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COMPARATIVE STUDY OF THE DEVELOPMENT OF LOCAL, IMPORTED AND HYBRID LAMBS

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Abstract

In the article, as a result of the conducted scientific research, the development dynamics and productivity indicators of local and foreign sheep breeds and crossbred lambs obtained from them in the western region of the Republic of Azerbaijan are given. For this purpose, crossbred lambs with semi-fine wool (crossbred) were obtained by crossing local fat tail coarse and semi-coarse-wool sheep with fine-wool breeders. Since imported sheep breeds are difficult to adapt to local conditions, crossbreeding was carried out by crossing them with local sheep breeders.

Keywords: breeds of sheep, male lamb, female lamb, hybrid, live mass, fine-wool, coarse-wool.

Fine-wool sheep imported from abroad are difficult to adapt to the hot and dry conditions of the western region of our republic. Sheep are prone to pasteurellosis and blood parasitic diseases (priplasmosis). Treatment of sick animals costs money and effort, and the death of animals causes considerable damage to the farm. To prevent this, it is necessary to organize the adaptation of imported sheep to local conditions by keeping them in closed and semi-closed conditions in complexes. On the other hand, it is possible to adapt them to local conditions by crossing them with local aboriginal sheep breeds. The meat and wool quality of hybrids obtained from crossbreeding of local fat-tailed coarse-wool sheep breeds with lean long-tailed fine-wool sheep is improved. In most cases, the wool of the purchased F1 hybrids is semi-fine (crossbred), and in most cases it can be white, and sometimes it can be of different colors. In fat tail breeds, fat is mainly collected in the tail part, while the fat layer of crossbred lambs of F1 generation is collected in all parts of the body, so the quality of the meat improves. In addition, since fine-wool sheep are fast-growing, hybrids obtained from them grow rapidly and increase in weight. It is possible to get fast growing, disease-resistant and high-weight lambs by mating imported breed sheep with local ram. In the western region of the Republic of Azerbaijan, at the Auxiliary Experimental Farm of the Scientific Research Institute of Animal Husbandry, sheep of different productivity are bred. These are fine-wool Suffolk, Il de France, Merinolandschaf, Lacaune breeds and

coarse-wool Pirasora, Garadolag sheep and Hissar breeds [1; 2; 8].

At present, due to the fact that most of the land in our republic has been privatized and distributed to the population, the arable and grazing areas have decreased significantly. Therefore, in order to develop sheep farming in our republic, large sheep farming complexes should be built and preference should be given to sowing perennial plants for fodder. In such a case, it is possible to meet the population's demand for high-quality sheep meat in a short time by buying new high-yielding cross-breed lambs for meat and wool using crossbreeding. Thus, it is necessary to pay special attention to the feeding and proper storage technology of the lambs kept in complex conditions. In order to keep the cost of the produced meat low, it is more efficient to use mainly locally produced feed, industrial wastes (grist husk, beet pulp, sunflower, corn waste etc.) [3; 5].

Currently, in our republic, small ruminants are mainly grazed on kishlak (wintering place, winter pasture) in winter, and in summer in mountain pastures, so productivity is not so high. Local sheep breeds and crossbred lambs obtained from them are adapted to heat, drought, scarce feeding conditions, so they are less susceptible to transient diseases and gain weight in a short time. [6; 7].

Development dynamics of Garadolag sheep, Pirasora breed and Bozax x Lacaune F1 crossbred lambs from birth to 12 months of age are given in the table and diagram below (table 1; picture 1).

Table 1

Growth dynamics of lambs obtained from local sheep breeds and crossbreeds by months

Age, month	Garadolaq		Pirasora		Bozakh x LacauneF1 offspring hybrid	
	Male	Female	Male	Female	Male	Female
At birth	4,2	3,8	3,9	3,4	3,9	3,5
At 1 month old	11,4	10,5	9,8	8,5	11,0	9,0
At 6 months old	36,0	32,3	29,7	27,1	32,4	27,2
At 12 months old	56,0	50,0	50,0	44,0	43,6	39,8

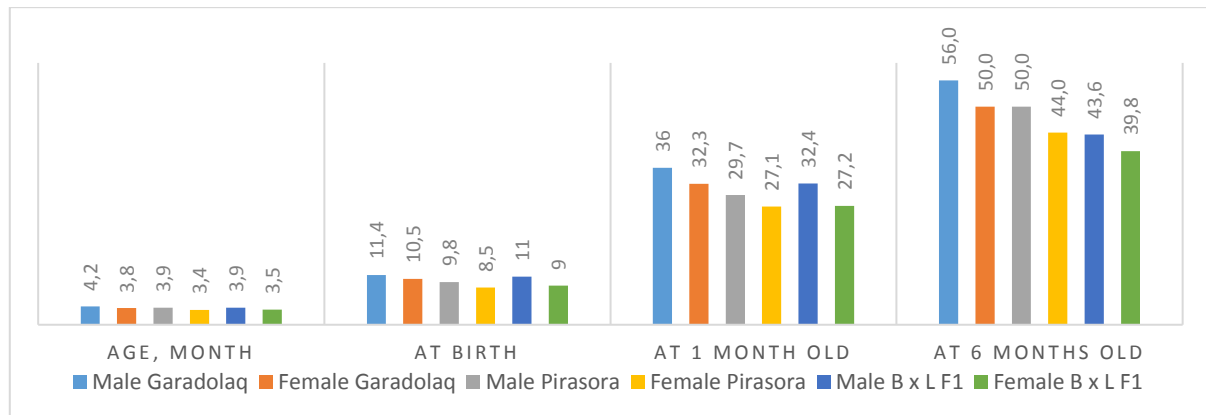


Figure 1. Growth dynamics of lambs from different sheep breeds by month
*B-Bozax, L-Lakun

As can be seen from the diagram, domestic breed and F1 crossbred lambs developed normally according to the biological characteristics of the breed from birth to 12 months of age. The lambs of Karadolagh sheep developed faster than other breeds and their live weight was 56 kg for males and 50 kg for females. In the Pirasora breed, males weighed 50 kg, females 44 kg, F1 generation Bozakh x Lacaune crossbred male lambs weighed 43.6 kg, and females 39.8 kg.

In recent times, early-maturing fine-wool milk-oriented Lacaune, meat-wool-oriented fine-wool Suffolk, Il de France, Merinolandscape and coarse-wool, meat-fat-oriented Hissar breeds have been brought to our republic from abroad. Among these breeds, the Merinolandschaf and Lacaune breeds are better adapted to the local climate conditions (Ganja-Gazakh region) and have the ability to reproduce and live. Suffolk and Île de

France breeds have a lower level of calving and survival due to their worse adaptation. For this reason, it is more appropriate to buy crossbred lambs by crossing these breeds with local thick-necked, fat-tailed rams. In most cases, the wool of the purchased F1 crossbred lambs is semi-fine, and the color is white, rarely colored. Crossbred lambs are quick-growing, resistant to diseases and develop rapidly, and the quality of their meat is high, as the fat layer is accumulated in the muscles throughout the body. From this point of view, it is possible to increase the quality and quantity of meat and wool productivity of local sheep by using imported fast-ripening fine-wool meat-wool breeds [4; 8].

The dynamics of weight gain of lambs imported from foreign sheep breeds brought to our republic from birth to 12 months of age was studied and shown in the following table and diagram (table 2; photo 2).

Table 2

Live mass dynamics of lambs purchased from foreign sheep breeds by month

Age, month	Hissar		Il de frans		Lakun		Merinolandschaf		Suffolk	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
At birth	4,1	3,7	3,8	3,2	3,8	3,4	4,0	3,7	3,8	3,3
At 1 month old	11,2	9,6	9,6	7,8	9,8	8,7	10,6	9,6	10,1	8,9
At 6 months old	35,7	31,8	29,0	26,5	29,0	26,8	30,4	28,2	30,0	27,0
At 12 months old	54,0	49,0	41,5	37,9	42,2	38,6	48,8	40,2	42,0	38,8

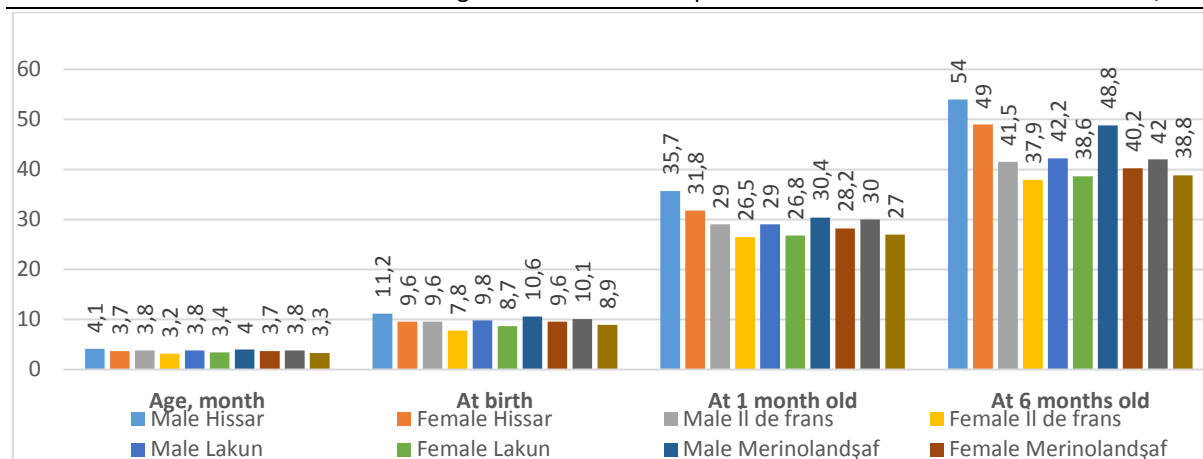


Figure 2. Growth dynamics of lambs from different foreign sheep breeds by month

As can be seen from the diagram, the weight of the coarse-necked, fat-tailed Hissar male was 54.0 kg and the female lambs were 49.0 kg, while the fine wool, thin-tailed Suffolk male was 42.0 kg and the female lambs were 38.8 kg. The obtained results show that Hissar lambs had a higher live weight because they were well adapted to the local conditions, and Suffolk lambs had a lower live weight because they were poorly adapted.

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