

### KUSHUM (Kushumskaya)

The Kushum breed was developed at Pyatimarsk and Furman studs in Urals region of Kazakhstan from 1931 to 1976.

Originally, the goal was to develop, on the basis of the native Kazakh horses, a good army mount suitable for keeping in taboos all the year round. Kazakh mares were crossed with Thoroughbreds and halfbreds, as well as with trotters, to obtain larger size and to improve gaits.

To retain the Kazakhs' high adaptability to taboo management while maintaining and improving the size and action, the crossbreds were mated with Don stallions. The three-way crosses were subsequently bred inter se. As a result, a new breed was developed, characterized by high adaptability, large size and good versatile working qualities.

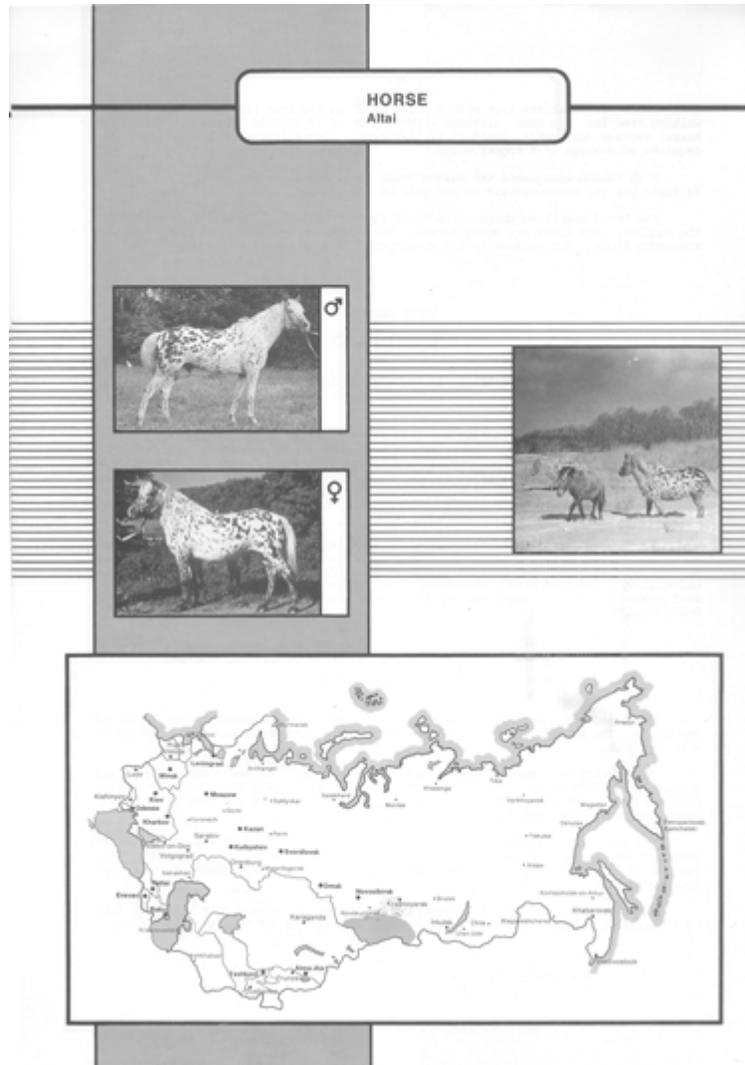
Its high adaptability to local conditions, reflected in increased weight gain in spring and autumn, renders the Kushum suitable for meat and milk production. Its large size and live weight guarantee a high yield of horse meat.

The characteristic features of the Kushum are a solid build of a saddle-harness horse type; the head is large but not coarse; the neck is average in length and fleshy; the withers are pronounced; the back is long and flat; the croup is well muscled but not long enough; the chest is broad and deep; the legs are properly set. The stallions' measurements (in cm) are: height at withers 159, oblique body length 161, chest girth 187, cannon bone girth 20.5. The live weight is 520-550 kg. The mares measure 154, 157, 182 and 19.2 respectively. The colours are bay and chestnut.

The Kushum is versatile and has high endurance. In all-day tests, the best results were 214 and 280 km. The record horse did 100 kg in 4 hr and 11 min. In 2-km harness tests at the trot with a pull of 28 kg the best time was 5 min 54 sec; walking time for the same distance with a pull of 70 kg was 16 min 44 sec. The mares' average daily milk yield is 13-14 litres. One kilogram of live weight gain requires an average of 8 fodder units.

With taboo management the Kushum shows fertility and sound health. Eighty to 84 foals per 100 mares survive to one year of age.

The breed comprises three intra-breed types, the basic, the heavily muscled and the saddler. Six lines are being formed. The breed is bred mainly at Pyatimarsk and Krasnodon studs. The outlook is for development through pure breeding.



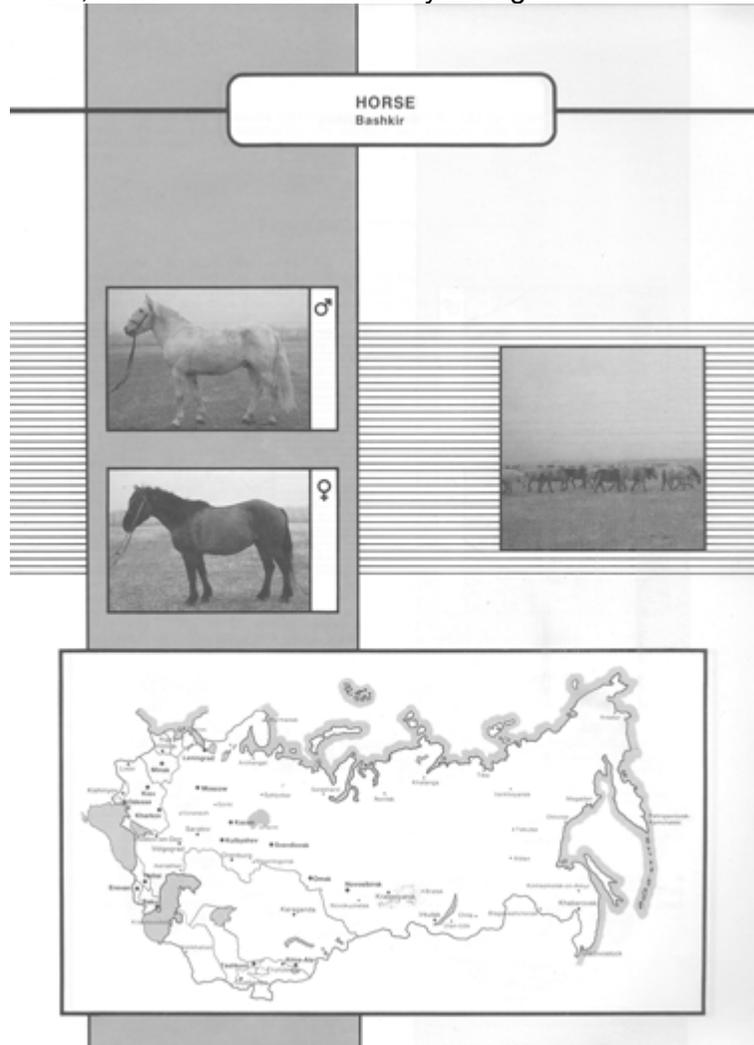
LOCAL BREEDS  
ALTAI (Altaiskaya)

The formation of the Altai lasted for a long time and was significantly influenced by the harsh continental climate and the conditions specific to the mountain taiga.

In the typical native Altai the head is average in length, large and somewhat coarse; the neck is fleshy; the back is long and slightly dipped; the croup is well developed, the legs are short and properly set. Occasional defects in conformation include sloping pasterns and bowed hocks. The average measurements (in cm) are: stallions - height at withers 140, chest girth 170, cannon bone girth 19; mares: 137, 170 and 18 respectively. The colours are chestnut, bay, black and grey, sometimes chubary spotted.

The Altai displays extremely high adaptability to year-round pasture grazing. Altai crosses with pure breeds have a good performance. They are larger, more massive and stronger than the Altai while retaining their sound health and are undemanding as regards their management. Activities are

underway to develop a new meat-producing breed by crossing the Altai with the Lithuanian, Russian and Soviet Heavy Draught.



### BASHKIR (Bashkirskaya)

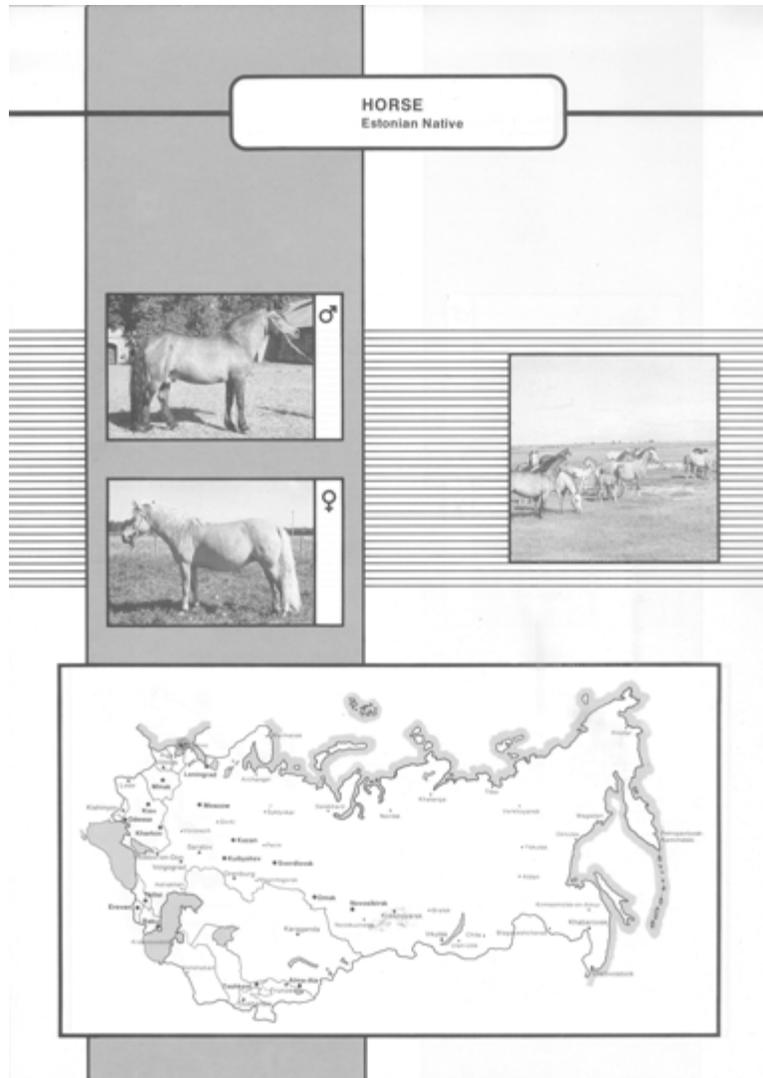
The breed was formed in the mountain and steppe zone adjacent to the Volga and the Urals. The Bashkir was used as a draught and utility horse and as a producer of milk and meat.

The Bashkir is small, wide-bodied and bony horse. It has a massive head and a short and fleshy neck. The withers are low, the back erect and board, the croup nicely rounded, the ribs long and well sprung, the chest broad and deep and the legs short and bony. The mane and tail are thick.

The average measurements (in cm) are: stallions – height at withers 143, oblique body length 144, chest girth 180, cannon bone girth 20; mares: 142, 145, 178 and 18.5 respectively. The most widespread colours are bay, chestnut, roan and mouse grey.

The Bashkir has a high work endurance. The mares' average milk yield is 1500 kg of marketable milk. The best mares produce 2700 kg in 7-8 months of lactation.

The Bashkir is being improved by pure breeding and by crossing with the Russian Heavy Draught. Experimentally, the Bashkir was crossed with Kazakh and Yakut horses. The Bashkir stock is mainly concentrated at Ufa stud, the leading centre for the breed.



### ESTONIAN NATIVE (Mestnaya estonskaya)

The Estonian Native is one of the few breeds which have retained the characteristic features of the native northern horse and were not significantly influenced by crossing with other breeds. It played an important role in the formation of the Obva (now extinct) and Vyatka breeds. The Estonian first penetrated Russia via Novgorod as early as the 14th and 15th centuries due to its good working qualities and high adaptability. As agriculture developed and demand for working horses grew, simultaneously with pure breeding the native horses were crossed with larger breeds. Reliable information on the improvement stages of the Estonian dates back to the origins of the Tori stud in 1856. The stud was engaged in pure breeding of native horses and crossing them with light harness and saddle breeds. The best crossbred mares were subsequently used to develop the Tori. The first pure breeding stage yielded good results; the purebred stallion Vansikasa, distinguished by extraordinary strength and pulling endurance, was produced. He won many prizes in tests at Paris, Riga and

Moscow exhibitions in the native horses group. His daughters were foundation mares of the Tori.

Nonetheless, as agriculture became more intensive and the road network and transportation needs developed, the Estonian Native lost the competition to the new breed and is no longer used in mainland Estonia, surviving only on the islands of Saaremaa, Hiiumaa and Muhu. The total purebred herd is 1000 head.

The modern Estonian is not large in size; the head is well proportioned, has a wide forehead and is sometimes somewhat coarse; the neck is on the short side or medium in length and fleshy; the withers are low and wide; the loin is well muscled; the croup is average in length and has a normal slope. The chest is very wide and deep; the legs are short, properly set and distinguished by firmness and cleanness. The hoofs are extremely solid.

The animal is undemanding; it has extraordinary endurance and quite good action. The fodder utilization is good. It has a willing disposition.

The average measurements (in cm) are: stallions - height at withers 142, oblique body length 147, chest girth 178, cannon bone girth 19.5; mares: 141, 149, 182 and 19 respectively. The predominant colours are chestnut, bay, light bay, dun and grey.

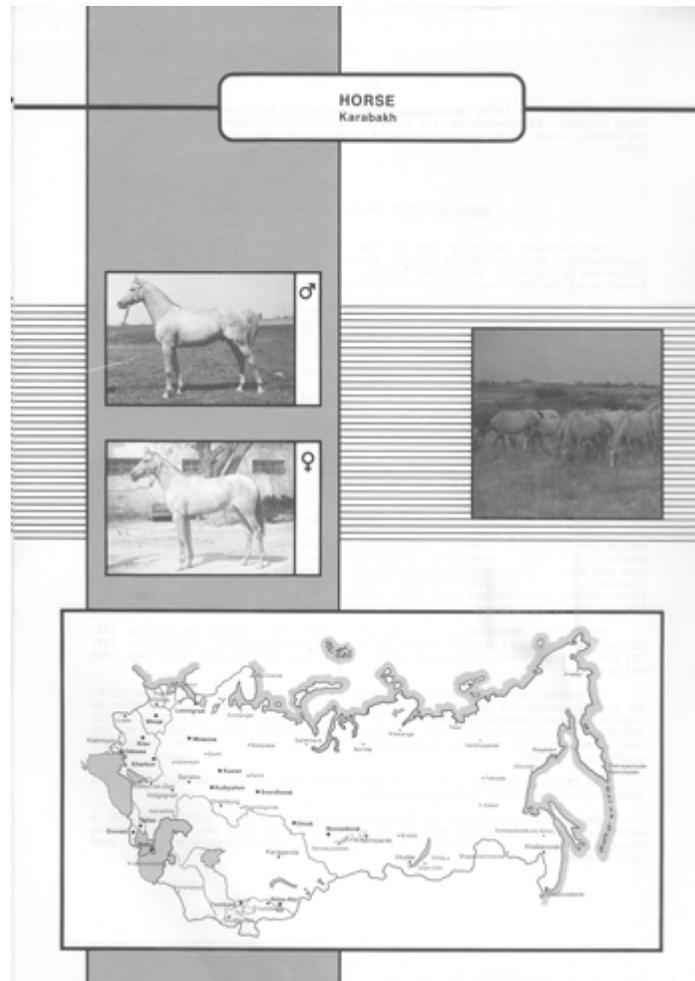
Inbreeding has become widespread due to the limited size of the breeding stock. The average inbreeding coefficient is 3.12%. Practically no inbreeding depression as regards work performance, measurements or conformation has been found, but closely inbred individuals take more time to mature. The breed's champion stallion at the USSR Exhibition of Economic Achievements in 1984, Askar, had an inbreeding coefficient of 18%.

The Estonian is long lived; the mare Tenki, born in 1946, was still alive in 1983 at Syrve state farm in Kingisepp region.

Work performance records of the Native Estonian are quite high. The 2000 m walking draught record with a pull of 150 kg is 17 min 26 sec; the 2000 m trotting draught record with a pull of 50 kg is 6 min 25 sec; draught endurance with a load of 9 tons was 208 m.

At present the local Estonian is used for light agricultural work, as a saddle horse for children and in tourism. It represents good breeding material for the production of ponies in various crosses. It is also being used to cross with disappearing Ob (Priobskaya) breed.

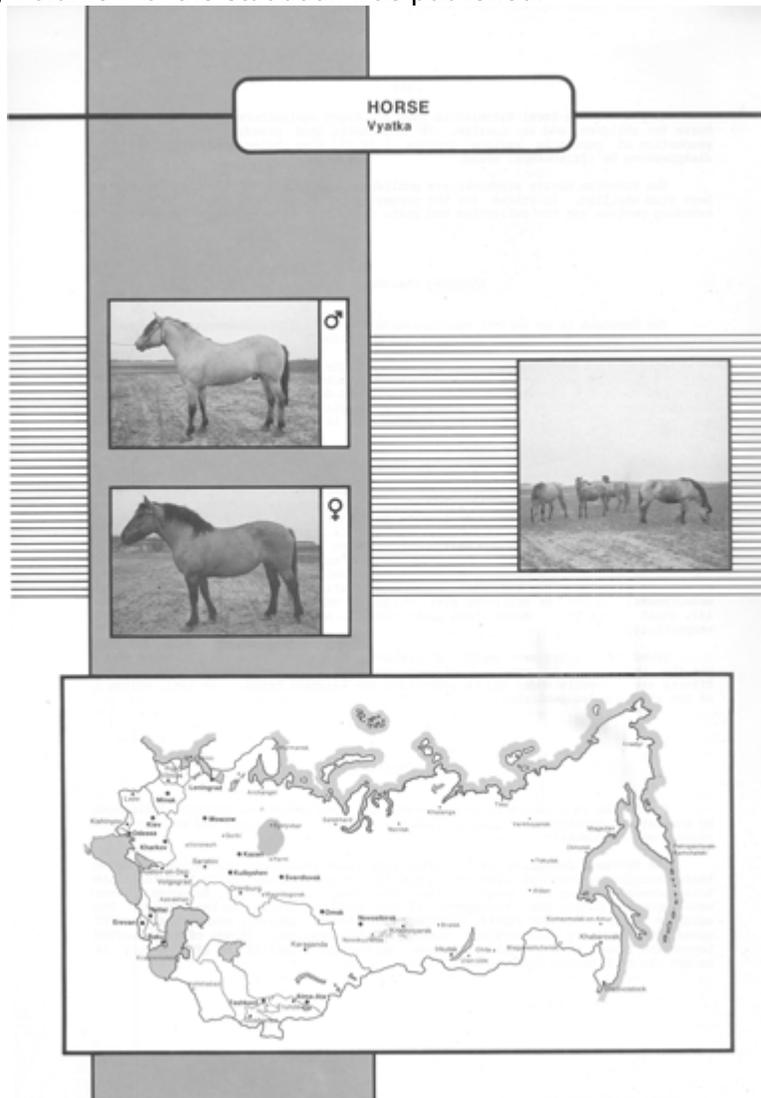
The Estonian Native studbooks are published regularly. The semen of Ampel, the best stud stallion, is stored for the preservation of the genotype. The leading breeding centres are the collective and state farms Kyarla, Kylyala and Oriesaare.



### KARABAKH (Karabakhskaya)

The Karabakh is an ancient mountain saddle breed. It was developed in Nagorny Karabakh in Azerbaijan between the Araks and Kura rivers. Prior to the 19th century the Karabakh khanate was the breeding centre of the best horses in Transcaucasia; the Karabakh had a substantial influence in improving horse breeds in the neighbouring countries. It was developed by crossing the native Azerbaijan horses with Persians, Arabs and Turkmenians. The Arabian influence was most pronounced; there are important similarities in appearance between the Karabakh and the Arabian. Long-term breeding based on taboo management in the mountains has led to the evolution of specific features in the breed. The horse is not large; its build is clean and thick-set; the muscles are well developed and the tendons are well defined. The head is small and clean cut; the profile is straight and the eyes alert. The neck is set high and average in length; the withers are average in height; the back is average in length; the loin is flat, short and wide; the croup is average in length, wide and well muscled; the chest is deep. The limbs are properly set, sometimes bowed; the hoofs are not large yet solid. The skin is thin; the hair is soft and gleaming; the hair of the forelock, mane and tail is thin. The colour is chestnut, or bay with a

characteristic golden tint. The average measurements (in cm) of stallions are: height at withers 150, oblique body length 147, chest girth 169, cannon bone girth 18.6; mares: 146, 145, 164 and 18.5 respectively. Breed numbers are very small. At present, the Karabakh is bred at Agdam stud, yet the total herd is composed of Arab Karabakh crossbreds of various grades. Efforts are currently under way to regenerate the Karabakh breed. In 1981, Volume 1 of the studbook was published.



### VYATKA (Vyatskaya)

The Vyatka is a native northern breed. Its development was strongly influenced by the natural conditions in the territories of what are now Kirov and western Perm regions and in Udmurtia. The Vyatka's formation was at different times influenced by native Estonian horses brought by Novgorod colonists in the 14th century and by edicts from the state horse breeders during the reign of Peter the Great. Subsequently, Estonian horses were imported during the development of the mining industry in the Urals. The valuable features of the Vyatka

included good draught ability, such as sufficient speed, extraordinary endurance and good fodder utilization. It was often exported beyond the limits of the Vyatka province. By the first half of the 19th century it became the best troika horse in Russia.

The Vyatka's features are a clean-cut head, a wide forehead and broad jaws. The neck is short and fleshy, often well-arched; the withers are average in size; the back is broad, long and sometimes slightly dipped at the withers; the croup is wide and on the short side; the trunk is wide and deep; the legs are short and solid and have good hoofs; the hindlegs are often sickle-hocked. The forelock, mane and tail are thick and long. A characteristic feature of the breed is its chestnut-roan or bay-roan colour with black stripe along the spine and wing-shaped patterns over the shoulders, as well as zebra stripes on the forelegs. However, the colour can also be brown, bay, chestnut or, rarely, black. The average measurements (in cm) of modern Vyatka mares are: height at withers 140, oblique body length 150, chest girth 172, and cannon bone girth 18.9. The live weight is 400 kg.

With the development of industry and transportation and with the intensification of agriculture, the numbers of the Vyatka were sharply reduced; most of the purebred mares were mated with heavy draughters and trotters. The 1980 horse breeding survey in Udmurtia and the Kirov region showed that the total number of horses classified as Vyatka was about 2000. No stud breeds the Vyatka. The breed needs protection. In the long term, the breed could become quite competitive due to the development of tourism. As draught horses, the crosses of the Vyatka and heavy draughters are quite strong, have very good fodder utilization and practically no reaction to midges and blood-sucking insects.