## Safeguarding of the Kladruber Horse Breed

The Kladruber horse is a robust warmblood breed with a large rectangular frame, big vivid eyes in a convex head set on a high neck. It is powerfully muscular, with strong bones and steep shoulder blades enabling the typical high-action movement of the thoracic limbs (the majestic gait is especially prominent in trot, resembling the ceremonial march of a human). These have been the typical and essential features of a gala carrossier. The Kladruber is considered to belong amongst the noble horse breeds.

The breed originated in the mid- 16<sup>th</sup> century, when the then very fashionable and popular old Spanish horses were imported to Kladruby nad Labem. The old Spanish stock was indispensable for ceremonial events at the Habsburg courts. In the 17<sup>th</sup> century, the old Italian Neapolitan horses were cross-bred with the old Spanish stock to accentuate the features of a sturdy gala carrossier, a draught horse for heavily decorated coaches (carrosses) used by the contemporary elites. The National Stud Farm in Kladruby nad Labem is the only surviving stud farm dedicated to breeding horses that were used to pull imperial coaches during courtly ceremonies.

The closest relative of the breed and the one most resembling it is the Lipizzaner, probably also originating from the old Spanish and Italian bloodline. The differences in exterior of the two, Kladruber and Lipizzaner are due to the different purposes and the environment in which the breeding took place. The Kladruber is a carriage draught horse and therefore it is taller and more robust, while the Lipizzaner, a saddle horse, has a smaller frame. In breeding of the Kladruber, the gene pool of the old Italians was more accentuated in order to reach a more massive and larger frame. The Lipizzaner on the other hand, has more of the old Spanish blood and thus a smaller and less robust frame. The Lipizzaner comes from the Lipica (today Slovenia) Stud Farm, also a former Habsburg imperial farm as was the stud farm at Kladruby nad Labem. Under the Habsburg monarchy, the two farms exchanged breeding studs to improve the features of the other breed. As a result, sire lines were established (e.g. the Kladruber studs Maestoso and Favory sired breed lines of the Lipizzaner), which then bore the sires' names. As only a limited number of horses was needed for the emperor's exclusive use, the breeding of the Kladruber did not spread to the other parts of the monarchy, as opposed to the Lipizzaner. Consequently, today's Kladruber population is also limited to mere 1800 horses (the most valuable 500 are kept in the National Stud Farm at Kladruby nad Labem). There are about 10 000 Lipizzaner worldwide, bred also on foreign soil.

The Kladruber contributed to the breeding of the Lipizzaner, the Trakehner and the Nonius, respectively. Besides the Lipizzaner, the other related breeds are those which descended from the old Spanish and Italian horse breeds, namely the Pura Raza Española (P.R.E., Spain), the Lusitanian horse (Portugal), the Friesian horse (the Netherlands), the Murgese (Italy), the Knabstrupper and Frederiksborg (both Denmark), the Orlov Trotter (Russia)

The Kladruber population is small, there are about 1800 horses worldwide, thus representing a mere 0,003% of the estimated worldwide population of horses (60 million animals). The majority of the Kladrubers are kept in the Czech Republic, several hundred are abroad, with some exceptions all of them in Europe. There are about 500 dams. Continuous and systematic breeding of the Kladruber is exclusively limited to the Czech Republic, with the key role being played by the National Stud Farm in Kladruby nad Labem, the only big stud farm keeping over 500 horses and producing 65% of the foals born yearly in the overall population.

There are also several smaller private breeders (a majority of them resides in the Czech Republic and produces a maximum of 5 foals yearly. In recent years, there have been a number of births in Poland yearly and some in Slovakia, but not on a yearly basis).

In the past, the breeding of the Kladruber was also influenced by fashion. However, in the 18<sup>th</sup> century the original multi-colour varieties were abandoned and only the grey and black population breeding has continued to this day, with an interruption in the breeding of the black population, which almost became extinct in the thirties of the 20<sup>th</sup> century and had to be regenerated.

The National Stud Farm in Kladruby nad Labem focuses on the so-called maintenance breeding, accentuating preservation of the characteristic features of the gala carrossier. As the Habsburgs were very conservative, the Kladruber breeding was not influenced by the fashionable English horses in the 19<sup>th</sup> century. Thanks to that and thanks to the clearly defined breeding goals, the Kladruber remained intact and has maintained its original baroque appearance and features of its forefathers (the old Spanish horse), which had influenced horse breeding in the larger part of Europe from the end of the middle ages to the 18<sup>th</sup> century and became extinct afterwards.

The contemporary maintenance breeding is not influenced by fashion trends and/or commercially oriented efforts focusing on breeding of the modern horse breeds for sport, i.e. accentuating the performance in a given sport discipline, putting aside the typical features and blurring the differences between the breeds, leading eventually to the extinction of the historical breeds and creation of a uniform worldwide commercial hybrid.

The National Stud Farm at Kladruby nad Labem keeps the only existing worldwide stud book of the Kladruber horse. It is a closed stud book, i.e. no other breed than a Kladruber can be used for breeding.

The National Stud Farm exports a third of its horses for sale abroad, mainly to Germany, Austria, Switzerland, Poland, Denmark, Sweden and last but not least to the Netherlands, to be used by the mounted police. The Kladrubers kept in other countries are not primarily used for breeding. The Kladruber lovers abroad purchase horses trained for different kinds of harnesses, team races, leisure and classical horsemanship. The Kladruber is very specific and its fans appreciate its unique stately exterior, the mechanics of its movement and its character.

A prominent client of the Kladruby nad Labem National Stud Farm is the Danish royal family, importing the grey horses for the ceremonial coach team since 1994. Pure grey horses are required, with the correct built, good movement mechanics and first and foremost, a well-balanced nature. The Swedish royal mounted guard musicians have used the Kladrubers as saddle horses since 2004. Grey, elegant large frame horses are required for the purpose. All horses have undergone a rigorous check evaluating their health, nature and exterior.

The long-term goals of the National Programme – while all legal requirements, international commitments, codes and standards are adhered to and pursuant to the needs of its target users - are the following:

 Preserve the existing diversity of animal genetic reserves for the present needs and future applications of research and development and economically viable programmes focused on their protection; and  Use endangered and small-number populations of indigenous animals and breeds which are historically and culturally associated with the Czech Republic for alternative and non-productive functions, in landscaping and nature conservation.

The value of animal genetic reserves is not determined only by their "productive functions" but by preserving them so that there are more options available for responding to unpredictable future events and challenges such as new extinctions and climate changes.

Working with genetic reserves is a long-term effort based on the preservation of original genes in the course of animal breeding. To make the genetic reserve protective measures efficient it is necessary to identify the trends and changes in the population by regular monitoring. The protective measures depend on the population size and development trends and they range from monitoring of the supported population in situ (mating plan) to regeneration (individual mating plans, use of cryopreserved material and embryo transfer).

The population in situ is regularly supplemented by keeping cryopreserved material and genome collections (DNA). This is the case of Kladruber breed for which 2,238 frozen sperm doses are kept. In the Kladruber breed genome collection there are 732 specimens.

Pursuant to Act 154/2000 Coll. on breeding and registration of livestock (the Breeding Act) as amended the Kladruby nad Labem National Stud Farmis recognised as the breeding establishment for Kladruber horses. As a result of it, the stud farm is responsible for keeping the Stud Books of Kladruber horses (hereinafter as the Stud Book) and breeding the Kladruber horse breed.

In this respect the key documents are the Breeding Goal, Breeding Programme and Stud Book Rules – all these documents must be approved by the Czech Ministry of Agriculture.

Pursuant to these documents the Kladruby nad Labem National Stud Farm has a Stud Book Committee in place which has nine members. (These include representatives of the National Stud Farm, private keepers of Kladruber horses, independent experts and a representative of the Czech Ministry of Agriculture.) The committee sets out the key rules for breeding, provides guidelines for breeding the population and its organisation and sets the principles for the Stud Book management and monitors whether they are met; it has the power to grant exceptions within the scope set by the Stud Book Rules, sets up the horse performance assessment committee and monitors the performance of the Breeding Programme. As part of the Stud Book management the Kladruby nad Labem National Stud Farm is involved in the following activities that have a significant impact on the entire population of Kladruber horses:

- Registration of foals
- Linear description of four year old horses (body build using a range of exterior features)
- Registration of mares into the breeding herd, selection of stallions for breeding
- Organisation of performance tests
- Consultations for development of the Mating Plan to avoid inbreeding
- Availability of studs for insemination with fresh sperm
- Registration of horses in the National Programme for the Preservation of Genetic Resources
- Promotion of the breed.

Once a year the Breeding Programme Evaluation is published which is approved by the Stud Book Committee and the Supervisory Board of the Kladruby nad Labem National stud Farm.

Twice a year (in spring and autumn) the horse selection is organised by the stud farm. There is a demonstration of horses in front of a committee the members of which are a representative of private keepers and an external expert. This committee is focused on the assessment of the offspring, proposes particular horses to participate in the performance tests and suggests which mares and stallions should be discarded from the breeding herd. The size of the Kladruber horse population has not changed much in recent years. To 31<sup>st</sup> December 2017 there were 48 studs of which 46 are registered genetic reserve and out of the total number of 535 breeding mares 350 were a registered genetic reserve. The breeding of Kladruber horses is stable; there is no immeditate risk to the population and they have not been any adverse changes in the long term trends.

In order to preserve the Kladrubers, it is not only necessary to take care of the horse breed itself, but also of the stud farm specific conditions, especially of its landscape that formed the breed. Besides that, the traditional breeding procedures must be also preserved.