ANNOTATION

dissertation work Bekbolatova Ainagul Takenovna on the topic: "Increasing the intensity of growing young Kalmyk breed in the conditions of Northern Kazakhstan ", submitted for the degree of Doctor of Philosophy (PhD) in the education program 8D08201 - "Technology of livestock production".

Relevance of the research topic. Satisfying the growing demand of the population for meat is one of the important tasks of modern animal husbandry. Special attention is paid to the growth of beef production, which occupies a leading place in the meat balance of the country. The topic of the dissertation work is relevant today, because the successful development of beef cattle breeding is often accompanied by a large number of evidence-based works that can not only increase the food base and the level of progressive technologies, but also increase productivity, strong constitution, good reproductive ability, as well as improve the genotype of animals that can adapt to different technologies and local natural and climatic conditions.

The growth of beef production in recent years was ensured by breeding of beef breeds. It is obvious that in the near future they will remain the main source of beef production in all categories of farms. At the same time, the change of economic situation in the country implies the use of all reserves for solving this problem. In this regard, the role of specialized beef cattle breeding as a low-cost industry producing very high quality meat products is increasing.

In modern conditions, breeding is aimed at increasing growth rates and payment of spent fodder, increasing the size and live weight of young animals at realization.

The main directions of intensification of the industry are the development and implementation of science-based systems involving the use of methods of intensive breeding of young animals and reproduction of beef, with a low percentage of fat content.

The aim of the research is intensive breeding of young imported Kalmyk breed in the northern region of the country and determination of its meat-productive potential.

To achieve this goal the following tasks were set and accomplished:

1) determination of composition and peculiarities of content of feeding rations of Kalmyk young stock;

2) Study of growth and development features of Kalmyk young animals from birth to 15 months of age (weight changes and features of physique);

3) study of hematologic and biochemical composition of blood of Kalmykian young animals;

4) improvement of reproductive ability of Kalmykian inseminated heifers;

5) evaluation of meat productivity of steers at the age of 15 months using ultrasound;

6) examination of the results of slaughtering of Kalmyk bulls;

7) evaluation of meat quality, morphological composition, chemical composition, energy value of carcasses of Kalmyk bulls;

8) calculation of economic efficiency of Kalmyk breed breeding in North-Kazakhstan region.

Methodology and research methods:

Scientific and economic experimental research was carried out on the young stock of Kalmyk breed, bred in the conditions of arid steppe zone of North-Kazakhstan region in the period from 2020-2023. The object of the study were bulls and heifers belonging to different paternal lines (15 heads in each group).

During the experiments we used standard biochemical and zootechnical methods of research with the use of modern devices and equipment, as well as methods usually used at different stages. During the experiments we used methodological guidelines of GMI (1978), NIIPBB.

Feeding of experimental animals was carried out according to the requirements of BMI (1978) and corresponded to the age, live weight, physiological state and conditions provided by the technology.

The study of animal biosubstrates in the testing laboratory of "NUTRITEST" LLP, on the equipment of the testing center (№KZ from 21.06.05.T.02. accreditation certificate E0177). Analyzer Capel 105/105m (Russia), chromatograph Crystal-4000 Lux (Russia).

Statistical processing. The results of the experiment Statistica 10.0 (Stat Soft Inc.), USA) with data processing in Excel (Microsoft, USA) through Microsoft Office Anova software package were subjected to variation analysis.

The results were analyzed statistically using Statisticaver software. 10.0 using one-way analysis of variance (ANOVA) for non-orthogonal structures at significance levels of $p \leq 0.05$ and $p \leq 0.01$ [124]. The arithmetic mean (X) and standard deviation (Sd) were calculated. The deviation values were determined using Fisher's test.

All numerical materials were analyzed using biometric processing by finding the standard deviation, arithmetic mean errors.

Main provisions submitted for defense:

- Determination of composition and peculiarities of content of feeding rations for Kalmyk young animals;

- dynamics of change in live weight of Kalmyk bulls and heifers from birth to 15 months of age, indices of absolute, average daily and relative gain;

-exterior-constitutional features, body sizes and indices of bulls and heifers of Kalmyk breed,

- some hematologic and biochemical blood parameters of Kalmykian breeds of bulls and heifers;

- reproduction ability of heifers;

- lifetime estimation of Kalmyk breed meat productivity by means of ultrasound;

- results of control slaughters of Kalmyk steers (carcass sizes and indices, sort composition and morphological composition of carcasses);

- qualitative parameters, chemical composition, biological value, organoleptic examination of meat of Kalmyk steers;

- economic efficiency in increasing growth rates of Kalmyk breed young stock in the North-Kazakhstan region.

Applied significance of the results of the study:

According to the results of the conducted research for the first time on the territory of Northern Kazakhstan intensive breeding of Kalmykian young meat breeds is the basis for meeting the growing demand of the population for meat and solving the priority tasks of modern cattle breeding.

The lifetime estimation of meat productivity will allow to allocate animals with high meat qualities and to increase pedigree value of meat breeds that will allow to increase constantly beef production in the country.

The results of intensive breeding of steer heifers of the line Moryak - 12054 and Stroiny-2520 obtained in practice are effective and in demand for farms breeding beef breeds.

Scientific novelty: for the first time in the North Kazakhstan region, the development of meat Kalmyk seed production will create favorable conditions for increasing the production of high-quality beef and reduce the food dependence of our republic on the import of meat and meat products. This is an increase in the intensity of growth, intensive growth, net weight of the fattening contingent, an increase in the milk yield of cows and resistance to diseases.

Based on scientific and economic experience, a proposal will be prepared for farms in the North Kazakhstan region on the formation and ways to increase the meat productivity of Kalmyk beef breeds of cattle.

Theoretical significance of the work. The research results obtained contribute to the deepening and expansion of the economic and biological features of the ancient domestic meat Kalmyk breed, its paternal genealogical structure, the genetic potential of meat productivity, quantitative and qualitative productivity indicators, modern.

Connection of work with research programs.

The research work carried out was carried out within the framework of the project with government orders:

- 217 budget programs "Development of Science," 102 programs "grant financing of scientific research," 156 scientific grant projects of the OGRN AP08956453 "development of a program to improve the Kalmyk breed in the Kostanay region" on the specifics "payment for consulting services and research."

-BR 10764981-OT - 22 was carried out within the framework of the scientific and technical program "development of technologies for effective management of the breeding process for the conservation and improvement of genetic resources in beef cattle breeding."

As a result of research work in order to increase the growth rate of young Kalmyk breeds, he was approved as a scientific adviser to the Republican Chamber of Kalmyk cattle breeds.

The importance of solving these problems determines the relevance of the studies carried out.

Approbation of work.

The results of the research work are published in the journal "OnLine Journal of Biological Sciences"(Scopus impak-factor 0.35) 1 article and 2 articles for the publication of the scientific and practical journal "Science and Education," annually published within the walls of the West Kazakhstan Agrarian and Technical University named after Zhangir Khan (Uralsk, 2023- No. 3 (72), No. 2-3 (71), 1 article published in the journal Bulletin of Science (interdisciplinary) Kazakh Agrotechnical Research University named after S. Seifulin (Astana, 2023 - No. 3), 1 Article - at the V International Scientific and Practical Conference (Kostanay, 2022).

At the same time, at the Department of Food Security and Biotechnology for students of the specialty "Technology of animal husbandry production," specialists of agricultural and livestock farms studying in the disciplines "Fundamentals of animal husbandry" and "Breeding of farm animals and animal husbandry" Aitzhanova I. N., Bekbolatova A. T. and other authors made a proposal (in Russian) on "Increasing the meat productivity of the Kalmyk breed." The offer can also be used for animal husbandry discipline teachers.

Acts of implementation of the research results in the curriculum and Moskovsky LLP of the Esil district of the North Kazakhstan region were drawn up.

On the topic of the dissertation, a scientific internship was completed to improve professional competence in organizations of near and far abroad.

Practice guidelines.

In order to increase the volume and quality of meat production when creating meat flocks for cattle of the meat direction, we recommend using along with domestic breeds of bull producers originating from bulls of tall species of Kalmyk breed imported from abroad.

The scope and structure of the dissertation: the dissertation work consists of 124 pages of computer text. The scientific work consists of an introduction, a main part and a conclusion. The text of the work contains 28 tables, 26 figures, 16 formulas, 8 appendices. The list of literature used consists of 205 sources.