

## Kabijuk Research Center in Bulgaria

Andrea Gaddini

[GADDINI A, (2019) Il Centro di Ricerca di Kabijuk in Bulgaria. *Newsletter Associazione RARE*, 59: 14-16.]

*English translation by the Author*

The "*Agricultural Research and Genetic Reserve Center*" in Kabijuk is located in Shumen, north-eastern Bulgaria, and was established in 1864 by Midhat Pasha, governor of Danube province of Ottoman Empire, to which Bulgaria belonged until the Russo-Turkish War of 1877-78.

The Center was established as an Army stud. In the year of its foundation it already housed about a thousand horses, and in 1875 it hosted twelve hundred Arabian thoroughbreds. During the Russo-Turkish War, with the withdrawal of the Ottoman army, all the animals were moved to Anatolia, and the stud remained empty.

However, the new Bulgarian state, led by Prince Alexander of Battenberg, needed horses and in 1883 a restart of the activity was attempted, with the goal to obtain three types of horses, saddle horses for the cavalry, draft horses for the army supply train and heavy-draft horses for the artillery horse teams. However, the poor quality of animals and staff failed the initiative at the end of 1887. The effort to revive the breeding farm was nevertheless successful on 1<sup>st</sup> September, 1894, with the inauguration of the center called "*Kabiuk National Stud Farm, Stallion and Stud Depot*", which also included sections dedicated to cattle, sheep, pork and poultry farming.

In 1912 the center took the name of "*Experimental State Station for Animal Husbandry and Stud Depot*", conceived as an advanced center for the supply of valuable breeders to local farmers, whereas later it was oriented to supply as a genetic center. From 1963 the Center became part of the Bulgarian Academy of Sciences, and was named after Vasil Kolarov, former Prime Minister, Minister of Foreign Affairs and Provisional President of Bulgaria, hailing from Shumen.

In 1982 Kabijuk center merged with the buffalo breeding development and implementation station, established in 1974 in Shumen, forming the "*Experimental Station for Horse and Buffalo Breeding*".

In 1991, with the downfall of the Socialist regime, the center was renamed "*State Livestock Farm for Breeding Animals*", and in 2004, with the adoption of the new livestock law, it took the name of "*Kabijuk State Farm*", establishing that the property was entirely left to the Ministry of Agriculture and Forests, and that it had to be defended from privatization and bankruptcy.

Currently (October 2018) 450 equine animals are reared in the farm, belonging to international breeds, such as Arabian horse, Thoroughbred, Shagya Arabian, Haflinger and Bulgarian breeds Pleven and East Bulgarian (*Istochnobalgarski Kon*). The latter breed was created in the Kabijuk farm, the stud book was established in 1959, and the breed is widespread throughout the country.

It is a saddle crossbreed, originating from half-breed and thoroughbred stallions on local, Arabian, and Anglo-Arabian crossbred mares.

The farm is located on the Shumen plateau, at an altitude of 194 m, 13 km north-east of the city of the same name, tenth largest population in Bulgaria. The surface is 2,832 hectares, 2,067 of which of arable land and the rest of meadow land, dry pastures and buildings. The central unit is about 2,000 hectares, with a second plot of 760 hectares in Malkata Mera, 15 km away, and with Shumen racecourse, about 40 hectares, 13 km from the central unit.

### **Other species**

In Kabijuk, **cattle** of the Bulgarian Grey Breed (*Balgarsko Sivo Govedo*) are reared, an indigenous rustic cattle, now bred in 102 farms on the Bulgarian territory. At the time of the creation of the bovine section of the center, grey cattle of the area were purchased, which were crossed among them, and later on with Simmental and Montafon bulls. Over time, average milk production per head rose from about 1,500 to 1,880 liters, with an average fat content of 4.3%. In 1929, heads of the Iskar variety were purchased and improved, having a greater aptitude for milk production, to replace the heads of Bulgarian grey, and this breeding was practiced until 1946. In this period the milk yield per lactation increased from 2,325 to 2,454 liters. At the end of 1982 a genetic improvement program was started.

Currently 120 heads are reared in Kabijuk including a breeding bull and several other young bulls. A rotation of the bulls with other herds takes place every two years. The herd has the prevailing purpose of providing breeders, therefore young animals undergo morphological selection by experts, according to a sheet of compliance with the breed standard, and only not complying animals are sent for slaughter. No semen is taken and insemination is all natural. The herd book of the breed was established in 2008, and is kept at the Institute of Animal Sciences (*Institut po Zhivotnovadin Nayki*) in Kostinbrod, on the outskirts of Sofia, by professor Yanko Gorinov.

In 2017, the Grey counted 77 bulls and 3,315 cows. The size is medium, with a withers height of 129 cm for males (140 for the Iskar variety) and 119 for females. The average weight is 560 kg for males (650 kg for Iskar) and 380 for females (440 for Iskar).

From 1955 to 1978 in Kabijuk, heads of Bulgarian Red (*Balgarsko cherveno govodo*) were bred, originated from crossbreeding of Danish Red and Angler bulls on the local Red Sadovo breed (*Cherveno sadovsko*), but since 1978 this breed was abandoned and replaced by Black Pied imported from East Germany, and is now seriously threatened with extinction, only eleven animals being registered in the herd book

In the Center also **sheep** of the local Copper Red Shumen breed (*Mednochervena shumenska ovtsa*) are reared, whose herd book was established in 1970. The breed, which in the past were bred by Merino rams, shows a triple

purpose. The average weight is 55 kg for males and 40 kg for females. The fleece is copper red, while face and limbs are black; only the rams have horns. The productive life is 8 years, with an average daily growth of 220 g and a carcass yield of 53.8%. The wool is medium, with an average fleece weight of 3 kg and a fiber diameter of 35 microns. The average milk production is 110 kg per lactation. The breed is not threatened with extinction, and in 2017 12,984 animals were recorded in 87 herds, with an increasing trend, and 778 semen doses from 2 rams were produced. In the past, Karakul and Caucasian Merino breeds, imported from the USSR and Bulgarian fine wool breed from the northeast, were bred in Kabijuk.

The **poultry** breeding began in 1899 with the import of Cochin and Brahma breeders, and later of Langshan, Plymouth Rock and others. Since 1964 the most popular breeds have been Leghorn, New Hampshire and Plymouth Rock. In Kabijuk the only existing flock of Black Shumen hen (*Cherna shumenska kokoshka*) can be found, bred as a purebred since 1928. The Black comes from local black poultry improved by crossing with the Spanish breed Menorquina. It is a laying hen that produces an average of 152 eggs per year. The population is extremely small, with 150 heads in 2017, and the trend is decreasing. In the past there was a meat Black Shumen, larger than the laying hen.

In 1934 the first herd of autochthonous **buffaloes** was established in the center, with animals purchased in Shumen area villages, which, once suitable feeding and breeding conditions were adopted, showed a sharp increase in production and fat content of milk, compared to their farms of origin. In 1936 the buffalo cow Aria, many times world champion, yielded 4,004.2 kg of milk with 8.54% in a 354 days lactation. In 1959 a new nucleus was formed in the Novi Pazar farm of Animal Breeding Institute, 20 km from Shumen, once again obtained by collecting animals from the surrounding farms. In 1962 Murrah breeders were imported into Europe for the first time, and in 1974-75, along with other Murrahs, specimens of Jafarabadi and Surti were imported from India and Nili-Ravi from Pakistan.

The crossbreeding of imported animals on the original Bulgarian buffalo led to an increase in milk production and quality and to an improvement in feed conversion and meat quality. The average production per normal lactation was 1,800-2,000 kg. The champion cow Mima of Murrah breed is remembered, who in a 207 days lactation, yielded 4,467 kg with 9.14% fat. In 1983 the same cow realized the world record of daily production with automatic milking with 35.45 kg. For decades, the company has been a supplier of buffalo bulls to the farms of the country. Currently, buffaloes are no longer reared in Kabijuk, although they are raised in the surrounding area.

The **pig** breeding began in 1899 with the purchase of Yorkshire and Berkshire heads and until 1930 animals of the German breed Deutsches Edelschwein were reared, along with the rustic Balkan Mangalitsa, that a few years later was abandoned. Work was carried out to improve Bulgarian White breed (*Balgarska*

*byala*) in the north east of the country, replaced in 1965 by Large White and now extinct. Pigs are no longer bred in Kabijuk as well.

A Nature History Complex has been created in 1986, with specimens of the most important local breeds, with a botanical garden of 47.5 hectares on Kabijuk hill and a horse museum, collecting among other things the trophies and the images of the competition-winner horses of the farm.

**Bibliographic reference:**

1. KOZHINKOV Kiril (*editor*) (1989) Kabijuk Agricultural Research Complex and Genetic Preserve – *Shoumen. Bulgarreklama, Sofia, Bulgaria.*
2. MASON Ian Lauder (1951) World Dictionary of Livestock Breeds, Types and Varieties. *Commonwealth Agricultural Bureaux, Slough, Bucks, England.*
3. PORTER Valerie (2002) *Mason's World Dictionary of Livestock Breeds, Types and Varieties. CABI Publishing, New York, USA.*

**Websites visited:**

<http://kabiuk.net/>

<http://www.fao.org/dad-is/en/>