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THE MAIN DIRECTIONS OF DEVELOPMENT OF SPECIALIZED MEAT CATTLE BREEDING IN KAZAKHSTAN

Abstract. The main conditions of successful development of meat cattle breeding in the Republic of Kazakhstan, consist in increase in number of the meat cattle at the expense of the accelerated reproduction and creation of new breeding herds of domestic breeds (Kazakh white-headed and auliyekolsky), expansion of a genetic variety and increase in the massif of breeding animals with formation of thoroughbred reproductive herds of specialized meat breeds of foreign selection. Improvement of genetic potential of the meat cattle has to be carried out on the basis of use of effective methods and methods of selection, removal of new selection achievements, development of optimum technologies of contents and diets of feeding, application of modern ways of a reproduction and assessment of breeding value of animals.

Key words: meat cattle breeding, breeding livestock, technology, breed, animals, pasture.

On the scale of development of world economy demand for food steadily increases in proportion to increase in population of the planet. In food balance of the person an important role is played by the meat products and especially meat beef received from cultivation of the cattle of specialized meat breeds. More than a half of all beef produced in the world is the share of the USA, China, Argentina, Australia and Brazil. The greatest number of beef is imported now by the USA and Russia (more than one million tons per year), then there are Japan, Italy, France, Holland, Egypt, Germany, Mexico and Great Britain (import of beef to these countries fluctuates from 357 to 719 thousand tons per year). Kazakhstan in this list is in the 52nd place and import of beef to our country makes no more than 14-15 thousand tons annually. Follows separately will stop on the export countries of high-quality beef: these are generally the countries having considerable fodder resources, first of all having the existence of cheap pasturable forages developed by production of grain and field forage production. The following export states of beef can be carried to such countries: Brazil (898 thousand tons per year), Australia (702 thousand tons), India (452 thousand tons), New Zealand (345 thousand tons) and Argentina (170 thousand tons). Proceeding from existence of extensive natural pastures, these countries not only completely provide internal requirements, but also have essential income from realization of beef in foreign markets.

In this regard Kazakhstan having a significant amount of natural pastures, numerous country people and having favorable and long-term partners in realization of high-quality beef in the person of Russia and China can the next decade will take place as the serious producer and the supplier of high-quality beef in the Central Asian and Eurasian regions. For achievement of these purposes in Kazakhstan there is a need the accelerated rates to develop specialized meat cattle breeding which as independent branch of livestock production, began to be created in the republic in the 30th years of the last century when by reproductive and absorbing crossing of the local (native) Kazakh and Kalmyk cattle with Herefords it was created and in 1950 the Kazakh white-headed breed is approved. Animals of this first domestic breed combined the excellent meat qualities and precocity inherited from Herefords and also characteristic to the local cattle

adaptive and maternal properties. It allowed to part successfully breed in all regions of the Republic having extensive natural pastures [1].

With development virgin and laylands in the 50-60th years, the areas of natural fodder grounds in a traditional zone of meat cattle breeding it was considerably reduced. It set the task of the transfer of the industry on intensive methods of maintaining at which animals not only receive forages on pastures of natural grounds, but as well from field forage production. Large industrial complexes on production of beef and specialized farms on sagination were created. Before transition to market economy in the republic there were 1 million 144 thousand beasts of this breed, including 440 thousand cows. Now the number of the cattle of the Kazakh white-headed breed fluctuates within 180-200 thousand heads. Animals are characterized by high reproductive, feeding and feeding qualities. Bull-calves and heifers when depriving from mothers at 7-8 monthly age reach live weight of 200-240 kg. The young growth at cultivation on natural organized on good pastures, without fertilizing by concentrates, gives 800-900 g of average daily gain of weight, and on sagination – 1000 and more.

The intensive technology of maintaining meat cattle breeding demanded creation of new highly productive genotypes, increase in level of selection and breeding work, the direction of selection and the requirement to the meat cattle changed. If earlier paramount significance was attached to precocity of animals, then now to the forefront there were indicators of intensity of growth in combination with final big weight. Therefore activity of domestic scientists and production workers selectors goes for improvement of breeding and productive qualities of the meat cattle domestic, deliveries adaptation of the imported breeds [2].

At the heart of selection of the meat cattle on the intensity of growth which is positively correlating with other signs (payment of a forage, live mass and big mass of hulks) two-stage selection of bulls by means of their tests on own efficiency and quality of posterity is put. Use of this method in selection of domestic breeds yields positive results. The manufacturing bulls improving the main signs of selection in posterity were revealed, their sons with intensity of growth till 1300 on average per day with expense of a forage of 6.9-7.2 fodder units are grown up and tested on efficiency. The obtained data indicate high genetic opportunities of domestic breeds in general and in particular separate breeding herds. About same indicators of record-holder animals testify: bulls with a live weight of 1200-1400 kg, cows of 800-1000 kg. However in most farms, owing to shortcomings of technological character, the hereditary potential of the domestic meat cattle is implemented for 50-60%.

In 1992 one more domestic breed of the meat cattle – auliyekolsky, removed by difficult reproductive crossing was approved. A basis of creation of auliyekolsky breed were three meat breeds – Kazakh white-headed, to the sharola and Aberdeen-Angus [3].

Animals of new breed combine good fitness to local climatic and fodder conditions, high quality of meat Kazakh white-headed, precocity Angus, the big mass and intensity of growth sharolezsky breeds. Animals of auliyekolsky breed hornless, with light-pale-yellow color, sometimes with a cream shade, are classified as large by size. The live mass of bulls is in limits of 900-1200 kg, adult cows of 530-600 kg, young growth when depriving in 7-8 months of 200-240 kg, bull-calves on sagination give to 960-1400 g of average daily gain of weight with exit of ink 58-64%.

The breed was widely adopted in the Kostanay, North Kazakhstan, Almaty, Karaganda and Akmola regions of the republic.

In 2005 in structure of breed auliyekolsky two factory lines which young growth has the high intensity of growth inherited by generations of descendants are created: average daily gain of mass of bull-calves from 8 to 15 months – 1026g, or above unrelated to them peers for 9.4%, and the standard of breed – for 36.8%; spend forages for gain unit for 4.2% less; reach by 15 months of average weight of 429.7 kg, surpassing the compared analogs on 18.5 kg (4.5%) and the standard of breed – on 54.7 kg (14.6%).

Except two main domestic breeds, in the republic there are herds of breeding animals of domestic selection, small on number: the Kalmyk breed – in the semidesertic region of the Southern Kazakhstan area, Santa-gertruda (the zone Zhetysu type) – in Pribalkhashye, galloveysky – in the mountain region of Almaty region, gerefordsky – in West Kazakhstan, areas. Tasks of breeding work with these breeds – expansion of a genetic variety at thoroughbred cultivation and creation of meat herds by crossing from scotomas of local populations.

Unlike other breeds the intra pedigree structure of zhetysusky type of breed of a santa-gertrud differs in an allelic range of INRA23, ETH3, SPS115, ETH225, BM2113. The analysis of the studied population and genetic structures of zhetysusky type of breed of KRS of a santa-gertrud confirmed presence of the differentiated groups of animals in various subpopulations (farms) [4].

Parallel to the measures taken for the accelerated development of domestic meat cattle breeding at the initiative of the Ministry of Agriculture of RK since 2011 the "Development of the Export Potential of Meat of Cattle for 2011-2020" project providing increase in genetic potential of the meat cattle due to improvement and replication of a gene pool of domestic meat breeds and types (Kazakh white-headed, auliyekolsky, the Zhetysu type), and also accelerated expansion of breeding herd with delivery of a uterine livestock on import and creation of network of breeding farms is carried out.

The project plans increase in number of the meat cattle by 2020 to 61% of the general herd of cattle (now this indicator is 8-10%), bringing the export potential of beef to 180 thousand tons by 2020.

Now in the general number of cattle (6.0 million heads) about 7.0-8.0% or 420-480 thousand heads fall to the share of specialized meat. In the countries with the developed branch of meat cattle breeding (Canada, Brazil, the USA, Australia), the livestock of the meat cattle makes more than 20 million heads, and it is the share of one dairy animal 5-6 meat. In our case this ratio makes 1:7, in favor of dairy cattle breeding that very eloquently demonstrates low efficiency of dairy herd and poor development in Kazakhstan of branch of meat cattle breeding.

The number of a breeding livestock in meat cattle breeding is presented as follows: all breeding meat cattle not of many more than 440 thousand heads, including a uterine livestock – about 245 thousand. From the general livestock of the breeding meat cattle about 56.8% (250.0 thousand heads) are occupied by the Kazakh white-headed breed; 9.8% (49.0 thousand heads) are the share of the auliyekolsky cattle; 4.8% (21.2 thousand heads) Zhetysu type; 0.1% (521 heads) galloveysky cattle of domestic selection and 0.8% (3.7 thousand heads) Kalmyk cattle. 27.6% (121.6 thousand heads), generally Angus (76.3 thousand and 17.3%) and gerefordsky (44.4 thousand and 10.1%) breeds are the share of the import cattle. Such good point is very important that practically all imported meat cattle (more than 90%), is presented by a uterine livestock. It is also necessary to note that only at the expense of the delivery of the cattle of import meat breeds which is carried out recently, the breeding livestock of republican population of the meat cattle increased almost twice.

In this regard, the decision on delivery from abroad of a uterine livestock of meat breeds to which, despite big expenses, our Government went, it is necessary to perceive as a good point in development of the industry, but it is necessary to use it elaborately, scientifically and almost reasonably.

In the light of the designated directions of development of domestic meat cattle breeding, the “Sybaga” program providing increase in a breeding livestock of the meat cattle by method of absorbing crossing of a local uterus with bulls of specialized meat breeds is implemented by the Ministry of Agriculture of RK.

Thus the Government and the Ministry of Agriculture of RK undertake the considerable measures for the fastest growth of the branch of meat cattle breeding including preservation and development of own gene pool of meat breeds, and also formation of breeding base on the basis of delivery of the best world genotypes of the meat cattle.

Analyzing the basic principles of selection and breeding work in meat cattle breeding of Kazakhstan and the leading foreign countries, it is possible to come to a conclusion that in general the directions of selection are similar and are based on the general concepts since selection and selection of animals at phenotypical and genotypical assessment, the directed cultivation of young growth, consolidation and development of heredity of signs of selection. However for a number of the objective reasons, results of selection of the meat cattle in Kazakhstan are also abroad extremely ambiguous.

Organizational structure. In the countries with the developed meat cattle breeding, in particular in the USA, under control of the Ministry of Agriculture the complete organizational system of large cooperatives for improvement of the cattle including the companies on artificial insemination, sterns and veterinary science, pedigree associations, the universities, the centers of account, laboratory works. Cooperatives include the registered farms corresponding to a number of requirements: gene pool of herds, technologies of contents, security with sterns, to the level of breeding work, etc.

That system is not in Kazakhstan. In a rudimentary stage there is an introduction of large-scale selection, scientific ensuring selection and breeding work is carried out by very limited circle of erudite and

highly skilled practicians that does not give appropriate effect. In this regard big achievement is the organization of the information and analytical system (IAS) which widely takes root now in a number of farms practically of all regions of RK and also creation of republican chambers on the main meat breeds [5].

Reliability of information. Attaching due significance to the IAS system in the organization of large-scale selection, its effectiveness will be is shown only at exhaustive reliability of the data on all major events of production obtained from farms. It first of all concerns accurate and continuous identification of animals, availability of data on origin on a mother's and father's side, calving registrations, the copulations given about growth and development, etc. In the USA such information comes from farmers to the breeding centers on mutual trust therefore defects of breeding work, feeding and the contents which quickly are eliminated with participation of exit scientists and experts come to light. In case of not full or unreliable information farms are excluded from "system", and the last complicates receiving the credits by farmers.

Index assessment of breeding value of animals. Its application in a number of the countries provides results on all population of the animal registered farms, predetermines existence of the centralized organizational structure and exact information on animals in general on breed or population. And a phenotype and furthermore a genotype, authentically it is possible to estimate only at cultivation of animals with application of the unified feeding in all controlled farms on the diets providing manifestation of potential of efficiency, in particular to intensity of growth, not less than 1000 g in day. In Kazakhstan, scientists of institute of livestock production develop techniques and instructions of index assessment of the meat cattle. It is developed and step by step the control system of breeding process in meat cattle breeding of Kazakhstan takes root.

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ҚАЗАҚСТАНДАҒЫ МАМАНДАНДЫРЫЛҒАН ЕТТІ МАЛ ШАРУАШЫЛЫҒЫН ДАМЫТУДЫҢ НЕГІЗГІ БАҒЫТТАРЫ

Аннотация. Қазақстан Республикасында етті мал шаруашылығын табысты дамытудың негізгі шарттары тездетіп өсіру және отандық тұқымдардың (қазақ ақбас және әулиекөл) жаңа асыл тұқымды табындарын құру есебінен етті мал санын арттыру, шетелдік селекцияның мамандандырылған ет тұқымдарының таза тұқымды репродукторлық табындарын қалыптастыра отырып, генетикалық әртүрлілікті кеңейту және асыл тұқымды малдардың массивін ұлғайту есебінен етті мал санын арттыру болып табылады. Етті малдың генетикалық әлеуетін жетілдіру селекцияның тиімді әдістері мен тәсілдерін пайдалану, жаңа селекциялық жетістіктерді шығару, асыраудың оңтайлы технологияларын және азықтандыру рациондарын әзірлеу, жануарлардың асыл тұқымдық құндылығын репродукциялау мен бағалаудың қазіргі заманғы тәсілдерін қолдану негізінде жүзеге асырылуы тиіс.

Түйін сөздер: ет мал шаруашылығы, асыл тұқымды мал, технология, тұқым, мал, жайылым.

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ОСНОВНЫЕ НАПРАВЛЕНИЯ РАЗВИТИЯ СПЕЦИАЛИЗИРОВАННОГО МЯСНОГО СКОТОВОДСТВА В КАЗАХСТАНЕ

Аннотация. Основные условия успешного развития мясного скотоводства в республике Казахстан заключаются в увеличении численности мясного скота за счет ускоренного воспроизводства и создания новых племенных стад отечественных пород (казахской белоголовой и аулиекольской), расширении генети-

ческого разнообразия и увеличении массива племенных животных формированием чистопородных репродукторных стад специализированных мясных пород зарубежной селекции. Совершенствование генетического потенциала мясного скота должно осуществляться на основе использования эффективных методов и приемов селекции, выведения новых селекционных достижений, разработки оптимальных технологий содержания и рационов кормления, применения современных способов репродукции и оценки племенной ценности животных.

Ключевые слова: мясное скотоводство, племенное поголовье, технология, порода, животные, пастбище.

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