MENINOS	5 / 6 / 2012	MDV66511	ORO D	CIPO353	GUAIABA FIV DO CIPO	344	68	18	52	12	79
403	MSV5682	HÉLICE-D	19 / 8 / 1998	A2887	ALOPRADO D	G5198	TARJETA D	343	72	2	52	12	84
404	EMGA15	QUALIDADE-A	15 / 12 / 1999	A1437	ÉDPIO DA ALAGOINHA	TABO3041	VIDA TE TABOQUINHA	342	78	34	61	4	86
405	UNI0644	FELICIA UNIUBE	20 / 8 / 2012	MDV66458	NOVA SEITA D	I7621	LADY DE ALAGOINHA	342	74	-13	52	12	88
406	LKW510	LÍBIA FIV BOA LEMBRANÇA	14 / 11 / 2011	A1437	ÉDPIO DA ALAGOINHA	LKW106	CIRANDA DA BOA LEMBRANÇA	342	73	3	63	17	81
407	CALG182	UVALHA CAL	2 / 10 / 2005	TABO727	INSTINTO TE TABOQUINHA	JFT2096	EMBOABA JF	341	77	9	59	10	88
408	EMGA1224	CARPINA-A	18 / 6 / 2007	A1462	PACIFICO-A	EMGA114	SAARA-A	341	76	51	58	9	86
409	TABO3822	BAIUNA FIV TABOQUINHA	8 / 11 / 2012	UNI052	AGHA KHAN FIV	TABO2312	SUMA TE TABOQUINHA	341	75	0	58	12	86
410	TABO3467	AMOROSA TABOQUINHA	17 / 12 / 2010	TABO2333	SULFO TE TABOQUINHA	TABO2130	SENTENÇA TABOQUINHA	341	74	3	57	9	85
411	TABO2385	TALITA TABOQUINHA	26 / 7 / 2006	TABO1467	POLO TE TABOQUINHA	TABO1590	QUICAMA TE TABOQUINHA	341	72	-7	54	8	84
412	TABO2400	TAINHA TABOQUINHA	1 / 8 / 2006	TABO636	HUMAITÁ TE TABOQUINHA	TABO1620	QUIMANA TABOQUINHA	341	72	9	60	10	81
413	CNS9407	PARTILHA S	2 / 8 / 2014	CNS7293	BEIJM S	JFT3097	CAJUADA FIV JF	341	71	-21	47	14	84
414	TABO3643	ALANA FIV TABOQUINHA	10 / 12 / 2011	JFT2261	RUSSO TE JF	TABO1178	NONA TABOQUINHA	340	74	-2	64	14	81
415	JUZZ125	PAUTA FIV DA JUZZ	15 / 2 / 2016	TABO2333	SULFO TE TABOQUINHA	JUZZ30	ESTILOSA FIV DA JUZZ	340	69	11	58	16	78
416	JUZZ174	TÁTICA FIV DA JUZZ	24 / 4 / 2017	JFT2261	RUSSO TE JF	JUZZ1	ALABA FIV DA JUZZ	340	69	5	58	9	77
417	TABO3971	BELIAL FIV TABOQUINHA	27 / 10 / 2013	LDCV391	FARO TE DA MORUMBI	TABO2329	SULIPA TE TABOQUINHA	340	69	2	58	15	79
418	VMP429	UBAIA DAS FLORES	16 / 9 / 2010	TABO1835	REMANSO TE TABOQUINHA	VMP318	NUVEM DAS FLORES	340	69	-3	56	10	78
419	CNS8450	GRACIOSA S	31 / 12 / 2011	CNS7801	DESENHO S	JFT3097	CAJUADA FIV JF	340	64	-40	50	15	75
420	AVPG154	CROACIA 4 MENINOS	20 / 11 / 2011	JFT2261	RUSSO TE JF	IHL108	DONDOCA	339	73	-13	63	15	80
421	CIPO400	HEROÍNA DO CIPO	4 / 3 / 2007	TABO1301	OBUS TE TABOQUINHA	CIPO20	BARONESA DO CIPO	339	72	6	54	7	85
422	JFPA69	MACALA TE IBITURUNA	31 / 3 / 2006	TABO636	HUMAITÁ TE TABOQUINHA	CNS5372	CALORIA S	339	71	0	61	12	79
423	TABO3831	BENICIA FIV TABOQUINHA	10 / 11 / 2012	TABO2333	SULFO TE TABOQUINHA	TABO2509	TURQUIA FIV TABOQUINHA	339	70	14	59	14	79
424	JUZZ185	TRILHA DA JUZZ	28 / 7 / 2017	LKW516	LUCRO FIV BOA LEMBRANÇA	JUZZ37	FABULA DA JUZZ	339	65	6	51	13	75
425	TABO3313	ZENOBIA TABOQUINHA	4 / 9 / 2010	JFT2422	NOTAVEL TE JF	TABO2601	TRAIRA TE TABOQUINHA	338	76	3	57	10	88
426	TABO2355	SAUVA TE TABOQUINHA	5 / 6 / 2006	LDCV391	FARO TE DA MORUMBI	TABO1109	NAPA TE TABOQUINHA	338	74	-11	61	11	83
427	TABO2359	SARJA TE TABOQUINHA	10 / 6 / 2006	A2887	ALOPRADO D	TABA691	IMERSA TABOQUINHA	338	72	6	60	10	80
428	VMP454	ZENDA FIV DAS FLORES	27 / 10 / 2013	JFT2351	NEPAL TE JF	VMP377	PARMA DAS FLORES	338	71	22	58	12	80
429	EMGA1671	INFINITA-A	19 / 8 / 2013	EMGA1282	DUQUE-A	EMGA1309	ESTRELA-A	338	68	13	45	9	78
430	EMGA878	SELVA-A	22 / 11 / 2001	A1462	PACIFICO-A	I7658	MEDALHA DE ALAGOINHA	337	81	20	61	8	90
431	CALG423	ACUCENA CAL	8 / 2 / 2009	CALG133	UMIDO CAL	UBAIA CAL	UBAIA CAL	337	77	29	54	6	90
432	TABO3135	XEMENA TABOQUINHA	10 / 11 / 2009	TABO2333	SULFO TE TABOQUINHA	TABO1528	POEIRA TABOQUINHA	337	75	6	56	10	88
433	SULA379	GRECIA ILHA FUNDA	16 / 7 / 2004	CNS5319	CABUL III S	RLR894	LIDERANÇA	337	71	-30	53	9	84
434	LKW690	NIKARA FIV BOA LEMBRANÇA	1 / 4 / 2013	IHL146	ELETRO	LKW154	DOCERA BOA LEMBRANÇA	337	67	11	53	14	78
435	TAL5743	LÂMINA DA TEOTÔNIO	22 / 7 / 2007	TABO636	HUMAITÁ TE TABOQUINHA	TAL2221	VIOLADA DA TEOTÔNIO	336	75	31	57	8	85
436	IVAG2134	EVASADA VILLEFORT	7 / 11 / 2010	TABO636	ABAETÉ S	JFT2254	RESSACA TE JF	335	71	-22	62	17	79
437	SULA1800	RAQUEL ILHA FUNDA	9 / 12 / 2012	CNS5319	CABUL III S	SULA1150	MACEDÔNIA ILHA FUNDA	335	70	-6	53	8	83
438	TABO4101	CANINHA TABOQUINHA	8 / 12 / 2013	JFT2351	NEPAL TE JF	TABO2228	SARDENHA TE TABOQUINHA	335	70	-10	57	14	79
439	EMGA1669	INGAZEIRA-A	12 / 8 / 2013	EMGA1209	CANDE-A	EMGA1224	CARPINA-A	333	76	48	57	10	86
440	TABO2646	TOSA TE TABOQUINHA	30 / 12 / 2006	TABO1272	OURICO TE TABOQUINHA	TABO886	LAVANDA TABOQUINHA	333	73	-10	61	8	81
441	DYP144	DYANA DA ACONCHEGO	17 / 7 / 2009	TABO886	LABRADOR TABOQUINHA	TABO632	HUNGRIA TE TABOQUINHA	333	72	-23	64	14	78
442	GCB53	OSINHA TABOQUINHA	22 / 10 / 2010	TABO2333	SULFO TE TABOQUINHA	TABO1348	OSA TE TABOQUINHA	333	70	35	58	9	79
443	TABO3131	XABEBA TABOQUINHA	1 / 11 / 2009	TABO2333	SULFO TE TABOQUINHA	TABO1679	QUIJARA TE TABOQUINHA	333	70	23	57	9	79
444	TABO3799	BOSNIA FIV TABOQUINHA	5 / 11 / 2012	UNI052	AGHA KHAN FIV	TABO2312	SUMA TE TABOQUINHA	332	75	-3	58	12	85
445	AVPG330	EFRATA 4 MENINOS	8 / 2 / 2013	LDCV391	FARO TE DA MORUMBI	IHL147	ESBELTA	332	71	13	60	13	80
446	VMP453	ZARA FIV DAS FLORES	22 / 10 / 2013	LDCV391	FARO TE DA MORUMBI	VMP377	PARMA DAS FLORES	332	71	15	59	13	80
447	TABO4143	CALANDRA TABOQUINHA	1 / 2 / 2014	TABO2333	SULFO TE TABOQUINHA	TABO3120	XAMPANA TABOQUINHA	332	69	8	57	14	79
448	TABO760	JANGADA TABOQUINHA	21 / 9 / 1997	A6119	CAPITÃO-MOR D	TABO322	FRAGATA	331	82	-8	68	5	90
449	CIPO329	GOTTA FIV DO CIPO	13 / 9 / 2006	TABO1467	POLO TE TABOQUINHA	JAJ2638	GAROTA JA	331	77	32	56	4	89
450	JFPA303	UCCA IBITURUNA	9 / 11 / 2008	JFT2351	NEPAL TE JF	JAJ2393	NAIA II JF	331	77	15	58	9	88
451	EMGA1309	ESTRELA-A	14 / 7 / 2009	EMGA1103	ALADO-A	EMGA1099	AGENDA-A	331	76	-14	49	12	88
452	JUZZ172	TATUAAGEM FIV DA JUZZ	20 / 4 / 2017	JFT2261	RUSSO TE JF	JUZZ1	ALABA FIV DA JUZZ	331	70	-6	58	24	78
453	MAP2424	RAINHA FIV SANTA CECÍLIA	8 / 2 / 2012	TABO1726	QUIMÃO TE TABOQUINHA	MRM298	FIBRA MRM	331	70	14	56	13	79

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Milk Rank.	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE EPD	Rel. (%)
454	TABO1266	OPCAO TE TABOQUINHA	29 / 10 / 2001	A2389	ESTILO DA ALAGOINHA	TABO617	HESTER TE TABOQUINHA	330	81	33	70	8	87
455	TABO2348	SEIVA TE TABOQUINHA	2 / 6 / 2006	CNS4995	ABAETÉ S	TABO632	HUNGRIA TE TABOQUINHA	330	77	5	67	8	83
456	LKW214	GUARA BOA LEMBRANÇA	24 / 10 / 2008	A5873	OSASCO 4M	LKW31	POTIRA BOA LEMBRANÇA	330	76	14	59	8	86
457	TABO2346	SEBE TE TABOQUINHA	1 / 6 / 2006	HANC311	CORSARIO DA VEREDA	TABO1154	NAIRA TABOQUINHA	330	75	7	61	13	84
458	SAV167	JASMIN FIV DE SADERE	10 / 3 / 2010	TABO1117	NAQUE TE TABOQUINHA	SAV5	BOHEMIA TE DA SADERE	330	72	-38	57	10	82
459	JUZZ55	HONRA FIV DA JUZZ	26 / 2 / 2013	JFT2351	NEPAL TE JF	JUZZ5	BRISA FIV DA JUZZ	330	67	35	55	7	76
460	SULA1930	STAR ILHA FUNDA	12 / 7 / 2013	GUZA834	HOTEL TE	SULA625	INSTRUIDA ILHA FUNDA	329	75	-17	54	13	88
461	I2553	SAUNA DA TEOTÔNIO	1 / 11 / 1991	1389	URUTU	G1553	NERVADA DA TEOTÔNIO	328	72	-4	48	4	83
462	JFT3299	OLAIA FIV JF	30 / 11 / 2010	5800	PERSEUS	JFT2303	NEGA TE JF	327	75	-19	61	10	85
463	TABO1192	OFERTA TABOQUINHA	16 / 7 / 2001	TABO612	JEQUIÁ TE TABOQUINHA	TABO760	JANGADA TABOQUINHA	327	72	1	59	10	81
464	JFT4250	ERICA JF	12 / 12 / 2012	JFT3102	CABO FIV JF	ZENA316	ZENA EMPATIA	327	64	-12	40	12	76
465	I8803	INDIGENA DE ALAGOINHA	27 / 8 / 1982	5563	VAIDOSO JP	F5443	BALANÇA	326	82	24	64	9	90
466	FCGP554	EMPARN CUMARI	9 / 2 / 2007	TABO1272	OURIÇO TE TABOQUINHA	FCGP436	SABINA DA EMPARN	326	79	-9	55	6	92
467	TABO2078	SELVA TE TABOQUINHA	1 / 8 / 2005	PEAC28	CRAVO PEAC	TABO539	HETEIA TE TABOQUINHA	326	72	-10	59	12	81
468	IVAG2976	FAGUANA VILLEFORT	27 / 11 / 2011	CNS4995	ABAETÉ S	IVAG238	BASE DO VILLEFORT	326	69	-3	60	12	77
469	JFT3007	URANIA JF	25 / 10 / 2008	JFT2543	ÁLIBI TE JF	JFT2423	NIRVANA TE JF	326	66	-2	52	8	77
470	EMGA1126	ATRIZA	4 / 12 / 2005	EMGA952	URÂNIO-A	EMGA873	SERVILHAA	325	78	13	54	7	90
471	TABO2329	SARAGOCA TE TABOQUINHA	4 / 5 / 2006	CNS4995	ABAETÉ S	TABO632	HUNGRIA TE TABOQUINHA	325	77	4	68	10	84
472	JAUX77	CIBELE FIV JA	21 / 11 / 2008	A5873	OSASCO 4M	JA3199	COTIA JA	325	76	-20	60	7	86
473	UNI0915	HABITAR UNIUBE	21 / 1 / 2014	LKW223	GARI BOA LEMBRANÇA	JA3819	MORANGABA JA	325	73	23	53	12	85
474	TABO2445	TEQUILA TABOQUINHA	14 / 9 / 2006	TABO1301	OBUS TE TABOQUINHA	TABO1411	PAMPLONA TABOQUINHA	325	70	8	57	7	79
475	TABO4356	DELHI FIV TABOQUINHA	27 / 4 / 2015	UNI052	AGHA KHAN FIV	TABO1154	NAIRA TABOQUINHA	325	70	-15	57	15	79
476	EAI435	LIDERANCA	26 / 10 / 2010	TABO1726	QUIMÃO TE TABOQUINHA	EAI996	HIDRA	325	61	11	47	8	71
477	JFT3227	OPA FIV JF	1 / 8 / 2010	TABO1835	REMANSO TE TABOQUINHA	TABO1089	NACAO TABOQUINHA	324	78	21	57	4	89
478	TABO3077	XIBA TE TABOQUINHA	7 / 10 / 2009	JFT2422	NOTAVEL TE JF	JFT2263	BÁRBARA TE JF	324	77	-22	63	11	86
479	JFPA1014	NERIAH IBITURUNA	21 / 5 / 2014	JFPA222	URIEL IBITURUNA	TABO3111	XEPA TE TABOQUINHA	324	75	-26	54	16	88
480	TABO1730	QUINTILHA TE TABOQUINHA	6 / 3 / 2004	A1462	PACIFICO-A	TABO760	JANGADA TABOQUINHA	324	74	18	62	6	82
481	TAL5432	INGLESADA TEOTÔNIO	22 / 12 / 2005	CNS4995	ABAETÉ S	TAL2822	ACANA DA TEOTÔNIO	324	73	5	51	6	83
482	J954	XIMBICA DA TEOTÔNIO	21 / 1 / 1995	1389	URUTU	G5546	PATY DA TEOTÔNIO	324	70	-7	46	7	82
483	WSPV1953	1953 DO MINEIRÃO	25 / 3 / 2011	TABO1117	NAQUE TE TABOQUINHA	TABO1333	OROPA TE TABOQUINHA	324	70	12	58	10	78
484	EMGA1724	JANGA-A	23 / 12 / 2014	EMGA1103	ALADO-A	TABO1204	CHARMOSA-A	324	69	36	51	10	79
485	TAL5651	JAUARI DA TEOTÔNIO	18 / 12 / 2006	TAL4996	GAIAGOL DA TEOTÔNIO	TAL3314	BARBELA DA TEOTÔNIO	324	67	3	30	5	82
486	JFT3255	OFICINA FIV JF	5 / 11 / 2010	A1437	ÉDIPPO DA ALAGOINHA	JFT2263	BÁRBARA TE JF	323	77	6	58	7	88
487	TABO3604	ARMELIA TABOQUINHA	13 / 10 / 2011	TABO2343	SALIO TE TABOQUINHA	TABO1967	RUGA TE TABOQUINHA	323	74	-9	52	11	88
488	TABO3580	ANSIEDADE TABOQUINHA	27 / 9 / 2011	TABO2567	TUISTE TE TABOQUINHA	TABO1866	RIFAINA TABOQUINHA	323	73	-10	54	14	85
489	TABA691	IMERSA TABOQUINHA	15 / 1 / 1997	5763	ACOLHIDO TE CL	J653	FLECHA	322	86	22	73	5	92
490	CAL6593	CABINA FIV CAL	5 / 12 / 2011	TABO1099	NAIROBI TABOQUINHA	CALG267	VALECULA CAL	322	77	1	57	9	89
491	CIPO303	GALLIEIA FIV DO CIPÓ	25 / 4 / 2006	CNS4995	ABAETÉ S	TABO632	HUNGRIA TE TABOQUINHA	322	76	7	67	8	83
492	TABO1932	REDENCAO TABOQUINHA	26 / 11 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	TABO734	INTENÇÃO TABOQUINHA	322	71	7	59	9	80
493	JFPA734	PRUDENCIA IBITURUNA	22 / 12 / 2011	JFPA222	URIEL IBITURUNA	GUZA1003	JACUTINGA	322	70	-14	52	13	81
494	LKW992	PASCOA BOA LEMBRANÇA	22 / 9 / 2015	JFT2433	NAPOLE TE JF	LKW324	IRONIA BOA LEMBRANÇA	322	69	-6	55	14	79
495	IVAG2708	FIRMAL VILLEFORT	6 / 8 / 2011	TABO636	HUMAITÁ TE TABOQUINHA	IVAG73	BAIANA DO VILLEFORT	322	67	3	50	15	76
496	TABO3656	ACIDÁLIA TABOQUINHA	23 / 12 / 2011	TABO2124	SENTIDO TABOQUINHA	TABO832	JUNINA TABOQUINHA	322	66	1	50	11	78
497	JFPA1140	AMETISTA IBITURUNA	2 / 9 / 2015	UNI0439	ESCOTEIRO FIV UNIUBE	JFPA711	PEPITA IBITURUNA	321	72	-10	52	17	84
498	METG2	ARUSHA FIV DA META	24 / 11 / 2011	A1437	ÉDIPPO DA ALAGOINHA	LKW106	CIRANDA DA BOA LEMBRANÇA	321	72	11	62	15	80
499	JFT3089	CARACA FIV JF	21 / 9 / 2009	TABO1835	REMANSO TE TABOQUINHA	JFT2258	RENA TE JF	321	71	8	59	6	79
500	DRIK1	DIKA TERRA PROMETIDA	12 / 11 / 2012	WEME122	ETO FIV BOA FAMÍLIA	WEME63	DEKA FIV BOA FAMÍLIA	321	64	-8	37	9	75
501	LKW936	OCRA BOA LEMBRANÇA	21 / 12 / 2014	UNI052	AGHA KHAN FIV	LKW540	MIRRA FIV BOA LEMBRANÇA	320	73	-43	55	15	85
502	IVAG238	BASE DO VILLEFORT	25 / 11 / 2007	A1437	ÉDIPPO DA ALAGOINHA	JFT2254	RESSACA TE JF	320	71	0	62	14	79
503	SULA1461	PALMEIRA ILHA FUNDA	31 / 1 / 2011	SULA770	JAMBO TE ILHA FUNDA	SULA879	JU ILHA FUNDA	320	71	-12	34	5	87
504	ROS488	ORAIMA DO ROSÁRIO	28 / 5 / 2005	TABO636	HUMAITÁ TE TABOQUINHA	ROS7	VARANDA DO ROSÁRIO	320	70	17	58	7	79
505	TABO3476	ARTISTA TABOQUINHA	29 / 10 / 2010	JFT2351	NEPAL TE JF	TABO2382	TABOCA TE TABOQUINHA	320	70	17	58	10	79
506	TABO2803	UNIÃO TABOQUINHA	7 / 12 / 2016	TABO1835	REMANSO TE TABOQUINHA	TABO1268	OUSADIA TABOQUINHA	320	69	11	57	6	79
507	JUZZ127	PROPOSTA DA JUZZ	20 / 3 / 2007	LKW516	LUCRO FIV BOA LEMBRANÇA	JUZZ31	ESTÉTICA FIV DA JUZZ	320	65	0	52	24	75
508	TPA2-888	ESPERANÇA	20 / 6 / 2009	TABO1776	RABI TE TABOQUINHA	65-888	CIGARRINHA	320	58	6	43	13	70
509	JUZZ177	TELHA FIV DA JUZZ	29 / 4 / 2017	JFT2261	RUSSO TE JF	JUZZ1	ALABA FIV DA JUZZ	319	69	5	58	8	77
510	JUZZ124	PETALA DA JUZZ	14 / 2 / 2016	LKW516	LUCRO FIV BOA LEMBRANÇA	JUZZ30	ESTILOSA FIV DA JUZZ	319	65	5	51	22	75

(to be continued...)

(continuation...)

Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE EPD	Rel. (%)
511	EMGA1335	FRANCA-A	9 / 1 / 2010	EMGA1182	BAURLA	EMGA1059	VICK-A	318	75	27	52	6	88
512	BPSS36	CROACIA FIV BPS	12 / 5 / 2007	PEAC28	GRAVO PEAC	JFT2124	ESTRELA JF	318	72	6	59	12	80
513	WSPV1832	1832 F 10 DO MINEIRÃO	26 / 7 / 2010	DSM3371	ESTILETE DA MS	TABO1333	OROPA TE TABOQUINHA	318	67	-4	52	13	77
514	JFT2154	ESGRIMA JF	25 / 10 / 2002	A2389	ESTILO DA ALAGOINHA	JFT1758	MALAGUETA JF	317	77	-22	61	9	87
515	CALG237	UCRONIA CAL	8 / 12 / 2005	TABO636	HUMAITÁ TE TABOQUINHA	TABO683	IDOLATRIA TABOQUINHA	317	76	16	58	7	88
516	TABO3276	ZAINA FIV TABOQUINHA	27 / 7 / 2010	TABO636	HUMAITÁ TE TABOQUINHA	TABO821	JAZIDA TABOQUINHA	317	76	9	63	9	86
517	JFPA966	RACINE IBITURUNA	11 / 12 / 2013	JFPA465	CAMBUCI IBITURUNA	JFPA631	PALOMA IBITURUNA	317	73	-36	52	15	85
518	TABO2311	SALGA TE TABOQUINHA	25 / 3 / 2006	5883	HÁBIL TE TABOQUINHA	TABO856	LACINIA TABOQUINHA	317	71	-12	60	11	80
519	GZF73	HORTÊNCIA FIV DO GUGA	18 / 8 / 2015	JFT13157	CAIM JF	CALG295	VARAJA CAL	317	70	5	57	13	79
520	JFT1800	BONANCA TE JF	4 / 2 / 1997	A2389	ESTILO DA ALAGOINHA	F2775	RUPIA	316	83	-7	70	8	89
521	TABO3884	BRAUNA FIV TABOQUINHA	20 / 12 / 2012	JFT2261	RUSSO TE JF	TABO1826	RABECA TE TABOQUINHA	316	78	-4	62	13	89
522	FCGP680	FACEIRA	1 / 10 / 2010	TABO1716	QUILATE TABOQUINHA	FCGP584	CANGUARETAMA DA EMPARN	316	73	-9	52	9	84
523	TABO3592	AGDA FIV TABOQUINHA	5 / 10 / 2011	JFT2261	RUSSO TE JF	TABO632	HUNGRIA TE TABOQUINHA	316	73	9	64	12	80
524	JFPA561	OCTANA FIV IBITURUNA	27 / 11 / 2010	A1462	PACIFICO-A	TABO947	LAGOA TE TABOQUINHA	316	72	25	60	8	80
525	TABO3841	BEATRIZ FIV TABOQUINHA	11 / 11 / 2012	UNIU52	AGHA KHAN FIV	TABO2312	SUMA TE TABOQUINHA	316	71	-11	58	13	80
526	CIPO86	DÁLIA DO CIPÓ	29 / 10 / 2003	TABO636	REMANSO TE TABOQUINHA	JFT1684	ARABIA JF	316	68	24	58	8	77
527	DUBS23	BRISA TIMONEIRO	14 / 11 / 2014	TABO1835	REMANSO TE TABOQUINHA	WEME115	ESPERANÇA BOA FAMÍLIA	316	60	-11	52	7	67
528	LKW94	CHACARA DA BOA LEMBRANÇA	20 / 3 / 2004	8301	CUBITO G.I DA ND	JAJ2947	TRAIRA - JA	315	68	-13	56	11	77
529	WEME171	FLAVIA BOA FAMÍLIA	3 / 7 / 2011	WEME73	DOM FIV BOA FAMÍLIA	WEME31	CRISTAL BOA FAMÍLIA	315	66	-1	53	8	76
530	TABO1628	QUADRIGA TABOQUINHA	2 / 10 / 2003	A1462	PACIFICO-A	TABO1104	NAIA TE TABOQUINHA	314	81	10	68	9	88
531	SAV5	BHOEMIA	5 / 6 / 2002	TABO866	LABRADOR TABOQUINHA	TABO947	HUNGRIA TE TABOQUINHA	314	78	-25	67	10	85
532	TABO2780	URUMA TABOQUINHA	27 / 10 / 2007	CNS4995	ABAETÉ S	TABO632	HUNGRIA TE TABOQUINHA	314	73	5	63	8	81
533	TABO2055	SERVIA TE TABOQUINHA	18 / 7 / 2005	TABO1231	ODRE TE TABOQUINHA	TABO632	HUNGRIA TE TABOQUINHA	314	71	-16	60	10	79
534	JUZZ161	RECONQUISTA DA JUZZ	10 / 12 / 2016	LKW516	LUCRO FIV BOA LEMBRANÇA	JUZZ38	FOLHA FIV DA JUZZ	314	64	3	51	24	75
535	TABO1849	RARA TABOQUINHA	26 / 8 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	TABO691	ÍNDIA TABOQUINHA	313	77	9	63	6	86
536	AVPG206	DELTA 4 MENINOS	13 / 6 / 2012	TABO636	HUMAITÁ TE TABOQUINHA	CIPO179	ESCAMÁ TE DO CIPÓ	313	76	31	59	6	88
537	LKW502	LEA FIV BOA LEMBRANÇA	10 / 10 / 2011	8301	CUBITO G.I DA ND	MRM418	GÔNDOLA MRM	313	76	-32	59	20	86
538	WEME295	LÂMPADA FIV BOA FAMÍLIA	7 / 4 / 2015	TABO2510	TRONO TE TABOQUINHA	WEME64	DANA FIV BOA FAMÍLIA	312	72	2	56	12	76
539	SAV114	GARÇA TE DE SADERE	21 / 12 / 2007	TABO1117	NAQUE TE TABOQUINHA	SAV16	DANÇARINA DA SADERE	312	72	-1	56	8	82
540	WEME314	LECE BOA FAMÍLIA	20 / 10 / 2015	JFT2433	NAPOLE TE JF	CALG295	VARAJA CAL	312	71	8	58	13	80
541	WSPV1787	GRANA DO MINEIRÃO	9 / 6 / 2010	CNS4995	ABAETÉ S	TABO1333	OROPA TE TABOQUINHA	312	70	16	59	9	77
542	JFT3756	NOIVA JF	29 / 8 / 2014	JFT3343	PAIOL FIV JF	JFT3267	OVELHA FIV JF	312	65	-33	50	14	76
543	FNFT139	UBA NF	26 / 3 / 2002	A748	ABC S	F7930	ARAGEM NF	311	87	19	71	6	93
544	MAPZ564	ULANA SANTA CECÍLIA	29 / 3 / 2014	KW436	LICOR FIV BOA LEMBRANÇA	MAPZ79	NAALI SANTA CECÍLIA	311	77	-8	51	11	84
545	TABO3426	ZOA FIV TABOQUINHA	21 / 11 / 2010	A2389	ESTILO DA ALAGOINHA	TABO1826	RABECA TE TABOQUINHA	309	72	8	64	10	86
546	SULA1482	PAMONHA ILHA FUNDA	25 / 6 / 2011	JFT2261	RUSSO TE JF	CNS6649	PALHETA S	309	76	-20	52	5	88
547	EMGA1775	LIVIA FIV A	13 / 11 / 2015	JFT2433	NAPOLE TE JF	EMGA959	UMAITA-A	309	71	1	56	14	80
548	TABO3753	AUDÁCIA TABOQUINHA	14 / 5 / 2012	TABO2510	TRONO TE TABOQUINHA	TABO1965	RAGU TE TABOQUINHA	309	69	-5	57	16	79
549	LKW251	HERA BOA LEMBRANÇA	12 / 4 / 2009	MMMM6380	VALETE 4M	LKW16	ÁREAS BOA LEMBRANÇA	309	62	-5	45	9	75
550	TABO1410	PÁDUA TE TABOQUINHA	21 / 8 / 2002	TABO636	HUMAITÁ TE TABOQUINHA	TABO691	IMERSA TABOQUINHA	308	77	16	65	6	85
551	SAV74	FACANHA TE DA SADERE	13 / 6 / 2006	TABO636	HUMAITÁ TE TABOQUINHA	JFT1987	OCA JF	308	73	42	59	7	83
552	AVPG188	DIANA 4 MENINOS	16 / 4 / 2012	TABO1406	PEQUI TE TABOQUINHA	CIPO179	ESCAMÁ TE DO CIPÓ	308	71	-6	59	21	79
553	TABO4355	DELTA FIV TABOQUINHA	23 / 4 / 2015	UNIU52	AGHA KHAN FIV	TABO691	IMERSA TABOQUINHA	308	71	-16	58	14	80
554	LKW1138	RECEITA BOA LEMBRANÇA	12 / 10 / 2016	8301	CUBITO G.I DA ND	LKW540	MIRRA FIV BOA LEMBRANÇA	308	70	-36	58	13	79
555	GZF44	FLAUTA FIV DO GUGA	13 / 9 / 2013	JFT3094	CALICE FIV JF	TABO1760	QUIBORANA TE TABOQUINHA	308	69	-3	56	11	78
556	TAL570	LELIA DA TEOTÔNIO	6 / 8 / 2007	TABO636	HUMAITÁ TE TABOQUINHA	TAL4841	GALAXIA DA TEOTÔNIO	308	65	30	47	7	75
557	I2487	TRIBUNA DA TEOTÔNIO	22 / 8 / 1992	1389	URUTU	F3029	JAINARA DA TEOTÔNIO	307	79	3	59	4	88
558	AVPG320	ETA 4 MENINOS	28 / 1 / 2013	JFT2261	RUSSO TE JF	IHL147	ESBELTA	306	75	15	61	8	85
559	CIPO114	ESTRELA TE DO CIPÓ	15 / 2 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	TABO593	HITITA TE TABOQUINHA	306	70	17	61	8	78
560	TABO1553	QUARTOLA TABOQUINHA	14 / 7 / 2003	MDVG6066	JANARI D	TABO982	MOLDURA TABOQUINHA	305	72	-1	58	11	81
561	TABO2054	SAVENA TABOQUINHA	17 / 7 / 2005	TABO1272	OURIÇO TE TABOQUINHA	TABO1379	PATACA TABOQUINHA	305	71	11	58	6	80
562	VMP456	ZANNA FIV DAS FLORES	28 / 10 / 2013	JFT2351	NEPAL TE JF	VMP377	PARMA DAS FLORES	305	71	10	58	13	80
563	LKW1184	ROMANIA BOA LEMBRANÇA	30 / 12 / 2016	MAPZ382	PACTO FIV SANTA CECÍLIA	LKW324	IRONIA BOA LEMBRANÇA	305	65	-4	49	19	77
564	AVPG378	ESCOLTA 4 MENINOS	19 / 5 / 2013	TABO2122	SERENO TABOQUINHA	IHL108	DONDOÇA	304	75	16	58	13	85
565	TABO3380	ZARIFA TABOQUINHA	3 / 11 / 2010	JFT2351	NEPAL TE JF	EMGA1048	VENDA-A (TE)	304	74	-1	57	9	85
566	TABO3174	XARADA TABOQUINHA	25 / 11 / 2009	DSM3371	ESTILETE DA MS	TABO2382	TABOCA TE TABOQUINHA	304	73	5	54	9	85
567	TABO2380	TABERNA TABOQUINHA	19 / 7 / 2006	A2687	ALOPRADO D	TABA691	IMERSA TABOQUINHA	304	72	4	60	9	80



(continuation...)

Milk Rank	Cow's ID	Cow's Name	Birthdate*	Sire's ID	Sire's Name	Dam's ID	Dam's Name	Milk EPD	Rel. (%)	AFC EPD	Rel. (%)	MPE EPD	Rel. (%)
568	AVPG669	NINA 4 MENINOS	18 / 10 / 2016	TABO1726	QUIMÃO TE TABOQUINHA	TABO1847	RAIA TE TABOQUINHA	304	70	17	56	11	79
569	TABO3560	AMBICIOSA TABOQUINHA	28 / 7 / 2011	TABO2333	SULFO TE TABOQUINHA	TABO2915	VAGUELA TABOQUINHA	303	76	21	56	9	88
570	JFT3719	PAIA FIV JF	5 / 12 / 2011	JFT2422	NOTAVEL TE JF	JFT2263	BÁRBARA TE JF	303	72	-29	62	14	80
571	JUZZ31	ESTÉTICA FIV DA JUZZ	13 / 4 / 2012	JFT2261	RUSSO TE JF	IHL122	ELEGANTE	303	72	-9	60	17	80
572	TABO3707	AMENDÓA FIV TABOQUINHA	10 / 4 / 2012	MDV66458	NOVA SEITA D	TABO2312	SUMA TE TABOQUINHA	303	71	22	57	10	80
573	TAL7087	OMANA DA TEOTÔNIO	15 / 11 / 2010	CNS4995	ABAETÊ S	TAL3343	BOBINA DA TEOTÔNIO	303	66	2	55	12	76
574	EMGA846	QUIETA	4 / 7 / 1999	A1443	HORTO DE ALAGOINHA	I7696	NORUEGA DE ALAGOINHA	302	83	83	61	4	94
575	TABO1130	NIRVANA TABOQUINHA	7 / 11 / 2000	TABO727	INSTINTO TE TABOQUINHA	TABO832	JUNINA TABOQUINHA	302	76	-16	63	12	84
576	JFT3667	NAKANA JF	13 / 4 / 2014	JFT3094	CALICE FIV JF	JFT2557	AFRICANA JF	302	74	-5	56	16	85
577	UNIUS58	PHARY POI FIV UNIUBE	2 / 1 / 2012	8301	CUBITO G:IDA ND	JFT2736	MATRACA FIV JF	302	73	-29	58	10	85
578	JUZZ30	ESTILOSA FIV DA JUZZ	13 / 4 / 2012	JFT2261	RUSSO TE JF	IHL122	ELEGANTE	302	72	-7	60	21	79
579	JFPA1207	MADONA FIV IBITURUNA	13 / 1 / 2016	JFPA222	URIEL IBITURUNA	JFT2356	NOVATA TE JF	302	70	8	56	14	79
580	TABO2709	UAIEIRA TABOQUINHA	11 / 8 / 2007	TABO1726	QUIMÃO TE TABOQUINHA	TABO1740	QUINANGA TABOQUINHA	302	70	8	56	8	80
581	TABO1097	NARA TABOQUINHA	24 / 8 / 2000	TABO636	HUMAITÁ TE TABOQUINHA	TABO696	IMBUJA TABOQUINHA	301	75	22	62	9	84
582	TABO1858	ROMA TABOQUINHA	7 / 9 / 2004	TABO1272	OURICO TE TABOQUINHA	TABO1178	NONA TABOQUINHA	301	75	3	60	6	85
583	CPTL886	CAJUADA DA CAPITAL	18 / 2 / 2013	IMPO1	GANGES IMPORTADO	JFT3097	CAJUADA FIV JF	301	72	-27	51	18	84
584	GZF28	ESLOVÊNIA DO GUGA	10 / 8 / 2012	JFT2261	RUSSO TE JF	BPSS36	CROÁCIA FIV BPS	301	72	-14	60	13	80
585	GUZA957	JANELA	18 / 3 / 2007	TABO1301	OBUS TE TABOQUINHA	GUZA566	ESMERALDA	301	71	-17	58	15	80
586	CIPO116	ESPIRRA TE DO CIPÓ	17 / 2 / 2004	TABO636	HUMAITÁ TE TABOQUINHA	TABO593	HITTITA TE TABOQUINHA	300	71	40	61	6	79

**Table 8.** Results of genetic evaluation of Guzera sires for milk production according to management level of the herds, i.e., the response to the productive environment.

Sire's Name	Sire's identification	Environmental gradient*		Reaction**
		Low-input management	High-input management	
ABAETÉ S	CNS4995			SENSITIVE (-)
ALOPRADO D	A2687			SENSITIVE (-)
BARBANTE JF	9940			ROBUST (=)
CABUL III S	CNS5319			ROBUST (=)
CASSINO JF	9951			ROBUST (=)
CRAVO PEAC	PEAC28			SENSITIVE (-)
CUBITO G.I DA ND	8301			SENSITIVE (-)
DEDAL TE DO ROSÁRIO	ROS18			SENSITIVE (-)
DESENGASGO D	A6134			ROBUST (=)
DEVOTO TE DO ROSÁRIO	ROS34			SENSITIVE (+)
ÉDIPO DE ALAGOINHA	A1437			SENSITIVE (-)
ESTILO DE ALAGOINHA	A2389			SENSITIVE (-)
ÊXITO TE TABOQUINHA	5762			ROBUST (=)
FARO TE DA MORUMBI	LDCV391			SENSITIVE (-)
GENTIL JA	7963			ROBUST (=)
GITANO DE ALAGOINHA	A2664			SENSITIVE (-)
GURIRI TE TABOQUINHA	5882			SENSITIVE (-)
HÁBIL TE TABOQUINHA	5883			SENSITIVE (+)
HORTO DE ALAGOINHA	A1443			SENSITIVE (+)
HUMAITÁ TE TABOQUINHA	TABO636			ROBUST (=)
IMPERIAL JA	A133			SENSITIVE (-)
IMPULSIVO DE ALAGOINHA	A1447			ROBUST (=)
INSTINTO TE TABOQUINHA	TABO727			SENSITIVE (+)
LABRADOR TABOQUINHA	TABO866			ROBUST (=)
LAGO DE ALAGOINHA	A6174			SENSITIVE (+)
MARABÁ S	CNS6135			SENSITIVE (+)
MARANHÃO TE PEAC	PEAC211			ROBUST (=)
NAIROBI TABOQUINHA	TABO1099			SENSITIVE (-)
NAMBU JP	7655			ROBUST (=)
NAQUE TE TABOQUINHA	TABO1117			SENSITIVE (-)
NAVEGANTE	9957			SENSITIVE (-)
NEHERU TE JF	JFT2349			SENSITIVE (-)
NEPAL TE JF	JFT2351			SENSITIVE (-)
NOBRE JF	5791			SENSITIVE (-)
NOTÁVEL TE JF	JFT2422			ROBUST (=)
OBUS TE TABOQUINHA	TABO1301			SENSITIVE (-)
ÓLEO TE TABOQUINHA	TABO1364			SENSITIVE (-)
OPUS TE TABOQUINHA	TABO1367			SENSITIVE (-)
ORIENTE TE TABOQUINHA	TABO1302			SENSITIVE (-)
OSASCO 4M	MMMMMA5873			SENSITIVE (-)
PACÍFICO DE ALAGOINHA	A1462			ROBUST (=)
PARÁISO JF	9754			ROBUST (=)
PEQUI TE TABOQUINHA	TABO1406			SENSITIVE (+)
PERSEU S	5800			ROBUST (=)
QUERO QUERO	9323			SENSITIVE (-)
QUIEVE TE TABOQUINHA	TABO1597			SENSITIVE (-)
QUILATE DE ALAGOINHA	A1463			SENSITIVE (-)
QUIMÃO TE TABOQUINHA	TABO1726			ROBUST (=)
REMANSO TE TABOQUINHA	TABO1835			SENSITIVE (-)
RUSSO TE JF	JFT2261			ROBUST (=)
SALIOI TE TABOQUINHA	TABO2343			ROBUST (=)
SERIDÓ JA	7866			SENSITIVE (-)
SULFO TE TABOQUINHA	TABO2333			SENSITIVE (-)
TRIGUEIRO D	A2633			SENSITIVE (-)
URUTU	1389			SENSITIVE (-)
VAIDOSO JP	5563			SENSITIVE (+)

\*Environmental gradient: Classification of the management level or pattern

\*\*\*\*Reaction: sensitive (-) = underdemanding animal in environmental conditions, i.e., able to produce in simple environments (low-input management); sensitive (+) = overdemanding animal in environmental conditions, i.e., able to produce in refined environments; Robust (=) animal able to produce in any environment, unregardless of the environment pattern.

**Table 9.** Results of genetic evaluations of double proven Guzera sires for growth, carcass and functional traits conducted by ANCP-USP in 2021.

Sire's ID	Sire's Name	W210 EPD	W210 TOP%	W365 EPD	W365 ACC.	W365 TOP%	W450 EPD	W450 ACC.	W450 TOP%	MW EPD	MW ACC.	MW TOP%	REA EPD	REA ACC.	REA TOP%	ACAB EPD	ACAB ACC.	ACAB TOP%	STAY EPD	STAY ACC.	STAY TOP%
5736	ACARAJE S	4.94	33	0.04	50	80	1.96	51	67	5.56	40	36	0.10	12	71	0.29	7	2	50.10	53	79
CNS5027	ACASO S	8.28	61	13.86	66	13	12.10	69	24	28.24	26	100	2.02	39	6	-0.12	34	97	50.33	56	78
JFT2452	ADONAI TE JF	2.12	10	5.99	11	47	3.84	12	58	10.78	5	55	0.72	7	37	0.19	5	6	56.41	10	43
7556	ADORNO	1.50	25	13.89	28	12	8.80	29	37	-7.96	5	2	2.41	32	3	0.20	28	6	55.41	27	49
JAR5726	ADVENTO TE JA	8.12	33	11.12	36	23	9.99	37	32	13.03	11	64	0.21	16	64	-0.01	12	73	56.72	32	42
UNI152	AGHA KHAN FIV	0.37	13	1.69	16	69	-1.96	19	89	-0.18	4	14	-0.08	2	86	0.03	1	47	51.22	7	72
973	ALBATROZ JP	-0.16	3	8.00	4	80	-0.38	4	82	2.70	2	26	0.06	1	74	-0.01	1	73	49.66	3	83
A2687	ALOPRADO D	-2.31	23	4.45	27	55	0.92	27	73	5.08	8	34	-0.13	4	89	-0.01	1	73	58.22	17	34
CNS7275	BAÇÃO S	7.17	9	8.95	10	33	10.74	11	29	16.29	3	78	0.24	8	63	0.14	7	12	54.97	6	51
METG40	BACHAREL FIV DA META	3.52	11	4.08	12	37	9.35	12	34	5.29	6	35	0.52	4	47	0.09	2	24	59.05	8	30
ROES1	BESOURO ROE	11.40	74	19.22	77	3	23.24	77	2	32.94	39	100	3.70	68	0.5	0.12	65	17	74.56	70	0.5
A914	BURGUÊS S	6.16	34	6.94	36	42	8.11	37	39	15.99	22	75	-0.30	25	94	0.41	21	0.5	47.09	33	94
JFT3102	CABO FIV JF	-4.17	36	-0.60	42	85	-2.92	43	92	12.11	13	61	-0.22	8	92	0.06	3	34	52.97	11	62
A951	CABUL II S	3.29	31	1.57	38	70	0.24	39	77	10.53	19	54	0.31	9	58	0.22	5	4	50.81	39	74
CNS5319	CABUL III S	6.54	46	9.62	52	29	13.02	54	21	6.28	9	38	2.45	25	3	0.18	20	7	55.38	34	49
UNI1236	CAIRO	2.40	25	7.79	27	38	5.96	28	48	-3.42	10	6	0.52	5	47	0.05	1	38	58.27	14	34
JAL2690	CANJUN JA	-0.23	3	-0.23	4	82	-1.68	5	88	7.44	6	42	0.29	1	60	0.05	1	38	49.55	5	83
A6119	CAPITÃO-MORD	3.02	41	7.91	46	37	5.77	48	49	4.61	23	32	0.51	6	48	-0.02	1	78	77.45	41	0.1
PEAC22	CIGANO PEAC	-1.57	13	-2.56	14	93	-4.24	15	95	-1.13	7	11	0.09	3	72	0.00	1	62	46.24	15	97
HANC311	CORSÁRIO DA VEREDA	2.34	25	6.00	28	47	9.18	27	35	22.53	9	96	0.44	12	51	0.12	9	17	62.92	15	15
PEAC28	CRAVO PEAC	2.43	15	11.69	17	20	7.17	18	43	16.39	11	78	0.56	6	45	0.19	4	6	60.51	17	24
ROS17	DARDO TE DO ROSÁRIO	-0.68	15	-0.34	17	83	-2.37	18	91	-1.47	10	10	0.52	4	47	0.03	1	47	48.55	16	89
ROS18	DEDAL TE DO ROSÁRIO	8.26	64	8.20	69	36	10.76	71	29	6.22	37	38	2.12	13	5	0.08	4	27	58.24	47	34
CNS5614	DELTO S	0.89	32	2.42	37	65	4.72	39	54	3.47	15	28	0.85	9	32	0.06	4	34	46.30	21	95
CNS5614	DELTO S	10.67	18	19.33	22	3	21.92	23	3	13.47	3	66	1.54	6	12	0.15	3	11	60.85	7	22
A119	DESAFO JA	-4.53	13	-1.66	15	90	-3.86	15	94	-7.33	5	2	-0.48	2	69	0.00	1	56	44.64	11	98
A6134	DESENGASGO D	1.46	17	4.23	22	56	5.49	24	51	-12.47	16	38	0.14	2	69	0.00	1	62	62.84	13	15
ROS34	DEVOTO TE DO ROSÁRIO	-0.52	52	7.41	57	40	6.61	58	46	6.22	29	38	0.40	20	53	0.14	14	12	69.25	43	3
JAJA2755	DINAMARQUES TE JA	-6.20	26	-4.98	33	97	-9.29	34	100	-10.43	3	1	-0.48	3	97	-0.01	1	73	44.03	13	98
A6719	EDITOR	0.65	11	5.99	13	47	3.07	14	62	-10.43	3	1	1.36	8	16	0.14	7	12	52.67	13	64
IHL146	ELETO	-1.67	16	-2.86	17	94	-1.42	17	87	21.42	7	7	-2.77	5	89	-0.02	2	78	55.59	10	48
UNI1439	ESCOTEIRO FIV UNIUBE	1.55	48	10.74	54	24	12.88	55	21	8.90	9	48	-0.24	12	92	0.06	6	34	53.84	10	57
DSM3371	ESTILETE DA MS	3.89	52	11.90	58	19	12.68	59	22	18.64	27	86	0.79	27	34	0.33	21	1	58.31	45	33
5762	ÊXITO TE TABOQUINHA	1.77	18	5.68	21	49	2.96	22	62	-3.60	12	6	0.75	10	36	-0.28	7	100	59.77	20	27
CNS5827	FUÁ S	2.71	55	4.75	59	53	6.65	59	45	33.66	28	100	1.28	44	18	-0.12	39	97	67.28	54	5
IMPO1	GANGES IMPORTADO	1.66	1	5.31	3	50	4.16	3	57	5.19	1	34	0.59	1	43	0.05	1	38	52.09	1	67
A2731	GAVIÃO NOVA FLORESTA	-0.22	37	0.64	43	76	0.85	44	73	-2.80	20	7	-0.21	6	92	-0.03	1	82	60.29	28	24
7963	GENTIL JA	-0.60	41	-9.23	46	100	-13.91	47	100	7.24	31	42	-0.23	12	92	-0.13	7	97	57.88	47	36
A2664	GITANO A	-0.39	10	-4.18	11	96	-7.37	11	99	5.27	7	35	-0.11	3	88	-0.06	2	90	54.39	10	54
ITG1235	GOBBO IT	8.43	88	14.40	89	11	17.77	90	8	19.63	74	89	1.15	87	22	-0.10	86	95	51.48	84	71
NESZ2	GUZERÁ DA BARRA 2	5.21	75	13.04	79	15	13.18	81	20	18.12	74	85	1.75	79	9	-0.30	77	100	35.18	70	100
AFGF184	HAITI TE SCLARAMAR	13.28	54	18.21	60	4	22.85	61	2	23.88	23	98	1.54	54	12	-0.04	50	85	59.55	44	28
FNFA753	HAMAL NF	4.67	61	6.86	65	43	3.02	65	62	-6.68	13	2	1.46	10	14	0.01	1	56	60.53	20	23
TABO538	HAMAL NF	1.80	23	5.60	27	49	5.66	29	50	-1.53	18	10	0.91	8	30	0.06	4	34	47.84	27	91
FNFA960	HETRANTE FIV NF	-0.42	64	4.01	69	57	1.07	69	72	14.32	19	70	-0.48	10	97	0.02	1	51	52.20	21	67
TABO587	HIFEM TE TABOQUINHA	1.89	19	7.40	21	40	13.23	22	20	26.68	11	100	0.61	15	43	0.18	12	7	67.06	20	5
TABO618	HOMERO TE TABOQUINHA	0.25	23	8.79	25	33	8.44	25	38	26.13	15	99	0.50	19	48	0.26	16	3	65.35	25	8
HUM24	HUM SONHO ABADON	-1.88	34	2.10	40	67	3.80	42	58	-5.82	17	3	-0.07	11	86	0.08	7	27	56.91	21	41
TABO637	IAGUE TE TABOQUINHA	1.66	21	1.35	28	71	2.77	28	63	4.31	10	31	0.56	5	45	0.10	2	21	49.16	20	86
TABO641	IAGUE TE TABOQUINHA	0.63	34	0.63	34	76	1.90	35	67	0.65	21	18	0.25	5	62	-0.02	1	78	64.37	31	11
A989	IBÉRICO JP	-0.64	30	8.99	40	67	3.80	42	58	-5.82	17	3	-0.07	11	86	0.08	7	27	56.91	21	41
ROS116	INGLÊS TE DO ROSÁRIO	1.85	15	7.79	17	38	6.92	18	44	5.73	7	36	1.07	7	24	0.27	4	2	46.31	15	97
TABO727	INSTINTO TE TABOQUINHA	1.31	51	3.18	57	61	1.30	59	71	-9.64	24	1	0.91	10	30	-0.03	3	82	74.60	42	0.5
TABO747	JABUTI TE TABOQUINHA	-2.82	38	3.91	48	57	-1.19	48	86	2.36	8	25	-0.18	5	91	0.05	1	38	58.07	26	35
MDVG0666	JANARI D	0.75	30	4.07	36	57	2.06	38	67	8.35	18	46	0.53	5	46	-0.04	1	85	66.32	21	8
TABO849	JECA TE TABOQUINHA	0.51	65	1.96	70	68	1.65	72	69	8.44	9	46	-0.22	52	92	0.12	48	17	43.68	50	98

(to be continued...)

(continuation...)

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TABO812	JEQUIÁ TE TABOQUINHA	-3,22	36	99	-2,70	43	93	-5,72	46	97	4,44	11	32	0,14	6	69	-0,01	1	73	50,91	29	74
LVP589	JOÁ NOVA FLORESTA	-2,50	29	98	0,63	33	76	-4,13	32	95	-2,37	12	8	0,67	8	40	0,08	2	27	43,34	17	99
DT05278	JOAZEIRO DA BARRA	2,07	6	57	6,05	7	47	6,03	7	48	7,36	1	42	0,52	1	47	0,03	1	47	47,37	9	93
TABO818	JONAS TE TABOQUINHA	-3,78	34	99	-2,77	40	94	-3,91	41	95	3,78	8	30	-0,02	6	82	-0,01	1	73	52,03	24	67
9974	JOQUEI TE JP	0,61	14	72	-4,39	16	97	-4,39	17	98	3,85	8	30	0,04	4	76	-0,06	2	90	51,14	15	72
JAB3188	JUAZEIRO JA	-3,39	9	99	-5,49	11	98	-8,39	12	99	-5,47	11	3	0,03	1	77	0,04	1	43	61,45	13	20
TABO866	LABRADOR TABOQUINHA	2,89	60	50	11,57	66	21	4,97	68	53	-10,32	39	1	0,33	11	57	0,06	3	34	57,47	46	38
MDVG6170	LOUVADO D	-2,64	6	98	-1,13	8	88	-1,12	9	86	1,89	2	23	-0,24	2	92	0,00	1	62	55,55	6	48
MVB20	MABROUK DA VIC	13,68	67	0,5	27,30	71	0,1	29,08	72	0,5	30,42	29	100	2,39	60	3	0,19	56	6	59,55	64	28
5465	MAGNUM S	3,56	41	44	2,34	47	66	2,80	50	63	4,21	42	31	0,89	9	30	0,24	4	3	56,16	45	45
CNS6042	MAGO TE S	14,72	61	0,1	21,20	66	2	21,64	66	3	20,92	36	93	3,63	36	0,5	0,29	31	2	72,36	52	1
CNS6135	MARABÁ S	1,93	34	59	8,42	43	35	8,42	45	45	20,12	7	91	0,60	27	43	-0,07	23	92	56,78	27	41
TABO964	MARACATU TABOQUINHA	3,67	40	43	7,69	48	38	7,47	50	42	2,49	8	25	0,44	9	51	0,18	4	7	46,30	23	95
PEAC211	MARANHÃO TE PEAC	2,99	26	49	8,27	29	36	4,21	28	56	2,73	12	26	0,80	6	34	0,13	2	14	44,99	25	97
HQB258	MARCA SOLEMEHTAL	10,53	77	3	18,57	81	3	20,81	82	4	29,20	34	100	1,06	71	24	0,13	68	14	72,14	72	1
TABO969	MATIPÓ TE TABOQUINHA	1,68	18	61	8,73	21	34	5,03	21	53	5,73	7	36	1,10	7	23	0,27	4	2	44,71	17	98
TABO1058	MIRADOR TE TABOQUINHA	4,86	23	33	2,61	28	64	4,84	29	53	2,96	7	27	1,19	7	21	0,19	5	6	54,11	12	56
TABO1042	MOMBAÇA TABOQUINHA	2,24	20	56	5,97	22	47	4,43	24	55	1,26	12	21	1,08	8	24	0,25	5	3	58,33	18	33
JAJ4196	MONTENEGRO FIV JA	-1,27	18	93	1,30	23	72	-1,09	24	86	-3,33	1	6	0,35	2	56	0,06	1	34	51,30	3	72
A5255	MORENO	0,09	1	79	0,07	1	80	0,70	1	74	0,07	1	74	0,00	1	74	0,00	1	62	48,58	2	89
TABO1099	NAIROBI TABOQUINHA	3,93	43	41	10,36	50	26	9,80	50	33	19,38	13	89	1,00	8	27	0,09	3	24	59,55	27	28
TABO1117	NAQUE TE TABOQUINHA	2,98	45	49	11,23	50	22	6,84	53	45	1,58	14	22	0,68	7	39	0,04	1	43	66,21	25	4
PEAC491	NATURALISMO TE PEAC	5,00	68	32	14,35	74	11	15,96	77	12	19,78	73	90	4,02	77	0,1	0,28	74	2	55,10	66	50
JFT1619	NAVAL JF	0,90	12	69	4,13	15	56	5,59	16	50	7,13	8	42	1,34	7	17	0,32	5	2	51,18	11	72
9957	NAVEGANTE	4,42	16	37	3,16	21	61	4,45	23	55	-4,27	14	5	0,29	2	60	-0,01	1	73	59,10	19	30
TABO1170	NEGAL TE TABOQUINHA	0,26	16	77	2,51	19	65	4,24	20	56	8,96	6	48	0,23	7	63	0,15	4	11	52,18	14	67
TABO1132	NEPAL TE TABOQUINHA	0,63	25	72	7,89	37	38	7,01	40	44	5,49	11	36	0,97	8	28	0,28	4	2	52,06	20	67
CNS6391	NGAÓ TE S	5,65	40	26	11,39	44	21	16,03	45	12	20,05	15	90	-0,47	24	97	0,05	20	38	72,78	32	0,5
5791	NOBRE JF	1,48	55	63	4,22	61	56	2,90	62	62	6,78	18	40	0,35	24	56	0,31	18	2	45,09	46	97
MDVG6458	NOVA SEITA D	-6,32	27	100	-5,68	34	98	-8,38	39	99	6,12	12	38	-0,33	3	95	-0,01	1	73	54,78	15	52
TABO1301	ÓBUS TE TABOQUINHA	-1,60	46	95	3,37	54	60	5,57	57	50	3,36	13	28	0,47	12	50	0,09	6	24	52,30	27	66
TABO1345	OCRE TE TABOQUINHA	-0,21	34	84	8,15	39	36	7,86	42	40	15,77	10	76	0,25	10	62	0,13	5	14	61,05	18	21
TABO1351	OFURÓ TE TABOQUINHA	-2,99	34	98	1,41	39	71	0,86	44	73	-0,94	12	11	0,48	10	49	0,03	6	21	53,87	17	57
A5843	OLENTE 4M	-11,08	28	100	-10,76	31	100	-9,28	39	100	-11,61	12	0,5	-0,65	9	99	0,05	4	38	54,11	21	56
TABO1364	ÓLENTE 4M	-4,41	35	100	-3,20	41	95	-7,79	44	99	-6,77	12	2	-0,18	7	91	0,03	1	47	54,32	22	55
TABO1367	ÓPUS TE TABOQUINHA	-2,07	39	96	0,75	45	75	-0,29	48	81	-6,77	12	2	-0,18	7	91	0,03	1	47	54,32	22	55
TABO1302	ORIENTE TE TABOQUINHA	4,11	65	39	9,11	70	32	9,54	72	34	4,33	30	32	1,13	14	22	0,10	5	21	43,52	42	99
TABO1353	ORINOCO TABOQUINHA	0,36	23	75	5,47	28	50	3,84	24	58	15,77	10	76	0,27	8	61	0,13	5	14	61,11	16	21
MDVG6511	ORÓ D	-1,38	11	94	4,04	13	57	0,79	12	73	0,38	6	17	-0,08	2	86	-0,01	1	73	60,40	10	24
TABO1329	OROS TE TABOQUINHA	1,76	25	60	4,96	28	52	4,55	30	55	7,51	9	43	0,80	5	34	0,11	19	19	66,83	15	6
9956	PALÁCIO	3,66	37	43	6,79	45	43	9,65	47	33	-12,73	10	0,5	0,50	5	48	0,00	1	62	46,26	29	95
9754	PAPADO S	6,47	35	20	10,66	40	25	6,25	41	47	6,77	16	40	1,35	8	16	0,16	3	10	49,82	20	81
CNS6629	PARAÍSO JF	1,62	32	62	10,92	38	23	13,61	39	19	22,61	15	96	1,68	16	10	0,36	13	1	56,06	27	45
FNF5697	PATRONO NF	-0,22	63	84	-4,56	69	97	-1,76	70	89	-3,81	33	5	0,41	11	53	-0,05	2	87	49,80	37	82
A2726	PINGEL JA	-1,21	8	93	0,59	9	80	-3,02	9	93	1,21	30	20	0,47	1	50	0,09	1	24	49,29	6	85
FNF5873	PILEBEU NF	2,83	58	51	4,03	64	54	4,89	66	53	9,91	30	52	0,99	18	27	-0,12	11	97	50,39	37	77
TABO1467	POLO TE TABOQUINHA	2,37	36	55	5,34	43	50	0,50	46	75	8,67	12	47	0,60	8	43	0,09	3	24	54,52	20	53
JFT2077	PREFEITO JF	6,72	18	19	16,86	19	6	19,59	19	5	21,93	13	95	1,77	15	9	0,31	12	2	61,31	17	20
JFT2049	PSIU JF	-2,67	37	98	-0,49	45	84	-1,60	47	88	3,31	23	28	0,79	10	34	0,33	5	1	59,87	23	26
TABO1579	QUARUP TE TABOQUINHA	2,55	22	53	0,49	29	77	5,65	31	50	1,56	7	22	0,44	5	51	0,05	2	38	53,40	15	60
TABO1584	QUEBEC TE TABOQUINHA	-1,57	29	94	-0,91	34	87	-0,33	36	81	-9,63	13	1	0,24	9	63	-0,03	5	82	61,57	22	19
TABO1716	QUILITE TABOQUINHA	2,36	23	55	8,22	28	36	-1,26	31	87	9,50	4	50	0,54	4	46	0,04	1	43	59,05	11	30
TABO1726	QUIMÃO TE TABOQUINHA	0,95	32	68	7,25	42	41	6,67	46	45	-0,79	11	12	0,39	5	57	0,10	1	21	50,11	15	79
TABO1776	RABI TE TABOQUINHA	2,15	29	57	5,29	33	51	4,51	33	55	4,00	12	30	0,34	8	54	0,05	4	38	58,49	19	33
MDVG6822	RAPA PÉ D	-1,15	4	92	1,84	5	69	0,19	6	77	1,06	1	20	-0,16	1	90	-0,01	1	73	54,57	1	53
TABO1835	REMANSO TE TABOQUINHA	-0,79	47	90	3,14	52	61	3,33	52	60	4,88	17	34	0,36	10	56	0,02	3	51	50,74	22	75
LVP5203	RESPIENDOR TE N. FLOR	0,24	15	77	4,81	18	53	4,06	18	57	10,30	9	53	0,55	5	45	0,12	3	17	53,77	10	58
TABO2010	RETIRO TE TABOQUINHA	-0,19	53	84	7,48	59	39	6,76	61	45	5,84	30	37	0,53	9	46	0,12	1	17	46,18	28	96
JFT2261	RUSSO TE JF	-1,54	49	94	2,23	54	66	2,41	56	65	-1,67	27	9	-0,22	14	92	0,12	8	17	59,06	34	30
TABO2246	SADRAQUE TE TABOQUINHA	-2,30	35	97	6,54	42	44	2,35	44	65	11,11	21	57	0,38	7	55	0,10	3	21	75,09	21	0,5

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TABO2303	SAEL TABOQUINHA	2,74	18	51	5,01	27	52	3,29	29	61	2,79	12	26	0,83	5	33	0,06	1	34	52,23	15	66
EMGA883	SAGRADO-A (TE)	1,21	14	66	5,25	15	51	4,13	16	57	12,90	9	64	0,51	5	48	0,10	3	21	51,18	14	72
TABO2343	SALOIO TE TABOQUINHA	4,55	23	36	9,71	25	29	10,92	26	28	9,08	15	48	-0,46	16	97	0,13	13	14	60,61	20	23
A5230	SAPUCAI JA	0,12	19	79	3,05	22	62	2,97	23	62	-2,82	17	7	0,97	4	28	0,19	1	6	63,35	20	14
TABO2260	SAROM TE TABOQUINHA	2,80	67	51	6,09	72	46	5,80	74	49	-2,12	51	8	0,78	11	35	0,00	1	62	67,49	50	5
TABO2122	SERENO TABOQUINHA	4,40	47	37	9,65	51	29	6,59	53	46	6,25	12	38	1,17	11	21	-0,02	4	78	59,22	12	29
FAPM792	SIGNO AM	11,34	64	2	14,74	68	10	14,56	69	16	23,74	35	98	0,72	54	37	-0,11	50	96	64,97	67	9
A2708	TAITI JA	-2,76	6	98	-4,13	7	96	-4,26	7	95	-2,98	3	7	-0,06	1	85	0,02	1	51	53,61	3	58
CNS4923	TAMARINDO S	4,93	57	33	8,36	63	35	14,28	65	16	11,38	13	58	1,78	35	8	0,09	30	24	66,03	41	7
9346	TRICO	1,02	3	68	1,49	4	71	0,45	5	76	-0,50	2	13	0,14	1	69	-0,01	1	73	49,33	6	85
8341	TRIGUEIRO JA	-1,30	6	93	1,60	8	70	-0,01	9	79	-6,79	5	2	0,20	1	65	0,03	1	47	52,95	12	62
TABO2985	VALENTE TABOQUINHA	5,17	20	31	11,50	21	21	10,84	22	28	15,94	8	76	1,32	5	17	0,10	2	21	56,90	8	41
EMGA1060	VATICANO-A	-1,07	24	92	1,16	24	72	0,25	24	77	13,36	10	66	-0,03	13	83	0,18	10	7	54,65	17	53
A2033	VIRTUAL DA TEOTÔNIO	-0,70	18	89	-3,06	23	94	2,17	25	66	-9,26	6	1	-0,08	3	86	0,00	1	62	48,65	17	88

Table 10. Results of genetic evaluations of double proven sires for reproduction traits conducted by ANCP-USP in 2021.

Sire's ID	Sire's Name	AFC EPD	AFC ACC.	AFC TOP %	GL EPD	GL ACC.	GL TOP %	SC385 EPD	SC385 ACC.	SC385 TOP %	SC450 EPD	SC450 ACC.	SC450 TOP %	MA120 EPD	MA120 ACC.	MA120 TOP %	ACP EPD	ACP ACC.	ACP TOP %
5736	ACARAJÉ S	0.61	34	100	-0.72	9	9	-0.30	39	99	-0.49	43	99	1.07	44	30	3.07	23	7
CNS5027	ACASO S	-0.96	37	3	-0.46	76	15	0.09	53	59	0.03	62	71	2.46	42	5	-0.20	20	84
JFT2452	ADONAI TE JF	-0.28	7	43	0.52	9	75	0.04	8	67	0.09	8	64	0.64	8	46	0.48	5	60
7556	ADORNO	-0.15	14	57	-0.12	2	29	0.66	18	5	1.16	20	3	0.98	23	33	0.22	10	68
JAR5726	ADVENTO TE JA	-0.09	21	64	0.88	10	87	0.00	19	75	-0.06	23	85	-0.84	20	95	1.80	10	25
UNI052	AGHA KHAN FIV	-0.20	4	52	-0.52	3	13	0.43	13	16	0.52	16	22	-0.59	5	91	-0.27	2	85
973	ALBATROZ JP	0.05	2	82	-0.01	2	38	0.18	2	45	0.22	3	49	0.40	3	56	-0.44	1	89
A2687	ALOPRADO D	-0.07	12	66	0.19	13	57	0.12	17	54	0.33	19	37	0.66	10	45	0.39	3	63
CNS7275	BAÇÃO S	-0.39	5	33	-3.49	18	0.5	0.18	9	45	0.17	9	55	1.46	6	19	1.24	3	38
METG40	BACHAREL FIV DA META	-0.21	6	50	0.30	8	64	0.22	7	39	0.18	8	30	1.18	7	27	1.78	5	25
ROES1	BESOURO ROE	-1.29	58	0.5	-0.50	48	14	0.52	67	10	0.61	69	16	-0.84	63	95	3.34	47	5
A914	BURGUES S	-0.20	25	52	-0.84	22	7	-0.21	30	97	-0.19	31	93	1.25	30	25	1.03	20	44
JFT3102	CABO FIV JF	0.13	11	89	0.08	15	49	-0.32	22	99	-0.11	36	89	1.92	12	10	1.36	6	35
A951	CABUL II S	-0.89	24	4	0.73	41	83	0.70	18	4	0.85	21	8	-0.32	29	85	1.11	14	42
CNS5319	CABUL III S	-0.08	21	65	-3.39	47	0.5	0.86	40	2	1.04	42	4	1.06	25	31	1.58	13	30
UNI0236	CAIRO	-0.34	10	38	-1.74	17	2	0.32	12	26	0.40	23	31	1.49	11	18	-1.75	6	99
JAL2690	CANÇUN JA	-0.29	3	42	0.42	1	70	0.10	2	57	-0.01	2	78	-0.02	3	74	0.20	1	68
A6119	CAPITÃO-MOR D	-0.05	27	68	-0.88	55	7	0.07	26	62	-0.18	24	92	1.60	33	16	0.55	19	58
PEAC22	CIGANO PEAC	0.14	10	89	-0.78	12	8	-0.01	8	78	0.09	8	64	-0.09	12	77	-0.23	6	85
HANC311	CORSÁRIO DA VEREDA	-0.32	9	39	-1.59	12	2	0.21	14	40	0.70	15	12	1.41	10	20	1.08	6	42
PEAC28	CRAVO PEAC	-0.07	10	66	0.54	17	76	0.11	8	56	0.24	8	47	2.40	13	5	1.04	7	44
A6430	DANDI JP	0.23	12	94	1.92	14	30	0.05	10	65	0.08	10	65	-1.23	13	46	-1.23	8	97
ROS17	DARDO TE DO ROSÁRIO	-0.01	35	74	0.94	19	99	0.25	57	34	0.53	63	21	-1.27	41	98	-1.55	27	98
ROS18	DEDAL TE DO ROSÁRIO	0.33	17	97	1.69	50	98	0.12	17	59	0.94	19	35	0.94	19	35	-1.73	12	98
CNS5614	DELITO S	-0.50	4	24	0.66	4	81	0.17	6	13	0.57	15	19	0.90	7	36	1.79	3	25
A119	DESAFIO JA	-0.14	6	58	0.12	2	52	-0.14	10	93	-0.15	11	91	0.06	5	70	-0.07	2	80
A6134	DESENGASO D	-0.53	7	22	-0.94	24	6	0.05	1	65	0.11	2	62	1.72	10	13	3.87	7	3
ROS34	DEVOTO TE DO ROSÁRIO	0.02	29	79	0.54	64	76	0.12	39	54	0.10	38	63	2.37	33	5	0.92	22	47
JAJ2755	DINAMARQUÊS TE JA	-0.07	6	66	-0.52	1	13	-0.48	30	100	-0.91	29	100	0.43	9	55	0.38	4	63
A6719	EDITOR	-0.12	4	60	-0.36	3	18	0.37	7	21	0.58	9	18	0.04	10	71	-0.18	4	83
IHL146	ELETRO	0.26	8	87	0.36	13	67	-0.07	8	88	0.05	9	69	0.20	9	64	0.66	6	55
UNI0439	ESCOTEIRO FIV UNIUBE	-0.26	11	45	-1.10	7	5	0.28	33	31	0.78	50	10	0.83	10	39	0.14	4	71
DSM3371	ESTILETE DA MS	-0.64	30	15	1.54	37	98	0.71	43	4	0.92	49	6	4.11	34	0.1	4.01	19	2
5762	ÊXITO TE TABOQUINHA	0.70	13	100	0.29	16	63	0.03	12	69	-0.02	13	80	0.45	17	54	-0.28	9	86
CNS5827	FUÁ S	-0.09	37	64	1.28	23	95	-0.08	51	89	0.08	53	65	1.38	41	21	-1.51	21	98
IMPO1	GANGES IMPORTADO	-0.08	1	65	-0.08	1	32	0.00	4	75	0.11	4	62	0.20	1	64	0.20	1	68
A2731	GAVIAO NOVA FLORESTA	0.41	18	99	0.82	43	85	0.29	22	29	0.26	25	45	2.28	24	6	-0.75	16	93
7963	GENTIL JA	0.91	31	100	-0.41	38	16	-0.26	33	98	-0.51	36	99	-1.28	41	98	0.52	23	59
A2664	GITANO A	0.49	7	99	-0.19	8	25	-0.11	8	91	-0.19	8	93	-0.53	9	90	0.08	5	73
ITG1235	GOBBO IT	-1.14	76	1	2.31	86	100	0.50	87	11	0.46	89	26	1.11	79	29	1.45	70	33
NESZ2	GUZERÁ DA BARRA 2	0.36	59	98	-1.91	84	1	1.05	80	0.5	1.83	83	83	-0.43	61	88	3.87	58	3
AFGF184	HAITI TE S CLARAMAR	-0.53	30	22	-1.35	24	3	0.89	49	2	0.93	56	6	1.81	28	12	3.20	13	6
FNFA753	HAMAL NF	-0.49	19	25	-1.90	13	1	0.07	46	62	0.21	56	50	2.04	20	45	-2.04	12	100
TABO538	HETEU TE TABOQUINHA	0.34	18	97	2.91	23	100	0.09	14	59	-0.21	18	93	1.05	22	31	-1.51	11	98
FNFA960	HIDRANTE FIV NF	-0.20	22	52	0.01	4	43	0.38	52	20	0.94	61	6	-0.02	15	74	-0.85	7	94
TABO587	HIFEM TE TABOQUINHA	0.26	14	95	-0.20	18	25	-0.07	13	88	0.18	13	54	0.58	18	49	1.66	11	28
TABO618	HOMERO TE TABOQUINHA	-0.49	20	25	-2.67	28	0.5	0.23	19	37	0.61	19	16	0.56	23	49	0.85	16	49
HUM24	HUM SONHO ABADON	-0.40	15	32	-0.69	12	10	0.24	17	36	0.59	37	18	0.89	16	37	1.66	10	28
TABO637	IAGO TE TABOQUINHA	-0.24	12	47	-1.19	15	4	0.00	9	75	0.31	11	39	0.97	15	34	-0.19	8	83
TABO641	IAQUE TE TABOQUINHA	-0.06	13	67	-0.14	19	28	0.08	11	60	0.04	12	70	0.21	15	64	-1.34	9	98
A899	IBÉRICO JP	0.57	21	100	1.95	22	99	0.35	20	23	0.13	22	59	2.69	27	3	-0.27	16	85
ROS116	INGLES TE DO ROSÁRIO	0.33	10	97	0.79	19	84	0.28	10	43	0.15	13	58	0.82	33	39	-1.18	7	47
TABO727	INSTINTO TE TABOQUINHA	-0.22	29	49	0.25	57	61	0.19	13	43	0.15	13	27	0.82	33	39	-1.18	7	47
TABO747	JABUTI TE TABOQUINHA	0.04	16	81	1.78	41	99	0.03	7	69	0.22	5	49	1.26	20	24	0.88	9	48
MDVG6066	JANARI D	-0.02	11	72	1.43	38	97	0.02	19	71	-0.19	16	93	0.91	18	36	-1.12	8	96
TABO849	JECA TE TABOQUINHA	-0.08	35	65	2.27	45	100	0.23	58	37	0.56	64	19	0.69	42	44	-0.37	26	88

(to be continued...)



(continuation...)

Sire's ID	Sire's Name	AFC EPD	AFC ACC.	AFC TOP %	GL EPD	GL ACC.	GL TOP %	SC365 EPD	SC365 ACC.	SC365 TOP %	SC450 EPD	SC450 ACC.	SC450 TOP %	MA120 EPD	MA120 ACC.	MA120 TOP %	ACP EPD	ACP ACC.	ACP TOP %
TABO812	JEQUIÁ TE TABOQUINHA	0.49	19	99	-0.69	41	10	0.06	10	64	0.21	15	70	0.86	22	38	0.23	11	67
LVPSS9	JOA NOVA FLORESTA	0.30	13	96	1.42	13	97	0.58	25	8	0.24	17	50	0.84	14	38	-1.88	10	99
DT05278	JOAZEIRO DA BARRA	-0.17	2	55	0.64	1	80	0.23	3	37	0.49	3	24	0.51	4	51	0.49	1	60
TABO818	JONAS TE TABOQUINHA	0.28	16	96	-1.43	51	3	-0.04	17	84	-0.21	14	93	0.08	18	69	-0.35	9	87
9974	JÓQUEI TE JP	0.29	9	96	-0.24	8	23	-0.24	10	97	-0.29	12	96	-0.21	13	82	1.03	7	44
JAJ3188	JUAZEIRO JA	-0.37	6	35	0.37	1	68	0.05	6	65	0.01	9	74	-1.39	8	99	0.24	3	67
TABO866	LABRADOR TABOQUINHA	-0.76	32	9	-3.70	68	0.1	0.47	46	13	0.50	50	23	1.29	38	23	-2.27	23	100
MDVG6170	LOUVADO D	0.02	1	79	0.28	6	63	-0.15	5	94	-0.13	6	90	0.42	4	55	0.21	1	88
MVB20	MABROUX DA VIC	-0.53	49	22	-1.57	67	2	0.18	57	17	0.13	61	54	3.88	53	30	1.87	30	23
5465	MAGNUM S	-0.28	24	43	-1.51	23	2	-0.24	21	97	0.13	26	59	0.99	36	33	-2.89	16	100
CNS6042	MAGO TE S	-1.44	37	0.1	-2.74	68	0.5	0.89	54	2	1.43	57	1	0.42	43	55	4.58	23	1
CNS6135	MARABÁ S	-0.72	17	11	0.21	4	58	0.56	37	9	0.62	40	16	2.24	21	6	0.32	11	65
TABO964	MARACATU TABOQUINHA	-0.39	15	33	0.39	37	69	-0.29	22	98	0.91	38	6	1.22	17	43	1.22	10	39
PEAC211	MARANHAO TE PEAC	-0.24	18	47	-0.97	43	6	0.29	12	29	0.27	13	44	1.32	19	22	-0.69	9	92
HQB258	MARCA SOL EMENTHAL	-1.02	60	2	1.30	51	95	0.30	76	28	0.32	79	38	1.82	67	11	5.93	55	0.1
TABO969	MATIPÓ TE TABOQUINHA	0.34	11	97	0.38	15	68	0.28	11	31	0.35	15	35	0.48	12	53	0.91	7	47
TABO1058	MIRADOR TE TABOQUINHA	-0.04	8	69	-0.54	10	13	0.35	7	23	0.57	6	19	0.67	10	45	2.98	6	7
TABO1042	MOMBAÇA TABOQUINHA	0.16	11	91	0.85	20	86	0.25	12	34	0.49	12	24	1.57	15	16	0.80	9	50
JAJ4196	MONTENEGRO FIV JA	-0.13	5	59	0.35	1	67	-0.11	7	91	-0.57	17	99	0.26	4	62	0.13	1	71
A5255	MORENO	0.23	1	94	0.00	1	39	0.02	1	71	0.02	1	73	0.36	1	57	0	0	0
TABO1099	NAIROBI TABOQUINHA	0.31	17	97	-1.75	57	2	0.32	10	26	0.61	9	16	1.51	19	17	-0.23	9	85
TABO1117	NAQUE TE TABOQUINHA	0.00	15	75	1.88	61	99	0.32	18	26	0.16	6	56	1.34	21	22	0.80	9	50
PEAC491	NATURALISMO TE PEAC	-0.09	54	84	1.35	83	96	0.27	78	32	0.33	81	27	1.18	56	27	3.96	57	2
JFT1619	NAVAL JF	0.17	8	91	-0.57	17	12	0.24	10	36	0.62	11	16	1.36	11	21	1.40	7	34
9957	NAVIGANTE	-0.10	10	62	-0.91	22	6	0.15	5	49	0.18	3	54	0.84	15	38	3.20	8	6
TABO1170	NEGAL TE TABOQUINHA	0.14	9	89	1.17	17	93	-0.19	10	96	0.12	10	61	-0.12	12	78	0.71	7	53
TABO1132	NEPAL TE TABOQUINHA	-0.04	13	69	-0.28	19	21	0.04	19	24	0.56	24	19	1.40	17	20	1.46	10	32
CNS6391	NGAÔ TE S	-0.71	22	11	-1.91	50	1	1.18	33	0.5	1.79	40	0.5	3.65	23	0.5	4.68	12	1
5791	NOBRE JF	-0.07	32	66	2.01	64	99	-0.18	40	95	0.32	45	38	-0.18	38	81	1.08	24	42
MDVG6458	NOVA SEITA D	0.02	8	79	0.16	3	55	-0.28	26	98	-0.31	29	96	0.35	10	58	0.23	4	67
TABO1301	ÓBUS TE TABOQUINHA	0.54	16	100	-1.60	31	2	0.22	23	39	0.42	25	29	1.44	19	19	-1.41	11	98
TABO1345	OCRE TE TABOQUINHA	0.07	13	84	-0.13	39	29	0.27	13	32	0.27	12	44	1.32	15	22	-1.37	10	98
TABO1351	OFURO TE TABOQUINHA	-0.07	13	66	1.37	58	96	0.15	14	49	0.42	14	20	1.42	16	20	2.01	9	20
A5843	OLENTE 4M	0.24	10	94	-3.09	44	0.5	0.14	25	91	-0.35	11	97	0.56	11	49	-1.26	8	97
TABO1364	OLEO TE TABOQUINHA	-0.37	14	35	-3.09	44	0.5	0.14	25	91	0.00	27	76	-0.05	17	75	-2.45	10	100
TABO1367	ÓPUS TE TABOQUINHA	-0.47	15	27	-2.41	33	0.5	0.24	16	36	0.30	16	40	0.50	15	52	-1.77	8	99
TABO1302	ORIENTE TE TABOQUINHA	0.27	28	95	-2.32	54	0.5	0.55	54	9	0.76	63	10	2.59	30	4	-1.22	15	97
TABO1353	ORINOCO TABOQUINHA	0.12	12	88	0.60	38	78	0.31	12	27	0.30	12	40	1.18	15	27	-1.37	10	98
MDVG6511	ORÓ D	-0.06	5	67	-0.12	6	29	0.02	5	71	-0.01	7	78	1.04	6	31	0.37	3	63
TABO1329	OROS TE TABOQUINHA	0.07	10	84	-0.72	39	9	0.10	10	57	0.13	9	59	1.45	12	19	1.06	7	43
9956	PALÁCIO	0.07	15	34	-0.60	55	11	0.61	29	7	0.63	33	16	1.50	21	18	0.88	8	48
CNS6629	PAPADO S	-0.03	12	71	-0.16	13	27	0.08	29	60	-0.14	36	91	1.64	14	15	-1.99	10	100
9754	PARAISO JF	0.13	19	89	-0.28	42	21	0.15	17	49	0.74	19	11	1.68	22	14	2.26	15	16
FNF5697	PATRONO NF	-0.21	27	50	-0.28	14	21	-0.25	54	98	0.07	65	66	-0.84	33	95	-2.00	21	100
A2726	PINCEL JA	-0.22	3	49	0.57	2	77	0.20	6	42	-0.03	6	82	0.55	2	66	0.28	2	66
FNF5673	PLEBEU NF	-0.15	29	57	-0.14	12	28	0.16	53	48	0.56	61	19	0.89	35	37	-0.25	21	85
TABO1467	PÓLO TE TABOQUINHA	0.30	13	96	-1.37	26	3	0.33	14	25	0.66	13	14	1.64	14	15	-0.67	8	92
JFT2077	PREFEITO JF	-0.23	13	48	1.11	13	92	0.40	16	17	1.62	16	15	2.07	16	15	3.07	12	7
JFT2049	PSIU JF	0.24	16	94	0.30	13	64	-0.31	36	99	-0.46	41	99	2.25	20	6	2.47	13	13
TABO1579	QUARUP TE TABOQUINHA	-0.25	9	46	-0.47	17	14	0.31	5	27	0.73	5	11	0.53	9	51	0.45	6	61
TABO1584	QUEBEC TE TABOQUINHA	-0.19	15	52	0.46	30	72	0.11	12	49	0.11	12	62	1.33	20	22	1.27	10	37
TABO1716	QUILATE TABOQUINHA	0.23	6	94	-0.92	49	6	0.19	4	43	0.33	3	37	0.65	9	46	-0.34	4	87
TABO1726	QUIMÃO TE TABOQUINHA	0.25	9	95	-0.18	57	26	0.05	5	65	0.21	5	50	1.53	9	17	-1.62	6	99
TABO1776	RABI TE TABOQUINHA	-0.06	14	67	-1.28	38	3	0.11	11	56	0.43	11	28	1.01	15	32	0.64	10	55
MDVG6822	RAPA PÉ D	0.03	1	80	0.24	1	60	0.17	3	46	0.20	5	46	0.20	1	64	-0.08	1	80
TABO1835	REMANSO TE TABOQUINHA	0.09	17	86	0.21	61	58	-0.06	34	86	0.23	33	48	0.91	17	36	-0.26	11	85
LVP5203	RESPLENDOR TE N. FLOR	0.22	7	93	-0.29	12	21	0.20	8	42	0.44	8	28	2.01	10	9	0.09	6	73
TABO2010	RETIRO TE TABOQUINHA	0.27	18	95	-0.76	19	8	0.43	51	16	0.70	55	12	0.72	22	43	-0.99	12	95
JFT2261	RUSSO TE JF	-0.63	21	15	-0.06	15	33	-0.08	33	89	0.49	46	24	0.98	26	33	2.87	15	8
TABO2246	SADRAQUE TE TABOQUINHA	-0.20	13	52	-1.12	20	4	0.12	30	54	0.54	36	21	1.98	19	9	1.56	10	30

(to be continued...)

(continuation...)

Sire's ID	Sire's Name	AFC EPD	AFC EPD ACC.	AFC TOP %	GL EPD	GL EPD ACC.	GL TOP %	SC365 EPD	SC365 EPD ACC.	SC365 TOP %	SC450 EPD	SC450 EPD ACC.	SC450 TOP %	MA120 EPD	MA120 EPD ACC.	MA120 TOP %	ACP EPD	ACP EPD ACC.	ACP TOP %
TABO2303	SAEL TABOQUINHA	0.18	10	92	-1.05	17	5	0.39	13	19	0.44	13	28	2.10	11	8	-0.59	5	91
EMGA883	SAGRADO-A (TE)	0.29	9	96	-0.19	36	25	0.37	9	21	0.59	9	18	1.96	10	9	-1.00	7	95
TABO2343	SALOIO TE TABOQUINHA	-0.16	16	56	-0.86	22	7	0.81	19	2	1.03	19	4	2.47	18	4	3.11	12	6
A5230	SAPUCAI JA	-0.39	12	33	1.02	3	90	0.22	16	39	-0.10	16	88	-0.21	16	82	1.44	9	33
TABO2260	SAROM TE TABOQUINHA	0.07	35	84	0.39	18	69	-0.04	66	84	-0.28	70	96	-0.02	45	74	-1.28	33	97
TABO2122	SERENO TABOQUINHA	0.03	7	80	0.15	72	54	0.27	10	32	0.29	8	42	1.31	11	23	0.45	4	61
FAPM792	SIGNO AM	-0.18	52	53	1.87	49	99	0.33	56	25	0.17	58	55	-0.39	55	87	3.81	35	3
A2708	TAITI JA	-0.20	2	52	0.21	1	58	0.04	4	67	0.11	4	62	0.15	2	66	0.33	1	64
CNS4923	TAMARINDO S	-0.68	28	12	1.34	47	96	0.68	53	5	0.93	56	6	-0.28	34	84	3.08	22	6
9346	TRICO	0.00	2	75	-0.31	1	20	0.12	3	54	0.26	4	45	0.43	4	55	-0.70	2	92
8341	TRIGUEIRO JA	-0.23	4	48	0.07	1	48	-0.21	3	97	-0.16	4	91	0.73	7	43	0.25	2	67
TABO2935	VALENTE TABOQUINHA	0.22	5	93	0.54	39	76	0.25	6	34	0.62	5	16	2.36	7	5	1.00	4	45
EMGA1060	VATICANO-A	0.06	13	83	-3.06	38	0.5	0.06	14	64	0.48	14	25	-0.08	16	77	-0.25	10	85
A2033	VIRTUAL DA TEOTÔNIO	-0.28	10	43	0.14	14	54	0.26	5	33	0.84	6	8	-0.58	11	91	1.28	6	37

Table 11. Partner farms of purebred cattle.

Herd/Farm	Farmer/Owner	City	State	E-mail
2 Meninas	Fernando Ferreira Carvalho	Governador Valadares	MG	
Aconcheço	Jose Roberto Salgado	Felixlândia	MG	
AGS	Anselmo Guedes Silva	Teófilo Otoni	MG	agsmoto@oi.com.br
Água Verde	Alexandre Gontijo Guerra	Palmácia	CE	
Araras	Ana Luíza da Costa Cruz Borges	Luziânia	GO	
Areas	Quatro Meninas Agropecuária Ltda.	Cantagalo	RJ	
Barra da Cruz	Alexandre de Medeiros Wanderley	Angicos	RN	
Barra do Peixe Branco	Diomario Teixeira Oliveira	Frei Inocência	MG	
Barra do Pirapetinga	Igor Abras Rodrigues	Piranga	MG	guzeraportofirme@gmail.com
Barro Preto	Sérgio Augusto Teixeira	Ipiáu	BA	teixeirasergioaugusto@gmail.com
Bebe Água	Tomaz Acácio da Costa Soares	Lassance	MG	
Bela Vista	Walter Santana Arantes	Capim Branco	MG	
Belém	Renaldo Barreto dos Santos	Esplanada	BA	renaldobs@uol.com.br
Boa Esperança	Djanir Baquero de Souza	Leopoldina	MG	guzeratimoneiro@hotmail.com
Boa Esperança	Luis Evandro Aguiar	Veríssimo	MG	
Boa Esperança	Wilson Lemos de Moraes Junior	Silva Jardim	RJ	
Boa Família	Wemerson Amaro Coura	Muriae	MG	contato@guzeradeboafamilia.com
Bom Sucesso	Julio Mendonça Mundim	Paracatu	MG	
Cajazeiras	Marco Andre Queiroz Barral	Santo Estevão	BA	
Calciolândia	Gabriel Donato de Andrade	Arcos	MG	
Camarão	Joel Magno dos Santos	Florestal	MG	jrenatosantos16@yahoo.com
Canaã	Allyrio Jordão de Abreu	Cantagalo	RJ	
Canaã	Denise de Abreu Ribeiro & Out. Cond.	Cantagalo	RJ	
Canoas	Antonio P. Salvo & Out. Cond.	Curvelo	MG	
Canoas	Seleção Guzerá Agropecuária Ltda.	Curvelo	MG	
Canto Dos Sonhos	Marilac Jaqueline da Silva	Bom Despacho	MG	cantodossinhos@yahoo.com.br
Caracol	Almir Mendes de Carvalho Neto	Itapetinga	BA	
Carnaúba	Manoel Dantas Vilar Filho	Taperoá	PB	
Chácara Oliveira	Lúcio Dias de Oliveira & Out. Cond.	Alexânia	GO	
Cinco Barras	Walter Rocha Pereira	Laje do Muriae	RJ	walterrpereira@hotmail.com
Cisne e Salobo	Walter Francisco de Moura	Morada Nova de Minas	MG	
Colorado	Mateus Ferraz Souza	Bom Jesus do Tocantins	PA	
Curral da Serra	Itabajara Potengy de Mello	Nova Friburgo	RJ	
Curral de Cima	Carlos Fernando Villar Coutinho	Igreja Nova	AL	
Curralinho	Agroville - Agric. e Empreend. Ltda.	Morada Nova de Minas	MG	denilson@villefort.com.br
Curralinho	Ivagro Agropecuária Ltda.	Morada Nova de Minas	MG	denilson@villefort.com.br
Curralinho	Virgilio Villefort Martins	Morada Nova de Minas	MG	denilson@villefort.com.br
Da Barra	Roberto Neszlinger	Nazário	GO	
Daniel e Flavia	Mata Negra Agropast. Partic. Ltda.	Várzea Grande	MT	
Deus Dara	Jose da Costa Falcão	Baixa Grande	BA	
Do Carmo	Juliana Pistore Ragazzi	Ituverava	SP	
Do Pinheiro	Paulo Roberto Menicucci	Ibituruna	MG	guzeiraibituruna@yahoo.com.br
Do Rosário	Hércules Antonio M. do Rosário	Carlos Chagas	MG	fazendadorosario@outlook.com
Dona Vera	Arisalvo Costa Campos Filho	Macarani	BA	arisalvo@ig.com.br
Douradinho	Jorge Luiz Caixeta da Cunha	Uberlândia	MG	
Encarnaçao	Eduardo Abreu Rodrigues	Santarém Novo	PA	
Encarnaçao	Luz Guilherme Soares Rodrigues	Santarém Novo	PA	
Estabelecimento Agrícola de Itaiwa	Emater - Rio	Itaiwa	RJ	riogenetica@agricultura.rj.gov.br
Estação Exp. Cruzeiro do Moco	Empr. Baiana Des. Agric. - EBDA	Feira de Santana	BA	
Estação Experimental de Alagoinha	Emp. Est. Pesq. Agrop. Paraíba - EMEPA	Alagoinha	PB	emepa@emepa.org.br
Estação Experimental de Itaberaba	Empr. Baiana Des. Agric. - EBDA	Itaberaba	BA	
Estância Esperança	Francisco H. Capparelli Virgilio	Uberlândia	MG	
Estância Kankrej	Jose Marinho Peres	São Pedro Dos Ferros	MG	
Estância Nova Recreio	Antonio P.P. Amarante Neto & Out. Cond.	Ortigueira	PR	
Europa	Marcelo Militão Abrantes	Carlos Chagas	MG	militao@grupometa.med.br
Faz. Escola Alexandre Barbosa	Sociedade Educ. Uberabense	Uberaba	MG	marcelolack@gmail.com
Felipe Camarão	Emp. Pesq. Agr. R. Gde. Norte - EMPARN	S. Gonçalo do Amarante	RN	guilhermeemparn@hotmail.com
Fiel	Antonio Abílio Marques Cordero	Uberaba	MG	
Fortaleza	Moacyr Resende	Rio Pomba	MG	
Fundão Boa Lembrança	Marcelo Garcia Lack & Out. Cond.	Carmo	RJ	marcelolack@gmail.com
Garcia	Faz. Garcia Ltda.	Magé	RJ	
Gentilândia	G & F Maricultura Ltda.	Quixadá	CE	
Gontijo	Antonio Ferreira Sobrinho	Bom Despacho	MG	
Graúna	Fernando Luiz Gonçalves Bezerra	São José de Mipibu	RN	
Guarita	Omar Resende Peres Filho	Rio Das Flores	RJ	
Harmonia	Fernando Antonio Moreira Calaes	Bom Despacho	MG	
Ibipora	Walter Henrique Zancaner	Guararapes	SP	
Ilha do Lobo	Jair Ortiz	Alterosa	MG	
Ilha Funda	Agostinho Alcântara de Aguiar	Alpercata	MG	
Independência	Paula Anastácia Gallo	Colatina	ES	
Indiana	Jose Mauricio de Figueiredo	Patrocínio	MG	
Ipeal - Cruz das Almas	Empr. Bras. Pesq. Agropec. - Embrapa	Cruz das Almas	BA	
Itapinoá	Amaro Vaz	Governador Valadares	MG	
Itapinoá	Leolino Pimenta Ribeiro Jr Cond	Governador Valadares	MG	
Jacobina	Rodrigo Diniz de Mello	S. Gonçalo do Amarante	RN	
Juca	Rodrigo Coutinho Madruga	Lagoa Dos Velhos	RN	
Lageado	Roberto Martins Franco	Sales Oliveira	SP	
Lagedão	Altamirano Pereira da Rocha	S. Antônio do Jacinto	MG	
Lagoinha	Byron Fonseca Ladeira	Caetanópolis	MG	
Lambari Alegre	Eron José dos Santos Carvalho	Miradouro	MG	eron.jose@sancar.com.br
Lapa	Dalton Moreira Canabrava Filho	Curvelo	MG	
Lua Nova	Benicio Cunha Cavalcanti	Lajedinho	BA	
Maçanduba de Cima	Francisco Assis da Camara F. Melo	S. Gonçalo do Amarante	RN	
Maquine	Antônio Márcio Gomes Jardim	Florestal	MG	
Mara Lúcia	Alfredo Fonseca Marquez Júnior	Uberlândia	MG	
Monjolinho	Severo de Araujo Dias	Alfenas	MG	
Morada Dos Ventos	Rubem Sergio Santos de Oliveira	Alagoinhas	BA	
Mutum	Leo Machado Ferreira	Alexânia	GO	
N.Senhora da Paz	Isidoro Campos Raposo Almeida	Carapebus	RJ	

(to be continued...)

(continuation...)

Herd/Farm	Farmer/Owner	City	State	E-mail
Nossa Senhora Aparecida	Gilson Carlos Bargieri	Caçapava	SP	
Nossa Senhora Das Graças	Jose Maria Couto Sampaio	Riachão do Jacuípe	BA	
Nova Era	Carlos Oscar Niemeyer M. Silveira	Rio Novo	MG	
Nova Floresta	Luiz Vítor C. Pereira de Souza	Estrela Dalva	MG	
Nunes	Reginaldo Jose Da Silva	Conceição Das Alagoas	MG	
Olho D'água	Jose Otavio Maia de Vasconcelos	Catolé do Rocha	PB	
Olhos D'água	João de Azevedo Cavalcanti Neto	Lajedinho	BA	
Paioi	Euler Fernandes Junior	Frei Inocêncio	MG	
Palestina	Palestina Agropast. Ltda.	Unai	MG	
Passagem Funda	Roosevelt Jose Meira Garcia	Taipu	RN	
Pedras de Maria	Pedras Do Reino Com. Agropec. Ltda.	Pedras De Maria da Cruz	MG	
Perfeita União	Aldo / Ângelo Frederico Tonetto - Cond.	Pirajuí	SP	
Poção	Leandro Botelho Neiva	Paracatu	MG	
Pontal	Claudio Severino Lara	Baldim	MG	
Queimada de Baixo	Woden Coutinho Madruga	Lagoa Dos Velhos	RN	
Rancho Cayama	Francisco Jose A. Maia Costa	Campo Grande	MS	
Rancho Colatina	Emerson Soares Junior	Nova Venécia	ES	
Recaída	Paulo Xavier Trindade	Monte Alegre	RN	
Recanto do Sol	Ronaldo Costa da Silva	Paracatu	MG	
Recreio	Mila de Carvalho L. e Campos	São Jose de Ubá	RJ	
Resplendor	Perly Dorneles De Oliveira	Cacaulândia	RO	
Retiro Mr. James	Billford James Crawford	Curvelo	MG	
Reunidas Minas Gerais S/A	Alberto Carlos de Freitas Ramos	Cordisburgo	MG	
Riacho do Ponteio	Pedro Bittencourt Ferraz	Vitória da Conquista	BA	
Rio Grande	Marcelo Palmerio	Prata	MG	
S. J. Tadeu do Chapadão	Amilcar Farid Yamin	Porto Feliz	SP	
Saco	Inst. Agronômico Pernambuco - IPA	Serra Talhada	PE	
Salto e Ponte	Paulo Cesar Carneiro Árabe	Prata	MG	
Samuara	Walter Guimarães Pinto	Jaboticatubas	MG	
Santa Albertina	Antonio Paulo Abate	Campo Florido	MG	
Santa Cecília	Ana Claudia Mendes Souza	Uberaba	MG	
Santa Clara	Egas Adjuto Botelho	São Felix do Xingu	PA	
Santa Maria	Mario Ermirio de Moraes	Água Boa	MG	
Santa Maria	Fernando Maximiliano Neto	Belmiro Braga	MG	
Santa Maria	André Malzoni Langhi	Matão	SP	andre.langhi@hemo.com.br
Santa Paula	Lucio Carlos Gonçalves	Curvelo	MG	
Santa Terezinha	Frederico Crispe Bamberg	Carlos Chagas	MG	
Santa Terezinha	Lucas Caldas Neto	Felixlândia	MG	
Santa Vitória	Maria Victoria Bolivar Gomes	Curvelo	MG	
Santana	Gustavo Alves de Faria	Muriáe	MG	fariavet@yahoo.com.br
Santana II	Vitor Cesar Caldas Machado	Uberaba	MG	
Santo Amaro	Caio Pimenta Junqueira	São Sebastião do Paraíso	MG	
Santo Antônio	Marcos Corteletti	Serra	ES	
Santo Antônio	João Natal Cerqueira	Contagem	MG	
Santo Antônio	Heloiza Tinoco de Paula	Itaperuna	RJ	
Santo Antônio	Jose Eduardo Jorge Barbosa	Ituverava	SP	
Santo Antônio	Renato Franco	Sales Oliveira	SP	
São Bernardo	Mario Wilson Nou Falcão	Feira de Santana	BA	
São Caetano	José Renato Chiari	Morrinhos	GO	
São Cristovão	Cristovão José Rabelo	Eugenópolis	MG	
São Domingos	Silvio E. Gadelha Simas Procópio	Serra Caiada	RN	
São Francisco	Paulo César Gallo	Colatina	ES	
São Francisco de Assis	Francisco Roriz Verissimo	Pancas	ES	
São José	Gilson Carlos Bargieri	Uberaba	MG	
São Jose do Bomirar	Jose de Vasconcelos e Silva	Chiador	MG	
Sao Judas Tadeu	Amilcar Farid Yamin	Porto Feliz	SP	
São Luiz	Luiz Alves de Castro	S. Antônio do Descoberto	GO	
São Luiz	Francisco Jose Araujo Lutterbach	Carmo	RJ	
São Luiz	Alcebiades Paes Garcia	Pirai	RJ	
São Sebastião	Carlos F. Fontenelle Dumans & Out - Cond.	Baixo Guandu	ES	contato@guzeranf.com.br
Serra Negra	Carlos Magno C. Brandão & Out - Cond.	Santana do Riacho	MG	guzeracipo@terra.com.br
Serraria	Sávio Suisso Tinoco	Natividade	RJ	
Serrinha/Calciolandia	Gabriel Donato de Andrade	Betim	MG	
Sítio Beija Flor	Zootécnica Tropical Ltda.	Uberaba	MG	
Sítio Das Lages	Richard Wagner A. Freitas Santos	Datas	MG	
Sítio Miranda	Paulo César Miranda Faria Júnior	Fernandes Tourinho	MG	
Sítio Nossa Senhora Aparecida	Milton Okano	Ituverava	SP	
Sítio Rio Negro	Rio Negro Agropecuária Ltda.	Uberaba	MG	
Sítio Santa Helena	Sávio Costa Gonçalves	Poço Fundo	MG	saderesav@gmail.com
Sumaúma	João Cruz Reis Filho	Miradouro	MG	
Taboquinha	Sinval M. de Melo	Itambacuri	MG	guzerataboquinha@terra.com.br
Tapera Cajazeiras	Frutos Trop. Belém S/A - Frutibem	Conceição da Feira	BA	
Teimosa	Jose Armando Nogueira Diógenes	Jaguaribe	CE	
Teotônio	Teotônio Agropecuária Ltda.	Quixeramobim	CE	
Terra Nova	Rodrigo Pinto Canabrava	Bocaiúva	MG	
Terra Nova	Marco Aurélio Grillo de Brito	Duas Barras	RJ	
Tibuna	Paola Gazzinelli	Novo Cruzeiro	MG	
Três Colinas	Bruno Knoop C. Nobre de Campos	Aparecida	SP	
Três Marias	Carlos Fernando M. L. Filho & Out - Cond.	Linhars	ES	
Turmalina	Elyσιο Jose Ferreira	Frei Inocêncio	MG	
Ubaia	Henderson Magalhães Abreu	Touros	RN	
Umari	Ubiratan Souto Botelho	Banabuiu	CE	
Urtigão	Sergio Castelani	Marília	SP	
Uruguay	Vânia Maldini Penna	Corinto	MG	vaniapenna@gmail.com
Varginha Forquilha	Marcos Valadares M. Diniz	Curvelo	MG	
Várzea	Manoel Gonçalves Pereira	Felixlândia	MG	
Ygarapés	José Transfiguração Figueiredo & Out - Cond.	Jampruca	MG	guzerajf@hotmail.com
Zebuina	Geraldo Franca Silvano	São Miguel Das Matas	BA	
Zootecnia	Fund. E. D. C. Agrarias - FUNDAGRI	Uberaba	MG	

Active collaborators of progeny testing (they offer females to mate)

**Table 12.** Partner Farms of crossbred cattle (all active)..

Herd/Farm	Farmer/Owner	City	State	E-mail
Amaralina	Laelson Oliveira Cobira	Vereda	BA	
Amizade I	Vinício Araújo Nascimento	Aparecida do Rio Doce	GO	
Barra do Peão	Bruno Oliveira Felipe	Aimorés	MG	
Beija Flor	Ildeu Leite Moreira	Engenheiro Caldas	MG	
Beirador	Paulo Teixeira	Ecoporanga	ES	
Bela Vista	Edilceu Reis Costa	Medeiros Neto	BA	
Bela Vista	Sérgio Paula Gonçalves	Durandé	MG	
Bela Vista & Califórnia	José Geraldo O. Miranda	Carlos Chagas	MG	
Bom Jardim	Ernando de Oliveira Cidrine	Barão de Monte Alto	MG	aparecidaeoc@gmail.com
Bom Jesus	Leonardo Rezende Figueredo	Bom Jesus do Itabapoana	RJ	
Bom Sucesso	Hélio Martins de Araújo	Rio Pomba	MG	helio.bomjardim3@gmail.com
Cachoeira Alegre	Rogério Figueira Zini	Dores do Rio Preto	ES	
Convento	José Maurício de Oliveira	Ubá	MG	
Da Mata	Jacques James Ronacher Passos	Nanuque	MG	
Do Sul	Odilon Paiva Carvalho	Barão de Monte Alto	MG	odiloncarvalho@oi.com.br
Granja São Domingos	Menelick Bodervan Bastos	Dores do Rio Preto	ES	
IFF Campus Bom Jesus do Itabapoana	Instituto Federal Fluminense	Bom Jesus do Itabapoana	RJ	
Independência	Luiz Fernando Meirelles Barbosa	Leopoldina	MG	
Invejada	Márcio da Silva Carvalho	Barão de Monte Alto	MG	
Lagoa Grande	Edinaldo Martins da Silva	Medeiros Neto	BA	
Lajedinho	Agessandro da Costa Pereira Filho	Ataléia	MG	
Laranjeiras	Alejandro Vargas Velásquez	Uberaba	MG	alejandrovavel@hotmail.com
Limeira	José Carlos Nunes de Oliveira	Durandé	MG	
Limoeiro	Pedro Ivo dos Santos Ourique Figueiredo	Rosal	RJ	
Lua Nova	Vanderlei Silva Lessa	Itamaraju	BA	vanderlei.lessa@gmail.com
Manacá	Luiz Gabriel Pinheiro Fernandes	São Fidélis	RJ	
Mangueira	Pedro Novaes	Mutum	MG	
Miguelis & Mendonça	André Luiz de Melo Toretta	Muriaé	MG	
Monte Alegre	Miguel Eugênio Monteiro de Barros	Rosário da Limeira	MG	
Novo Horizonte	Conrado Dias Corsi	Poço Fundo	MG	conradocorsi88@gmail.com
Pedra Dourada	Carlos Alberto Andrade Amaral	Itamaraju	BA	
Rancho do Recreio	Iara Fernandes Campos	Teixeira de Freitas	BA	
Recreio	Álvaro Gomes Moreira	Jucuruçu	BA	fazendacachoeiradouro@hotmail.com
Recreio e Pedra	Arthur Pinto Gabeto	Laje do Muriaé	RJ	
Retiro	Leonardo Teles Diniz	Iguatama	MG	lt.diniz@uol.com.br
Reunidas Estrela do Oriente	Idalina da Rocha Nonato	Vereda	BA	
Sabiá	Adalberto da Rocha Nonato	Teófilo Otoni	MG	
Santa Maria	João Vidal de Moraes	Pocrane	MG	jvidalmoraes@hotmail.com
Santa Maria	José Bento da Silva	Raul Soares	MG	
Santa Maria	Paulo Bittencourt Teixeira	Vila Pavão	ES	paulobitencourtteixeira@gmail.com
Santa Rita	Aluizio Lindemberg Thomé	Faria Lemos	MG	izothome@gmail.com
Santa Rosa	Maria C. P. Costa	Mutum	MG	
Santa Terezinha	Carlismom Costa de Souza	Paraíba do Sul	RJ	
Santa Terezinha	Sérgio Barbieri Biscotto	Tarumirim	MG	
Santo Antônio	Mery Henrique Ribeiro Fernandes	Linhares	ES	mery-fernandes@hotmail.com
São Francisco Setor Revolta	Claudia Langnier Scherr	Carlos Chagas	MG	
São Francisco Setor Santa Fé	Claudia Langnier Scherr	Carlos Chagas	MG	
São Geraldo	Manoel A. Magalhães	Taparuba	MG	daysicapil@hotmail.com
São José do Paraíso	José Eduardo Coelho B. Junqueira Ferraz	Leopoldina	MG	
São Romão	Marcílio Fialho da Silva	Santo Antônio de Pádua	RJ	
São Sebastião	Cláudio José Magalhães Baptista	Durandé	MG	
São Sebastião	Fábio Maciel de Carvalho	Varre-Sai	RJ	
São Sebastião	José Alvim Godinho Spinola	Durandé	MG	
São Vicente da Estrela	José Evangelista Raspante	Raul Soares	MG	
Sempre Viva	Noel Alvim Julião	Porto Seguro	BA	
Sítio Da Laje	Adib José Abrahão Neto	Guarará	MG	
Sítio Maomé	Emerson Elias Pontes	Mantena	MG	
Sítio Santa Cecília	Vicente de Paula Machado	Senador Cortes	MG	
Sítio São João	João Vítor Cerqueira	Durandé	MG	
Sítio Saudade	Ricardo Reis Junqueira	Leopoldina	MG	
Sítio Valão	Sérgio Machado	Mar de Espanha	MG	
Sobrasil	Rosa Maria Almeida de Resende	Miraf	MG	
Soledade Cristal	Maurício de Abreu Lima Campos	Miradouro	MG	raphaelbcampos@yahoo.com.br
Todos os Santos	Genegegnisone Partelle	Vila Pavão	ES	
Três Irmãos	Mozarle Souza Ferreira Sampaio	Vereda	BA	
Vereda	Adalberto da Rocha Nonato	Vereda	BA	
Vista Alegre	Romero Tadeu da Silva Batalha	Faria Lemos	MG	

**Table 13.** Batteries of sires in the Guzerá Progeny Testing

Sire's ID	Sire's Name	Battery	A.I. Company	Status	Sire's ID	Name	Battery	A.I. Company	Status
9940	BARBANTE JF	1 <sup>a</sup>		M	TABO 1367	OPUS TE TABO	8 <sup>a</sup>		M
A1437	ÉDIPO A	1 <sup>a</sup>		M	TABO 1406	PEQUI TE TABO	8 <sup>a</sup>	CRV	
A2389	ESTILO A	1 <sup>a</sup>		M	TABO 1467	PÓLO TE TABO	8 <sup>a</sup>		M
A337	FUNDADOR TE RF	1 <sup>a</sup>			ROS 206	PUPILO ROS	8 <sup>a</sup>		
A2664	GITANO A	1 <sup>a</sup>			JFT 2230	REINO TE JF	8 <sup>a</sup>		
A133	IMPERIAL JA	1 <sup>a</sup>							
9974	JÓQUEI TE JP	1 <sup>a</sup>		M	JFT 2488	ATLAS TE JF	9 <sup>a</sup>	CRV	M
A2633	TRIGUEIRO D	1 <sup>a</sup>		M	JFT 2433	NÁPOLE TE JF	9 <sup>a</sup>	CRV	M
					JFT 2302	NAQUE TE JF	9 <sup>a</sup>		M
A6104	ALMA DE GATO D	2 <sup>a</sup>		M	JFT 2351	NEPAL TE JF	9 <sup>a</sup>	ALTA	M
A6120	CABO DE GUERRA D	2 <sup>a</sup>		M	JFT 2422	NOTÁVEL TE JF	9 <sup>a</sup>	ALTA	
A951	CABUL II S	2 <sup>a</sup>			TABO 1716	QUILATE TABO	9 <sup>a</sup>		M
A6119	CAPITÃO-MOR D	2 <sup>a</sup>		M	TABO 1776	RABI TE TABO	9 <sup>a</sup>	CRV	M
A2804	HORIZONTE NF	2 <sup>a</sup>			ROS 342	UÍSQUE ROS	9 <sup>a</sup>		
A1443	HORTO A	2 <sup>a</sup>		M					
A1449	JAGUNÇO A	2 <sup>a</sup>		M	JFT 2452	ADONAI TE JF	10 <sup>a</sup>	CRI	M
5769	LEITEIRO JP	2 <sup>a</sup>			UNIU 52	AGHA KHAN FIV	10 <sup>a</sup>		M
A5230	SAPUCAÍ JA	2 <sup>a</sup>			JFPA 20	ALINHADO TE IBITURUNA	10 <sup>a</sup>	SEMEX	
					HUM 24	HUM SONHO ABADON	10 <sup>a</sup>	ALTA	
A6134	DESENGASGO D	3 <sup>a</sup>		M	JFPA 92	MAESTRO IBITURUNA	10 <sup>a</sup>	SEMEX	
5762	ÊXITO TE	3 <sup>a</sup>			ROS 522	OURO TE ROS	10 <sup>a</sup>		
5791	NOBRE JF	3 <sup>a</sup>			CALG 133	ÚMIDO CAL	10 <sup>a</sup>	ALTA	
9754	PARAÍSO JF	3 <sup>a</sup>							
5775	RADIAL TE	3 <sup>a</sup>			CNS 7275	BAÇÃO S	11 <sup>a</sup>		
A2033	VIRTUAL TEOTÔNIO	3 <sup>a</sup>			ROS 780	DICK FIV ROS	11 <sup>a</sup>		M
					LKW 223	GARI B.LEMB.	11 <sup>a</sup>		M
4790	CAIRO JP	4 <sup>a</sup>			SAV 94	GIM FIV SADERE	11 <sup>a</sup>		
A2731	GAVIÃO N.FLOR.	4 <sup>a</sup>		M	LKW 243	HUMORISTA FIV	11 <sup>a</sup>		M
5883	HÁBIL TE TABO	4 <sup>a</sup>			OTPZ 119	IRIL POI OT	11 <sup>a</sup>		M
A1447	IMPULSIVO A	4 <sup>a</sup>			JAJ 3652	QUITO FIV JA	11 <sup>a</sup>		
MMMM A5873	OSASCO 4M	4 <sup>a</sup>		M	TABO 2122	SERENO TABO	11 <sup>a</sup>		
A2621	SACADO D	4 <sup>a</sup>			TABO 2510	TRONO TE TABO	11 <sup>a</sup>	CRV	
					TABO 2624	TUCO TE TABO	11 <sup>a</sup>	CRI	M
PEAC 22	CIGANO PEAC	5 <sup>a</sup>		M	TABO 2567	TUISTE TE TABO	11 <sup>a</sup>	ABS	
ROS 34	DEVOTO TE ROS	5 <sup>a</sup>		M	TABO 2935	VALENTE TABO	11 <sup>a</sup>		
TABO 636	HUMAITÁ TE TABO	5 <sup>a</sup>		M	ROS 614	VERNIZ TE ROS	11 <sup>a</sup>		M
TABO 727	INSTINTO TE TABO	5 <sup>a</sup>		M					
TABO 747	JABUTI TE TABO	5 <sup>a</sup>		M	JFPA 184	BOIEIRO IBITURUNA	12 <sup>a</sup>	ALTA	
TABO 812	JEQUIÁ TE TABO	5 <sup>a</sup>		M	JFT 3045	CAIO FIV JF	12 <sup>a</sup>		M
TABO 866	LABRADOR TABO	5 <sup>a</sup>		M	JFT 3094	CÁLICE FIV JF	12 <sup>a</sup>	CRV	
A1462	PACÍFICO A	5 <sup>a</sup>		M	JCGU 50	DENIS CAMARÃO	12 <sup>a</sup>		
FNF 5873	PLEBEU NF	5 <sup>a</sup>			FCGP 604	DÓLAR TE EMPARN	12 <sup>a</sup>		
A1463	QUILATE A	5 <sup>a</sup>			LKW 219	GREGO B.LEMB.	12 <sup>a</sup>	ALTA	
					IHL 178	GULOSO	12 <sup>a</sup>	ALTA	
ROS 116	INGLÊS TE ROS	6 <sup>a</sup>		M	HUM 51	HUM SONHO BALBECK	12 <sup>a</sup>		
MDVG 6066	JANARI D	6 <sup>a</sup>		M	HUM 34	HUM SONHO BARÃO	12 <sup>a</sup>		
LVPS 59	JOÁ N.FLOR.	6 <sup>a</sup>		M	HUM 38	HUM SONHO BARUC	12 <sup>a</sup>	SEMEX	
PEAC 211	MARANHÃO TE PEAC	6 <sup>a</sup>			TAL 5966	NATALINO TEOTÔNIO	12 <sup>a</sup>		
TABO 1058	MIRADOR TE TABO	6 <sup>a</sup>			JFPA 222	URIEL IBITURUNA	12 <sup>a</sup>	CRV	
TABO 1117	NAQUE TE TABO	6 <sup>a</sup>	ALTA	M					
LVPS 98	NOTÁVEL N.FLOR.	6 <sup>a</sup>		M	JFT 3102	CABO FIV JF	13 <sup>a</sup>		
JFT 2049	PSIU JF	6 <sup>a</sup>			JFT 3157	CAIM JF	13 <sup>a</sup>	CRV	
					UNIU 236	CAIRO	13 <sup>a</sup>	ABS	
CIPO 41	CASSINO CIPÓ	7 <sup>a</sup>			IVAG 2053	ESMINGO VILLEFORT	13 <sup>a</sup>		
TABO 1231	ODRE TE TABO	7 <sup>a</sup>		M	IVAG 2269	EXBAIANO VILLEFORT	13 <sup>a</sup>		M
TABO 1302	ORIENTE TE TABO	7 <sup>a</sup>		M	CNS 8034	FERIDO S	13 <sup>a</sup>		
TABO 1329	OROS TE TABO	7 <sup>a</sup>			FNF A 960	HIDRANTE FIV NF	13 <sup>a</sup>	ALTA	
TABO 1272	OURIÇO TE TABO	7 <sup>a</sup>	ALTA	M	LKW 319	IPÊ FIV B.LEMB.	13 <sup>a</sup>	CRV	
					MAPZ 74	NEON SANTA CECÍLIA	13 <sup>a</sup>		M
HANC 311	CORSÁRIO DA VEREDA	8 <sup>a</sup>							
TABO 1301	OBUS TE TABO	8 <sup>a</sup>	ALTA	M	JFPA 465	CAMBUCI IBITURUNA	14 <sup>a</sup>	CRV	
TABO 1345	OCRE TE TABO	8 <sup>a</sup>		M	AVPG 124	CID 4 MENINOS	14 <sup>a</sup>	CRV	

(to be continued...)



(continuation...)

Sire's ID	Sire's Name	Battery	A.I. Company	Status	Sire's ID	Sire's Name	Battery	A.I. Company	Status
JCGU 237	ESCOLHIDO FIV CAMARÃO	14ª	CRV		JFPA 1043	NICOLA IBITURUNA	17ª	ALTA	
UNIU 439	ESCOTEIRO FIV UNIUBE	14ª	ALTA	M	JFPA 1023	NOBRE IBITURUNA	17ª	ALTA	
IVAG 2818	FABULOSO VILLEFORT	14ª			IVAG 4836	NORTON VILLEFORT	17ª		
FNF A 753	HAMAL NF	14ª	ALTA		GCIK 29	OREGON DC TE	17ª	ABS	
JAJ 4196	MONTENEGRO FIV JA	14ª							
JFT 3253	OÁSIS FIV JF	14ª	CRV		METG 92	DIVIDENDO FIV DA META	18ª	ALTA	
JFT 3311	ÓPIO FIV JF	14ª	SEMEX		GZF 77	HERMES FIV DO GUGA	18ª	ALTA	
MAPZ 382	PACTO FIV SANTA CECÍLIA	14ª			JFT 3738	NABIH FIV JF	18ª	SELECT	
TABO 3245	XAXIM FIV TABO	14ª			IVAG 4829	NÁPOLE VILLEFORT	18ª		
					IVAG 4823	NERO VILLEFORT	18ª		
TABO 3689	ATIVO FIV TABO	15ª	ABS		CNS 9315	PALETO S	18ª		
AVPG 241	DÓLAR 4 MENINOS	15ª	CRV		CNS 9524	PAPADO II S	18ª		
AVPG 325	EGEU 4 MENINOS	15ª	CRV		MAPZ 606	VACÍNIO FIV SANTA CECÍLIA	18ª		
IVAG 2735	FAGUEIRO VILLEFORT	15ª							
IVAG 2342	FALANTE VILLEFORT	15ª			JFPA 1136	AMON IBITURUNA	19ª		
FCGP 679	FANTOCHE EMPARN	15ª			JFPA 1182	AQUILES IBITURUNA	19ª		
IVAG 3206	GIBA VILLEFORT	15ª			UNIU 1152	IMPLACÁVEL FIV UNIUBE	19ª		
IVAG 3205	GOLFO VILLEFORT	15ª		M	UNIU 1216	JEQUIÉ FIV UNIUBE	19ª		
FCGP 729	HEBREU EMPARN	15ª			LKW 1026	PAYSANDU FIV B.LEMB.	19ª	ABS	
JFPA 691	PATRUS IBITURUNA	15ª	CRV		JUZZ 110	PREFERIDO FIV DA JUZZ	19ª	GENEX	
					IVAG 5461	PRESIDENTE VILLEFORT	19ª		
TABO 3711	ABU FIV TABO	16ª	ABS		JUZZ 151	REFLEXO DA JUZZ	19ª	ALTA	
TABO 3714	ACAJU FIV TABO	16ª	CRV						
TABO 3835	BICUDO FIV TABO	16ª			JFPA 1174	ABARÉ IBITURUNA	20ª		
METG 18	BLINDADO FIV DA META	16ª	ALTA		JFT 3809	ÁRABE JF	20ª	GENEX	
METG 83	BLOG FIV DA META	16ª	ALTA		JFPA 1248	MAGNO IBITURUNA	20ª	ALTA	
AVPG 407	ÉDIPO 4 MENINOS	16ª	ALTA		JFT 3864	MEXICANO JF	20ª	ABS	
AVPG 405	ENCANTO 4 MENINOS	16ª			LKW 1008	PANAMÁ FIV B.LEMB.	20ª	CRV	
JFT 3456	ESQUADRÃO II JF	16ª	CRV		JUZZ 136	PENSAMENTO FIV DA JUZZ	20ª	ABS	
IVAG 4552	MARRONE VILLEFORT	16ª		M	LKW 1115	REI FIV B.LEMB.	20ª	COGENT	
JCGU 467	TUAREG II FIV CAMARÃO	16ª			JUZZ 179	TROPEÇO DA JUZZ	20ª	ABS	
DTOO 65	ASCRI FIV PEIXE BRANCO	17ª	CENUBE		JUZZ 210	ABADOM DA JUZZ	21ª	COGENT	
METG 40	BACHAREL FIV DA META	17ª	ALTA		TABO 5030	FOGO FIV TABOQUINHA	21ª	ABS	
METG 66	BALANCETE FIV DA META	17ª	ALTA		IZO 60	JUSTICEIRO HATHOR	21ª	CRV	
DTOO 70	BALIFAX FIV PEIXE BRANCO	17ª	CENUBE		JFPA 1284	MANGANO IBITURUNA	21ª	CRV	
METG 44	BEMENTHAL FIV DA META	17ª	ALTA		WEME 362	NEMO BOA FAMÍLIA	21ª	CRV	
METG 77	BIZANTINO FIV DA META	17ª	ALTA		JUZZ 250	ORGULHO FIV DA JUZZ	21ª	CRV	
JUZZ 73	LOBO DA JUZZ	17ª	SEMEX		LKW 1290	SAMURAI FIV B.LEMB.	21ª	ABS	
FNF A 2547	MANSO FIV NF	17ª			GUZ 757	TECELÃO	21ª	ALTA	
JFPA 1018	NATAN IBITURUNA	17ª	SEMEX		IVAG 6727	VALIOSO VILLEFORT	21ª	BVISTA	

## General information about the Guzera Breeding Program

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Bernhard Winkler (1992-1994)  
Eduardo Almeida (1994-1996)  
Bernhard Winkler (1996-1997)  
José Orlando Duarte (1997-1998)  
Roberto Winkler (1998-2002)  
Virgilio José Matias Melo (2002-2006)  
José Henrique Diniz Figueiredo (2006-2008)  
Ariane Maria Figueirêdo Menicucci (2008-2016)  
Carlos Fernando Fontenelle Dumans (2016-2020)  
Paulo Roberto Menicucci(2021-actual)

### Researchers and Technicians of the Involved Public Institutions

Andrea Alves Egito - Embrapa Gado de Corte  
Anibal Eugênio Vercesi Filho - IZ/SP  
Fabyano Fonseca e Silva - DZO/UFV  
Humberto Tonhati - FCAV/UNESP  
José Aurélio Garcia Bergmann - EV/UFMG  
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Lenira El Faro Zadra - IZ/SP  
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Maria de Fátima Ávila Pires - Embrapa Gado de Leite  
Maria Raquel Santos Carvalho - ICB/UFMG  
Mario Luiz Martinez - Embrapa Gado de Leite (in memorian)  
Paulo Sávio Lopes - DZO/UFV  
Pedro Alejandro Vozzi - CTAG/ANCP  
Raimundo Nonato Braga Lobo - Embrapa Caprinos e Ovinos  
Raysildo Barbosa Lobo - ANCP  
Roberto Luiz Teodoro - Embrapa Gado de Leite  
Ricardo Vieira Ventura - FMVZ/USP  
Vânia Maldini Penna - CBMG<sup>2</sup>

### Breeders and/or Owners of the Animals Chosen to the Dairy Breeding Program (sires and dams, progeny testing and MOET Nucleus)

Alexandre de Medeiros Wanderley  
Allyrio Jordão de Abreu  
Aloysio de Paula Penna  
Aluizio Lindenberg Thomé  
Ana Luísa da Costa Cruz Borges  
Ana Rita Tavares de Melo  
Ana Vera Marques Palmério Cunha  
Antonio Ernesto Salvo  
Antonio Pitangui Salvo  
Ariane e Paulo Menicucci  
Aurelio da Fonseca Leal  
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Celso Borba  
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Haroldo B. Fontenelle da Silveira e outros  
Heloísa Tinoco de Paula  
Hercules Antônio Miglio do Rosário  
Hudson Armando Canabrava  
João Cruz Reis Filho  
Joel Magno dos Santos  
José Resende e José Marinho Peres  
José Sátiro da Costa e Silva  
José Transfiguração Figueirêdo  
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### **Technical Execution**

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