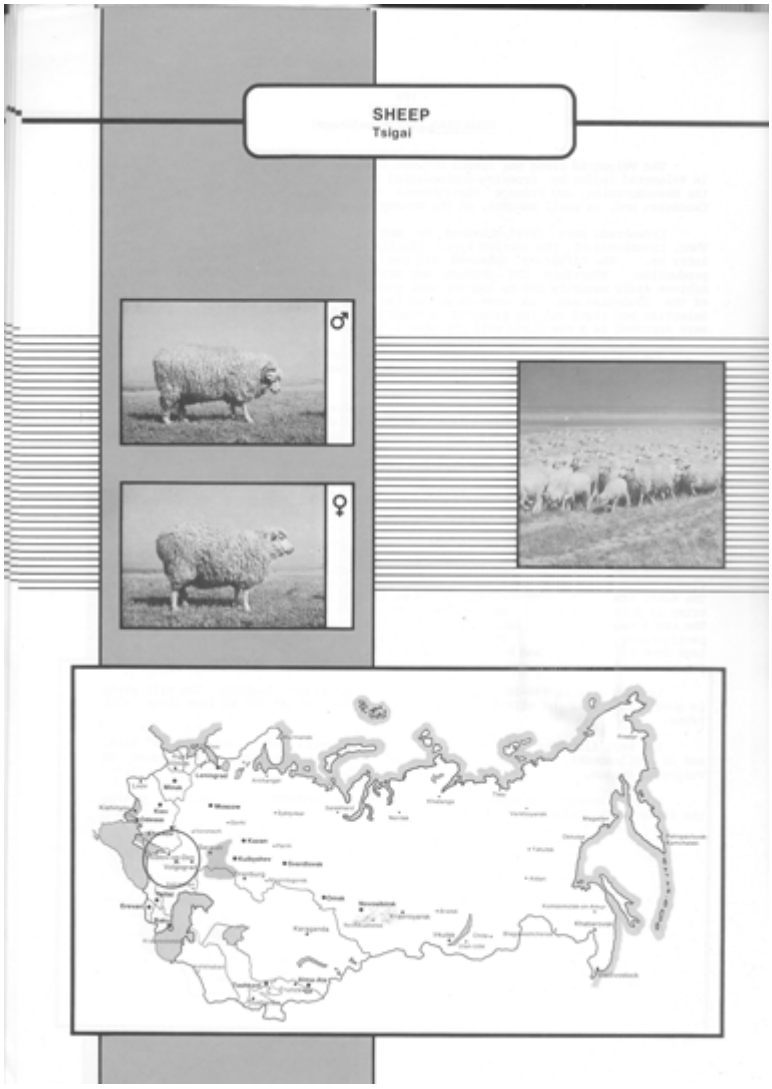


II. SEMIFINEWOOL BREEDS

1. Wool-Mutton Type

TSIGAI (Tsigaiskaya)

Tsigai sheep are widespread in many countries of the Balkan Peninsula. To Russia they were imported from Romania in 1914 by Transylvanian sheep breeders.

Tsigai sheep have a strong constitution, hardiness and low feed requirements. Thanks to these characteristics they are raised successfully in regions with varied natural conditions. According to the Breed Distribution Plan the main flocks of the Tsigai sheep are in Crimea, Saratov and Rostov regions, in Moldavia and in Kazakhstan.

Numbers increased by about one-third between 1964 and 1980. The total is now 4 149 688 (62% purebreds) including 120 344 breeding rams, 28 171 other rams and 2 922 757 ewes and yearlings.

Due to differing selection aims Tsigai sheep vary from one part of the country to another. For example, in Crimea, Saratov and Rostov regions a

wool-mutton type is bred, in Moldavia a wool-mutton-milk type and in Donetsk region of the Ukraine a mutton-wool type. However, in spite of these differences Tsigai sheep of all groups have much in common in constitution and productivity.

They have strong constitution and rugged bone. The head is clean-cut, of medium size; the rams are horned and the ewes hornless. The chest is deep, the back broad and straight; the shoulders and the rump are wide. The body stands on strong legs with tough hoofs. The face and legs are wooled the former down to the eyes, the latter up to the knees and hocks. The hair on face and legs is white.

The fleece has a tippy staple. The wool is white, uniform and elastic; the fineness grade is 56-46s and the staple length 9-10 cm.

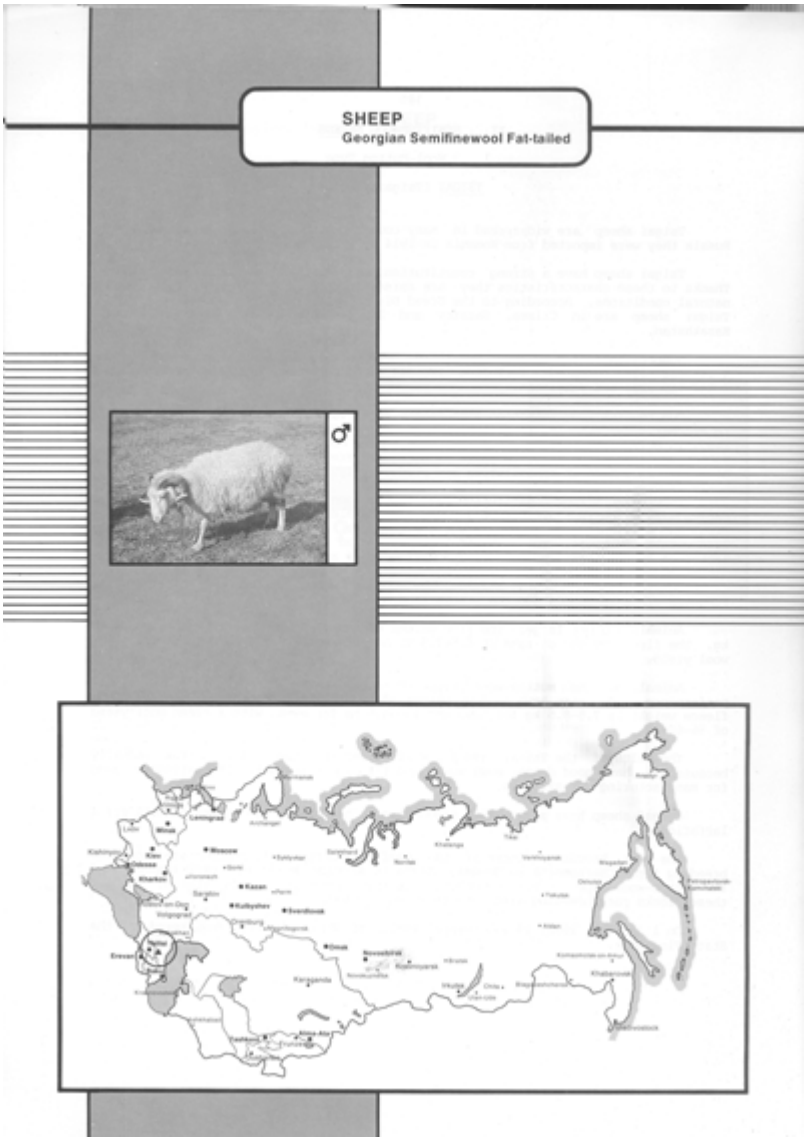
Animals are not large: the live weight of rams is 85-95 kg, that of ewes 45-50 kg. The fleece weight of rams is 6.5-7.5 kg and of ewes 3.5-4.0 kg with 56-58% clean wool yield.

Animals of the mutton-wool type (Priazov) are distinguished by a higher performance. The rams have a live weight of 100-110 kg, the ewes 55-60 kg. The fleece weight is 7.5-8.5 kg for rams and 4.0-4.5 kg for ewes, with a clean wool yield of 56-60%.

The pelts of the Tsigai sheep are of great importance for the fur industry because they have good dense even wool, and firm inner surface. The pelts are used for manufacturing fur articles.

Tsigai sheep have a high milk production - they yield 100 litres of milk for 4 lactations.

The best breeding flocks of the wool-mutton type are concentrated on the breeding farms Chernomorsk in Crimea, Algai in Saratov, Orlov in Rostov regions and the mutton-wool type in Rosa Luxemburg breeding centre in Donetsk region. In all these flocks pure breeding with line breeding is used. On 1 January 1980, 19 900 sheep, including 583 rams, were registered in the State Flockbook.



GEORGIAN SEMIFINEWOOL FAT-TAILED (Gruzinskaya polutonkorunnaya zhirnokhvostaya)

This breed was developed between 1931 and 1949 on Udabno State Farm in Sagarejo district of the Georgian SSR.

Some 80% of sheep in Georgia are raised in transhumance systems. They winter on low altitude steppe ranges and then moved to summer mountain pastures which lie at altitudes of 2000 to 3000 m. Summer ranges are sometimes 200-500 km away from winter quarters; it usually takes one or two months to travel between them.

The Tushin used to be the main breed of sheep in eastern Georgia. This breed required improvement in wool production. Attempts to grade the Tushin to recognized finewool breeds were unsuccessful. Only first generation crosses had a heavier fleece (30-50%) than Tushin sheep and

were not inferior to them in hardiness. Crosses of later generations lost the fat tail and therefore became less hardy.

Observations of local breeds, between 1931 and 1933, at the Kommunisgzit collective farm of the Tsiteli Tskaro district showed that Tushin sheep could not be improved by grading up but by crossbreeding aimed at forming a new breed.

The aim was to obtain fat-tailed sheep with uniform wool, strong, hardy and suitable for the severe conditions of transhumance husbandry where sharp seasonal fluctuations in forage supplies may occur.

Local crosses, which were available at the former Gyaurarkhski regional sheep experiment station, were chosen as foundation stock. These sheep were obtained by crossing Tushin ewes with Rambouillet and Précoce rams. In 1936 the experimental flock was transferred to Udabno state farm. The success of the operation was due to one second generation ram born in 1935. It had a well-developed fat tail and uniform, sufficiently even, semifine wool. It transmitted these characteristics to its offspring and therefore was widely used on crosses of the first and second generation (i.e. first crosses and backcrosses to the finewool ram). At the same time this ram was mated to the best Tushin ewes in order to obtain offspring free of certain weak points which were inherent in this ram, i.e. a low-slung fat tail that made it difficult for it to walk in the mountains, and coarse wool. Long-term breeding resulted in a group of sheep which met the desired standards. This group was approved as a new breed. It numbered 9633 in 1964 but only 2104 in 1980 including 59 breeding rams and 1250 ewes and yearlings.

Sheep of this breed are of medium size and white in colour. Rams are horned; ewes are polled. In conformation they are similar to the Tushin but finer boned. In major parameters, they surpass the Tushin but in lambs the differences are less distinct than in adults. In shape and size the fat tail is similar to that of the Tushin. Some have even larger tails due to larger bodies and higher live weight.

Organoleptic evaluation has shown that in terms of appearance, colour, smell, quality of meat and fat, and palatability the meat of these Georgian sheep is not inferior to that of Tushin sheep.

Georgian Semifinewools have a strong constitution, fine but strong bone and proportionate conformation. The legs are set corectly and the hoofs are hard.

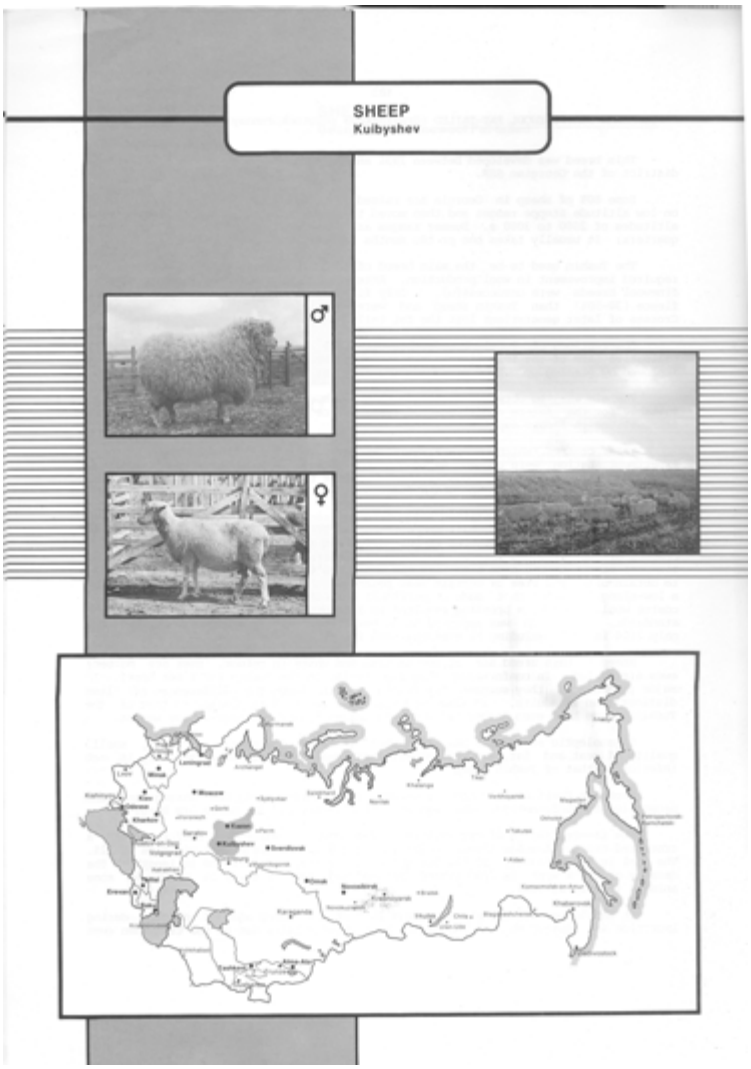
The fleece has a blocky staple. The wool is white and uniform, with a crossbred crimp. Average fleece weight is 3.2-3.5 kg and clean wool yield is 50-52%. The wool is predominantly of 50s-56s quality, strong, and 9-12 cm in length. The density of ram's wool is 2240 fibres per cm and that of ewe's is 1941; in some animals it exceeds 4000.

It should be noted that more than 70% of all sheep and 58% of ewes during lactation are subject to wool shedding. Wool chiefly falls out at the time when ewes need more nutrients. Predisposition to wool shedding is hereditary. Three factors (feeding, heredity and season) affect the coat shedding of sheep of this breed.

The average live weight of adult ewes is 48.4 kg (max. 70 kg), and that of rams is 82.0 kg (max. 125 kg). In August young wethers from the winter lambing had a live weight of 36 kg (max. 49 kg). The carcass weight of adult ewes is 20-21 kg, with more than 2 kg of tail fat.

Some 110 lambs are dropped per hundred ewes lambing. Lamb crop is 90-93% at the beginning of the year. This shows that sheep of this breed are well adapted to transhumance husbandry. They are raised on some farms in Georgia and have been exported to the Dagestan, Checheno-Ingush, North Ossetian, Kabardino-Balkar ASSRs, and to the Mongolian People's Republic where they are used for producing fat-tailed sheep with uniform wool, suitable for semi-desert conditions.

By producing this breed scientists have proved that it is possible to breed sheep which have both fat tails and uniform semifine wool. Further breeding is aimed at increasing the stock, improving productivity, and eliminating wool shedding.



2. Mutton-Wool Type

(a) Longwool type

KUIBYSHEV (Kuibyshevskaya)

This breed was produced between 1936 and 1948 on farms of Kuibyshev region by crossing Cherkassy coarsewooled and the now extinct Vagas semifinewooled ewes with Romney Marsh rams. The former have large size (live weight in autumn is up to 56 kg) and a satisfactory clip of long wool. The offsping combined the adaptability of local breeds with the high meat and wool production of the improver breed. Crossing with Romney rams continued mainly until the second generation since further grading did not increase productivity. On the contrary, it weakened the constitution and reduced viability. Crosses of the first and second generations were divided into two groups - desired and undesired. The chief criterion was uniformity of fleece. Ewes of the desired type were mated to the best second-generation rams of the desired type. Regardless of generation, sheep of the

undesired type (with semicoarse and partly with coarse wool) were again mated to purebred Romney rams.

At present the Kuibyshev breed is included in the breed regionalization plan and accordingly is raised in Kuibyshev and Ulyanovsk regions and in the Tatar and Mordovian ASSRs. The numbers of sheep of this breed have declined slightly since 1964. In 1980 there were 255 205 (52% purebreds) including 4308 breeding rams, 768 other rams and 187 666 ewes and yearlings.

In appearance and conformation sheep of the Kuibyshev breed are similar to the Romney. They have a strong constitution and a barrel-shaped and somewhat elongated body. The legs are relatively short. They have a broad head, short neck, muscular shoulders, wide and level back and loin, full and deep thighs. Both rams and ewes are hornless.

The fleece has a tippy staple. The wool is white and even, of 56s-48s quality. Staple length is 12-14 cm. Fleece weight is 6-7 kg for rams and 3.5-4.5 kg for ewes. The clean wool yield is 55-65%.

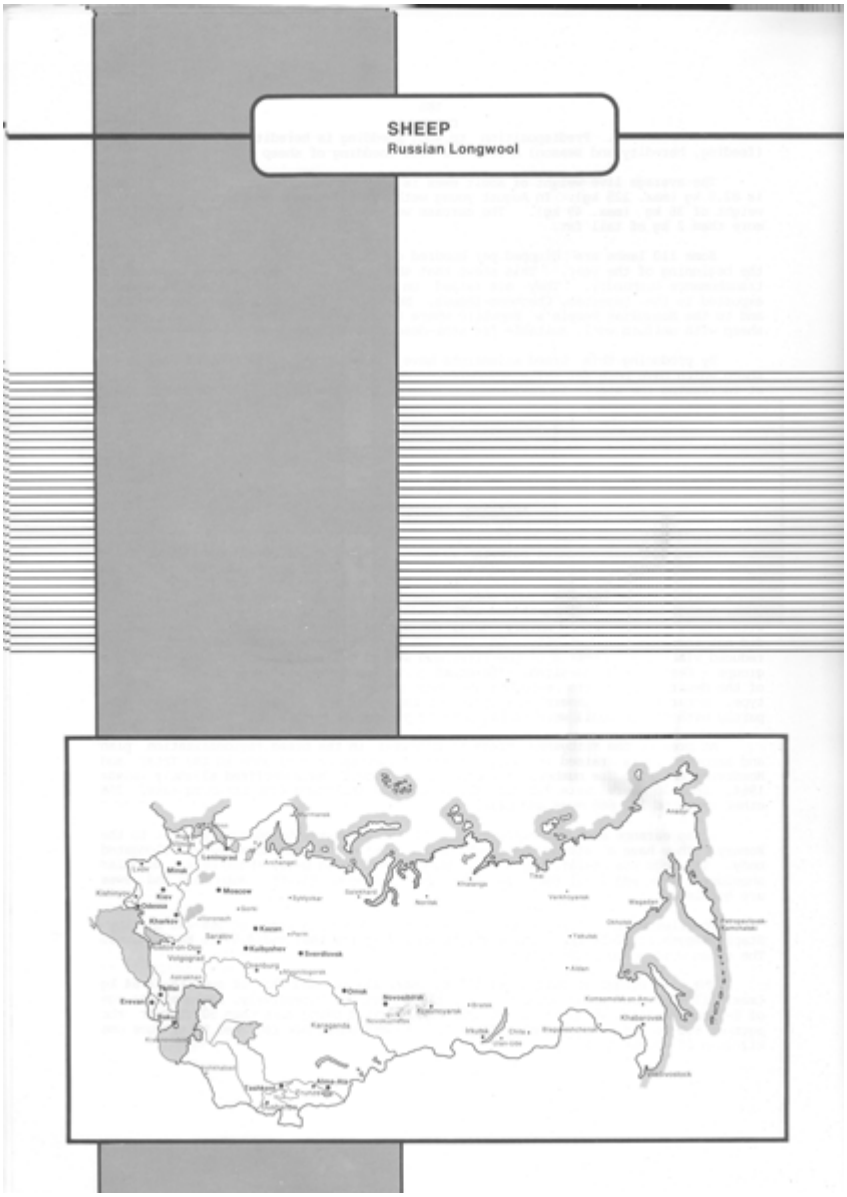
The live weight of rams is 90-110 kg (max. 164 kg) and that of ewes is 63-64 kg (max. 117 kg). Kuibyshev sheep mature early. When fed intensively, lambs at the age of 6-7 months reach 40-50 kg, with the carcass yield being more than 50%. Over the ages of 6.5 to 8.5 months, some 6.77 to 8.65 fodder units are required to produce one kilogram of weight gain.

Lamb crop is 120-130%.

In the process of breeding 8 ram lines were obtained; the last 3 were approved in 1977.

The best flock of the Kuibyshev breed is on Druzhba breeding state farm in Kuibyshev region.

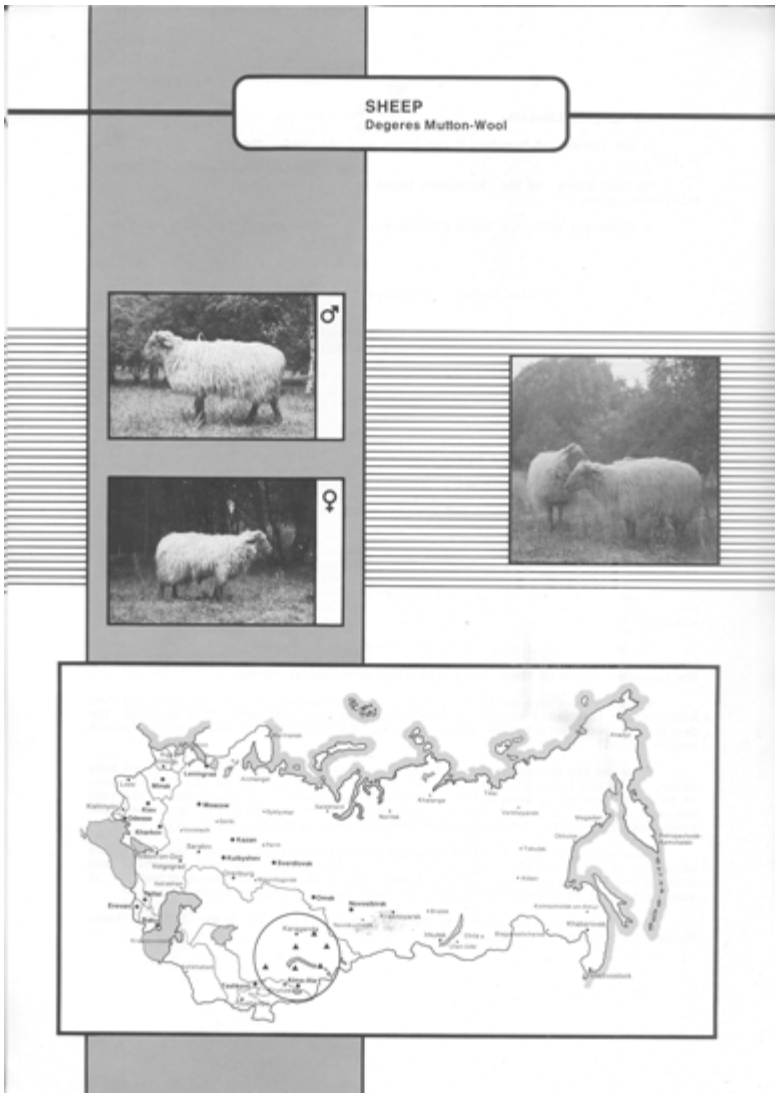
On 1 January 1980, the State Flockbook listed 820 sheep, including 70 sires.



RUSSIAN LONGWOOL (Russkaya dlinno-sherstnaya)

The breed was recognized in 1978. Within the breed there are two types: the Liski, which includes the Nizhnedevitsk, and the Kalinin.
Liski sheep were produced in Voronezh region by crossing Mikhnov coarsewooled ewes with Lincoln rams and backcrossing to the Lincoln. Then sheep of the desired type were selected and bred inter se. The breeding work began in 1936.
Sheep of the desired type are large in size; withers height is 75.2 cm in rams and 65.8 cm in ewes. The constitution is strong. The skeleton is well developed. Live weight of rams is 95-105 kg and that of ewes is 56-65 kg. These sheep have wide back and loin, somewhat sloping rump, short and thick neck, and full chest. The legs are of medium length, corectly and widely set and the hoofs are hard. Both rams and ewes are hornless. There

is a charcteristic tuft of wool on the forehead covering the eyes. The hair on the head and legs is white, with small dark spots.
Fleece weight is 6.0-6.5 kg for rams and 3.5-4.8 kg for ewes. Clean wool yield is 61-65%. The wool is white and uniform, of 44s-50s quality. Staple length is 14-16 cm. The fleece hangs in locks; some sheep have a semi-open staple.
Liski sheep mature early. with intensive feeding, young wethers can reach a live weight of 50 kg at the age of 6 months; with a carcass weight up to 24.6 kg and slaughter yield of 49.8%.
The best flocks of Liski sheep are on Kolybelski breeding state farm and on the breeding farms of Rodina, Rossia, and Dinovgorye collective farms in Voronezh region. The breeding flocks of these farms have five genealogical groups.
Kalinin sheep were obtained by crossing coarsewooled Northern Short-tailed ewes with Lincoln rams until second generation crosses were obtained. Then sheep of the desired type were selected and bred inter se. The breeding work began in the Kalinin region in 1937.
Sheep of the desired type have a strong constitution and a well-developed body frame. They are large in size: withers height of rams is 77.3 cm and that of ewes is 69.7 cm. The back, loin and rump are wide; the chest is wide and deep; the ribs are well sprung, and the head is relatively short. Both rams and ewes are predominantly polled. The hair on the legs and face is chiefly white.
Live weight of rams is 100-110 kg and that of ewes is 51-65 kg. Average fleece weight is 6.2-6.3 kg for rams and 3.3-4.2 kg for ewes. The wool is white and uniform, of 44s-50s quality. Staple length is 15-18 cm. The fleece structure is similar to that of Lincoln sheep, i.e. the wool hangs in pointed locks.
Fecundity, inherited from the Northern Short-tailed, is high: 140-150 lambs dropped per hundred ewes lambing.
The number of sheep of the Russian Longwool breed has doubled since 1964. In 1980 the total was 215 627 (83% purebreds) including 2442 breeding rams, 2691 other rams and 157 719 ewes and yearlings.
The best flock of Kalinin sheep is on Sakharovo experimental farm in Kalinin region, which has six genealogical groups.



(b) English Shortwool type
DEGERES MUTTON-WOOL (Degeresskaya myasosherstnaya)

This breed was formed in Alma-Ata region of Kazakhstan during 1931-80. Local coarsewool ewes were mated to imported Shropshire and Précoce rams. The objective was to combine high meat-fat performance with improved wool quality, while preserving good adaptability to range conditions in an extreme continental climate with temperatures reaching +45°C in summer and -44°C in winter. The annual rainfall does not exceed 135 mm; 70% of days are windy with the wind speed ranging from 2 to 4.2 metres per second.

The first experiments on mating Kazakh Fat-rumped ewes to Shropshire rams were conducted at Degeres state farm. Crosses were produced with a small rump (44.5%) or short fat tail (55.5%) and relatively even, white, bright semicoarse wool of 15-17 cm staple length.

During 1931-36 Mynbaev Experimental Farm of the Kazakh Animal Breeding Research Institute mated local coarsewool ewes to semifinewool

Shropshire x fat-rumped cross rams; subsequently Précoce blood was introduced, in the form of fat-tailed Précoce x fat-rumped crosses, to increase wool yield and quality.
Later (1944-55) Oktyabrski state farm in Taldy-Kurgan region, started the formation of fat-rumped sheep with even, semifinewool and this was continued, since 1965, on Bakanasski state farm in Alma-Ata region. Précoce x fat-rumped ewes and Degeres rams bred on Mynbaev Experimental Farm were used.
Many years of work have resulted in a semifinewool breed with good meat-fat traits.
In 1980 the breed numbered 123 800 including 3100 breeding rams and 91 600 ewes and yearlings. The Degeres is bred in southern and southeastern regions of Kazakhstan where local coarsewool fat-rumped sheep are raised.
Degeres sheep have a large, broad and compact body. They are usually polled but some have scurs and a few are horned. The head is of medium size with a slightly Roman nose. The neck is short and muscular. The chest is deep and the sacrum is broad. The skeleton is strong. The rump is of medium size and raised; some rams have a slightly pendant rump. The weight of the rump is 2-3 kg in ewes and 4-6 kg in rams.
Body measurements are a bit less than those of Edilbaev sheep. Average withers height is 77.5 cm (rams) and 70.9 cm (ewes); oblique body length is 80.2 cm and 75.1 cm respectively; chest depth is 40.2 cm and 35.7 cm; chest width is 24.9 and 21.0 cm; chest girth is 100.7 and 99.6 cm.
Fleece is tippy. Wool is white, even, bright. Wool of newborns is generally brown or tan but it becomes white by the time of weaning. Hair coat on the head and legs does not change its colour. Wool is of 48s and 50s quality (70%). Staple length is 12-17 cm (rams) and 9-14 cm (ewes). Fleece weight is 6.5-7.8 kg (11 kg maximum) for rams and 2.5-4.9 kg (7.5 kg maximum) for ewes, with clean wool yield of 58-62%.
The live weight of rams is 101-110 kg (138 kg maximum) and ewes weigh 58-66 kg (102 kg maximum); 4-4.5-month-old lambs weigh 30-35 kg, reaching 35-40 kg in favourable years. At this age the daily live-weight gain is 256-280 g in males and 225-250 g in females. Seven-eight-month-old lambs consume 7.8-8.1 feed units per kilogram of gain. The live weight of 18-month-old replacement rams reaches 76 kg or 89% of the adult live weight. Growth is over by 2.5 years of age. The carcass dressed weight is 18.0-20.3 kg (4-4.5-month-old lambs) and 35 kg (adult castrated rams); yield of rump and internal fat ranges from 4.1 to 9.8 kg; meat yield is 51-59%.
Fertility ranges between 102 and 120%. Barren ewes make up 5-6%. Young stock has good viability, mortality rate being 3.5%. The average milk yield during lactation is 96.5 kg with a range of 73.5-132.6 kg. Ewes rearing twins produce 46.5% more milk than ewes rearing singles.
There are 5 lines of rams in the breed. No. 6027 - animals typical as regards conformation, size and shape of the rump and wool yield; No. 7424 - conformation closer to that of local fat-rumped sheep, animals lively, strong, rump slightly lowered; No. 91184 - meat productivity well marked; No. 9035 - wool very thick of 48s quality, 19 cm or more long; No. 36364 - animals celebrated for compact conformation, rather wide and deep chest and well-marked meat traits.

The best sheep are kept on Bakanasski breeding state farm, Mynbaev Experimental Farm and Zhamshinski state farm (Jezkazgan region).