Foreword,

We are pleased to offer you the first edition of the English catalog with Brazilian zebuine genetics. In this catalog you find a selection of bulls of three breeds; (Gir leiteiro), Milk Zebu, Girolando (Crossbreed HF x Milk zebu) and Guzera. The genetics of these bulls can be exported to different countries abroad. Export is possible if the export requirements of the importing countries are available. Therefore, it will be important to contact CRV Lagoa before to do a demand. Some bulls, indicating in the catalog are proven bulls, the rest of the bulls are tested bulls with a high expectation. In 2008 – Dairy Program – a program for milking zebuine genetic improvement, was thrown. CRV Lagoa also innovated his breeding program by using genetic markers for the selection of reproducers. This makes that CRV Lagoa can provide excellent genetic options in the zebuine breed.

CRV Global

Established in Europe in 1874, CRV has a long history of being a prominent cattle improvement company, fully committed to adding value for farmers. At its core, CRV is a customer-focused cooperative owned by 30,000 farmers from The Netherlands and Flandres (Belgium), which has grown to become one of the leading cattle improvement companies in the world, with offices and bull barns in The Netherlands, Belgium, Australia, New Zealand, Germany, Spain, Luxembourg, South Africa, Brazil, the US and Czech Republic. Directed by the head office in Arnhem (NL), CRV is represented by many distributors around the globe and sells over 10 million doses of semen each year. Backed by 140 years of selective breeding, CRV has proven itself well, by proudly producing many great sires over the years. Sunny Boy, Delta Olympic and Delta Paramount are just a few of the most prominent names in international all of them have come from CRV.

CRV Lagoa

Strategically located in Sertãozinho, in the region of Ribeirão Preto, 350 km from São Paulo, CRV Lagoa facilities are in an area of 40 hectares, surrounded by sugar cane plantations, far from others bovines herds, which assures to reproducers natural sanitary protection. CRV Lagoa keeps an average of 130 reproducers in permanent semen collection. These animals are of various breeds for beef, dairy and both dairy and beef, representing the best in genetic value in Brazil. In its semen bank, for commercialization, CRV Lagoa holds semen of more than 400 reproducers, from about forty different breeds and varieties. In 2012, prince of Netherlands, currently King of the Netherlands with his wife Maxima were visiting CRV Lagoa, during this visit they decorate the Girolando bull Napolitano, which has produced more than 700,000 doses of semen in his life time, a world record for this breed.
How to understand this catalog

1 - Breed
- First part - Milk Zebu Gir
- Second part - Girolando
- Third part - Guzerá Leiteiro

2 - Complete name of the Bull and his genealogy

3 - Most important characteristics of the sire

4 - Indication of the icons (proven or test sires)

5 - Shows the code of the sire in CRV Lagoa, registration number in the association, date of birth, weight, breeder and owner.

6 - Genetic evaluation

**Gir Leiteiro** - Gir National Breeding Program Dairy (PNMGL) is a project executed by Embrapa Dairy Cattle in partnership with ABCGIL and ABCZ. The main objective of program is promoting gir breeding program by identification and genetic selection of bulls genetically superiors to production characteristics (milk, fat, protein, lactose and total solids), of conformation and management. The genetic evaluation presented here in the genealogies are based on data of summary ABCGIL/EMBRAPA – 2013 and ABCZ/UNESP- 2013 (identified with *).

The genetic base of milk production, considered to this evaluation, was the genetic value average of bulls’ daughters born in 2005, which value was of 214 kg. Thus, the genetic value of each valued animal were reduced 214 kg, that way the genetic value average of milk production, of animals born in 2005, was moved to 0 (zero).

Similarly, genetic value averages of fat production, protein, lactose and total solids were, respectively: 9,7; 7,0; 10,2 and 29,0 kg.

**PTA** - It is expected capacity of transmission, being a relative measure of performance waited of bulls’ daughters in relation to average of genetic herds. For example, one PTA of 500 kg to milk production means that, if the bull was used in a population with same genetic level used to evaluate it, each daughter will produce on average 500 kg per lactation over than the herd average. Considering two bulls, one with PTA of 500 kg and the other with 100 kg it hopes that, in random mating, daughters of first bulls produces 600 kg in average more than daughters of second bulls.

**Reliability** - Indicates the degree of accuracy’s characteristic in question. Is a measure of association between the genetic value provided in an animal and your real genetic value. Higher level of reliability, higher trust which should deposit in genetic value of breeder predicted.

**STA** - Is the PTA standardized of characteristics conformation and management. STA permits that characteristics are compared, even if it has been measured in different units. That way, the breeder can evaluate jointly what bull can improve, if mated with medium cows of your herd.

**Linear Evaluation** - The information about characteristics conformation and management can help the breeder to achieve an efficient herd, productive and economically. Understand what it is the expected capacity standardized (STA) is important to:
- Identify the most important characteristic
- Set a realist genetic target of each characteristic
- Select the best group of bulls for mating
- Plan the correct mating or additional for each cow
- Accumulate genetic earned through generations

<table>
<thead>
<tr>
<th>Traits on conformation and management</th>
<th>Low</th>
<th>&lt;-&gt;</th>
<th>Hight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rump height</td>
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<tr>
<td>Chest girth</td>
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<td></td>
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<tr>
<td>Body lengt</td>
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<tr>
<td>Rump lengt</td>
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<td></td>
<td></td>
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<tr>
<td>Width between Ischia</td>
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<td></td>
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<tr>
<td>Width between ileus</td>
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<td></td>
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<td>Rump angle</td>
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<tr>
<td>Hoof angle</td>
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<tr>
<td>Legs (side view)</td>
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<td></td>
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<td>Legs (rear view)</td>
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<tr>
<td>Fore udder attachment</td>
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</tr>
<tr>
<td>Rear udder height</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Udder depth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teat lengt</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Teat diameter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milking ease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperament</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lenght navel</td>
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</tr>
</tbody>
</table>
The results of PMGG have been impressive. The increasing of dairy production in primary cows, increasing in 3.657 kg in 305 days in 2000 to 4.144 km in 2010, which represents an increase of 13,3%, in dairy production.

Girolando breed has a huge acceptance in Brazil, 80% of milk production comes from Girolando animal, and they are able to keep a good level of production in different management systems and climate conditions.

Girolando breed was created aiming a formation of an ethnic group that can produce in a sustainable way in the tropical and subtropical regions. It is grounded on crossbreeding of Holstein breed (HOL) and Gir (GL), passing by through various blood degrees, or racial fractions, since $\frac{1}{4}$ HOL + $\frac{3}{8}$ GL until $\frac{7}{8}$ HOL + $\frac{1}{8}$ GL. Therefore, the direction of mating search the fixing of racial standard, in blood degree of 5/8 HOL + 3/8 GL, with objective of produce a productive cattle and standardized, that meets the needs of dairy producers. The animals arising of crossbreeding between individuals 5/8 are considered Girolando breed, the breed mentioned. For an animal receive the definitive record of PS, besides being of mating product between animals 5/8, it must have positive genetic evaluation to dairy production (PTA milk), this can achieved by own performance or by parents performance.

Is important to note, those information should be used aiming the complementarity of mating. The diversions of conformation characteristics and management on right or left side mean that, it will have genetic progress in chosen direction. For example, if a cow has long teats (above the average), the desirable is mate it with a bull which has negative STA to long teats, seeking to correct this defect in the future generation. If cow has short teats, the desirable is mate with bull which has positive STA. The same logic should be applied for the others characteristics.

**Girolando** - Girolando’s genetic breeding program (PMGG) is a Project executed in partnership with Brasilian Association of Girolando Breeders and EMBRAPA Dairy cattle. The progeny test began in 1997 and the main object of the program is promote the Girolando breeding program by identifying superiors’ individuals, the genetic multiplication on oriented way, the evaluation of several economic characteristics and promote the sustainability of dairy activity, through of bulls selection superiors genetically. The genetics evaluations showed here are based on data of summary of July/2013.

<table>
<thead>
<tr>
<th>Year of birth</th>
<th>Number of herds</th>
<th>Number of lactations</th>
<th>Milk production (kg)</th>
<th>Lactation length (days)</th>
<th>Age at first calving (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>53</td>
<td>571</td>
<td>3.531 ± 1.572</td>
<td>3.916 ± 1.884</td>
<td>293 ± 92</td>
</tr>
<tr>
<td>2002</td>
<td>55</td>
<td>584</td>
<td>3.430 ± 1.491</td>
<td>3.768 ± 1.898</td>
<td>282 ± 87</td>
</tr>
<tr>
<td>2003</td>
<td>61</td>
<td>758</td>
<td>3.378 ± 1.612</td>
<td>3.749 ± 1.909</td>
<td>293 ± 91</td>
</tr>
<tr>
<td>2004</td>
<td>62</td>
<td>735</td>
<td>3.634 ± 1.588</td>
<td>4.076 ± 1.884</td>
<td>305 ± 93</td>
</tr>
<tr>
<td>2005</td>
<td>86</td>
<td>831</td>
<td>3.726 ± 1.571</td>
<td>4.106 ± 1.941</td>
<td>303 ± 94</td>
</tr>
<tr>
<td>2006</td>
<td>94</td>
<td>1,035</td>
<td>3.666 ± 1.599</td>
<td>4.069 ± 2.062</td>
<td>292 ± 102</td>
</tr>
<tr>
<td>2007</td>
<td>102</td>
<td>1,005</td>
<td>3.901 ± 1.813</td>
<td>4.292 ± 2.322</td>
<td>300 ± 91</td>
</tr>
<tr>
<td>2008</td>
<td>113</td>
<td>1,305</td>
<td>4.331 ± 1.881</td>
<td>4.884 ± 2.535</td>
<td>316 ± 97</td>
</tr>
<tr>
<td>2009</td>
<td>131</td>
<td>1,693</td>
<td>4.461 ± 1.972</td>
<td>4.966 ± 2.585</td>
<td>327 ± 118</td>
</tr>
<tr>
<td>2010</td>
<td>203</td>
<td>2,999</td>
<td>4.600 ± 2.216</td>
<td>5.195 ± 3.042</td>
<td>306 ± 105</td>
</tr>
<tr>
<td>2011</td>
<td>253</td>
<td>3,024</td>
<td>4.819 ± 2.123</td>
<td>5.346 ± 2.684</td>
<td>307 ± 99</td>
</tr>
<tr>
<td>2012</td>
<td>192</td>
<td>812</td>
<td>4.258 ± 2.162</td>
<td>4.428 ± 2.418</td>
<td>248 ± 86</td>
</tr>
<tr>
<td>Geral</td>
<td>443</td>
<td>15.824</td>
<td>4.223 ± 1.998</td>
<td>4.670 ± 2.571</td>
<td>303 ± 101</td>
</tr>
</tbody>
</table>

*Only the lactations started till October 2012 were considered*
**Table 3 - Crossings of Girolando breed**

<table>
<thead>
<tr>
<th>SIRE</th>
<th>DAM</th>
<th>Holstein</th>
<th>7/8 (87.5%)</th>
<th>3/4 (75%)</th>
<th>5/8 or PS* (81.25%)</th>
<th>F=5/8 (68.75%)</th>
<th>1/2 (75%)</th>
<th>5/8 (62.5%)</th>
<th>1/4 (37.5%)</th>
<th>Gir (50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holstein</td>
<td>x</td>
<td>x</td>
<td>7/8 (87.5%)</td>
<td>x</td>
<td>3/4 (75%)</td>
<td>F=5/8 (68.75%)</td>
<td>1/2 (75%)</td>
<td>5/8 (62.5%)</td>
<td>1/4 (37.5%)</td>
<td>Gir (50%)</td>
</tr>
<tr>
<td>3/4</td>
<td>7/8 (87.5%)</td>
<td>13/16 (81.25%)</td>
<td>3/4 (75%)</td>
<td>x</td>
<td>5/8 (62.5%)</td>
<td>F=5/8 (68.75%)</td>
<td>1/2 (75%)</td>
<td>7/16 (43.75%)</td>
<td>5/16 (31.25%)</td>
<td></td>
</tr>
<tr>
<td>5/8 or PS*</td>
<td>13/16 (81.25%)</td>
<td>3/4 (75%)</td>
<td>F=5/8 (68.75%)</td>
<td>PS</td>
<td>F=5/8 (62.5%)</td>
<td>1/2 (75%)</td>
<td>7/16 (43.75%)</td>
<td>5/16 (31.25%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gir</td>
<td>1/2 (50%)</td>
<td>7/16 (43.75%)</td>
<td>3/8 (37.5%)</td>
<td>x</td>
<td>1/4 (25%)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

*PS: Term designed to define a product from a sire and a dam both with the breed fraction 5/8HF 3/8Gir (10HF 06GIR)

**Linear type evaluation system of Girolando breed – SALG**

The SALG aims to measure and evaluate conformation traits animals from Girolando breed, to generate highly reliable information that can be used for breeding values predictions about the bulls from the progeny test.

**Table 4 - Averages of traits of conformation from Girolando bulls’ daughters measured and evaluated by SALG.**

<table>
<thead>
<tr>
<th>Trait</th>
<th>Number of observations</th>
<th>h²±EP**</th>
<th>Average of trait</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures on body capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rump height (cm)</td>
<td>965</td>
<td>0,37 ± 0,14</td>
<td>138,7</td>
<td>6,8</td>
</tr>
<tr>
<td>Body depth (cm)</td>
<td>964</td>
<td>0,34 ± 0,15</td>
<td>71,0</td>
<td>5,6</td>
</tr>
<tr>
<td>Body length (cm)</td>
<td>967</td>
<td>0,10 ± 0,11</td>
<td>110,8</td>
<td>9,5</td>
</tr>
<tr>
<td>Chest girth (cm)</td>
<td>869</td>
<td>0,01 ± 0,07</td>
<td>186,4</td>
<td>13,9</td>
</tr>
<tr>
<td>Chest width (*)</td>
<td>822</td>
<td>-</td>
<td>3,07</td>
<td>0,64</td>
</tr>
<tr>
<td>Rump</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rump length (cm)</td>
<td>968</td>
<td>0,32 ± 0,14</td>
<td>48,0</td>
<td>3,6</td>
</tr>
<tr>
<td>Width between ischia (cm)</td>
<td>968</td>
<td>0,24 ± 0,12</td>
<td>19,2</td>
<td>2,8</td>
</tr>
<tr>
<td>Ileus height (cm)</td>
<td>741</td>
<td>-</td>
<td>135,5</td>
<td>6,1</td>
</tr>
<tr>
<td>Ischia height (cm)</td>
<td>741</td>
<td>-</td>
<td>128,3</td>
<td>5,8</td>
</tr>
<tr>
<td>Feet &amp; Legs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear legs side view(*)</td>
<td>822</td>
<td>-</td>
<td>2,93</td>
<td>0,6</td>
</tr>
<tr>
<td>Rear legs rear view(*)</td>
<td>823</td>
<td>-</td>
<td>2,84</td>
<td>0,5</td>
</tr>
<tr>
<td>Hoof angle (*)</td>
<td>823</td>
<td>-</td>
<td>2,8</td>
<td>0,6</td>
</tr>
<tr>
<td>Rear udder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear height (cm)</td>
<td>764</td>
<td>0,32 ± 0,15</td>
<td>17,4</td>
<td>3,8</td>
</tr>
<tr>
<td>Rear width (cm)</td>
<td>763</td>
<td>0,23 ± 0,13</td>
<td>10,1</td>
<td>2,9</td>
</tr>
<tr>
<td>Teat placement (*)</td>
<td>770</td>
<td>-</td>
<td>3,1</td>
<td>0,8</td>
</tr>
<tr>
<td>Fore udder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teat length (cm)</td>
<td>704</td>
<td>0,08 ± 0,10</td>
<td>5,8</td>
<td>1,7</td>
</tr>
<tr>
<td>Teat placement (*)</td>
<td>769</td>
<td>-</td>
<td>3,4</td>
<td>0,7</td>
</tr>
<tr>
<td>Ligament (*)</td>
<td>770</td>
<td>-</td>
<td>3,3</td>
<td>0,7</td>
</tr>
<tr>
<td>Mammary system</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Udder depth (cm)</td>
<td>703</td>
<td>0,09 ± 0,15</td>
<td>13,9</td>
<td>4,8</td>
</tr>
<tr>
<td>Central ligament (*)</td>
<td>768</td>
<td>-</td>
<td>3,3</td>
<td>1,7</td>
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<tr>
<td>Dairy type</td>
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<td></td>
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</tr>
<tr>
<td>Angularity (*)</td>
<td>823</td>
<td>-</td>
<td>3,4</td>
<td>0,6</td>
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<tr>
<td>Auxiliary traits</td>
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<td></td>
</tr>
<tr>
<td>Temperament (*)</td>
<td>823</td>
<td>-</td>
<td>3,6</td>
<td>0,7</td>
</tr>
<tr>
<td>Milking ease (*)</td>
<td>649</td>
<td>-</td>
<td>3,7</td>
<td>0,7</td>
</tr>
<tr>
<td>Calving ease (*)</td>
<td>608</td>
<td>-</td>
<td>2,8</td>
<td>0,6</td>
</tr>
</tbody>
</table>

*Traits evaluated by scores.
** Heritability ± Error standard.
Crossing strategies

(OPTION A)

GYR BULL

HOLSTEIN COW

GYR BULL

1/2 HOL + 1/2 GYR COW

HOLSTEIN BULL

1/4 HOL + 3/4 GYR COW

5/8 HOL + 3/8 GYR BULL

5/8 HOL + 3/8 GYR COW

PURE SYNTHETIC OF THE GIROLANDO BREED (PS)

(OPTION B)

HOLSTEIN BULL

Gyr COW

HOLSTEIN BULL

1/2 HOL + 1/2 GYR COW

5/8 HOL + 3/8 GYR BULL

3/4 HOL + 1/4 GYR COW

5/8 HOL + 3/8 GYR BULL

5/8 HOL + 3/8 GYR COW

PURE SYNTHETIC OF THE GIROLANDO BREED (PS)

(OPTION C)

HOLSTEIN BULL

GYR COW

3/4 HOL + 1/4 GYR BULL

1/2 HOL + 1/2 GYR COW

5/8 HOL + 3/8 GYR BULL

5/8 HOL + 3/8 GYR COW

PURE SYNTHETIC OF THE GIROLANDO BREED (PS)

(OPTION D)

GYR BULL

HOLSTEIN COW

GYR BULL

1/2 HOL + 1/2 GYR COW

5/8 HOL + 3/8 GYR BULL

1/2 HOL + 1/2 GYR COW

5/8 HOL + 3/8 GYR BULL

5/8 HOL + 3/8 GYR COW

PURE SYNTHETIC OF THE GIROLANDO BREED (PS)
Guzerá - National Breeding program Dairy Guzerá, is a project executed by Embrapa Dairy Cattle and CBMBC/AGCB in partnership with ABCZ. As guzerá being a double purpose breed, even MOET nucleus as many partner breeds of this dairy program, also participate PAGRC/ANCP and CEMAC Therefore many bulls are double proved. That means they get genetic particulars evaluation for dairy and for beef production. The genetic evaluation, presented in this catalogue is based on data of 2013 summary.

Milk traits

Milk production till 305 days: is the milk production collected in this period, also fat, protein, lactose’s and total solids in the lactation

SSC: Is a method used to measure the quality of milk and udder health

Traits for conformation and management:

These traits are evaluated in breeding program as his functional importance for long life, reproduction and animal production.
BONZO DE BRASÍLIA
- Positive proven bull in the PNMGL ABCGIL/EMBRAPA sire summery
- Consecrated genealogy, sun of Fantoche and brother of Calibre
- His mother, Soberana, was consecrated as global record in the category milk production of young female cows and vice champion of the Great National Champion Expomilk of 2002
- His daughters have excellent dairy strength and functional udders

PROGENY TEST ABCGIL

<table>
<thead>
<tr>
<th></th>
<th>Milk (kg)</th>
<th>Fat (kg)</th>
<th>Protein (%</th>
<th>Solids (%)</th>
<th>Nbr of daughters</th>
<th>Nbr of herds</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>2161</td>
<td>64</td>
<td>+6.2</td>
<td>+8.4</td>
<td>+10.6</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: PNMGL - ABCGIL/EMBRAPA - 2013
CÓDIGO TE DE BRASÍLIA

- Featured within the proven bulls: 13th in the overall ranking for PTA milk
- His genealogy concentrate the main selection jobs in the Dairy Gir breed
- His genetic comes from the famous herds Campo Alegre and Brasilia farms, gathered in a modern bull and with an excellent dairy biotype
- His mother was twice the great champion in the Expozebu milking competition 2002 and 2004 and has an official lactation of 10.094 kg milk
- His full sister, Felicidade, has produced 12.422 kg milk. She is mother of bull Guri, leader in third pre-selection of the Dairy Gir breeding program

Proven Bull PTA = 189,0
Proven Bull PTA = 242,3
Proven Bull PTA = 432,0

Code: 3199
Register Number: RRP 5396
Birth date: 7/7/03
Weight: 733 kg at 10 years
Owner: Leite Gir Genética e Manejo Ltda. e Outro

Source: PNMGL - ABCGIL/EMBRAPA - 2013
DELEGADO
- Featured within the positive proved bulls in the PNMGL ABCGIL/EMBRAPA, sire summary: positioned as number 20 in the 2013 ranking
- Consecrated genealogy, son of Sansão and grandson of Caju de Brasília
- His mother was consecrated as the best mature udder and National Champion in the cow category in Expomilk 2004
- Delegado was great champion in the EXPOAM/2005
- His daughters have excellent body capacity, dairy strength and excellent udders and genetic ability of his mother
- He conveys to his progeny milk production with udder support

**Hidrolise BJAS** – daughter

**Helografia** – daughter

**Recita** – mother (8.557 kg milk)

### PROGENY TEST - ABCGIL

<table>
<thead>
<tr>
<th>Source</th>
<th>Average PTA</th>
<th>Rel (%)</th>
<th>Fat Avg</th>
<th>Rel (%)</th>
<th>Protein Avg</th>
<th>Rel (%)</th>
<th>Solids Avg</th>
<th>Rel (%)</th>
<th>Milk #</th>
<th>Rel (%)</th>
<th>Herds Rel (%)</th>
<th>Daughters</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELEGADO</td>
<td>80</td>
<td>18,3</td>
<td>77</td>
<td>13,8</td>
<td>80</td>
<td>32,4</td>
<td>29</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Characteristics**
- Rump height: 1,17
- Chest girth: 1,45
- Body length: 0,99
- Rump length: 0,99
- Width between ischia: 0,55
- Width between toes: 0,29
- Rump angle: 2,00
- Hoof angle: 0,04
- Legs (side view): 1,55
- Legs (rear side): 1,18
- Front udder attachment: 1,78
- Rear udder height: 4,13
- Udder depth: 0,41
- Total height: 1,14
- Total diameter: 1,54
- Milking ease: 0,91
- Temperament: 0,37

**Length navel:**

- Source: PNMGL - ABCGIL/EMBRAPA - 2013
MARAVILHA OPALA AZ

- It's positioned within the best 32 proven bulls on milk PTA
- Parentage coefficient of 1.68%, open bloodline
- He comes from a consecrated family in milk production and good udders
- His father, grandfather and grand-grandfather are proven bulls with positive PTA's in the PNMGL ABCGIL/EMBRAPA sire summary
- His dam also descends from the proven bull Oásis Hábil, which was positioned in the top in the history of the reproductive and functional Dairy Gir
- Milk production from the family produced by extensive farming system
- Exceptional coat color to the breed Girolando

Characteristics

- Rump height
- Chest girth
- Body length
- Rump length
- Width between ischia
- Width between ileus
- Rump angle
- Hoof angle
- Legs (side view)
- Legs (rear view)
- Fore udder attachment
- Fore udder height
- Udder depth
- Teat number
- Teat diameter
- Milking ease
- Temperament
- Length navel

Source: PNMGL - ABCGIL/EMBRAPA - 2013
PARANÃ ALTO ESTIVA

- Excellent option for open genealogy for dairy Gir
- Positive proven bull in the PNMGL ABCGIL/EMBRAPA
- Paranã was crowned Grand Champion of Expozebu/2007
- Parentage coefficient of 1.74%, open bloodline
- His daughter, Amazone, is the grand champion in Uberlandia CAMARU/11, with 11.641 kg milk in the first lactation
- Excellent progeny for racial characterization, body structure and dairy strength

Amazona - daughter (5.735 kg - first lactation)

PROGENY TEST- ABCGIL

<table>
<thead>
<tr>
<th>Milk (kg)</th>
<th>Fat (kg)</th>
<th>Protein (kg)</th>
<th>Solids (kg)</th>
<th>Nbr of daughters</th>
<th>Nbr of herds</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>Rel (%)</td>
<td>PTA</td>
<td>Rel (%)</td>
<td>PTA</td>
<td>Rel (%)</td>
</tr>
<tr>
<td>+150.4</td>
<td>.80</td>
<td>+7.3</td>
<td>.76</td>
<td>+5.4</td>
<td>.80</td>
</tr>
</tbody>
</table>
| Source: PNMGL - ABCGIL/EMBRAPA - 2013

Jamnagar - mother (5.735 kg - first lactation)
**FARDO FIV F. MUTUM**

- Exceptional bull in progeny test PNMGL ABCGIL/EMBRAPA
- Consecrated genealogy, gathers Radar and Dengosa, great National Champion
- Fardo was reserved Great Champion of ExpoZebu and Megaleite (milk)
- His daughter Sacada produces over 40 kg milk/day during the dairy contest ExpoZebu 2013 and won and compete with in her lactation
- Has 6 daughters which produces more than 7000 kg milk in the first lactation and 3 more than 9,000 kg milk in her lactation
- His progenies stand out on tracks, gaining several champions at Feileite, Expozebu and Megaleite and compete with proven sires daughters in milk production and type support

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**MILK ZEBU GIR**

- **Sacada - daughter**
  - Code: 2966
  - Register Number: MUT 697
  - Birth date: 10/6/06
  - Weight: 954 kg at 5 years
  - Breeder and Owner: Leo Machado Ferreira
  - Proven Bull PTA = 868

- **Ilha - daughter (15,960 kg milk)**
- **Ilam da Zeb.**
- **Garça HP**

---

**FARDO FIV F. MUTUM**

- **SC UACAI JAGUAR**
  - Proven Bull PTA = 180,9
- **DENGOSA TE F. MUTUM**
  - 9,374 kg
- **JALAM DA ZEB.**
- **RADAR DOS POÇÕES**
  - Proven Bull PTA = 868
- **GARÇA HP**

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**Sacada - daughter (5,463 kg - first lactation - 191 days)**

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**Ilha - daughter (15,960 kg milk)**

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**Daughter group of Fardo in ExpoZebu 2011**
ABEJMMA

- Mother Valia JMMA was world champion with milk production for young cows, official lactation with 15.151 kg/milk, was several times champion during shows like Feileite
- 2nd place in the fourth pre-selection of ICT (Indice for Classification) with one of the highest scores in fertility, lidibo and temperament
- Consecrated genealogy, got benefit from the high genetic benefit of his maternal grandfather Sansão and Bem Feitor
- Bull is in progeny test, with preview results in 2020

Valia – mother (15.151 kg milk)

Adalia - maternal sister

Adalia - maternal sister

Valia – mother (15.151 kg milk)

Alia - maternal sister

Abelia - maternal sister

Edra - grandmother (7.667 kg milk - first lactation)

Proven Bull PTA = 103,1

Proven Bull PTA = 669,5

Proven Bull PTA = 355,9

Valia JMMA

Code: 3293
Register Number: JMMA 1134
Birth date: 6/7/10
Weight: 730 kg at 3 years and 1 month
Breeder: José Mário Miranda Abdo
Owner: José Mário M. Abdo e Winston F. Almeida Drummond

Proven Bull PTA = 103,1

Code: 3293
Register Number: JMMA 1134
Birth date: 6/7/10
Weight: 730 kg at 3 years and 1 month
Breeder: José Mário Miranda Abdo
Owner: José Mário M. Abdo e Winston F. Almeida Drummond

Proven Bull PTA = 669,5

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Code: 3293
Register Number: JMMA 1134
Birth date: 6/7/10
Weight: 730 kg at 3 years and 1 month
Breeder: José Mário Miranda Abdo
Owner: José Mário M. Abdo e Winston F. Almeida Drummond
ASTRO FIV CABO VERDE

- Gathers prominent genealogy, phenotype of strong dairy strength
- Son of one of the icons, Radar dos Poções, historic bull for his progeny level
- Was crowded champion in ExpoZebu, Franca, Uberlandia, Megaleite and Feileite/2010
- His mother, Dulce, attend an official expressive lactation of 10.690 kg/milk
- His own sister, Teca FIV Cabo Verde, produces 7.318 kg milk in her first lactation
- Bull is in progeny test, with preview results in 2018

Dulce - mother (10.690 kg milk)
Teca FIV Cabo Verde - sister
BIG FIV CAL

- His father is positive proven bull, icon from Brasilia farm
- His mother Juliana CAL, prominent donor, has one of the largest genetic values in Calciolândia farm
- Young bull, absolute highlight in genealogy and phenotype with very important families in his background
- Gathers dairy strength and harmony in the whole set
- Bull is in progeny test, with preview results in 2017

**Juliana - mother (10.086 kg milk)**

**Quilai - sister**

**Sapiência - sister**

**Code:** 3111  
**Register Number:** CAL 8496  
**Birth date:** 30/11/08  
**Weight:** 663 kg at 2 years and 9 months  
**Breeder:** Gabriel Donato de Antrade  
**Owner:** Alvaro Furtado de Andrade e Outros

**BIG FIV CAL**

- **CAJU DE BRASILIA**  
  Proven Bull PTA = 257.5
- **MODELO TE DE BRASILIA**  
  Proven Bull PTA = 432.0
- **GRINALDA TE DE BRASILIA**  
  8.573 kg
- **CA EVEREST**  
  Proven Bull PTA = 242.3
- **JULIANA CAL**  
  10.086 kg
- **ZOobia TRIUNFO**

**Tainá - sister**
BRAHMINE DA AGROCOPA

- Son of bull AZ (worldwide known sire with high milk production daughters
  proven bull of CRV Lagoa and Sema
- Has 5 proven bulls in his genealogy list
- Has high genetic variability
- Phenotype with spotlight for structure and aplomb’s
- Bull is in progeny test, with preview results in 2020

Sema – mother (6.813 kg milk)

Maternal sister

Code: 3302
Register Number: ACOP 70
Birth date: 10/9/70
Weight: 616 kg at 2 years and 10 months
Breeder and Owner: Agropecuária Copacabana
Com. e Partic.
MILIONÁRIO SILVÂNIA

Son of Teatro and Comenda with an lactation of 10.202 kg milk and grandson of Garbha

Comenda was crowned Grand Champion of the best udder in the ExpoZebu/2006 and the National Gir Leiteiro/2007

Excellent option as young bull with modern and consecrated pedigree

Bull is in progeny test, with preview results in 2020
PERALTA FIV KUBERA

- Gathers prominent genealogy, special strong dairy strength of his family
- Sun from Nefrita, one of the best cows of dairy gir breed
- Find in his genealogy a proven father as well as a mother in the PNMGL ABCGIL/EMBRAPA
- Gives great udders
- Bull is in progeny test, with preview results in 2014

Nefrita - mother (5.041 kg milk)

VALE OURO DE BRAS
Proven Bull PTA = 181,5

CAJU DE BRAS
Proven Bull PTA = 257,5

SALINA DE BRAS
365d 5.094 kg 4,87%G 3LM

DALTON TE PATI CAL.
Proven Bull PTA = 121,7

PERALTA FIV KUBERA

Code: 2873
Register Number: ACFG 1237
Birth date: 30/11/03
Weight: 860 kg at 7 years and 6 months
Breeder and Owner: Fazenda Terras de Kubera
RBC ARQUITETO

- Girolando 5/8 - gathers from the milk icons Celsius, Everest and Heureca his genealogy
- His dam, Talento, is a spotlight with 9,068 kg milk in her first lactation
- Crowned as champion in several shows, included Felleite 2009
- Gathers balance and strong dairy signs in its genealogy
- Bull is in progeny test, with preview results in 2016

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RBC CORISCO

RBC RADIOSA
365d 2x 10,128 kg

CEDAR-CREEK BERGWIL-ET

RBC TALENTO
1st lact. 365d 2x 9,068 kg

RBC PASSISTA
315d 6,301 kg

HEROS FLORIN DOM NATO

Code: 3669
Register Number: 1400
Birth date: 26/4/07
Weight: 918 kg at 6 years and 4 months
Breeder and Owner: Roberto António Pinto de Melo Carvalho
CURIO FIV PARAMOUNT JGVA

- Girolando ¾, absolute highlight among the bulls in progeny testing
- His dam, Patativa, was crowned as Great National Champion, with an official third lactation of 19.293 kg milk
- His father, Paramount, a Dutch millionaire (1.200.000 doses and still alive) and used worldwide
- Gathers exceptional genealogy; phenotype which shows dairy strength and excellent feet and legs
- His full sister with 11.021 kg milk/lactation, Carretilha FIV JGVA, became also Great Champion and the best udder in Fenagro 2010 and reserve champion at National Megaleite show 2012
- Bull is in progeny test, with preview results in 2017

**GIROLANDO**
**HEROS** FLORIN DOM NATO

- Girolando 5/8 (pure sintetic), son of the ranking leader in 2011
- Great National Champion in 2008, Great Champion in Fapija, Agroleite and Feileite 2009
- His dam, Evelyn, donor with 8,605 kg milk production and was champion of the adult cows in Megaleite and Feileite 2009
- Even her grandmother got still the best national udder and his grandfather is among one of the leaders for milk in the breed Girolando 5/8
- Expectation to get improved udders
- Bull is in progeny test, with preview results in 2016

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**Pedigree:**

1. **SOUTHLAND MARKER ET**
2. **FLORIN MARKER DOM NATO** Poxon Bull PTA = 125
3. **FAMOSA OLIVEIRA** 5,032 kg
4. **MAGICAL MASCOT**
   - **TE RANCINO ALFRE** Poxon Bull PTA = 130
   - **EVELYN MAGICAL DOM NATO** 365d 8,605 kg
   - **GUARANI SERTÃO**

**HEROS FLORIN DOM NATO**

- Code: 2968
- Register Number: 1245
- Birth date: 27/9/06
- Weight: 960 kg at 6 years and 10 months
- Breeder and Owner: José Donato Dias Filho

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**CRV Lagoa**

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**GIROLANDO**

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**Florin Marker Dom Nato - father**

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**Linda Heros - sister**

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**Reserve Best Young Heifer 2011**
NAPOLITANO TE TERRA VERMELHA

- Girolando ¼ - consecrated genealogy, sun of record dam Quartinha
- His dam, Quartinha, donor with 22,798 kg milk production in one lactation. She is considerate number one as ½ blood
- His father, December, a Dutch bull well known (Black Parie) with high producing cows, won several championships in progeny, inclusive 5/8 Girolando animals in MegaLeite 2010
- Featured in phenotype, good body structure, dairy strength, wide rumps, gives cows in balance
- Bull is in progeny test, with preview results in 2018

Marie 618
4.08 365d 10.730 kg 4.3% 3.4%

Red Fiver Oakland

Quartinha Terra Vermelha
365d 22,798 kg

CA Quartinha
8,740 kg

Code: 3083
Register Number: 00059
Birth Date: 14/9/08
Weight: 941 kg at 5 years
Breeder: Joaquim José da Costa Noronha
Owner: Joaquim José da Costa Noronha
Erik Carbonari
NEON DAS TRÊS PASSAGENS

- Girolando 5/8, pure synthetic
- His dam, Jandira, produces 7,447 kg milk in his 2nd lactation in 305 days and 4 generations pure synthetic
- His paternal sister, RBC Bigorna, crowned Great National Champion 2011
- Gathers prominent genealogy in balance, body structure and dairy strength
- Bull is in progeny test, with preview results in 2014
PEQUI TE TABOQUINHA

- He belongs to the leaders of the National program for the genetic improvement for milk Guzera
- Between the best evaluated cows for milk production above 150 kg milk, 37 are Pequi daughters in the Guzerá milk summary 2012
- His mother belongs to the top donors of farm Taboquinha
- His daughters are featured in judgment and dairy competitions of this breed
- His daughter Tulha, is among the top producer of donors in farm Taboquinha, being featured in the genetic evaluation of females of the breed Guzerá 2012, has for DEP milk 466.5 kg with 0.70 for reliability

### Measures of the sire (cm)

- 23
- 15.2
- 59
- 55
- 23.4
- 20
- 78
- 60
- 40
- 234
- 152
- 59

### Genetic Evaluation – Evaluation MOET/TP

| Code | DEP Milk (kg) | DEP Fat (kg) | DEP Protein (kg) | DEP Solids (kg) | Reliability | Nbr of daughters | Nbr of ½ sisters |
|------|---------------|--------------|------------------|----------------|
| 385  | 15            | 10.9         | 4.71             |                |

Source: Sumário Nacional de Touro Guzerá para Leite (EMBRAPA/CBMG/ACGB) – 2013
**SULFO TE TABOQUINHA**

- Proven bull in the National program for the genetic improvement for milk Guzerá, combines production and perfect type characterization
- Gathers genealogy in his families, the most reliable milk production of the breed
- His mother, Hungria, produces in the 1st lactation 4045 kg milk in 365 days, being one of best cows of the Taboquinha farm and has daughters with excellent milk production
- Racial characterization, body structure and dairy strength are excellent genealogy options

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**GUZERÁ LEITEIRO**

- **Code**: 3149
- **Register Number**: TABO 2333
- **Birth date**: 5/5/06
- **Weight**: 998 kg at 5 years and 3 months
- **Breeder and Owner**: Sinval Martins de Melo

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**SULFO TE TABOQUINHA**

- **Code**: 3149
- **Register Number**: TABO 2333
- **Birth date**: 5/5/06
- **Weight**: 998 kg at 5 years and 3 months
- **Breeder and Owner**: Sinval Martins de Melo

---

**Measures of the sire (cm)**

- **26**
- **160**
- **20º**
- **52**
- **236**
- **77**
- **169**
- **236**
- **160**
- **5**

**GENETICS EVALUATION – EVALUATION MOET/TP**

<table>
<thead>
<tr>
<th>DEP Milk (kg)</th>
<th>DEP Fat (kg)</th>
<th>DEP Protein (kg)</th>
<th>DEP Solids (kg)</th>
<th>Reliability</th>
<th>Nbr of ½ sisters</th>
</tr>
</thead>
<tbody>
<tr>
<td>334</td>
<td>14,4</td>
<td>9,8</td>
<td>407</td>
<td>64</td>
<td>72</td>
</tr>
</tbody>
</table>

Source: Sumário Nacional de Físcos Guzerá para Leite (EMBRAPA/CNPM/CEMGA – CGB) – 2013
CAMBUCI IBITURUNA

- Russo son and grandson of Uruçu, consecrated genealogy in the breed
- His father, proved bull increases 166 milk in DEP with 73% reliability
- His mother, Aleluia, produces in the 1st lactation 2.834 kg milk
- Young bull, excellent conformation and body structure
- Bull is in progeny test of the milk Guzerá breeding program

Measures of the sire (cm)

- 20
- 55
- 32
- 75
- 165

3 years and 8 months

URUTU
Proven Bull DEP=138

RUSSO JE #
Proven Bull DEP=166

BANQUETA JF

PERSEUS
Proven Bull DEP=247

ALELUIA FIN IBIT
2.834 Kg

BIBA 5

CAMBUCI IBITURUNA

Code: 3303
Register Number: JFPA 465
Birth date: 9/12/09
Weight: 798 Kg at 3 years and 8 months
Breeder and Owner: Paulo Roberto Menicucci e Out. Cond.

CRV Lagoa

27
Products and services of CRV Lagoa.
Efficiency and productivity for your business.