

ASKANIAN (Askaniiskaya)

The Askanian breed was developed during 1925-34 by M.F. Ivanov in Askania Nova which lies in the arid steppe of the Ukraine. Finewooled sheep had been raised there for more than a hundred years. The breed is based on local Merino sheep which survived World War I and the Civil War. These were small animals with thin wool of medium fineness. Most of them had small wrinkles; the conformation was good and the production low. The live weight of ewes was 40-42 kg (max. 50 kg). The average fleece weight was 4.5-4.6 kg, with a clean wool yield of 33-35%.

M.F. Ivanov set himself the task of producing, on the basis of the Askania-Nova flock, unwrinkled sheep of the Merino type with a live weight up to 60 kg, good conformation, long worsted wool of medium fineness (60s-64s quality) and high fleece weight and wool yield. The animals were to meet the environmental conditions of the Ukrainian arid steppes.

Local Merino ewes were mated to American Rambouillet rams, with selection and culling of the offspring. Meat qualities were improved by

infusing small quantities of Pre/?/coce blood. The most valuable animals were obtained among crossbreds with one-half and one-quarter of Rambouillet blood. To fix the desired type inbreeding was practised on a moderate scale.

After the Second World War the Askanian breed was re-established by pure breeding of the remaining flock and by grading up finewool ewes brought from the North Caucasus with purebred Askanian rams.

Total breed numbers declined slightly between 1964 and 1969 but purebreds increased. Since then they have remained relatively stable. In 1980 the total was 1 782 820 (90% purebreds) including 37 417 breeding rams, 10 649 other rams, and 1 193 157 ewes and yearlings.

The Askanian breed is known for its uniform type and high productivity. Sheep are large in size, have one or two wrinkles, and good mutton conformation. Withers height of ewes is 68-70 cm, oblique body length 70-72 cm, and chest girth 100-102 cm. The skeleton is sufficiently strong; there are no particular faults in the conformation. Rams are horned, and ewes are usually polled.

The live weight of ewes is 58-65 kg (max. 120 kg) and that of rams is 110-120 kg. Ram No. 77 had a live weight of 183 kg - a world record for finewool sheep. Ewes have satisfactory precocity: heavily fed 18-month-olds reach the live weight of adult ewes. The finished weight of 9-month-old lambs is 42.2 kg and the carcass weight is 18.9 kg.

The wool is white and uniform. The fleece has a blocky staple; it is of medium density. The crimp is regular and distinct. The wool is of 64s-60s quality (22-24 *m*) in ewes and 60s-58s (24-26 *m*) in rams. The staple length is 7.5-9.0 cm in ewes and 8-10 cm (max. 13) in rams. The yolk is light yellow or cream, rarely white.

Fleece weight is 6.5-8.0 kg in ewes and 16-19 kg in rams, with clean wool yield of 42-45%. In the best flocks the clean fleece weight is 3.0-3.2 kg. The maximal fleece weight of 31.7 kg was sheared from a ram at the Krasny Chaban breeding centre in the Kherson region, which is the absolute world record for all breeds.

Lamb crop is 125-130 lambs per hundred ewes lambing; in individual flocks it may reach the figure of 150.

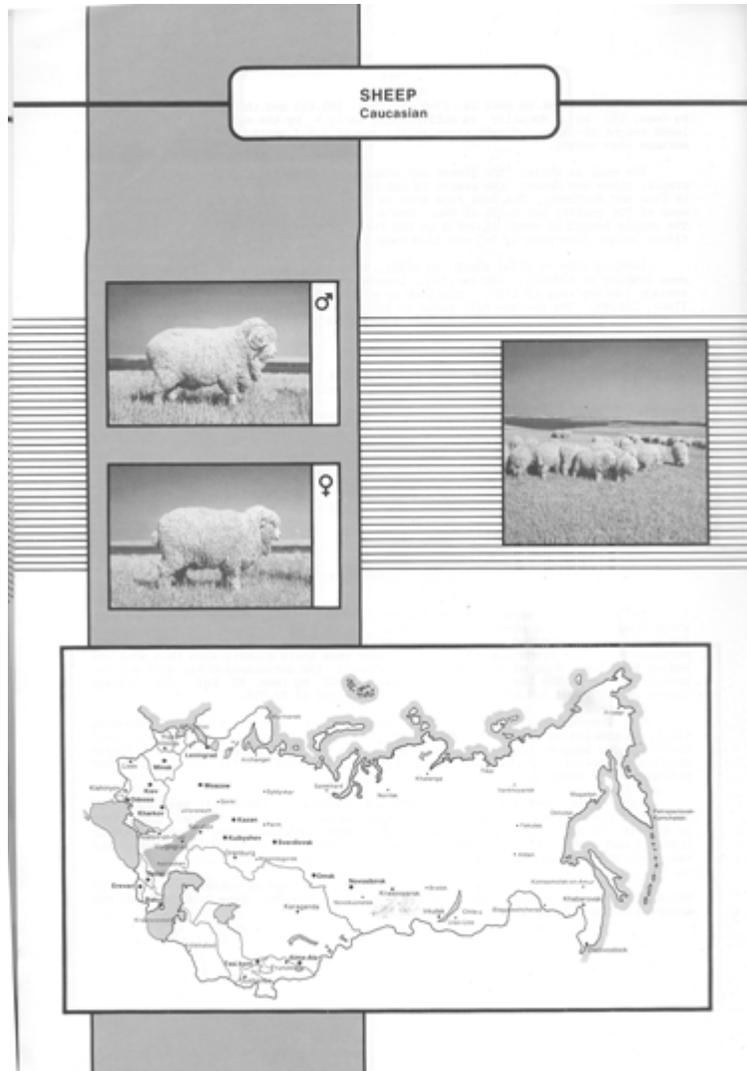
By the time the breed was approved 4 ram lines existed; later 4 new lines were produced.

The best breeding flocks of Askanian sheep are on Askania Nova and Krasny Chaban breeding centres in Kherson region and Kommunist farm in Zaporozhye region.

According to the breed regionalization plan, the breed is raised in the south of the Ukraine and is used for improving other finewooled breeds. It was used to produce such breeds as the Caucasian, Azerbaijan Mountain Merino, and Soviet Merino.

Selection work with the breed is aimed at improving wool and meat qualities, early maturity and adaptability to the conditions of intensive sheep breeding and farming.

The State Flockbook lists 4968 ewes and 200 rams.



CAUCASIAN (Kavkazskaya)

The Caucasian breed was produced between 1922 and 1936 on the Bolshevik state farm in the east of the Stavropol territory which is in an arid steppe typical of sheep raising regions of the North Caucasus. The breed is widely spread in the Stavropol and Krasnodar territories, the Volgograd, Rostov, Ulyanovsk regions and the Kalmyk ASSR. Caucasian sheep are also raised in Hungary, Czechoslovakia, Bulgaria, Romania and Poland. The breed was obtained by crossing local Merinos (Novocaucasian and Mazaev) ewes with American Rambouillet and Askanian rams. Most of the local Merinos had poor fleece density, poor conformation, a low wool yield and excessive yolk. The fleece weight was 1.5-1.6 kg and the wool yield was some 30%. The live weight of Novocaucasian rams was 61-73 kg and that of ewes 43-50 kg. Corresponding figures for Mazaev sheep were 49-65 kg and 29-48 kg respectively.

The aim was to obtain sheep with a greater live weight (55-60 kg in ewes and 100 kg in rams), with better meat conformation, and a heavier clip of long (7.5 cm or longer), strong worsted wool of 64s quality.

The breeding work consists of the following stages: from 1921 to 1926, local Merino sheep, chiefly of the Novocaucasian type, were bred and improved by inter se breeding. From 1927 to 1930, American Rambouillet rams were imported and mated to local sheep. From 1931 to 1936, sheep were bred to achieve uniformity and establish firmly the most valuable characteristics of the Rambouillet and Askanian breeds (which was used in 1935), preserving at the same time the good qualities (long and strong wool, yolk content) of the original population. At this stage rigid selection and culling were applied, sheep were artificially inseminated, and the desired breed type was developed.

Total numbers have declined slightly since 1964 but purebreds have increased two and a half times. In 1980 the total was 5 057 679 (73% purebreds) including 46 915 breeding rams, 55 374 other rams and 3 733 116 ewes and yearlings.

Today, sheep of the Caucasian breed have a strong constitution and a good conformation. They are sufficiently large although somewhat smaller than Askanian sheep but have more skin folds and better wool density. They have from one to three neck folds and numerous body wrinkles which become noticeable after shearing. Individual sheep may either have large folds or be completely without wrinkles. Rams are usually horned; ewes are polled. The body is barrel-shaped, sufficiently long; the withers are somewhat raised above the top line; the legs are strong, sometimes cow-hocked. The legs and head are densely covered with wool.

The live weight of ewes on farms of all types is 48-54 kg and on breeding farms it is 52-58 kg (max. 122 kg). The live weight of rams is 115-123 kg (max. 160 kg). The carcass weight of adult ewes is 23.5 kg and of 7-month castrates 15.2 kg with meat/bone ratios of 3.85:1 and 3.75:1 respectively. The wool is white; the fleece and staple are uniform. The fleece has a blocky staple; the outer part is dense and has a square or oblong cross-section. The crimp is regular, distinct. The wool is usually of 64s quality (20.6-23.0 *m*), the ram's wool is 60s-58s quality (24-26 *m*). The length of ewe's wool is 8.0-8.5 cm, and of rams 9-10 cm. Yolk is predominantly light cream, rarely white.

Fleece weight of ewes on farms of all types is 4.8-5.4 kg and on breeding farms 5.1-5.8 kg (max. 14.0 kg). In rams, fleece weight is 16-20 kg (max. 25.4 kg).

Ewes have high fecundity and milk yield. The average number of lambs dropped per hundred ewes lambing is 130-150. The average daily milk yield during the first 70 days of lactation is 1.5 kg with a fat content of 6.3%.

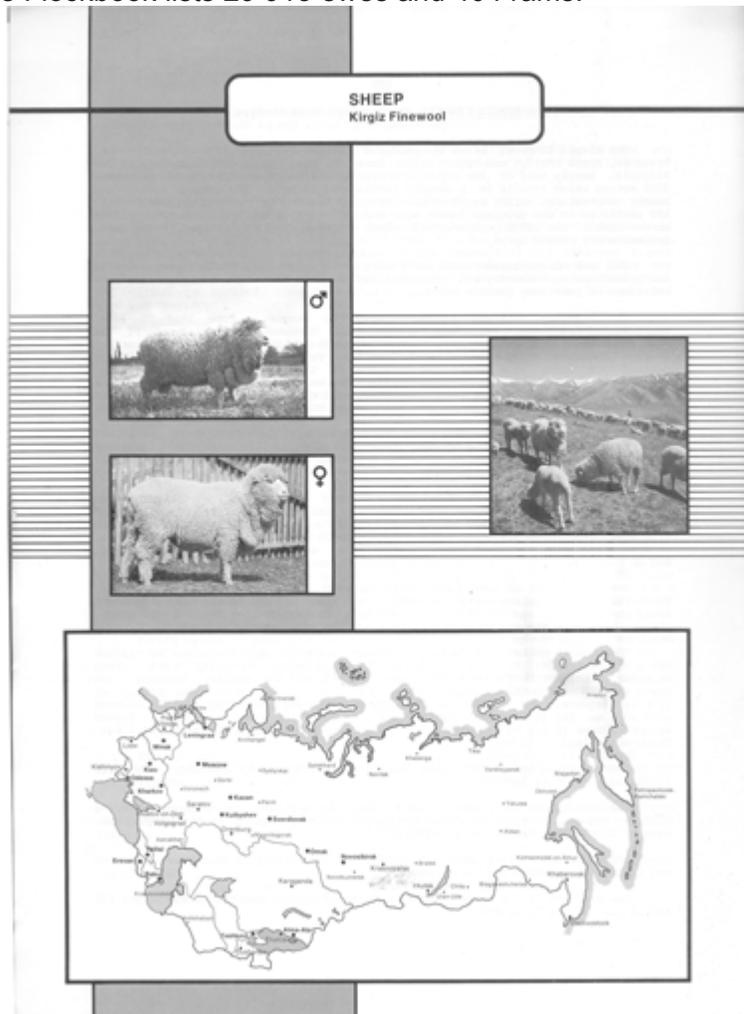
There are 6 main lines.

The best breeding flocks of Caucasian sheep are raised on Bolshevik and 60th Anniversary of the USSR breeding centres in Stavropol territory, and on Privolny state breeding centre in Volgograd region.

Caucasian sheep were used to produce such breeds as the Altai, Azerbaijan Mountain Merino, Georgian Fat-tailed Finewool, South Ural, Volgograd, and Krasnoyarsk Finewool.

The continued breeding work is aimed at increasing the wool clip and yield, improving the quality of wool and yolk and obtaining earlier maturity.

The State Flockbook lists 29 913 ewes and 404 rams.



KIRGIZ FINEWOOL (Kirgizskaya tonkorunnaya)

The Kirgiz Finewool breed was produced between 1932 and 1956 on Juan Tyube, Orgocher, Katta Taldyk and other state farms to suit the specific conditions of Kirgizia. Nearly half of the republic's territory lies at an altitude of more than 3000 metres which results in a sharply continental climate. The average winter and summer temperatures differ by 30-35 C. Kirgizia has a very variable rainfall, with 100 to 110 mm in the mountain desert zone and 800 to 1000 mm in the mountain pasture zone. Until the 1930s coarsewooled sheep of the Kirgiz fat-rumped breed were predominantly raised there.

The task of the breeders was to develop a new type of finewooled sheep suitable for transhumance husbandry and characterized by high meat and wool qualities and tolerance of year-long pasture feeding.

The breeding work was divided into three stages. From 1932 to 1940, coarsewooled fat-rumped ewes were crossed with finewooled rams, first of the Novocaucasian and Siberian Merino breeds and later with Précoce and Württemberg (Merino Landschaf) rams imported from Germany. From 1940

to 1949, sheep of the desired type, which were mainly the offspring of three generations of grading-up, were bred inter se. From 1950 to 1955, the work was aimed at improving the characteristics of the breed, particularly its wool qualities. Sheep of the desired type were mated among themselves and to rams of the Caucasian, Altai, Stavropol, Akskanian and, particularly, Grozny breeds.

Numbers, especially of purebreds, have increased steadily since 1964. In 1980 the total was 5 441 006 (99% purebred) including 51 685 breeding rams, 39 777 other rams and 3 893 895 ewes and yearlings.

Sheep of the Kirgiz breed have a strong constitution and a harmonious conformation. They have few or no skin folds; rams have 1 to 3 incomplete folds on the neck. The chest is wide and deep. The body is slightly elongated and with wide-apart legs which are of moderate length. Hoofs are tough. The colour is white; in some sheep there are light brown or brown spots on the ear-tips, around the eyes, and on the legs.

The live weight of ewes is 55-65 kg (max. 88 kg) and that of rams 100-110 kg (max. 122 kg). They are early maturing: ewes reach 85-87% of the live weight of adult sheep by the age of 18 months. In meat characters they surpass fat-rumped sheep; their carcass weight is 4-5 kg more and the meat quality is higher.

The wool is white; uniformity of fleece is good or satisfactory. The fleece has a blocky staple; it is closed and sufficiently dense. The crimp in most sheep is normal, distinct. The wool is of 64s (60-65%) and 60s quality (35-40%); the ram's wool is of 60s-58s quality. The staple length is 7.0-8.0 cm. The quality of yolk is adequate. The covering of the body is also adequate: the head is covered with wool as far as the eyes and the limbs down to the knees and hocks. Fleece weight of ewes is 4.3 kg (range 3-8.5 kg); that of rams is 12.0 (range 9.5-14.0 kg). Clean wool yield is 52-56%.

Lambing rate is 120-150 lambs dropped per hundred ewes lambing; the best flocks have a 170.6% lamb crop.

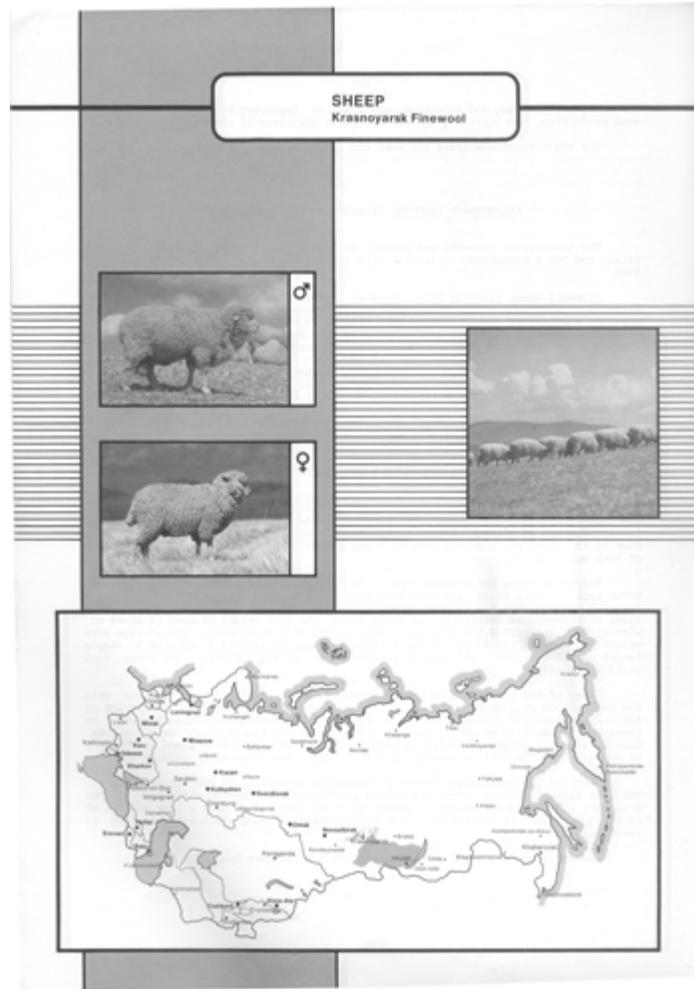
The best flocks are raised at Lushchikhin, Katta Taldyk and Kochkorka breeding centres, and at the Orgocher Sheep Breeding Experiment Station in the Kirgiz SSR. Each of these farms has 4-5 outstanding ram lines.

Strong points of this breed are hardiness, and ability to walk long distances and subsist on mountain and valley pasture.

Sheep of the Kirgiz Finewool breed are raised in most regions of the Kirgiz SSR and in part of the Tajik SSR.

Further breeding and selection are aimed at improving breed type, increasing wool production, and improving the technological qualities of the wool.

The State Flockbook lists 395 ewes and 130 rams.



KRASNOYARSK FINEWOOL (Krasnoyarskaya tonkorunnaya)

The Krasnoyarsk Finewool was formed on Moskovski, Uchumski and Askizski state farms, and Put k Kommunismu collective farm in Krasnoyarsk territory between 1926 and 1963.

Finewool sheep breeding first appeared in Krasnoyarsk territory in 1911-12 when Mazaev and Novocaucasian Merinos were brought from the North Caucasus. In 1926 American Rambouillet rams and ewes were brought in. Along with pure breeding, mass crossing of coarsewooled ewes with finewooled rams began. In 1930, several thousand Précoce sheep were imported from Germany (i.e. German Mutton Merino). Because of their better wool, further breeding was based on Précoce and Rambouillet rams of various grades with the desired productivity. Later, Askanian and Grozny rams were used to improve the wool. The problem was to obtain strong and hardy sheep capable of subsisting on pasture, with the conformation of the Précoce but with higher wool production.

Careful breeding has resulted in the emergence of a new breed designated the Krasnoyarsk Finewool. The total numbers of sheep of this breed have doubled since 1964. In 1980 they numbered 2 169 964 (80% purebreds)

including 10 934 breeding rams, 28 019 other rams and 1 590 714 ewes and yearlings.

Sheep of this breed have a strong constitution, large size and good conformation. In appearance they resemble the Précoce. Rams may have horns; ewes are usually polled. The chest is sufficiently wide and deep, the back is broad and level, the rump is wide and somewhat sloping. Thighs are full. The head is woolled down to the eye-line, and legs down to knees and hocks. Sheep have a good production of both meat and wool.

There are three intra-breed types: Uchum, Khakass, and Angara. Sheep of the Uchum type are very large and have good meat conformation. The best flocks of this type are at Uchumski breeding centre, and on Yenisei and Uzhurski breeding state farms in Krasnoyarsk territory. On these farms, the live weight of ewes is 55-60 kg, with fleece weight of 4.5-5.2 kg and staple length of 8 cm or over. The average live weight of rams is 120.9 kg and their fleece weight is 10.0-14.4 kg with a staple length of 8.8-9.6 cm. The wool is predominantly of 64s quality. The clean wool yield is 50-52%.

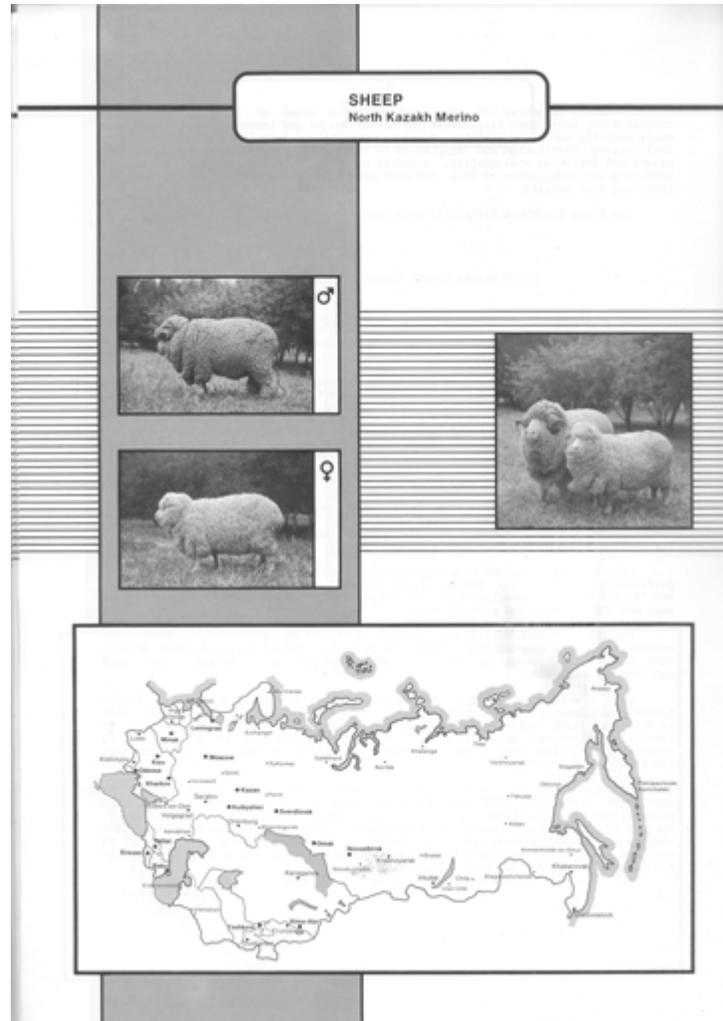
Sheep of the Khakass type have a somewhat lower live weight, more loose skin and higher wool production. The best flocks are at Moskovski breeding centre and on Askizski, Rossia and Krasnoozerny state farms of the Khakass Autonomous Region. In these flocks the live weight of ewes is 50-55 kg and the fleece weight is 5.2-6.2 kg. Rams have a live weight of 93-118 kg with fleece weight of 12.6-16.1 and wool length of 9.0-9.6 cm. The wool is chiefly of 64s quality. The clean wool yield is 48-50%.

Sheep of the Angara type are well adapted to conditions of the cis-Baikal area. The best flocks of these sheep are raised on Prevomaiski breeding state farm and on Primorsky state farm of Irkutsk region. On these farms, ewes have a live weight of 55-60 kg and rams of 100-111 kg; the fleece weight of ewes is 5-6 kg and that of rams 13-14 kg.

Lambing rate is 120-130 lambs dropped per hundred ewes lambing.

Breeding of sheep of the Uchum type is aimed at strengthening their constitution, increasing live weight and fleece weight and improving meat qualities, early maturity and wool quality. Breeding the Khakass type is aimed at preserving their strong constitution and adaptation to range conditions, at increasing fleece weight and improving wool quality. Breeding of sheep of the Angara type is aimed at enhancing the combination of wool and meat production, increasing fleece weight and improving wool quality.

The State Flockbook lists 2777 ewes and 46 rams.



NORTH KAZAKH MERINO (Severokazakhskii merinos)

North Kazakh Merinos are finewool sheep of wool-meat type. The breed was recognized in 1976. It was formed on farms in the northern and northeastern regions of Kazakhstan. This area is assigned to this breed in the Breed Regionalization Plan.

The farms of Pavlodar region used to breed finewool sheep of the Novocaucasian and Mazaev types. American Rambouillet rams were then used as improvers. The crosses were satisfactory in weight, constitution and adaptability to the local environment but in wool length and evenness they resembled their female parents. To remove the shortcomings and better the performance, Altai and Askanian rams were used and subsequently Grozny blood was added. Finally only home-bred sires were used.

Finewool sheep populations in Semipalatinsk and Kustanai regions were formed through crossbreeding of coarsewool fat-rumped ewes with rams of the Novocaucasian Merino, Rambouillet and Précoce breeds and the subsequent use of Askanian, Stavropol and the best home-bred rams. The farms of Semipalatinsk region employed Altai, Askanian and Stavropol rams

since 1962. The final stage involved rams of Beskaragaiski breeding centre of Pavlodar region which led to a great similarity in the biological and productive traits of these sheep.

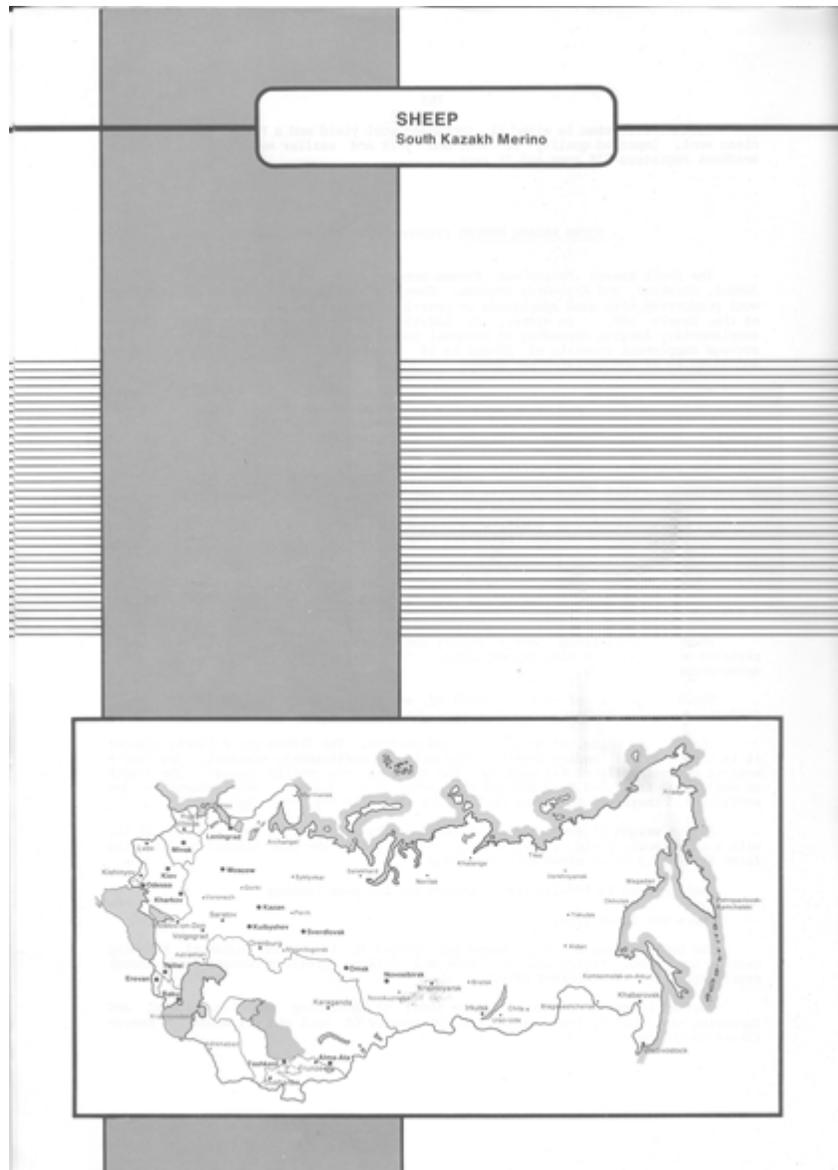
Selection has resulted in a Merino breed characterized by a comparatively high performance. On 1 January 1980 the breed numbered 1 006 300 including 19 400 rams and 733 300 ewes and yearling ewes. Purebreds amounted to 568 300 including 19 400 rams and 390 500 ewes and yearling ewes.

The North Kazakh Merino has a large body, strong constitution, harmonious conformation, good adaptability. Rams are generally horned while ewes are polled. Rams have 1-2 wrinkles on the neck and developed skin folds; ewes have medium-developed folds.

Wool is white, Merino type, 64s quality, with a fine crimp and even in staple fineness and length. Staple length is 8.0-8.5 cm. Fleece has a closed staple. Yolk is white or light cream. Productivity is fairly high. Live weight of rams is 100-110 kg while ewes weigh 55-60 kg. Fleece weight is 10-12 kg and 5.5-6.0 kg respectively. Clean wool yield is 40-43%. Fertility averages 110-120% reaching 130-140% in some flocks.

The best flocks are at Beskaragaiski breeding centre, 50th Anniversary of the USSR state farm, 22nd CPSU Congress state farm in Pavlodar region, Sulukolski breeding centre in Kustanai region and Karakol breeding state farm named after B. Abkanov in Semipalatinsk region of Kazakhstan. These animals are celebrated for their performance: average rams' live weight is 100-110 kg; ewes' weight is 60-65 kg; fleece weight is 13-15 kg for rams and 6-7 kg for ewes, with a staple length of 9.0-9.5 cm and 8.0-8.5 cm respectively.

Further selection is aimed at increased wool yield and a higher percentage of clean wool, improved quality of wool and yolk and earlier maturity. The State Herdbook registers 528 ewes and 36 rams.



SOUTH KAZAKH MERINO (Yuzhnokazakhskii merinos)

The South Kazakh Merino was formed between 1944 and 1964 at state farms in Jambul, Chimkent, and Kzyl-Orda regions. Sheep of this breed combine relatively high wool production with good adaptation to year-long ranging in semi-deserts and deserts of the Kazakh SSR. In winter, in addition to pasture forage, sheep receive supplementary feeding depending on seasonal conditions and the time of lambing. The average supplement consists of 20-200 kg of roughage, 10-150 kg of succulent feeds and 14-40 kg of concentrates per sheep.

The work aimed at transforming coarsewooled sheep into finewools began in 1932. Fat-rumped ewes were first mated to Novocaucasian and Soviet Merino rams, and then to rams of the Caucasian, Grozny and Stavropol breeds. Small numbers of Altai and Askanian rams were also used. The

objective was to improve the quality of wool and increase the clip. The breed of rams used on each farm depended on the quality of the first crosses and the specific economic conditions. Sheep of the desired type were selected among the improved crossbreeds regardless of their relationship or origin and were bred inter se. In the last stages, purebred rams of the improver breeds were mated only to crossbred ewes which diverged from the desired type. Pure breeding was accompanied by positive assortative mating in order to fix the desired characters. Thus, a Merino breed has emerged which is well-adapted to local conditions.

Numbers have increased considerably since 1964. There are now (1980) 2 562 817 in all (98% purebreds) including 42 091 breeding rams, 10 903 other rams and 1 839 919 ewes and yearlings.

Sheep of this breed have a strong constitution, a good conformation, solid skeleton and relatively high productivity. On the lower part of the neck they have apron-shaped skin folds.

The live weight of ewes is 50-55 kg, and that of rams is 100-120 kg. Meat production is satisfactory; the slaughter yield of 18-month-old wethers is 47%.

The wool is white, of Merino type and uniform. The fleece has a blocky staple; it is closed and of medium density. The crimp is sufficiently distinct. The ewe's wool is predominantly of 64s quality; the ram's is one quality coarser. The length of ewe's wool is 7.5-8.0 cm and of the ram's is 8.5-9.0 cm. Yolk content is not sufficient; therefore the outer part of the fleece is dry and dirty.

Fleece weight of ewes is 3.7-4.5 (max. 6.2 kg) and that of rams is up to 12 kg, with a clean wool yield of 50-53%. In recent years, the clip sheared on breeding farms is 2.4-2.5 kg of clean wool per sheep.

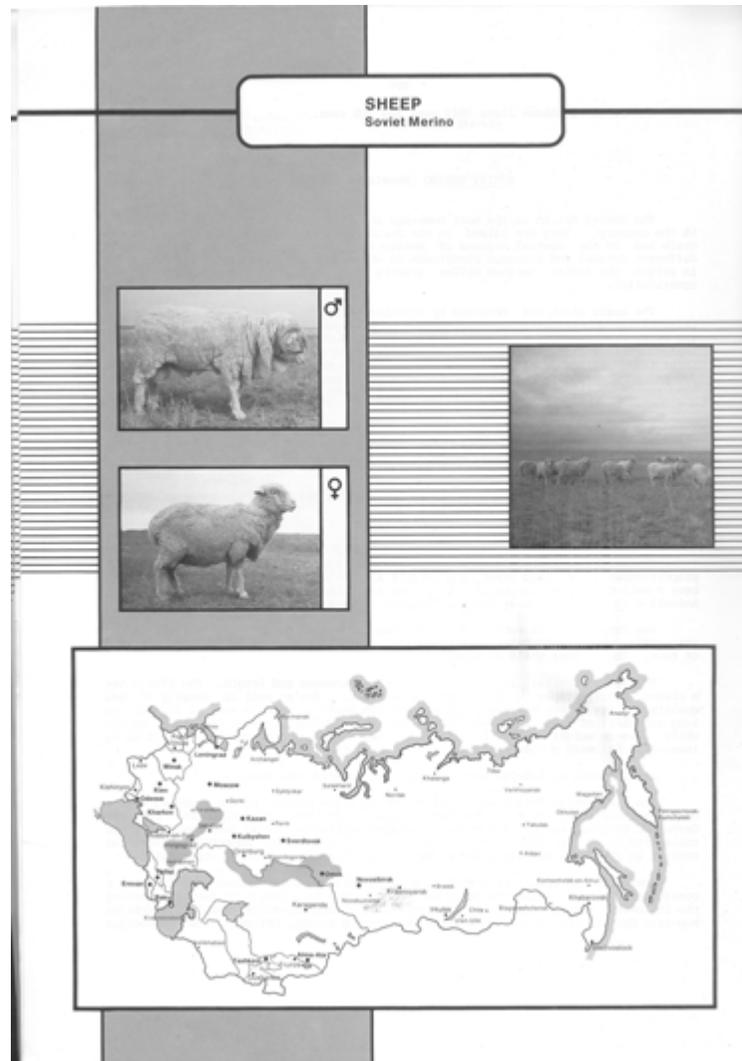
Lambing rate is 140-145 lambs dropped per 100 ewes lambing.

There are 5 ram lines.

The best flocks of this breed are raised at Lenin and Merkenski breeding centres in Jambul region and at Kuyuk and Zhdanov breeding centres and Chanak experimental farm in Chimkent region.

Further breeding and culling are aimed at increasing the clip of wool and improving its quality (increasing the uniformity of wool and eliminating coarse fibres on thighs).

The State Flockbook lists 3044 ewes and 708 rams.



SOVIET MERINO (Sovetskii merinos)

The Soviet Merino is the most numerous and widespread breed of finewooled sheep in the country. They are raised in the North Caucasus, in the Volga area and the Urals and in the central regions of Russia and Kazakhstan. Because of the many different natural and economic conditions in which they are bred and the differences in origin the Soviet Merinos differ greatly among themselves in productivity and constitution.

The basic stock was obtained by crossing local coarsewooled sheep in various parts of the country with finewooled rams of different breeds and breed groups. In the early stages (1925-30) American Rambouillet and Askanian rams were widely used to improve conformation, strengthen the constitution and increase wool production. Later (1930-46), grade Rambouillets and Australian Merinos were used, and when the Caucasian, Stavropol, Grozny, and Altai were developed rams of these breeds were also used for improving the Soviet Merino. In 1938, the finewooled sheep obtained was designated by the name Soviet Merino.

The Soviet Merino breed has a developed structure. There are varieties (North Caucasian and Siberian) and intra-breed types (wool-mutton, wool). Every type is represented by breeding centres, breeding and commercial farms. Breeding farms have various lines based on outstanding sires. The numbers of Soviet Merino sheep increased 4-fold between 1964 and 1969 since then they have declined even more sharply. The total in 1980 was 7 875 218 (69% purebreds) including 115 832 breeding rams, 189 290 other rams and 5 600 810 ewes and yearlings.

Soviet Merino sheep are known for their good conformation, strong constitution, proportionate build, good frame, and correct set of legs. Sheep of the desired type have a well-developed transverse wrinkle on the neck and well-developed body folds. Animals with cow hocks, sway backs or sloping rumps are rare.

The live weight of ewes is 45-55 kg (max. 98 kg) and that of rams is 98-124 kg (max. 147). Ewes reach mature weight at the age of three years and rams at the age of four. The carcass yield is 42-48%.

The wool is white; it is uniform in fibre fineness and length. The fleece has a closed blocky staple. The crimp is distinct. Ewe's wool is usually of 64s quality; a few sheep have wool of 60s and 70s quality. Ewe's wool is 7.5-8.5 cm long and that of rams is 8.5-9.0 cm. The yolk is light yellow or cream, rarely white. Fleece weight of ewes is 5.5-7.0 kg (max. 9.4 kg), and that of rams 11-12 kg (max. 28.4 kg) with a clean wool yield of 39.0-43.0%.

Lambing rate is 130-140 lambs dropped per hundred ewes lambing.

The best Soviet Merino flocks of mutton type are raised at the breeding centre of Kirov collective farm in the Kalmyk ASSR, and those of wool-mutton type at Gashunski breeding centre and at the breeding centres on Lenin and Zavety Ilyicha collective farms in Rostov region, at Aigurski and Krasny Budennovets breeding centres in Stavropol territory and at Maryanovski breeding centre in Omsk region.

Soviet Merino rams were widely used for grading up coarsewooled and finewool x coarsewooled ewes in different parts of the country. As a result of further crossing the following new breeds have emerged: the Trans-Baikal Finewool, Azerbaijan Mountain Merino, South Kazakh Merino, and North Kazakh Merino. The Azerbaijan Mountain Merino is not described in this monograph because it is very similar to the Soviet Merino, the Trans-Baikal Finewool and the South Kazakh Merino.

Further selection is aimed at eliminating weak points in the conformation, increasing the wool yield and improving the evenness of the fleece and staple, and the quality of yolk.

The State Flockbook lists 38 379 ewes and 2324 rams.