

### SEMIRECHENSK (Semirechenskaya)

The breed was developed specially for raising in the climate of southeast Kazakhstan where summer temperatures may go as high as 48° C; night and day temperatures fluctuate from 48° to 5° ; winter temperatures drop to almost -50° and the snowfall is minimal.

It was generated as a result of mating crosses (Large White x wild boar) with the Kemerovo breed and subsequent inter se breeding of the best specimens having 3/4, 7/8 or 15/16 of Large White blood, and continued interbreeding during 4-5 generations. The breed was developed under the direction of the Institute of Experimental Biology of the Kazakhstan Academy of Sciences. It was first called the Kazakh Hybrid.

The Semirechensk was recognized in 1978. It numbered 4000 in 1969, 27 000 in 1974 and 67 000 in 1980 including 43 000 purebreds, of which 1200 were breeding boars, 5900 breeding sows and 4300 sows on test.

The Semirechensk animals have a head with straight face, small erect ears, moderately long body, deep chest, straight and wide back and strong legs. The colour is white; however reddish, dark brown and black-pied offspring may sometimes occur.

The 1983 evaluation produced the following results: live weight of 36-month-old boars - 275 kg, body length - 169 cm, sow live weight - 222 kg, body length - 155 cm, litter size - 10.5, weight of month-old litter - 48 kg, weight of two-month-old litter - 159 kg.

In 1983 the breed's champion was the sow Gornaya 64 owned by Buruldaiski state breeding farm in Chimkent region of Kazakhstan. It gave the following results: live weight at 28 months - 260 kg, body length - 160 cm, litter size - 12.3, weight of one-month-old litter - 62 kg. Its offspring gave the following results in the performance test: average daily gain - 681 g, feed/kg gain - 4.0 fodder units, backfat thickness - 33.

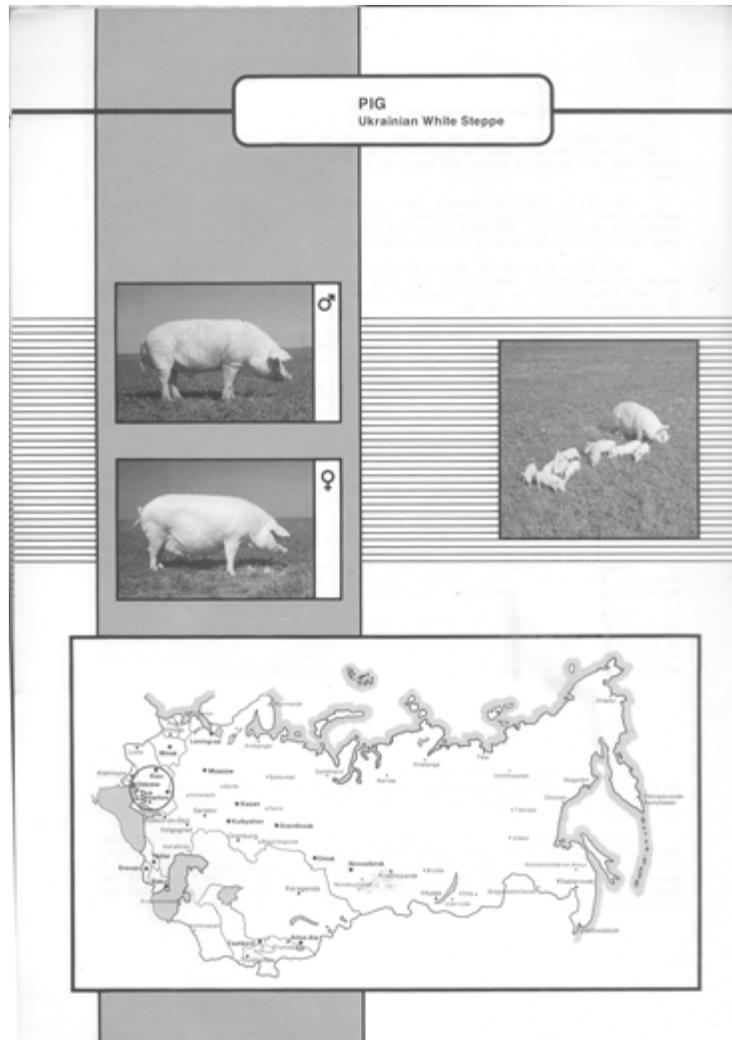
The Semirechensk animals combine the high productivity of the improved breed with the strong constitution of the wild boar. They are well adapted to the extreme climatic conditions of southeast Kazakhstan and do not suffer from overheating despite their white colour.

The Semirechensk has better resistance to a number of diseases than many other breeds. The incidence of respiratory troubles in piglets is 3-5 times less than in the young stock of the Large White and the Kemerovo.

The animals are less susceptible to pathogenic protozoa. In industrial complexes the Semirechensk pigs are as productive as the Large White but exceed it in piglet viability and sow hardiness. Under these conditions the culling rate for the Semirechensk sows is 26% less than of the Large White sows.

The breed consists of 9 boar lines and 20 sow families.

The breed is raised in 30 farms of Alma-Ata, Taldy-Kurgan, Jambul, Chimkent and Karaganda regions in Kazakhstan. Its improvement is carried out at 4 breeding state farms - Illiiski and Kaskelenski in Alma-Ata region, Buruldaiski and XXII Party Congress in Chimkent region, and at two breeding farms - Razvilnenski in Taldy-Kurgan region and Rosa Luxemburg in Jambul region.



### UKRAINIAN WHITE STEPPE (Ukrainskaya stepnaya belaya) ,

The breed was developed by M.F. Ivanov on Askania Nova farm by crossing improved pigs native to southern Ukraine with Large White boars. It was the first Soviet experience in developing a new breed and the method used has become the classic breeding technology which was subsequently employed in developing many Soviet breeds. The Ukrainian White Steppe was also the first breed developed with the specific purpose of combining the high productivity of improved breeds with the hardiness and local adaptation of native pigs. To consolidate the inherited qualities of the best crosses during the breed's development a high degree of inbreeding was practised combined with rigid culling on the basis of such desirable qualities as ruggedness of constitution.

The breed was recognized in 1932. It ranks third in numbers in the USSR. Its population was 812 000 in 1964, 487 000 in 1969 and 738 000 in 1974. As of 1 January 1980 its total population stood at 636 300 including 524 200 purebreds, of which 12 500 were breeding boars, 800 boars on test, 88 400 breeding sows and 52 300 sows on test.

The Ukrainian White Steppe differs a little from the Large White in conformation. It has medium-sized head with slightly dished face, large ears slightly drooping over the eyes, denser bone, deeper and wider body, strong legs, compact skin and dense bristles. The colour is white.

The 1983 evaluation gave the following results: live weight of 36-month-old boars - 322 kg, body length - 183 cm, sow live weight - 238 kg, body length - 164 cm, litter size - 10.8, weight of month-old litter - 48 kg, weight of two-month-old litter - 148 kg. The results obtained at breeding centres were somewhat higher: live weight of 36-month-old boars - 338 kg, body length - 186 cm, sow live weight - 243 kg, body length - 165 cm, litter size - 11.2, weight of month-old litter - 50 kg, weight of two-month-old litter - 158 kg.

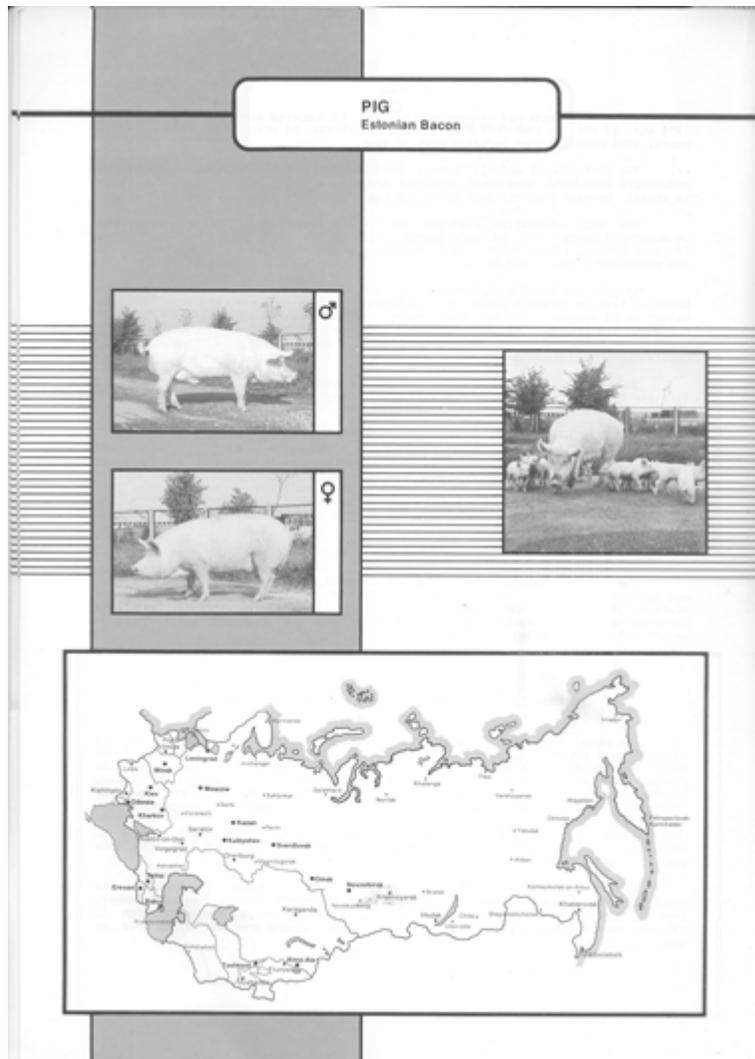
The performance test produced the following results: time to reach 100 kg body weight - 186 days, feed/kg gain - 3.76 fodder units, backfat thickness - 28 cm, length of carcass - 97 cm, ham weight - 10.5 kg.

In 1984 the breed's champion was the boar Askaniets 4497 owned by the Askania Nova experimental farm in Kherson reion, which gave the following figures: live weight at 32 months - 403 kg, body length - 185 cm. Its offspring gave the following results in the fattening performance test: time to gain 100 kg body weight - 177 days, feed/kg gain - 3.8 fodder units, backfat thickness - 28 mm, ham weight - 12.2 kg. The 14 sows sired by him produced litters with an average size of 12.2 and weight at one-month-old of 63 kg.

The Ukrainian Steppe White is better adapted to the continental climate of the south Ukraine than the Large White. It has a more solid but more rugged conformation.

The breed consists of 15 boar lines and 55 sow families.

The breed is zoned for raising in Kherson, Zaporozhye, Odessa and Nikolaev regions of the Ukraine as well as in some regions of Azerbaijan, Armenia, Turkmenia and Moldavia. Continued improvement of the Ukrainian White Steppe is conducted at 3 breeding centres, 2 breeding state farms and 32 breeding farms under the direction of the Ukrainian Research Institute for Animal Husbandry in the Steppe Regions. The main breeding centres are Askania Nova and Sivash in Kherson region, and Zarya collective farm in Zaporozhye region. Selection is for improved fattening performance and meat quality. Initial infusion of Landrace blood is practised in the development of certain new lines.



MEAT-TYPE BREEDS  
ESTONIAN BACON (Estonskaya beconnaya)

The breed was developed in Estonia by crossing the native long-eared pigs with Large White, German, improved Finnish and Danish Landrace boars. The greatest influence was that of the Danish Landrace.

The breed was recognized in 1961. It numbered 102 000 in 1964, 81 000 in 1969, and 140 000 in 1974. As of 1 January 1980 the total population was 198 200 including 122 800 purebreds, of which 9 800 were breeding boars, 14 000 boars on test, 15 500 breeding sows and 11 000 sows on test

The Estonian Bacon breed has a medium-sized head with straight or slightly dished face, large drooping ears tilted forward, long body, wide and deep chest, long and wide back and full hams. The colour is white with pink skin, sometimes with small coloured spots.

The 1983 evaluation gave the following results: live weight of 36-month-old boars - 323 kg, body length - 186 cm, sow live weight - 244 kg, body length

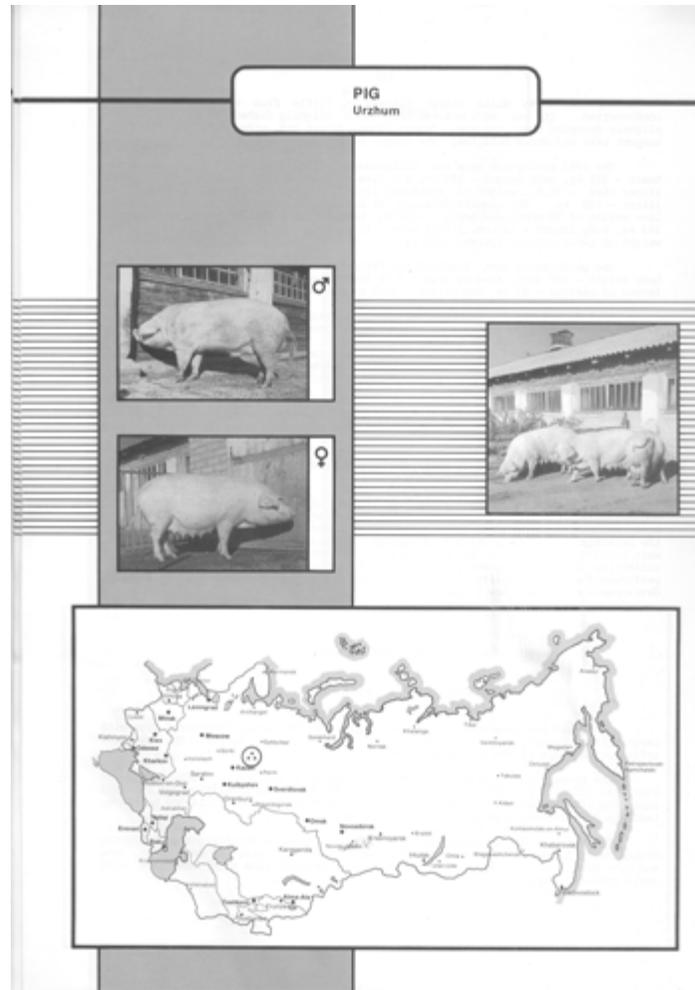
- 170 cm, litter size - 11.1, weight of month-old litter - 56 kg, weight of two-month-old litter - 176 kg.

In 1983 the breed's champion was the sow Kryyt 3516 owned by Suigu collective farm in Estonia which gave the following results: litter size - 13.0 head, weight of one-month-old litter - 57.3 kg, weight of two-month-old litter - 245 kg. Its offspring produced the following results in the fattening performance test: time to gain 100 kg body weight - 171 days, average daily gain - 828 g, feed/kg gain - 3.4 fodder units, backfat thickness - 29.4 mm. In appearance the breed is similar to the Landrace although it is superior in many respects. According to the results of the 1976-77 State evaluation of breeds the Estonian Bacon took 6 days less to gain 100 kg live weight than the Landrace. Its average daily gain was 16 g more and feed/kg gain 0.19 fodder units less. Its carcass length was 5 cm more, backfat thickness 8 mm less, and weight of bacon carcass 29.5% higher. Its meat has a higher protein quality index (ratio of tryptophan to hydroxyproline) being 6.32 against 4.97 in the Landrace.

The breed consists of 14 boar lines and over 30 sow families.

The Estonian Bacon animals are raised and improved at Novy Dvor breeding centre in Grodno region in Byelorussia, at one state breeding farm and 48 breeding farms of which 34 are found in Estonia and the rest in Gorki, Tambov, Kaliningrad, Lipetsk, Pskov, Vologda, Ivanovo and Tomsk regions, in Primorski territory and in Kazakhstan and Moldavia.

The Estonian Bacon is extensively used in crossbreeding systems as a paternal line. In Estonia it is also used as a maternal breed. Selection is for improved meat quality and fattening performance



### URZHUM (Urzhumskaya)

The breed was developed in Kirov region by crossing native pigs with Large White boars. It was recognized in 1957. It numbered 106 000 in 1960, 79 000 in 1964, and 100 000 in 1969. As of 1 January 1980 the breed's total population was 107 300 including 39 900 purebreds of which 3 400 were breeding boars, 500 boars on test, 7 300 breeding sows and 2 600 sows on test.

The Urzhum is similar to the Large White in its conformation. It has a clean head with long snout; heavy ears slightly tilted forward; long, deep but not wide body; strong legs; massive and coarse bone; dense bristles. Its colour is white.

The 1983 evaluation gave the following results: live weight of 36-month-old boars - 291 kg, body length - 179 cm, sow live weight - 245 kg, body length - 163 cm, litter size - 10.5, weight of month-old litter - 51 kg, weight of two-month-old litter - 161 kg. The results obtained at breeding centres were somewhat higher; body weight of 36-month-old boars - 322 kg, body length - 183 cm, sow live weight - 267 kg, body length - 169 cm, litter size - 11.5, weight of month-old litter - 59 kg, weight of two-month-old litter - 191 kg.

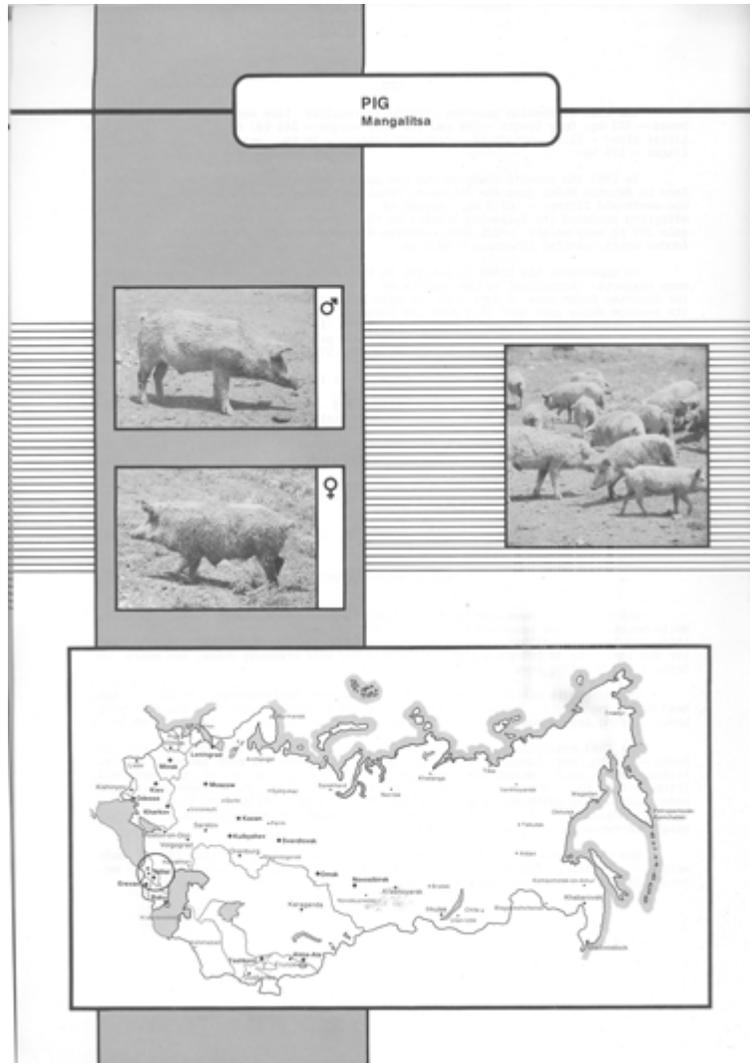
The performance test gave the following results: time to gain 100 kg body weight - 206 days, feed/kg gain - 4.29 fodder units, backfat thickness - 31 mm, length of carcass - 96 kg, ham weight - 11 kg.

In 1983 the breed's champion was the sow Mushka 6444 owned by Mukhinski breeding centre in Kirov region, which gave the following figures: litter size -13.3, weight of one-month-old litter - 70 kg, average daily gain of its offspring during the fattening performance test - 726 g, feed/kg gain - 3.56 fodder units, backfat thickness - 28 mm.

Urzhum animals are well adapted to local conditions as well as to the consumption of bulky succulent feeds. The Urzhum ranks second after the Landrace among 19 breeds in terms of digestibility of dry matter and protein. Its figure for digestibility of dry matter is 75.84%, protein - 80.16%; the Large White figure is 74.98% and 79.9% respectively.

The breed consists of 15 boar lines and 15 sow families.

The Urzhum breed is raised and improved at 2 breeding centres and at 7 breeding farms. The breed is classified for raising and use in crossbreeding systems in Kirovsk, Kostroma and Moscow regions and in the Mari, Udmurt and Tatar ASSRs. Selection is for increased rate of growth and improved meat quality.



LARD-TYPE BREEDS  
MANGALITSA (Mangalitskaya)

The breed was developed by crossing pigs native to the Balkan Peninsula with improved Chinese animals. The Mangalitsa animals were imported into the USSR from Hungary and Romania. They are classified as fat producers. The breed's population in the USSR has been steadily declining. The number of head was 10 000 in 1964, 12 000 in 1969 and 6000 in 1974. As of 1 January 1980 the total Mangalitsa population was 5000 including 670 purebreds (38 breeding boars and 166 breeding sows).

The Mangalitsa has a medium-sized head with straight face, ears tipping forward; wide, slightly arched, back; deep and wide chest; straight and strong legs; black compact skin, free from wrinkles. Black colour of snout, eyelids, teats and hoofs is a breed character. The body is covered with soft curly hair and the head and legs with straight short dense hair closely clinging to the skin. Hair colour is dingy white or dark tan; on head and legs it is almost black.

During 1977-81 the average evaluation results were as follows: live weight of 36-month-old boars - 149 kg, body length - 143 cm, sow live weight - 113 kg, body length - 121 cm, litter size - 7.0, weight of month-old litter - 29.7 kg, weight of two-month-old litter 56.2 kg. Individual sows may farrow up to 10-12 piglets at a time.

The Mangalitsa animals have a small litter size, early formation of fat tissues, admirable hardiness and adaptability to pasture feeding in mountain forest conditions. Compared with other breeds the Mangalitsa shows greater endurance at low temperatures. It is raised in mountain parts of Georgia and used in crossing with the Kakhetian breed group. The litter size in crosses is 20-25% more than in the pure Kakhetian animals.