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**SYIYNDYK BREED TYPE – EDILBAY SHEEP'S EXTERIOR –  
PRODUCTIVE PECULIARITIES**

**Abstract.** Syiyndyk breed type – edilbay sheep's were created by absorptive crossing of local Kazakh fat-rumped sheep's azgir type with edilbay sheep. Thorough-bred breeding of edilbay sheep in a new economic and environmental conditions for a long time, as well as free crossing with hybrid, which was achieved by absorptive crossing of local Kazakh fat-rumped sheep with edilbay sheep, created a new interspecies ecological type of these sheep.

In modern conditions of market economy, demand for goods necessitates breeding of resilient sheep ensuring high returns for mutton production. In order to solve this issue the most important thing is to study biological features of sheep, especially when creating new high-potential types and breeds. Now there are extensive array of fat-rumped edilbay sheep types with quite high greasy meat productivity and harsh wool, which have an important role in improvement of fat-rumped herd in Atyrau region and republic. One of the significant biological feature of these sheep is consolidated heredity, representative, high greasy meat productivity and high energy growth of lambs at young age. Also their wool productivity is well expressed. The head of sheep is massive, but not rough, medium-sized, comparative tight, with pronounced hawk-nose, buck's hawk-nose expressed better and their nasal bones at the line of hump are wider. The examining type of sheep has high prematureness peculiarity. The data describing age-related changes of their backbone: they quickly grow in height, in a year and half they reach 98.8% of withers at hump size of an adult one. Describing holometric datum: chest depth, chest breadth, heart girth depth grows more slowly in comparison with other depths (89.7%).

In general an average body weight of buck is 102.7 kg, youngsters' at the 14-16 months is 60.0 kg, or 79% of adult buck and dam's body weight. In order to form genetic structure of dam in selection group there laying and improving genealogical lines, on which basis form two breed lines of these sheep with concentration on main selecting features.

**Keywords:** breed, slaughter, bulk, herd, prematureness, syiyndyk type, breed type.

In Kazakhstan one of the main directions of pastoral industry is fat-rumped, which gives a big amount of cheaper mutton, harsh and half-harsh wool, leather and fur-bearing materials. Fat-rumped sheep is at the second place by it's amount in republic. Basic mass of them is at the semidesert, desert and dry steppe zones in Atyrau, Aktobe, East Kazakhstan, West Kazakhstan, Karagandy, Kostanay and Pavlodar regions. Thus development and efficiency of pastoral industry's these direction is affected by climate changes, grazing conditions in summer and winter.

Types of sheep such as edilbay, saryarka, Kazakh half-harsh and harsh wool fat-rumped are of interest in Kazakhstan in order to increase the meat production for fuller utilization of reserves. At the present time, among all survived species the most breeding value and practical interest have edilbaysheep, which is the brightener of all republic's harsh wool fat-rumped sheep massive. The best herds of edilbay sheep are in West-Kazakhstani "Birlik" JSC and Atyrau region's "Syiyndyk" LLP.

Country's harsh wool fat-rumped sheep as a wide-spread breed of sheep in republic's different areas have popular ecological differentiation. Among Kazakh fat-rumped sheep stand out edilbay sheep, which have such differentiation as a interspecies zonal ecological and breed types. These types diverse in constitutional- exterior peculiarities. They linked to the feature of realization hereditary norms in a state of

this or that environment, to the rate of metabolic processes and prevailing growth of this or that breed's productivity. Differences between breed's used in selection work by their efficiency and constitutional-exterior peculiarities foster the creation of new population within one breed.

Edilbay sheep's herd of 'Syindyk' stud farm were created by absorptive crossing of local Kazakh fat-rumped sheep's azgir type with edlbaysheep, which are imported from Zhangalin region of Oral oblast and partial pure breeding.

Accumulation cross breeding was developed and applied as a selection technique back in the middle of the century in transformation of rig-wool sheep breeding to fine-wool sheep breeding. The experience of applying of the accumulation cross breeding of local sheep with improving breed depends on the correct choosing of the improving breed, on the quality of the uterine composition, on the selection of the individuals most suitable for the purpose, and on the creation of the most favorable conditions for the development and consolidation of positive qualities.

In the "Suyunduksky" breeding livestock farm was created a large array of the edilbay type fat-rumped sheep with the enough high meat-and-fat capacity and brashy wool, which has crucial importance on the improvement of the fat-rumped sheep herds in the Atyrau region, as well as, in the transformation of meat-and-fat sheep breeding of other farms of the breeding zones of kazakh fat-rumped rig-wooled sheep.

Animal farms are characterized by consolidated heredity, typicality, high potential for meat-and-fat productivity and high energy of lamb growth at young ages.

A very valuable biological feature of these sheep is that it is good for both adults and young cattle to use favorable forage and climatic conditions that develop in desert and semi-desert zones in certain seasons of the year.

In the "Suyunduksky" breed livestock farm was created a selected group of broad ewe sheep numbering 1,000 animals with a live weight of 67.9 kg of adult ewe and 2.15 kg amount of wool shorn (table 1). In general, sheep have a living weight of 102.7 kg on the average, and young cattle at the age of 14-15 months reaches 60.0 kg or 79% of the live weight of adult ram and ewe, accordingly.

Table 1 – Efficiency of selected group of edilbay sheep

Sex and age group	S	Live weight, kg	Amount of wool shorn, kg
		M ±	M ±
Stud-ram	145	102,7±0,82	2,54±0,01
Adult broad ewe sheep	1050	67,9±0,12	2,15±0,03
Gimmer of 15-16 months	1134	48,5±0,37	1,59±0,02
Ram of 14-15 months for a breeding sale	410	59,7±0,38	1,96±0,01

Table 2 shows the average index of measurements of gimmers of 1.5 years, adult ewes and stud-rams. Comparison of the measurements of the growing and full-aged ewe sheep shows that the sheep studying types of the "Suyunduksky" breeding livestock farm have a high prematureness. This is characterized by age changes in their skeleton. As it is shown in the table, they grow most rapidly in height, reaching 98.8% of the adult height by one and a half years of age at the shoulders. The body length (96.4%) also develops very quickly, then the measurements that characterize the volumetric parameters: the depth of the chest, the width of the chest, and the measurement of the chest circumference develops much slower in comparison with other measurements. Measurements of the body of stud-rams are similar to the animals of the former Furmanov state breeding types [2].

The experience of the top breeding livestock farms shows that the presence in the herd of highly productive linear animals characterized by certain differences in the degree of expression of the most important economic-useful characteristics, and correct usage of these animals in breeding are effective means of improving the breeding productive qualities of the herd [3-5].

To form a genetic structure in the breeding group of the broad ewe sheep three genealogical lines are coded and developed, on the basis of which the production lines of these sheep with specialization on the leading selectable characters are formed.

Table 2 – Measurements of edilbay ewes

	LLP "Suyunduksky"			"Birlikskiy" breeding livestock farm (named after I. N. Popov)		
	1.5 year oldewes	Adult ewes	Adult stud-rams	1.5 year old gimmers	Adult ewes	Adult stud-rams
Height at the shoulder, cm	74,4	75,3	83,5	75,0	76,3	83,2
In the percentage from adults	98,8	100		98,3	100	
Body length, cm	70,2	72,8	82,1	76,0	78,3	82,2
In the percentage from adults	96,4	100		97,1	100	
Depth of the chest, cm	31,2	33,0	36,1	33,1	35,5	39,5
In the percentage from adults	94,5	100		93,2	100	
Width of the chest, cm	18,7	20,4	22	20,1	20,6	23,4
In the percentage from adults	91,7	100		97,6	100	
Width of the hook bones, cm	19,1	20,0	21,2	20,7	21,8	22,8
In the percentage from adults	95,5	100		95,4	100	
Chest circumference, cm	90,7	101,1	106,7	94,8	99,1	110,4
In the percentage from adults	89,7	100		95,7	100	
Circumference of the pastern, cm	7,1	8,2	9,1			
In the percentage from adults	86,6	100				

Edilbay sheep are comparatively distinguished by high living weight and according to that fact they slightly inferior only to the sheep of the Gissar breed. Generally, sheep of large breeds bring newborn lambs with a high mass(weight). The live weight of the Edilbay sheep of the breeding farm at birth varies considerably depending on many factors: live weight of ewe, fodder and weather conditions, age of ewe, in number of how many were born and other lambs are born with an average live weight of 4.8-5.5 kg and further grow and develop rapidly.

Table 3 – Live weight of the Edilbay lambs (kg)

Group	Atbirth				At the age of 4-4.5 months			
	Sheep		Lambs		Sheep		Lambs	
	II	M ±	II	M ±	II	M ±	II	M ±
Edilbay sheep of Syiyndyk breeding plant	212	5,3±0,12	227	5,0±0,05	119	37,0±0,092	111	34,7±1,35
Edilbay sheep of Gurievsk exp.station (A. Zhanderkinand etc.)	215	5,5±0,22	231	4,7±0,22	218	36,2±0,13	216	34,07±0,15
Edilbay sheep of Central Kazakhstan (K. Kanapiya)	187	5,4±0,06	148	5,1±0,06	187	35,0±0,31	148	33,4±0,31

As can be seen from table 3, compared with Edilbay sheep of Central Kazakhstan, Syiyndyk lambs were characterized by quite satisfactory growth and development in the embryonic and suckling periods.

During the suckling period, the Edilbay lambs of the Syiyndyk breed type develop more or less quickly. During the first month of life, the daily increase in the lamb's live weight is 350-400 g, and in subsequent periods of post-embryological growth and development, the rate of growth is somewhat reduced. These sheep are related to early ripening sheep with high energy growth in the first year of life.

In the process of creating a new type of Edilbay sheep in Syiyndykpedigree-cattle breeding farm, there was studied the reproductive capacity of elite and selective flocks of uterus. It was studied for a number of years, taking into account the fertilization of the ewe during artificial insemination, also the number of hatching ewe and their fertility.

An analysis of the reproductive capacity of the fat-rumped sheep of the pedigree-cattle breeding farm, shows that they have a satisfactory fecundity and it varies from 106 to 115% with a sufficiently high safety of the lambs for weaning. Observation over recent years for two breeding flocks showed that the yield of newborn lambs per 100 cognate uterus was 105-108%. The viability of sheep of any breed in working conditions is determined by the amount of animal waste, the higher the safety of the sheep population, so they are better adapted to local climatic conditions of nature. In our example, the mortality of lambs from birth to weaning from the ewe was 3.5-4.2%.

In recent years, wool prices and the sale of pedigree animals have significantly decreased, because of the lack of purchasing power of farms of various forms of ownership. However, in 1997, "Suyundukki" LLP received 626 thousand tenge from sheep breeding of net profit mainly due to the sale of sheep for meat at an agreed price. In addition to this, in 1998 and 1999 the profit from sheep breeding was among 1720 and 1450 thousand tenge. As a result of many years of scientific research and selection and breeding work, the scientific employees of KazNITIO (Kazakh scientific research institute of sheep breeding) and specialists of the pedigree-cattle breeding farm in Syiindyk, Atyrau region created a flock of sheep with a population of more than 20 thousand head, persistently transmitted by inheritance of specific morphological, productive and other economic characteristics inherent in the animals of this breeding plant.

A distinctive feature of the deduction of a new breeding type of edilbay sheep is that there was used a classical method of transforming cross-breeding of local Kazakh fat-rumped coarse-wooled sheep of the Azgir offspring with imported Edilbay rams from the West Kazakhstan region and purebred breeding of the Edilbay sheep. In this case, as a producers along with purebred animals, there were used high-breed local sheep with a high mutton meat productivity. This provided a new population of fat-rumped coarse-wooled sheep, well adapted to local desert and semi-desert conditions of feeding and keeping with excellent performance of wool and meat productivity.

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#### **ЭКСТЕРЬЕРНО-ПРОДУКТИВНЫЕ ОСОБЕННОСТИ ЕДИЛБАЕВСКИХ ОВЕЦ СУЮНДУКСКОГО ЗАВОДСКОГО ТИПА**

**Аннотация.** Едилбаевские овцы суиндикского заводского типа были созданы путем поглотительного скрещивания местных казахских курдючных овец азгирского типа с едилбаевскими баранами. Многолетние чистопородного разведения едилбаевских овец в новых хозяйственных и природных условиях, а также при свободном скрещивании с помесями, полученными при поглотительном скрещивании местных курдючных овец с едилбаевскими баранами, образовался новый внутривидовый экологический тип этих овец.

В современных условиях рыночной экономики спрос на продукцию диктует необходимость разведения овец крепкой конституции жизнестойких, обеспечивающих высокую рентабельность производства баранины. Для решения этой задачи наиболее актуально изучение биологические особенности овцы, особенно при создании новых, более высокопродуктивных типов и пород. В сегодня создан большой массив курдючных овец в типе едилбаевских с достаточно высокой мясо-сальной продуктивностью, грубой ордовой шерстью, имеющий решающее значение в совершенствовании стад курдючных в Атырауской области и в республике. Очень важной биологической особенностью этих овец является консолидированной наследственности,

типичности, высоким потенциалом мясо-сальным продуктивности и высокой энергией роста ягнят в молодом возрасте. Достаточно хорошо выражена у них шерстная продуктивность. Голова овец массивная, но не грубая, средней величины, относительно узкая, с ясно вырезанной горбоносостью, у баранов горбоносость вырезанно резче и носовые кости по линии горба у них шире. Так же изучаемые овцы данного заводского типа обладает высокой скороспелостью. Данные, характеризующие возрастные изменения развития их скелета, они быстро растут в высоту, достигая к полутора годам высоты в холке 98,8% от величины во взрослом состоянии. Характеризующие объемные показатели: глубина груди, ширина груди, промеры обхвата груди развиваются значительно медленней в сравнении и другими промерами (89,7%).

В основном бараны имеют живую массу в среднем 102,7кг, а молодняк в возрасте 14-16 месяцев достигает 60,0 кг, или 79% массы тела взрослых баранов и маток. Для формирования генетической структуры в селекционной группе маток хозяйства заложены и совершенствуются генеалогические линии, на базе которых формируются две заводские линии этих овец со специализацией по ведущим селекционируемым признакам.

**Ключевые слова:** порода, убой, туша, стада, скороспелость, суюндукский тип, разведения, заводской тип.

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### ЕДІЛБАЙ ҚОЙЫ СҮЙІНДІК ЗАУЫТТЫҚ СҮЛЕСІНІҢ ЭКСТЕРЬЕРЛІ – ӨНІМДІЛІК ЕРЕКШЕЛІКТЕРІ

**Аннотация.** Нарықтық экономика жағдайында еліміздің қой шаруашылығы жас қой етін өндіруге, яғни төлдерді туылған жылы жоғары қарқында өсіп-жетілуімен азықты өнімге тиімді айналдыру қасиетімен ерекшеленетін құйрықты қой тұқымдарын өсіруге мамандандырылуда.

Мақалада, Атырау облысы Құрманғазы ауданындағы, «Сүйіндік» мал зауытында жергілікті азғыр тармағы қойларының өнімділік және тұқымдық қасиеттерін жақсарту мақсатында, оларды еділбай қой тұқымының қошқарларымен айқыш будандастырудың классикалық әдісі және ішінара еділбай қойларын жаңа табиғат жағдайларында таза өсіру нәтижесінде, етті – майлы өнімі мал, тез жетілгіштік қасиеті жоғары, Батыс Қазақстанның шөл және шөлейт аймақтарының қатаң жағдайларына жақсы бейімделген қылшық жүнді құйрықты қойлардың екі желіден тұратын сүлесінің жаңа шығарылғандығы баяндалды.

Бұл тұқым берік бітімімен, жақсы жетілген сүйектілігімен, мүйізсіз, дөңестеу тұмсықты, ұзынша басымен ерекшеленеді. Тұрқы тұтаста кең, терең кеуделі. Шоқтығы тарлау, арқа мен бөксесі кең. Мойыны қысқалау. Аяқтары мықты, тұяқтары өте берік. Құйрықтары үлкен көлемді, тартыңқы. Саулықтарының құйрықтарының көлемі шамалы шағындау.

Асыл тұқымды сақа саулықтарының салмағы 70-80кг-ға дейін жетеді. Қошқарлары 95-105 кг, 16 айлық тұқымдық қошқарлары 65-70 кг, тұсақтары 55-58 кг, тартады. Бұл көрсеткіштер еділбай қой тұқымының стандарты деңгейінен 10,0-18,0% жоғары. Құйрықты қозыларды 4-4,5 айлығында енесінен бөліп, етке өткізуге болады. Бұл жаста қозылардан толық құнарлы және диеталық жұғымды қозы еті алынады.

Алынған ұрпақтың шоқтығының биіктігі, тұрқының ұзындығы, кеуде тереңдігі және бақай орамы сияқты дене өлшемдері көрсеткіштеріне еділбай тұқымы қошқарларының нәсілдік қасиеттерінің әсері басымырақ екендігі аңғарылады. Кеуде орамы мен сербен аралығы деңгейінің ұрпаққа берілуінде ата-ененің нәсілдік қасиеттерінің аралық сипаты сақталады деп тұжырымдауға болады.

Сонымен қатар берілген кестелерден селекциялық асылдандыру жұмыстарының нәтижесінде сүйіндік қойларының дене тұлғасының ірілене және кесектене, яғни олардың еттілік қасиеттерінің де жетіле түскендігі байқалады. Сүйіндік еділбайының дене тұрқының ұзындығы бірлік еділбайы тұқымдастарына қарағанда 6 (қошқарлар) және 3,3 (саулықтар) см-ге қысқалау келеді, яғни, бұл біріншілерінің дене тұлғасының көлемді де жұмыр келетінін, сүйектілігінің нығая түсетіндігі тағы да бір дәлелдейді.

**Түйін сөздер:** тұқым, мал сою, ұша, табын, тез жетілгіштік, сүйіндік сүлесі, өсіру, туыс саласы, зауыттық сүле.

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