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HIGH-PRODUCTIVE MILK AND MEAT CATTLE IN "BAYSERKE-AGRO" LLP

Abstract. As a result of fruitful joint research of scientists in livestock breeding with the management and specialists of LLP "Bayserke-Agro" Almaty region, groups of high-yield milk and meat breeds have been created.

Key words: milk, meat, breeding, breeding, breeding, staging, fertility, reproduction, youngster, productivity.

"Bayserke-Agro" LLP is a diversified livestock breeding entity, in which the dairy and beef cattle industries occupy one of the leading positions.

The successful development of these industries is ensured by the use of innovative technologies that allow us to achieve high rates of both livestock productivity and gross milk and beef production.

In "Bayserke-Agro" LLP, it is assumed that the intensification of dairy and beef cattle breeding sectors, at this stage of development, should be based on the full realization of the productive potential of domestic and world gene pool cattle on a scientific basis.

For this purpose, a set of research and innovation measures is carried out, the essence of which boils down to the development of: keeping livestock in appropriate zoohygienic conditions; creating a strong food base, allowing animals to provide balanced rations for 23-28 detailed controlled indicators, taking into account the physiological state of their body and the level of genetically determined productivity; directional rearing of young stock for the full formation of a highly productive herd; veterinary and sanitary measures for the prevention of livestock diseases; production of milk and meat in hygienic conditions.

The implementation of these research results and activities allowed to fully reveal the genetic productive potential of cattle farming.

The dairy herd of the farm today has 1478 heads of black-and-white Holstein-Friesian cattle.

The formation of a highly productive dairy herd that meets the requirements of modern production technology of environmentally friendly and high-quality products is associated with scientific research, the maximum combination of biological, ethological features of imported cattle imported from Canada, with new natural and fodder conditions and combination with the most economical ways of leading the industry. The efforts of the management of the economy, specialists and scientists were directed towards solving this problem. At the same time, the aim was to introduce urgently the research results into the production of not only this farm, but also the dissemination of best practices and acquired knowledge in the southeast of Kazakhstan among holders of dairy and beef cattle. To do this, at the suggestion of the management of "Bayserke-Agro" LLP and personally Dosmukhambetova T.M. with the support of this idea by scientists of the Southeast region and in accordance with the decision of the Ministry of Agriculture of the Republic of Kazakhstan, an educational and research and production center, "Bayserke-Agro", was organized in the administrative building of the dairy complex.

Currently it is functioning successfully. Theoretical and practical classes on weekly courses with students (farmers, specialists of economic organizations and agricultural departments of different levels) are conducted by scientists from the Kazakh Research Institute of Animal Growing and Feed Production, the Kazakh Research Institute of Agriculture and Plant Growing, the Kazakh Research Institute of Veterinary Medicine and the Kazakh National Agrarian University.

The dairy herd monitoring conducted at the beginning of the research (2013) at "Bayerke-Agro" LLP showed that there were 435 livestock in the farm, of which 185 cows or 23.5%, 31 heifers, 185 heads of young animals 2011-2013. birth and 34 fattening bulls. In the same year, 381 heads of black and motley Holstein-Friesian Canadian breeds were imported.

Selection work with the herd, the formation of its genealogical structure were focused on the bulls of the Canadian selection Shore-mark James, Carol Prelude, Mototo Meat, Ha-Ho Cuby Manfred-Meat.

In the structure of the dairy herd in October 2015, "Bayserke-Agro" LLP had 641 head of cattle (100%), of which 279 milk cows (43.5%), 76 dry cows, 76 goals. (11.9%), heifers 2013, 2014 birth 120 goals. (18.7%), heifer age 39 goals. (6.1%), the remaining 127 calves born in 2015 (19.8%), of which 85 are calves and 42 gobies. The figures show that the number of livestock on the farm increased by 32.8%, cows by 33.7% and heifers by 72.3%, which is evidence of the normal movement of dairy herd turnover in accordance with zootechnical requirements. Currently, the number of dairy cows in the farm has reached 440 heads.

Because of preventive measures carried out by scientists and specialists of "Bayserke-Agro" LLP in reproducing a herd of Holstein cattle, the number of heifers more than tripled. This intensification of breeding stock growth is associated with studies of reproductive functions in animals, the elimination of identified obstetric and gynecological diseases, and the use of the sexed same-sex bullseed.

Studies on the use of hormonal drugs and other aids, according to the classical schemes of stimulation of the sexual hunt, allowed us to receive one calf each year from each breeding stock.

Based on the study of the actual chemical composition and nutritional value of feed on the farm, variants of feed rations have been developed that have been tested and adjusted, helped to identify the productive potential of first heifers and adult cows. On average, 50–55% of the required nutrients were highly productive cows (milk yield more than 35 kg per day) was obtained due to concentrates and 45–50% of the composition of succulent and coarse feeds. Full feeding of dairy cattle became possible when creating a feed base, in which the merit of scientists Kazakh Research Institute of Agriculture and Plant Growingand Kazakh Institute of Plant Protection and Quarantine, who cultivated high-yielding forage crops for innovative technology, is significant.

The development of scientists for intensive and directional growing of young stock allowed forming a rather voluminous digestive apparatus in repair heifers for successful digestion of juicy and coarse nutrients, reaching them at the time of first insemination (14-16 months) of body weight 390-420 kg. The first heifers were mostly uncomplicated and brought healthy calves with a live weight of 42-45 kg. Recommendations for the use of whole milk replacers (milk replacer) in feeding calves allowed to increase the marketability of herd milk and save on each of them in the milk growing period from 160 to 240 l of whole milk with an efficiency of 5.0-7.7 thousand tenge.

Experiments on the preparation of heifers for calving and future lactation using the developed technologies for training milking machines, qualified care and massage of the udder contributed to the development of a stable reflex to milk yield. Massage of the udder of the breast of the heifers made it possible to increase its girth from 72.7 to 96.3 cm, the conditional value of the udder from 1236 cm^2 to 2099 cm^2, and in heifers, respectively, to 127 cm and 3564 cm^2.

The study of the composition of milk and its bacterial contamination shows that it is benign, suitable for processing and consumption as a whole. The smallest number of somatic cells was observed in first-calf cows (107.6 thousand/cm^3), in cows of the second and third calves it was 217.8 thousand/cm^3. The production of high-quality milk, in the whole complex, was facilitated by the introduction and installation of robotized technology (6 milking robots for milking 420 cows).

Studies of hematological parameters of blood and its serum in heifers, cows and newborn calves showed that they were mostly within the physiological norm. Some elevated levels of leukocytes and lymphocytes (by 1.2 and 0.5%) indicated a manifestation of the protective reaction of the organism of Holstein cattle in the new habitat.

Conducting the above comprehensive research was made possible with a benevolent attitude towards this management and specialists of “Bayserke-Agro” LLP. The end result of the joint efforts of scientists and specialists of the economy was the creation of a highly productive dairy herd of Holstein black-and-white breed of Canadian origin of 440 head of dairy cows. The average annual milk yield from a single milk cow is 9100 kg of milk, and the annual gross milk production of the herd is up to 4.1 thousand tons.

The combination of scientific research and practical techniques allowed growing record cows in the dairy herd of “Bayserke-Argo” LLP with an average annual milk yield of 8.5–9.2 thousand kg of milk. The republic has set a record for daily milk yield. This figure is 76 kg.

The meat herd of “Bayserke-Agro” LLP is represented by 2,042 heads of the Kazakh white-headed and auliekolsky breeds of domestic cattle, as well as Aberdeen Angus and Herefords of Canadian selection. On a variety of breeds of beef cattle, concentrated in one large herd, the farm is unique.

The average mass of a full-aged cow of the Kazakh white-headed breed in the herd of the farm is 465–5500 kg, bulls 800–900 kg, calves with weaning from mothers (7–8 months) 180–200 kg, auliekolsky breed, respectively 480–540 kg, bulls 900–950 kg, calves 200–220 kg. Approximately the same indicators are typical for beef imported cattle.

The content of beef cattle of all breeding breeds is pasture-stall, which makes it possible to rationally identify the productive potential of animals without large material costs and to produce cheap beef. The farm uses Canadian technology, without the construction of bulky and expensive livestock facilities for beef cattle.

The reproductive qualities of the breeding stock are very high and the yield of offspring per 100 females ranges between 82–90 calves' heads.

Youngsters on pasture daily add 780–840 g of weight gain per day without additional feeding with concentrated feed.

The average annual production of beef is 100 tons, for 5 years (2013–2018) more than 500 tons have been supplied to the state.

One of the most effective ways of influence of “Bayserke-Agro” LLP on the intensification of the development of dairy and beef cattle breeding in the republic is the implementation of breeding animals.

For 5 years, the farm has implemented more than 800 heads of pedigree cattle in the economic, agricultural and industrial development of Almaty, Zhambyl and East Kazakhstan regions.

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"БАЙСЕРКЕ АГРО" ЖШС ЖОҒАРЫ ӨНІМДІ СҮТ ЖӘНЕ ЕТ МАЛ ШАРУАШЫЛЫҒЫ

Аннотация. Мал шаруашылығы саласындағы ғалымдар Алматы облысы «Байсерке-Агро» ЖШС басшылығы және мамандарымен бірлескен шығармашылық жемісті ізденістер нәтижесінде сүтті және етті бағыттағы ірі қараның асыл тұқымды жоғары өнімді топтары құрылды.

Ключевые слова: сүт, ет, мал шаруашылығы, тұқым, селекция, табын, азықтандыру, ұдайы өндіріс, төл, өнімділік.

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ВЫСОКОПРОДУКТИВНОЕ МОЛОЧНОЕ И МЯСНОЕ СКОТОВОДСТВО ТОО «БАЙСЕРКЕ-АГРО»

Аннотация. В результате исследований и совместной творческой деятельности ученых-аграриев, руководства и специалистов хозяйства в ТОО «Байсерке-Агро» Алматинской области созданы племенные высокопродуктивные стада молочного и мясного крупного рогатого скота.

Ключевые слова: молочное, мясное, скотоводство, порода, селекция, стадо, кормление, воспроизводство, молодняк, продуктивность.

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