International Journal of Advanced Biotechnology and Research (IJBR)
ISSN 0976-2612, Online ISSN 2278–599X,
Vol-8, Issue-2, 2017, pp705-719
http://www.bipublication.com

Research Article

Selection and Genetic Aspects of Beef Cattle Breed Improvement in Southeast Regions of Kazakhstan

[1]Kuat Nurgazy, [2]Zhanat Iskakova,

and [3]Gulzat Gabit

[1]Full Professor, Doctor of agricultural sciences,
[2] Associate Professor, PhD,
Banu Nurgazy, Full Professor, Doctor of veterinary sciences,
[3]Candidate of agricultural sciences,
Fatima Turganbayeva, Master of agricultural sciences,
Kazakh National Agrarian University, Almaty, Kazakhstan

ABSTRACT

Purposeful selection and breeding work with herd of cattle Kazakh white-headed, Auliyekolsky and Hereford breeds in country farms "Bapysh Seysenbay" in Bayzak district of the Jambyl region, "Bagration-2" in Ulan Region of East Kazakhstan region and Kegen-agro LLP in Rayymbek district of Almaty region was carried out by scientists of the Kazakh National Agricultural University. The variability analysis of young growth' live weight of different breeds from different farms has shown that calves for the milking period grew and developed normally, the data confirm rather high intensity of their growth. So the birth weight of Auliyekol breed calves from "Bapysh Seysenbay" farm was 29,7-31,8 kg, the birth weight of Kazakh White-Headed breed calves from Kegen-Agro LLP - 26,3-29,2 kg. Intergroup comparison of live weight has shown that in general the speed of accumulation of live weight during all age periods was higher in young growth of Auliyekol breed. Analysed results of individual weighting of desirable type of animals from different breeds and gender and age groups. Data on live weight show that practically animals in all groups surpass a bit the minimum requirements of the I class standard. At the same time observed high rates of variability of Auliecol beef breed cattle's live weight (σ, Cv) in comparison with indicators of other beef breeds as Hereford, Kazakh White-Headed Breed. Such feature is explained with the best adjustment of Auliyekol beef cattle breed from local population and the worst consolidation of this sign that it is especially shown in more severe conditions of their breeding.More intensivity of growth throughout all experience and especially in a final stage was observed at young growth of Auliyekol and Hereford breeds, and it was affected by level of selection and breeding works which were carried out in this farm.

Keywords: meat breeds of the cattle, beef, average daily gain, assessment, country economy

INTRODUCTION

An important reserve for increasing meat resources the country is the development of specialized beef cattle on the basis of domestic beef breeds. But compared with foreign countries, which significantly increased the proportion of animal meat breeds in recent years in the structure of cattle and 50% of the meat consumed is beef, produced from specialized beef breeds, in Kazakhstan, the share of such species is about 1%, and It does not affect the overall performance of the country, for a total production cost and realizable value of beef. For example, in Australian beef breeds of cattle population of the total population is 80% to 78% in the US, Canada, 67% to 30% in Western Europe [1-4].The Republic of Kazakhstan has 181.2 million. Hectares of natural pastures, about 70% of which are located in the desert and semi-desert areas, so as at present and in the coming years, this vast area can be efficiently used for grazing only better adapted to these conditions animals. In Kazakhstan, with significant areas of natural, forage land in the steppe regions, for the development of beef cattle is a favorable south-eastern Kazakhstan, which is pasture land and feed grain production.

The relevance is also determined to improve existing meat breeds in the Republic of Kazakhstan, providing high efficiency of beef production.

In recent years there has been a decrease in the number of cattle both in the country and the region, as compared to the 2010 level of 1-2% per year, in t. Ch. 2-3% of cows. This reduction in the number of cattle guards professionals, as agro-industrial complex of the Republic of Kazakhstan can not perform its task, that is to achieve by 2018 the export of cattle meat and 60 thousand. Tonnes per year [2].

As of January 1, 2013 livestock breeding base is represented by 581 economic entities. Of these, the cultivation and sale of pedigree cattle farm animals involved 557 farms, of which 42 subject - is breeding plants, 515 - breeding farms. Production and sale of seed of livestock producers involved 24 subjects in the field of livestock breeding, including breeding 2 and 22 distribution centers. Livestock breeding cattle for 10 years increased by 3.2 times and as of January 1, 2013 amounted to 468.5 thous. heads.However, the Republic livestock is still characterized by low genetic potential of farm animals. As of January 1, 2013 the proportion of breeding cattle in the country amounted to 8.2% of the total herd of sheep - 13.8%, pigs - 19%, horses - 7%, camels - 10% and poultry - 11 7%.However, to date the genetic potential of breeding stock animals in Kazakhstan is used only half. The world, according to experts, the actual problem is the food crisis. Each country decides its own way. Kazakhstan chose themselves and feed their neighbors, the declared goal - to raise livestock and by 2017 to bring meat exports to Russia up to 60 thousand tons per year. However, the solution to the problem requires the development of related industries, such as food resources.Therefore, one of the most important problems in the cultivation of the Kazakh white, Hereford and auliekolskoy breeds is the selection of an increase in body weight and improvement of quality. It is caused by the fact that the international market and the domestic industry at the present time there is an acute shortage of beef high assortments, especially the meat industry and international market demand of high-quality environmentally friendly young and tasty beef meat breeds.

Kazakh Whitehead, Hereford and auliekolskaya breed unique in the level and quality of meat productivity, it is the best gene pool among the meat breeds of cattle, not only in the CIS but also worldwide cattle. The intensity of use of interbreeding among beef cattle Kazakh white breed republic occupies the leading place. First of all, it is extremely valuable gene pool for the rapid conversion of meat qualities of local livestock populations. This is confirmed by the results of research and production experience of the past half-century in the conditions of Russia, Central Asia, Kazakhstan and other countries (Uzbekistan, Turkmenistan, Tajikistan, Georgia, Mongolia, the main part of Russia). Hybrids are superior to local populations both in live weight, and for milk, etc. Crossing the Kazakh white breed bulls to cows milk and dairy-beef cattle gives hybrids with higher body weight, and for milk exceeding 2-2.5 times more [5.6].The different climatic zones have developed types of Kazakh white inbreeding, and Hereford cattle auliekolskogo differing in other productive and economically beneficial qualities, both among themselves, and on certain areas of its breeding. For these categories of livestock should also use high-Kazakh white bulls, and Hereford breeds auliekolskoy at least for the "blood refreshment", which will undoubtedly increase the production of high-value beef in the country.Kazakhstan, according to statistics of the Food and Agriculture Organization, among the 177 countries of the world is on the 48th place on the meat consumption [7]. In year one Kazakhstan citizen consumes an average of more than 67 kg of this valuable product. However, in spite of the historical traditions, our country remains a net importer of livestock products, as production can not meet domestic demand. Average live weight per head, going for slaughter today, the country is 305 kg, while should not be less than 450 kg. This weight can reach breeding animals aged 18-20 months, and only inbred to 36 months. Therefore it is necessary to increase the breeding value of meat

breeds. The potential of Kazakhstan's huge livestock [8].

Kazakhstan relies on meat premium. On the TS market Kazakh meat should be fixed under the brand of environmentally friendly natural product. But to get to it, it is necessary to accumulate the appropriate resources. We do not have enough enterprises capable of producing a sufficient amount of meat and regularly supplying it to the foreign market. We must grow up high breed cattle, which gives a good weight gain, and for this we need a good food supply, genetic potential and advanced technologies.

Analysis of the causes of underdevelopment in the livestock sector have a number of disadvantages.

The first and main - weakness fodder. Currently in Kazakhstan made a total of 14 quintals of feed units per one conventional head, which is 2.3 times lower than the zootechnical standards. The share of fodder crops in crop rotation is only 11 per cent instead of 30 per cent of science-based. Besides their low yields and remains limited set of cultivated fodder crops. In fact, the bet is placed in feed production mainly on marginal natural hayfields. The extremely small volumes of produced protein, juicy and combined feed. Not best way is the situation with grazing land. To date, 48 million hectares of degraded rangelands and no one does their recovery. There were neglected issues of creating cultivated pastures [9,10].The second problem of domestic animal - the low level of genetic potential of the animals. The proportion of breeding cattle in a herd of only 5.6 percent, which is 10 times lower than in countries with developed cattle breeding. The third problem - the small-scale production. It is known that up to 85 percent of cattle are concentrated in private farms, where there is no technology or product quality. small-scale animal husbandry does not allow targeted and centrally to improve the quality of products. Therefore, to overcome this situation it will be necessary to create medium and of large-scale production, operating on a commercial basis. For this purpose it is necessary to plan the creation of new industries based on modern technologies through the implementation of investment projects. For these purposes, are currently being sent means national holding "KazAgro", borrowed from the National Fund.Farmers, including the project "Development of cattle meat export potential", can not do without broodstock. Efforts to improve the quality of royal contingent beef state is not only welcomed, but also financial support. On one "improve" Cows rely $ 35 subsidy. But that is not all. There are subsidies and feed. Each Burenko by the state is allowed to buy rations of 4.5 thousand. N. Thus, the state reduces the cost of maintenance of one cow farmer 16, 5 th. KZT in year. In the improvement of breeding qualities of breeding stock can not do without high-bull-producer. The presence of 1 bull-breed meat producer on 30 cows, and in having a mandatory identification number and registered in the AIS system (information-analytical system), is a guarantee for obtaining grants to improve the breeding stock. It should be remembered that the sire should be used no more in the economy than 2 breeding season. By the way, to buy pedigree bull beef can now agroformations on favorable terms: 50% (but no more than $ 305 per head), its cost is subsidized.

Through the implementation of these measures by 2017 can raise the share of agricultural enterprises in the total volume of milk production from the current 10.2% to 16.1% and meat - from the current 20.6% to 31.9%. Thus, to a large extent be overcome seasonality of production, increase the share of those industries where applicable and respected modern technology and, consequently, produce quality products.

MATERIALS AND METHODS.

Scott is the year-round grazing with supplementary feeding hay during bad weather (especially in winter). Concentrates are fed animals usually do not, except in the weak, the sick, and also - oxen manufacturers used in mating. The pastures in the feed balance is 80% or more.Feeding farm level varies widely. The highest it at the end of spring and winter is reduced. The stabling and farms are also used, especially during the harsh winter. On average,

the stall period lasts about 85-90 days (the second half of December to March). During this period, the basic fodder is hay that is harvested in sufficient quantity (at the rate of 7 - 8.5 fodder units per head per day). [11]Of great importance in the creation of fodder farms have dates blank and feed production technology. Hay from natural grasslands and pastures Cosima starts from the end of May and continues until September. In late May, comes the flowering grasses, and at this time they are most valuable, and contain a large amount of easily digestible protein, vitamins. Nutrition of the hay is 0.3 - 0.4 feed units. During the summer nutrition grass continuously decreases and reaches to September 0.1 - 0.2 feed units. Such food make up a large share of the volume of harvested hay. Hay is the main forage for feeding livestock. During the day the animals are fed in open pens or bases, with hay scattered on a thin layer of snow near the animal shelters or so stacks. In good weather, when snow cover is insignificant, the cattle put out to pasture. The using of pastures is starting at the beginning of winter to the remotest of places of fodder preparations. As the grazing herds of grazing close to locations of harvested forages (to places blanks), and in the second half of winter cattle put out to pasture only near sheepyards.

In mid-May distilled cattle to summer pastures, where they are to late autumn. The farms are used year-round pasture rotation: in the spring, summer, autumn and winter. Throughout the year, every drove by changing grazing 2-3 times. Cattle intended for delivery to the meat, fatten, exclusively under grazing. Particular attention is paid to farms feeding bulls, because of this depends largely on the quality of sperm, mating efficiency, obtaining progeny. Bulls in season provides a good pasture. In winter, they give hay 5.3 - 6 kg per day per head 1 and 0.5 kg concentrate.The farms are "wintering", "Zhailau" and "kγzek", in each of which there are all conditions for living, way of life and work (houses, other buildings).

Current status of herds of Kazakh white breed in the farm "Bagration-2» Ulan district of East Kazakhstan region, Kazakh white and Hereford breeds in LLP "Kegen-Agro" Raiymbek District of Almaty region and auliekolskoy breed farm "Bapysh Seisenbayev" Baizak district of Zhambyl region. In the future breeding herd at the farm "Bagration-2» Ulan district of East Kazakhstan region must play a leading role in increasing the number and improving the productivity of the Kazakh white-headed breed. As a result of purposeful breeding work in the farm "Bagration-2» now created quite highly consolidated herd animals Kazakh white breed, which has valuable biological economic-useful signs. Animals have a strong constitution, strong bone and good quality meat. The farm "Bagration-2» Average live weight of bulls manufacturers of 730-950 kg, ewes - 480-600 kg, newborn calves - 25-28kg. Coat of these animals mainly red with different shades (light-red, cherry, white head, withers, dewlap, the lower part of the tail and feet). With increasing age, the animals become less high on, but more massive and stretched. The development of individual articles describing animal growth in height and length, ends up mainly in 3-year-olds, and they grow in width is usually 5 years. Herd represented mainly by large shirokotelymi animals with a strong constitution.

Current status of the herd of the Kazakh white and Hereford cattle Raiymbek District of Almaty region. Currently, the farms of the area retained a large array of Kazakh white breeds and their cross-breeds are well adapted to the specific conditions of the South-Eastern Kazakhstan. As a result of purposeful breeding work in LLP "Kegen-Agro" it is now created quite highly consolidated herd animals Kazakh white and Hereford breeds, having valuable biological economic-useful signs. Animals have a strong constitution, strong bone and good quality meat. The LLP "Kegen-agro" average live weight of Hereford bulls is 720-900 kg, ewes - 440-540 kg, newborn calves - 24-30 kg.

Coat of these animals mainly red, with different shades (light-red, cherry, white - head, withers, dewlap, the lower part of the tail and feet). With increasing age, the animals become less high on, but more massive and stretched. The development of individual articles describing animal growth in height and length, end up mainly in 3-year-olds, and they grow in width is

usually 5 years. Herd represented mainly animals with a strong constitution, the average for the massive physique.The present state of the breed of cattle herds auliekolskoy farm "Bapysh Seisenbayev" Baizak district of Zhambyl region .In 2015 the farm "Bapysh Seisenbayev" Baizak district of Zhambyl region number auliekolskoy breed of cattle was 739 heads, and their hybrids - 401 goals.The current population of the breed of cattle auliekolskoy - the descendants of the aforementioned animals. Therefore, the gene pool of the breed of cattle herds auliekolskoy valuable enough and has a high genetic potential for meat production.Later, after the collapse of the structure of the collective and state farms, especially in large farms, this work has become focused and absorbing cross by available local cattle breed bulls auliekolskoy created an array of local beef cattle. At the same time, in some farms of this region, such work had to continue, and they bred hybrids or low generations of these crosses, or the same low productivity of local cattle, but with some small blood beef cattle breed shares. As a result of these and other reasons, the local cattle Baizak district of Zhambyl region formed its own distinctive features: the animals are large enough.Thus, over time, created the local population breed cattle auliekolskoy having specific characteristics in combination individual agronomic characters. These animals in most farms of this region are bred today. Farm "Bapysh Seisenbayev" recognized as the leading breeding breed auliekolskoy, 2015 population amounted to more than 338 animals and is one of the main loudspeakers area for this breed. In the future, the breeding herd on the farm should play a leading role in increasing the number and improving the productivity auliekolskoy breed Baizak district of Zhambyl region.As a result of purposeful breeding work in the farm "Bapysh Seisenbayev" is now created quite highly consolidated herd animals breed auliekolskoy possessing valuable biological economic-useful signs. Animals are mostly loose constitution, strong bone and good quality meat. The farm "Bapysh Seisenbayev" average live weight of bulls of 800-950kg, queens - 500-630kg, newborn calves - 24-32kg. Painting (color) cattle this porody- uniformly white (pale yellow) or slightly smoky. The mucosa is light, often with dark spots. The head is short with a wide forehead without horns, triangular snout. In short neck bulls, cows elongated, slightly elongated, broad chest, uniform topline with muscular, wide rump, tail of medium length, often truncated, rounded, low dipped back, found gable. Limbs strong, often the color black hooves. Udder rounded, full, is strictly vertical with bifurcated towards the nipples. Animals in bulk hornless. Animals of this breed are well adapted to the harsh climatic conditions of the northern regions of Kazakhstan and intensive methods of beef cattle.

THE RESULTS OF RESEARCH.

Targeted selection and breeding work with a herd of cattle Kazakh white, auliekolskoy and Hereford breeds in farms "Bapysh Seisenbayev" Baizak district of Zhambyl region, "Bagration-2» Ulan district of East Kazakhstan region and LLP "Kegen-agro" Raiymbek District of Almaty the area was carried out by scientists of the Kazakh National agrarian University.On 01.01.2015, at the above farms were counted fairly large herd of pure-bred animals (Table 1): 1445 heads of thoroughbred cattle Kazakh white breed 588 head of Hereford breed and 308 head auliekolskoy breed. Adult ewes desired type older than 3 years on the farms were counted 569 heads of Kazakh white, 345 head of Hereford and 142 head auliekolskoy rocks.

The results of appraisal of purebred cattle farms above are presented in Table 1 and 2.

Table 1 The number of livestock and the structure of farms and herds of different breeds

Indicators	Industry							
	Farm «Bagration-2»		Ltd «Kegen-agro»				Farm «BapyshSeysenbay»	
breed	Kazakh bald		Kazakh bald		Hereford		Auliekolskaya	
	head	%	head	%	head	%	head	%
In total	1275	100	170	100	588	100	308	100
Gobies adults	20	1,6	3	1,8	29	4,9	5	1,6
bulls 15-18 months.	119	9,3	38	22,4	45	7,7	-	-

bulls 2015	123	9,6	25	14,7	23	3,9	75	24,4
Cow adults	547	42,9	22	12,9	345	58,7	142	46,1
calfves15-18 months.	98	7,7	63	37,1	126	21,4	26	8,4
calfves 2015	368	28,9	19	11,2	20	3,4	60	19,5

As can be seen from Table 1, in September and October 2015, these farms was conducted Valuation of all purebred livestock typical of cattle a total of 308 goals in the farm "Bapysh Seisenbayev" 1275 goals in the farm "Bagration-2", 758 heads LLP "Kegen-agro". Of these, the number of individual animals probonitirovannyh desired type (elite and elite-record) made by the Kazakh white breed in the farm "Bagration-2", 932 goals, or 73.1%, and 318 first-class goals, accounting for 24.9%, TOO " Kegen-agro "in Kazakh white breed 145 heads or 85.3%, and top-notch 25 goals, accounting for 14.7%, in Hereford, respectively, the animals of the desired type (elite and elite-record) sostavilo546 heads or 92.9 %, and top-notch 42 goals, accounting for 7.1%, and auliekolskoy 240 heads or 77.9%, and top-notch 68 goals, accounting for 22.1% of the total population of purebred animals respective breeds. It should be noted the high proportion of the desired type of cows in the farms, which indicates a relatively high level of selection and breeding work. The class composition of herds of different breeds and farms listed in Table 2.

Table 2 - The class composition of herds of different farms and sawmills

Age-sex group	In total		among other									
	head	%	Record elite		Elite		I		II			
			head	%	head	%	head	%	head	%	head	
The farm "Bagration-2» Kazakh white breed												
adult bulls	20	1,6	20	4,9	-	-	-	-	-	-	-	
κcows	547	42,9	137	33,3	239	45,9	162	50,9	9	36,0	-	
Heifer elder by 18 month.	98	7,7	35	8,5	39	7,5	22	6,9	2	8,0	-	
Heifer above 18 month.	231	18,1	83	20,2	92	17,7	51	16,0	5	20,0	-	
Heifer above 12 month.	137	10,7	49	11,9	55	10,6	30	9,4	3	12,0	-	
Bull-calf above 18 month.	119	9,3	43	10,5	47	9,0	26	8,2	3	12,0	-	
Bull-calf above 12 month.	123	9,6	44	10,7	49	9,4	27	8,5	3	12,0	-	
Total	1275	100	411	32,2	521	40,9	318	24,9	25	2,0	-	
"Kegen-agro" LLP Kazakh white breed												
Adult bulls	3	1,72	3	4	-	-	-	-				
cows	22	13	13	17,1	6	8,7	3	12				
Heifer elder by 18 month.	18	10,5	11	14,5	7	10,1	-	-				
Heifer above 18 month.	45	26,5	17	22,3	20	29	8	32				
Heifer above 12 month.	19	11,2	9	11,8	5	7,2	5	20				
Bull-calf above 18 month.	38	22,5	15	19,7	18	26	2	8				
Bull-calf above 12 month.	25	14,7	8	10,5	10	14,5	7	28				
Total	170	100	76	44,7	69	40,6	25	14,7				
all Kazakh Whitehead breed	1445	100	487	33,7	553	38,3	378	26,7				
"Kegen-agro» LLP Hereford												
Adult bulls	29	4,9	28	6,2	1	-	-	-				
cows	345	58,7	311	69,1	29	30,2	5	12				
Heifer elder by 18 month.	64	10,9	32	7,1	21	21,9	11	26,2				
Heifer above 18 month.	62	10,5	23	5,1	17	17,7	22	52,4				
Heifer above 12 month.	20	3,4	17	3,7	3	3,1	-	-				
Bull-calf above 18 month.	45	7,7	19	4,2	23	24	3	7,1				
Bull-calf above 12 month.	23	3,9	20	4,4	2	2	1	2,4				
Total	588	100	450	76,5	96	16,3	42	7,1				
all Hereford breed	588	100	450	76,5	96	16,3	42	7,1				
"Bapysh Seisenbayev" farm auliekolskaya breed												
Adult bulls	5	1,6	-	-	5	2,2	-	-				
cows	142	46,1	17	100	119	53,4	6	8,8				
Heifer elder by 18 month.	21	6,8	-	-	7	3,1	14	20,6				
Heifer above 18 month.	5	1,6	-	-	2	0,9	3	4,4				
Heifer above 12 month.	60	19,5	-	-	21	9,4	39	57,4				
Bull-calf above 18 month.	-	-	-	-	-	-	-	-				
Bull-calf above 12 month.	75	24,4	-	-	69	30,9	6	8,8				
Total	308	100	-	-	223	30,9	68	22,1				
All auliekolskaya breed	308	100	17	100	223	72,4	68	22,1				

As can be seen table- 2 in all major farm animal population is classified as elite, and the elite of the record, the proportion of animals 1 and 2 classes a little, and no class of animals and not at all.

Table 3 shows the composition of a fairly young cows in krestyanskom farm "Bagration-2" in the Kazakh white breed, including 173 goals, or 31.6% of the animals are 1-3 hotels. The LLP "Kegen-agro" in Kazakh white breed 22 head of breeding stock the fourth calving, by 345 heads of Hereford third calving. The farm “Bapysh Seisenbayev” on auliekolskoy breeds 53 heads, or 37.3% of the animals 1-3 of hotels.

Table 3 - Distribution of judge cows on the number of hotels

Indicators	Number of heads								Total
	1	2	3	4	5	6	7	8	
The farm "Bagration-2» Kazakh white breed									
animal units	39	49	85	185	139	29	21	-	547
%	7,2	9,0	15,5	33,8	25,4	5,3	3,8	-	100
"Kegen-agro" LLP Kazakh white breed									
animal units	-	-	-	22	-	-	-	-	22
%	-	-	-	100	-	-	-	-	100
"Kegen-agro» LLP Hereford									
animal units	-	-	345	-	-	-	-	-	345
%	-	-	100	-	-	-	-	-	100
"Bapysh Seisenbayev" farm auliekolskaya breed									
animal units	9	41	3	62	27	-	-	-	142
%	6.3	28.9	2.1	43.7	19.0	-	-	-	100

In connection with the year-round grazing, as well as the fact that the breeding area of the Kazakh white, auliekolskoy and Hereford breeds refers to the desert and steppe zone of the South-Eastern region of Kazakhstan, strict requirements not only to the constitutional fortress, but also to the value of animals live weight .In 2015, the average live weight of the bulk of cows on farms was 495-540 kg, which fully meets the minimum requirements for class I. A similar trend is observed at bulls and calves, indicating that a sufficiently large value of animals, their strong constitution and good expression of their meat quality. Variability of live weight of animals desired type of different breeds and sex and age groups is presented in Table 4.

Table 4 - Variation of live weight of pure-bred animals of different breeds of the desired type and gender and age groups, kg

Animals age	♀				♂			
	n	$X \pm m_x$	σ	C_v	n	$X \pm m_x$	σ	C_v
Kazakh white breed								
6 month	10	168±4,8	15,2	9,0	10	193±11,4	19,7	10,2
12 month	10	270±5,9	18,7	6,9	10	342±13,2	22,9	6,7
18 month	10	353±6,4	20,2	5,7	3	479±17,6	30,5	6,4
24 month	10	408±6,3	19,9	4,9	3	581±18,1	31,3	5,4
3 year	15	437±5,2	20,1	4,6	4	718±15,7	31,4	4,4
4 year	15	491±6,1	23,6	4,8	3	823±17,2	29,8	3,6
5 years and elder	15	533±7,3	28,3	5,3	3	896±21,6	37,4	4,2
Auliekolskaya breed								
6 month	10	178±6,8	21,5	12,1	4	203±11,4	19,7	10,2
12 month	10	272±6,5	20,6	7,6	4	345±15,2	30,4	8,8
18 month	10	371±6,9	21,8	5,9	4	492±19,6	39,2	8,0
24 month	10	419±6,8	21,5	5,1	4	587±20,1	40,2	6,8
3 year	10	456±7,5	23,7	5,2	4	746±17,1	34,2	4,6

4 year	10	500±8,1	25,6	5,1	4	865±18,2	36,4	4,2
5 years and elder	10	545±9,3	29,4	5,4	4	902±24,6	49,2	5,5
Hereford breed								
6 month	10	176±6,5	21,2	10,1	4	201±10,2	19,5	10,5
12 month	10	271±6,1	19,9	6,5	4	343±14,1	29,6	7,8
18 month	10	370±7,0	21,1	5,2	4	491±20,1	37,7	7,7
24 month	10	418±6,5	20,8	4,9	4	585±20,7	39,8	5,8
3 year	10	458±6,5	22,5	4,2	4	740±16,3	32,1	3,8
4 year	10	495±7,3	23,5	4,3	4	858±17,1	35,3	3,9
5 years and elder	10	541±8,9	27,9	4,8	4	900±22,8	48,7	5,0

The analysis of individual animal weighing desired type of different breeds and sex and age groups, and the results are shown in Table 4. Data on body weight show that in almost all groups of animals more than the minimum standard Class I requirements. At the same time there are a few high performance variability of live weight (□, Cv) auliekolskoy herds of cattle breeds as compared with the herds of other beef breeds. This feature explains the best qualities Opportunistic auliekolskoy cattle breed local population and consolidation of the worst trait that is particularly evident in the more severe conditions of their breeding.As for exterior features, the present stage of the Kazakh white, Hereford and auliekolskoy breeds bred in the farms of the above, have sufficiently good characteristics of exterior and constitution. Results of the study measurements of animals desired type are given in Table 5.

Table 5 - Measurements of animals desired type, see.

	Measurements	Cows 5 years and elder			Bulls 5 years and elder		
		$X \pm m_x$	σ	C_v	$X \pm m_x$	σ	C_v
	Kazakh white breed						
1	height at the withers	120,7±1,46	5,65	4,7	132,1±3,51	6,08	4,6
2	height in the sacrum	123,5±1,58	6,11	5,0	130,2±2,90	5,02	3,3
3	chest width	38,9±0,48	1,86	4,8	62,1±0,81	1,40	2,3
4	chest depth	66,6±0,90	3,49	5,2	80,2±1,22	2,11	2,6
5	Length of body	152,2±1,93	7,47	4,9	166,3±2,30	4,0	2,4
6	head of femur	50,2±1,20	4,65	9,3	66,1±2,46	4,3	6,4
7	chest girth	181,2±1,98	7,67	4,2	232,3±3,54	6,13	2,6
8	metacarpus	18,9±0,17	0,65	3,5	25,1±0,26	0,45	1,8
	Auliekolskaya breed						
1	height at the withers	127,7±1,55	6,20	4,9	138,1±3,11	12,44	9,0
2	height in the sacrum	133,5±1,69	6,76	5,1	139,2±3,24	12,96	9,5
3	chest width	42,9±0,53	2,12	4,9	65,1±1,03	4,12	6,3
4	chest depth	69,6±1,12	4,48	6,4	87,2±1,52	6,08	7,0
5	Length of body	154,2±2,11	8,44	5,5	174,3±2,80	11,20	6,4
6	head of femur	52,2±1,55	6,20	11,9	72,1±2,46	4,3	6,4
7	chest girth	188,2±2,11	8,44	4,5	245,3±3,94	15,76	6,4
8	metacarpus	19,5±0,25	1,00	5,1	28,1±0,36	1,44	5,1
	Hereford breed						
1	height at the withers	126,5±1,58	5,89	4,1	137,4±3,21	11,87	8,9
2	height in the sacrum	132,3±1,59	6,76	4,8	137,5±3,17	11,62	8,7
3	chest width	41,8±0,60	1,95	5,0	64,2±1,37	3,95	6,6
4	chest depth	68,4±1,21	4,32	5,9	86,1±1,45	5,17	6,5
5	Length of body	153,3±1,60	7,55	4,7	173,1±2,59	10,04	6,6
6	head of femur	51,8±1,49	6,12	10,7	71,5±2,37	4,1	6,1
7	chest girth	187,8±2,08	8,35	4,4	244,6±3,78	14,59	6,0
8	metacarpus	19,6±0,29	1,09	5,0	28,2±0,37	1,41	5,4

Breeding animals of the desired type in the above farms tall enough, as evidenced by measurements of the animals from the table 5 and indexes build in Table 6.The results of individual measurements measurements of cows and bulls of the herd breeding body are shown in Table 5. These data indicate that the animals studied herds quite meet the standard requirements and also on the exterior (the requirements established for the elite class). At the same time there is a noticeable difference in terms of volatility, which are also quite high and it is necessary to pay special attention in the further breeding work.

Table 6 - Indexes physique desired type of animal

	Index	ows	ulls
	Kazakh white breed		
1	rangy	4,7	9,3
2	lengthiness	25,7	25,7
3	chest	8,4	7,5
4	Pelvis and chest	7,4	3,9
5	chested	2,5	6,9
6	overgrown	02,3	8,4
7	massive	50,1	75,8
8	blockiness	19,5	39,8
9	boniness	5,8	8,9
	Auliekolskaya breed		
1	rangy	5,5	6,9
2	lengthiness	20,8	26,2
3	chest	1,6	4,7
4	Pelvis and chest	2,2	0,3
5	chested	3,6	7,1
6	overgrown	04,5	00,8
7	massive	47,4	77,6
8	blockiness	22,0	40,7
9	boniness	5,3	0,3
	Hereford breed		
1	rangy	5,5	6,9
2	lengthiness	20,8	26,2
3	chest	1,6	4,7
4	Pelvis and chest		

		2,2	0,3
5	chested	3,6	7,1
6	overgrown	04,5	00,8
7	massive	47,4	77,6
8	blockiness	22,0	40,7
9	boniness	5,3	0,3

It should be noted about the high rates of infants measurements and indexes that explains the relatively better conditions of breeding areas of these animals, as compared to other farms in the South-East region and Central Kazakhstan. Relatively high performance high altitude and latitude measurements observed from an early age the young of these animals. The results of measurement shown in Table 7, measurements of calves with age and evidence of successful adaptation and good adaptability of the breed in their breeding area.

Table 7 - Age Variability exterior measurements and indexes build in bulls of the Kazakh white breed (goal 5)

Indicators		1 day	8 month	12 month	18 month
body measurements	height at the withers	65,7	100,5	108,5	118,6
	height in the sacrum	68,6	104,5	111,5	120,1
	chest width	13,5	31,6	37,3	43,4
	chest depth	28,6	49,2	55,9	63,1
	Length of body	66,2	111,9	124,5	134,3
	head of femur	15,2	33,4	40,8	44,8
	chest girth	74,5	142,4	158,4	180,6
	metacarpus	10,0	17,6	18,2	20,3
Body index	rangy	56,4	51,0	48,4	46,7
	lengthiness	100,7	111,3	114,7	113,2
	chest	47,2	64,2	66,7	68,7
	Pelvis and chest	88,8	94,6	91,4	96,9
	chested	20,5	31,4	34,9	36,6
	overgrown	104,4	104,0	102,8	101,3
	massive	113,3	141,5	145,9	152,2
	blockiness	112,5	127,1	127,1	133,4
	boniness	15,2	17,5	16,8	17,1

In the farms involved in breeding of Kazakh white, Hereford and auliekolskoy rocks under the South-East region of Kazakhstan, animals, body measurements is somewhat lower than that of animals of the same breed, bred in conditions of northern regions. This is, in our opinion, is due to the body's response of animals to ensure the constitutional features and adaptive qualities in the more severe conditions of animal breeding.From the analysis of the data in Table 7 also shows that the animals prior to 8 months had large values of measurements, especially the latitudinal and torso length. This trend continued up to one year of age with a gradual smoothing differences. Similar Containers pattern observed in animals and increase in intensity measurements.The farms located in the area of beef cattle in the production of beef used sparingly - intensive cultivation and feeding system. This system is not intended to produce maximum growth. It is based on the rational use of cyclic feed production due to natural - climatic factors. Along with fattening in the stall, the system involves the use of grassland for feeding, from which get the most complete and cheap food, it also requires the creation of a stable and strong fodder, feeding a balanced diet.Cows domestic beef breeds and many foreign breeds have relatively high milk production, allowing to grow to weaning young

high body weight, which should reach to 6-7 months of age is not less than 180-200 kg. With increasing number of detachable mass of young scientists linked the future of beef cattle. They believe that in the conditions of intensive production of beef cattle should produce calves live weight of 400-450 kg at 8-10 months of age.This will be sent to slaughter young immediately after weaning it from cows and receive high-quality beef. Such cultivation is associated with increased dairy cow productivity. With the existing technology is when the calves after weaning put on at the beginning of rearing, and then the final fattening, getting too high detachable live weight of young animals is not always economically feasible.In animal growth is influenced by many genetic and non-genetic factors that appear both in the prenatal and postnatal development. Genetic factors determine the external border of the growth, and non-genetic-bottom. For beef cattle study of these factors is crucial for breeding, feeding and housing of animals.For successful breeding and improvement of beef cattle in the direction of increasing breeding and productive qualities you need to know and take into account the particular breed of their growth and development. The ability to reach the meat of animals at a young age due to high body weight and heredity depends on the pedigree accessory. For each breed characterized by its own characteristics to increase body weight in different periods of ontogeny.The indicators that have been studied during the study: body weight on the growing period; the growth rate for the absolute and relative increase in average daily are presented in Table 8.

Table 8 - Variation of live weight of young animals, kgX $\pm m_{x,}$

Age, month	Sex	Farms			
		"Bagration-2»	"Kegen-agro" LLP		"Bapysh Seisenbayev"
		Breeds			
		Kazakh white breed	Kazakh white breed	Hereford	Auliekolskaya
At birth	♂	30,5±1,17	29,2±1,42	30,9±2,44	31,8±3,58
	♀	27,5±0,58	26,3±1,70	28,3±1,88	29,7±1,21
2	♂	71,2±1,55	69,1±2,03	73,1±1,92	75,2±1,70
	♀	65,4±1,48	62,5±2,69	66,2±1,25	69,7±1,29
4	♂	137,3±1,27	135,2±1,46	141,1±2,62	158,2±1,03
	♀	129,5±1,85	127,1±2,02	131,2±3,55	133,5±2,57
6	♂	190,7±7,59	187,2±5,27	200,4±4,60	211,5±3,25
	♀	172,3±4,45	168,5±3,89	175,9±3,72	180,9±5,62
8	♂	220,5±7,60	212,7±5,17	225,8±6,53	239,4±3,37
	♀	198,7±5,62	190,1±4,59	205,1±4,37	227,2±5,11

Analysis of variability of live weight of young animals of different species from different farms showed that the calves of the dairy season normally grow and develop, the data indicate a fairly high rate of growth.The live weight of calves at birth auliekolskoy breed krestyanskom farm "Bapysh Seisenbayev" was 31.8 / 29.7 kg, compared with a live weight of calves of the Kazakh white-headed breed grown in LLP "Kegen-agro" rather 29.2 / 26.3 kg, the difference between the youngsters of the Kazakh white-headed breed and Hereford from ± 0,4 up to ± 1,2 kg.According to body weight at birth, young auliekolskoy breed was heavier calves other groups within 2.6-3.4 kg ($P \leq 0,01$).

In the future, this advantage becomes more pronounced up to 8 months of age.Intergroup comparison of body weight showed that the overall rate of increase of live weight in all age periods was higher in young auliekolskoy breed.A good indicator of changes in body weight of growing young is absolute, average and relative growth rates (Table 9).

Table 9 - The intensity of the growth of young

Farms	Breed	Periods of growth	Sex	Absolute growth, kg	The average daily growth, g,	Relative growth, %
"Bagration-2»	Kazakh white breed	Up to 2	♂	40,7	678	133,4
			♀	37,9	632	132,8
		2-4	♂	66,1	1,102	92,8
			♀	64,1	1,068	98,0
		4-6	♂	53,4	890	38,9
			♀	42,8	713	33,0
		6-8	♂	28,8	497	15,6
			♀	26,4	440	15,3
"Kegen-agro" LLP	Kazakh white breed	до 2	♂	39,9	665	136,6
			♀	36,2	603	137,6
		2-4	♂	66,1	1,102	95,7
			♀	64,6	1,077	103,4
		4-6	♂	52,0	867	38,5
			♀	41,4	690	32,6
		6-8	♂	25,5	425	12,0
			♀	21,6	360	11,4
	Hereford	Up to 2	♂	42,2	703	136,6
			♀	37,9	632	134,0
		2-4	♂	68,0	1,133	93,0
			♀	69,0	1,083	98,2
		4-6	♂	59,3	988	42
			♀	44,7	745	34
		6-8	♂	25,4	423	12,7
			♀	29,2	487	16,6
"Bapysh Seisenbayev"	Auliekolskaya	Up to 2	♂	43,4	729	136,5
			♀	40,0	667	134,7
		2-4	♂	83,0	1,383	110,4
			♀	63,8	1,068	91,5
		4-6	♂	53,3	888	33,7
			♀	47,4	790	35,5
		6-8	♂	27,9	465	13,2
			♀	46,3	772	25,6

Thus, from the data in Table 9 we are seeing that in the period from birth to 8 months. young age to develop and give high gain. In terms of absolute, relative and average daily gain of young breed showed a higher increase.The maximum growth rate was observed in young animals in the following age periods: in "Bagration-2» from birth to 8 months. Kazakh white breed breed (133.4; 1,102; 66.1), LLP "Kegen-Agro", respectively, of the Kazakh white-headed breed breed calves (137.6; 1,102; 66.1), young Hereford (136.6; 1,133 ; 69.0) in "Bapysh Seisenbayev" young auliekolskoy breed (136.5; 1,383; 83.0). The minimal increase was observed between the ages of 6 to 8 months. in "Bagration-2» in young Kazakh white breed breed (15.3; 440; 26.4), LLP "Kegen-agro" in young Kazakh white breed breed from 6 to 8 months. (11.4, 360, 21.6), in young Hereford 6 to 8 months. (12.7, 423, 25.4), in "Bapysh Seisenbayev" in young auliekolskoy breed from 6 to 8 months. (13.2, 465, 27.9).At the same time, more intensive growth throughout the experience, and especially in the final stage was observed in young animals auliekolskoy and Hereford apparently here affects the level of selection - breeding work carried out in this sector.

Table 10 - Coefficient of increase of live weight of young animals

Age, month	ол	Farms			
		« Bagration-2»	LLP "Kegen-Agro"		"Bapysh Seisenbayev"
		Breeds			
		Kazakh white breed	Kazakh white breed	Hereford	Auliekolskaya
2		2,33	2,37	2,37	2,36
		2,38	2,38	2,34	2,35
4		4,50	4,63	4,57	4,97
		4,71	4,83	4,64	4,49
6		6,25	6,41	6,49	6,65
		6,27	6,41	6,22	6,09
8		7,23	7,28	7,31	7,53
		7,23	7,23	7,25	7,65

Certain differences set and by the coefficient of increasing body weight with age (Table 10). In the absolute value of the coefficient is greatly influenced by the mass of the calf at birth. Its importance in all age periods was greatest in bulls and heifers breed auliekolskoy 2.36-7.53 and 2.35-7.65 respectively. By eight months of age, live weight of calves of the Kazakh white breed in krestyanskom farm "Bagration-2» has increased 7.23 times, and the Kazakh white and Hereford in LLP "Kegen-Agro", respectively, 7.23-7.28 and 7.25-7.31. This is due to lower body weight of newborn calves of the Kazakh white and Hereford in these farms and the relatively high level of body weight in other age periods.

Expected results and efficiency of breeding cattle Kazakh white, Hereford and auliekolskoy rocks in the south-eastern region of Kazakhstan

As a result of the work expected results were as follows:

- Development of methodological foundations of typing and increasing the production of meat of cattle and flocks of various types, as well as the factors that affect the quality and quantity aspect of the breed;
- Identification of factors that influence the formation of meat efficiency and quality of animal meat;
- Proposed an effective selection and processing methods to increase production, intensive rearing, foraging (feeding) and early calving cows studied herds;
- Predusmatreno give suggestions to improve the technology of cultivation of high-value breeding young growth of other products from different inbreeding populations of Kazakh white, Hereford and auliekolskoy rocks.
- Recommendations to improve the quality and increase the number of breeding production of the Kazakh white, and Hereford breeds auliekolskoy under steppes, deserts and semi-deserts of South-Eastern region of Kazakhstan.

At the present time, unfortunately agrarian scientists, the gene pool of many breeds and farm animal populations in Kazakhstan due to a sharp decline in population and the weakening of selection and breeding work is in a catastrophic situation. This also applies to the cattle breeding of these zones. Scientists breeders undertaken great efforts to preserve the valuable and rare genotypes of different species and populations of cattle. To successfully address the problems on conservation and the accelerated increase in the number of the number of animals should be developed and widely introduced into the practice of breeding cattle. New breeding and processing methods as the use of combinative ability of selection of different features of existing breeds of farm animals in order to maximize opportunities heterosis phenomena polymer, pleiotropic, additive action animal genes [10].

The introduction of more efficient methods of selection options and the selection of parental pairs for improved breeding and productive qualities of populations of beef cattle, will significantly increase the production of high-value beef and breeding products derived from different species, and improve their quality.The expected obscheporodnym effect of the plan is also - a comparative study of the productivity of different beef cattle populations and the effectiveness of the impact of different selection methods on the productive and some biological quality of their offspring: growth and

development, ripening, meat and milk production, breeding efficiency in the degree of variability, correlation and repeatability of live weight of young animals received.Of the possibilities of practical use of the results of implementation of the Research activity can be called, as that developed as a result of research methods of selection of different populations of this species are used to produce offspring of the desired types of different groups of animals with a higher meat and milk yield in the number of farms in South-Eastern region of Kazakhstan. As a result of the implementation of the recommendations developed by the economic effect obtained only from sales of local cattle population in the age of 8-9 months will be from 9.9 to 22.9% more than before the introduction.Such a result will necessarily affect the social situation of the local population and, in the end, will greatly enhance the efficiency of the use of arid and semiarid rangelands.

CONCLUSION

1. Objectives of selection and breeding work in herds of Kazakh white, and Hereford breeds auliekolskoy farms "Bagration-2» Ulan district of East Kazakhstan region, "Bapysh Seisenbayev" Baizak district of Zhambyl region and LLP "Kegen-agro" Raiymbek District of Almaty Region currently, it created quite a consolidated highly productive herd of Hereford and Kazakh white breeds auliekolskoy possessing valuable biological economic-useful signs. Animals are large, have a strong constitution, strong bone and good quality meat and dairy.
2. The average live weight of the main breeding bulls of the Kazakh white breed is between 730-950 kg, ewes - 480-600 kg, newborn calves - 25-28 kg, respectively. The average live weight of the main breeding bulls auliekolskoy breed is in the range of 800-950 kg, ewes - 500-630 kg, newborn calves - 24-32 kg. The average live weight of the main breeding bulls of Hereford is in the range 720-900 kg, ewes - 440-540 kg, newborn calves - 24-30 kg.
3. On 01.01.2016, at the above farms, there were a sufficiently large herd of pure-bred animals 1445 heads of thoroughbred cattle Kazakh white breed 588 head of Hereford and 308 goals auliekolskoy breed. Adult ewes desired type older than 3 years on the farms, there were 569 heads of Kazakh white breed 345 head of Hereford and 142 goals auliekolskoy breed.
4. In September 2015, these farms was conducted Valuation of all purebred cattle herd typical total of 1275 animals farm "Bagration-2", 338 head of the farm "Bapysh Seisenbayev" 758 heads of LLP "Kegen-Agro". Of these, the number of individual animals probonitirovannyh desired type (elite and class I) made by the Kazakh white breed 895 heads or 70.2%, including Elite 484 goals and 353 first-class goals, accounting for 38.0 and 27.7%, for auliekolskoy breed, respectively, the animals of the desired type (elite and class I) was 153golov or 49.7%, including 153 heads and the elite 155golov first class, which is 49.7 and 50.3% at Hereford, respectively, the animals of the desired type (elite and class I) was 546golov or 92.9%, including 96 luxury and first-class goals 42 goals that 16.3 and 7.1% of the total population of purebred animals respective breeds. It should be noted the high proportion of the desired type of cows in the farms, which indicates a relatively high level of selection and breeding work.

BIBLIOGRAPHY

1.Багрий Б.А. Разведение и селекция мясного скота. Агропромиздат, М., 1991- 256 с.
2. Крючков В.Д., Бай В.А. Перспектива развития мясного скотоводства Казахстана//Вестник с.-х. науки Казахстана, 1985г,№7.-10-15с.
3. Хабулова Н.М. Основные тенденции развития скотоводства в США // Вестник с.-х. наук. 1990, № 3. –С. 35-36.
4. Winch J.E. The national picture // Proc. Of the National Forade Sumposium. 1981. – Canada, Pttawa. 1983. – P. 57.
5. Lone C. Lncreasion returns from the best herd // Abtrdin – Anguss. J. 1975. № 57.– P.118-122.

6. Willis M.B., Preston T.R. Some aspects of performance testing in the Charolais breed // Rev. Cubana Ciens. Agris. 1974. № 1- P. 21.
7. Forage and Grassland Conf. Proc. Of the 1981.USDA. – P. 1-70/
8. Jones M. Low birth weghts and high yearling weigths: you can have both. Cattleman the magaz.1978, 41, 5:48.
9.ТорехановА.А.Лугопастбищноекормопроизводство: учеб. / А.А. Тореханов, И.И. Алимаев, С.А. Оразбаев. – Алматы: Гылым, 2008. – 44-49 с.
10. Гуллиев Б.Х. и др. Химически консервированный силос в рационах бычков при выращивании их на мясо // Вестник с/х. науки Казахстана.- 2008.- № 10. – С. 32 -33.
11.Аубакиров Х.А. Кормление сельскохозяйственных животных: Учебник / Х.А. Аубакиров, А.А. Тлепов; МОН РК. – Алматы: Отан, 2015. – 200-205 с.