

Article

Prospects For The Development Of Dairy Livestock In Our Country And Its Role And Importance In The Livestock Industry

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Abstract: In this article, we will discuss the place and role of dairy farming in the livestock sector of our country, as well as the farms and business entities operating in the field of dairy farming, as well as the analysis of indicators representing the current potential of the sector and the prospects for their development. We also discuss existing problems.

Key words: Animal husbandry, dairy farming, dairy cow, entrepreneurship, milk.

Introduction

Today, ensuring the country's food and economic security can only be effective if there is a balance between the interests of agricultural producers, regional authorities and consumers. Today, the time factor is of primary importance in the development of dairy farming. This is because the sooner the issue of fully providing the population with milk and dairy products in accordance with medical standards is resolved, the sooner the established plans for ensuring food security in the country will be resolved, along with the issue of improving the living standards of consumers.

Since the dairy industry is directly dependent on the biological characteristics of cattle, in order to increase the pace of development of the industry, first of all, a comprehensive study, analysis and assessment of groups of factors that ensure the health of dairy cows and affect their milk productivity will allow us to forecast indicators that reflect the future prospects of the industry.

Literature analysis. Many researchers and scientists have conducted research on the development of the entrepreneurial environment in livestock farming, especially in the dairy sector, and on increasing productivity in the sector, including F.M.Safin, T.I.Bukhtiyorova, O.A.Tagirova, E.P.Kachurina [1], N.S.Khushmatov, T.Kh.Farmonov, Q.A.Choriyeu, U.N.Sadullayev, S.S.Abdullaeva [2]. Kachurina Ekaterina Petrovna presented a number of proposals and conclusions in her scientific works on the organizational and economic mechanism for the development of small and medium-

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sized businesses in the dairy sector in agriculture [1]. Also, in her scientific research work on the topic "Main directions of development of the dairy cattle breeding industry", Abdullayeva Sevara Solijonovna analyzed the factors influencing the development of the industry, and presented her proposals and conclusions on the effective use of the experience of foreign countries [2]. Professor S. Moyo, of the Mozambique International Research Institute, has expressed the following thoughts about livestock farming: "Livestock farming plays a number of important roles in the livelihoods of people, especially in developing countries. Its role and importance in food and nutrition, employment, economic and social security are particularly high in areas with high levels of poverty" [9].

A.I. Abruyev in his scientific work expressed the opinion that "...in our country, milk is mainly produced on peasant and farm farms, and this is of great importance in providing the population with milk and meat products in remote villages and ensuring their employment"[11].

Research methodology. In the process of scientific research, the role and impact of the livestock sector and the development of dairy farming in it on the well-being of the population were studied using statistical data analysis, monographic observation, and economic and statistical methods. The study attempted to deeply study the problem by analyzing statistical data. Livestock farms operating in our country were selected as the object of research [12].

Analysis and results. In this article, we aimed to study the impact of the amount of milk produced on the growth of the volume of products produced in the livestock sector in our country using statistical data analysis, analytical analysis, correlation and regression analysis, and comparative analysis methods.

The sectors of the livestock sector with the largest share are milk and meat production. We chose dairy farming as the object of our study. The purpose of the study is to study to what extent the volume of annual products produced in the livestock sector can be increased in the future by developing dairy farming.

Table 1.

Indicators of the volume of livestock products (in billion soums) and milk production (in thousand tons) in our country for the past periods and forecasted for the future periods for the period 2010-2027

Years	Elements	Volume of milk produced, thousand tons	Total volume of livestock products billion soums
2010y	1	6133,8	12737,8
2011y	2	6737,3	19411,4
2012y	3	7240,2	25157,7
2013y	4	7845,4	30197,8
2014y	5	8404,3	38600,0
2015y	6	8994,4	44175,6
2016y	7	9663,2	53844,4
2017y	8	10005,5	64895,7
2018y	9	10415,7	89019,2
2019y	10	10662,3	104378,3
2020y	11	10930,1	126391,8

2021y	12	11242,7	151285,1
2022y	13	11599,1	167229,0
2023y	14	12435,06	155799,8
2024y	15	12894,2	167866,5
2025y	16	13353,34	179933,1
2026y	17	13812,48	191999,8
2027y	18	14271,62	204066,4

Source:[3].

The data in Table 1 provide us with information about the total volume of livestock products produced in our country and the amount of milk produced between 2010 and 2023.

To determine the degree of relationship between these two indicators, we determine their correlation coefficient.

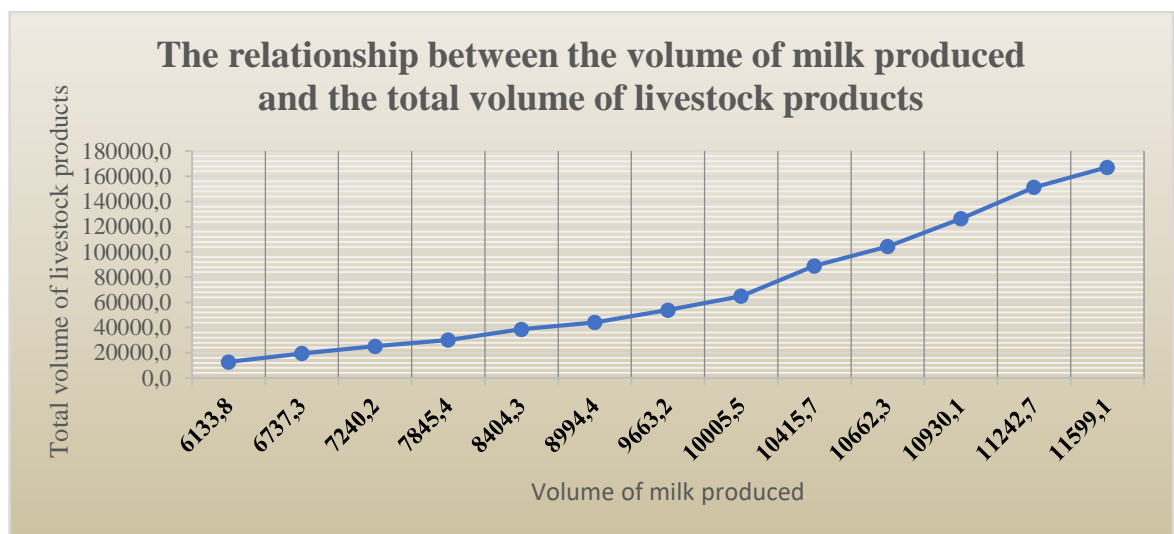
In this

$r = 0.918$ was equal to.

As we have seen, there is a very strong correlation between these two indicators. The data presented in Table 1 below is a linear function and its graph representing the amount of milk produced and the volume of all products produced in the livestock sector over the past periods based on the data.

$$Y = 26.281x - 171006 \quad (1);$$

Picture-1



Source:[3].

In function (1), the values of x are given by the amount of milk produced, and the values of y are given by the total volume of livestock products. This is because the amount of milk produced is a random variable, which directly affects the increase or decrease in the total volume of livestock products. In order to achieve high values of y, we need to stimulate the increase in the value of x.

We create a function to forecast the amount of milk produced in the future. In this case, we use the annual dynamics of changes in the amount of milk produced in previous periods. By forecasting the amount of milk produced in the future period, we can forecast the expected amount of livestock products to be produced in future periods.

$$Y = 459.14x + 6007.1 \quad (2);$$

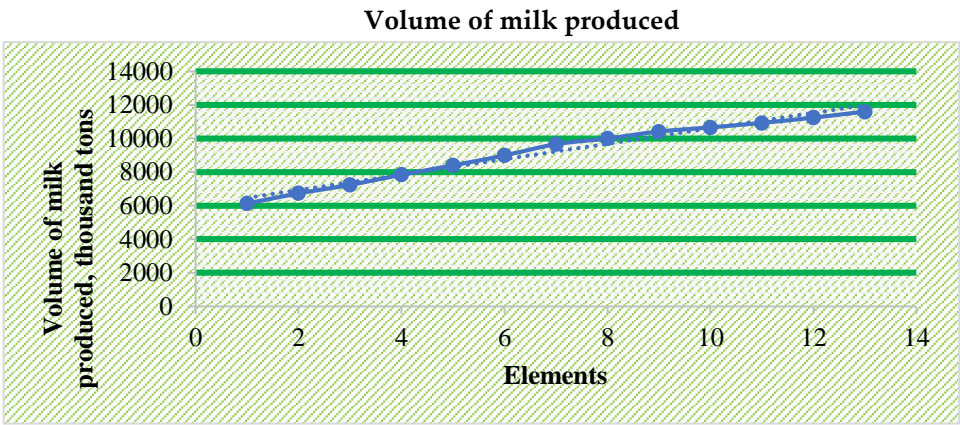
With the help of function (2), we can make a forecast of the amount of milk produced for future periods, where the values of x are the elements of the previous

period, and the values of y are the annual amount of milk produced. The degree of closeness of this function to real values

$$R^2=0.9784$$

i.e. 97.8%. We can describe the graph of function (2) as follows.

Picture 2.

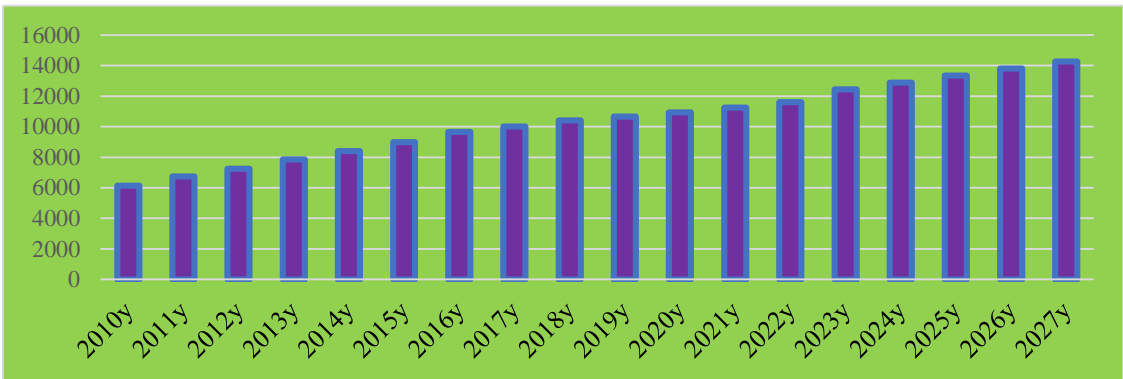


Source:[3].

Using the functions and graphs we have created, we will forecast the amount of milk that can be produced and the volume of livestock products for the coming periods, 2024 - 2027.

Picture 3.

**Amount of milk produced for past periods and forecasted for future periods 2010-2027
(in thousand tons)**

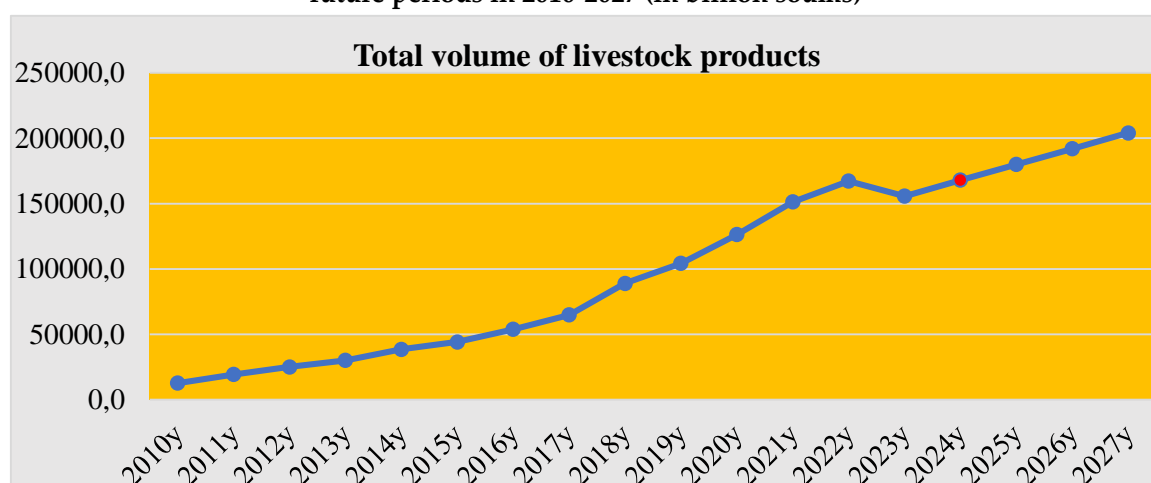


Source:[3].

Forecasts show that if the current and past growth rates continue in the coming periods, we can achieve an average annual growth rate of 4% by 2027. If the volume of milk production increases within the projected indicators, by 2027 the volume of livestock products in our country will have the opportunity to reach the following indicators.

Picture 2.

Total volume of livestock products produced for the past periods and forecasted for the future periods in 2010-2027 (in billion soums)



Source:[3].

As we have seen, in our country, the volume of milk production has grown by an average of 4% per year for the coming periods, while the volume of livestock products is projected to grow by an average of 6%. From this we can conclude that we need to develop the livestock sector in order to strengthen the food base in the regions and at the national level and increase the volume of agricultural production. In order to develop the livestock sector, the main issue is to support entities operating in the dairy sector and implement reforms to ensure the efficiency of the sector, identify existing problems and find solutions to them.

Conclusions and suggestions. Although the reforms being implemented in our country to develop dairy farming are being implemented at a rapid pace, there are still problems in the sector that are waiting for a solution.

- Low milk productivity of local cows;
- High feed prices;
- Deficiencies in the provision of veterinary services;
- The very low rate of directing the produced milk to industry, that is, processing, etc.

Based on the existing problems in the sector, we propose a set of measures in the following areas to develop the livestock sector and improve the environment for small businesses in it, increase efficiency and productivity indicators:

Strengthening the leading role of the state in the development of small business activities in the livestock sector and further improving the existing system;

- Increasing the pace of use of innovative techniques and technologies;
- Improving livestock breeding and wider popularization of the use of artificial insemination in this regard and increasing knowledge and skills among farms in this regard, wide introduction of informatization;
- Further improving the effective use of land allocated for growing livestock feed crops, etc.
- Systematic implementation of the proposed measures will allow achieving the following results:
- Reducing the cost of milk and increasing producers' incomes by stabilizing feed prices;

- Increasing productivity in meat and milk production by improving cattle breeding;
- Improving the quality of veterinary services to strengthen animal health, prevent the spread of diseases and provide the population with “quality and healthy” livestock products;
- Regularly informing producers and all farms operating in the sector with the latest news through the development of information.

In conclusion, if the livestock sector forms the basis of agriculture along with farming, then dairy farming is one of the main areas of livestock farming. Therefore, by developing the dairy sector in our country, we will have the opportunity to develop the livestock sector, and through it agriculture, and ultimately the country's economy, and ensure food security in it.

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