

Actual problems and priority areas of milk production in the Chuvash Republic

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Abstract. The article presents an analysis of milk production in the Russian Federation and the Chuvash Republic. The main problems and perspective directions are allocated. In recent years, there has been a significant increase in the cost of milk production, an increase in prices for feed and mineral fertilizers. All this affected the milk yield and the growth rate of livestock in the territory of the Russian Federation and its subjects. Political situations in the world also continue to make adjustments in the pricing of dairy products.

1 Introduction

In recent years, there has been a significant increase in the cost of milk production, an increase in prices for feed and mineral fertilizers. All this affected the milk yield and the growth rate of livestock in the territory of the Russian Federation and its subjects. Political situations in the world also continue to make adjustments in the pricing of dairy products.

The aim of the work is to analyze milk production in Russia and the Chuvash Republic in recent years.

Tasks:

1. Analysis of production and highlighting the problems of milk production in Russia and the Chuvash Republic.
2. Identify priority areas for dairy production in Russia and the Chuvash Republic.

2 Materials and methods

For the analysis, data from Rosstat, Chuvashstat and the analytical center Soyuzmoloko were taken. Comparative methods of analysis were used for data processing.

3 Results and Discussion

Over the past few years, one of the key problems of the dairy industry has been a significant increase in the cost of milk production. It outstripped the selling price of milk, which, as a result, led to zero profitability of producers. Prices for feed and mineral fertilizers have risen significantly. It is worth noting that 2022 also brought a significant increase in prices for key

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cost items by milk producers. But this is not the first time our country has been living under sanctions, and back in 2014 Murtuzaliyeva T.V. and Seifullaeva M.E. noted that “the regime of economic sanctions imposed by the United States and the EU countries against Russia, as well as the response of our country, despite all the negative consequences of the ongoing political games, create an opportunity for its industrial enterprises to generate new models of economic development, seeking opportunities to form and retain competitive advantage” [1].

The increase in the cost of milk production in 2021 amounted to 16% according to the analytical center Soyuzmoloko (Figure 1).

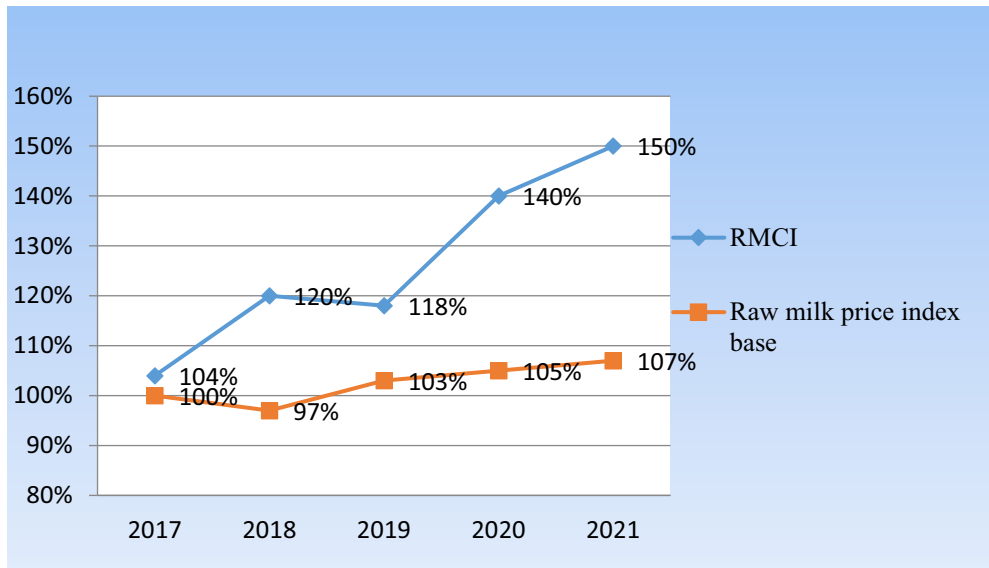


Fig. 1. Dynamics of the prime cost index and prices for raw milk

Due to the deterioration of the economics of agricultural production against the backdrop of continuing growth in costs and abnormal weather conditions, the development of the raw material sector of the dairy industry has significantly slowed down. The production of marketable milk has decreased in almost every second subject of the Russian Federation. The positive growth in some regions, including Chuvashia (+0.80%), is due to the gradual launch of previously invested facilities to their design capacity (Figure 2).

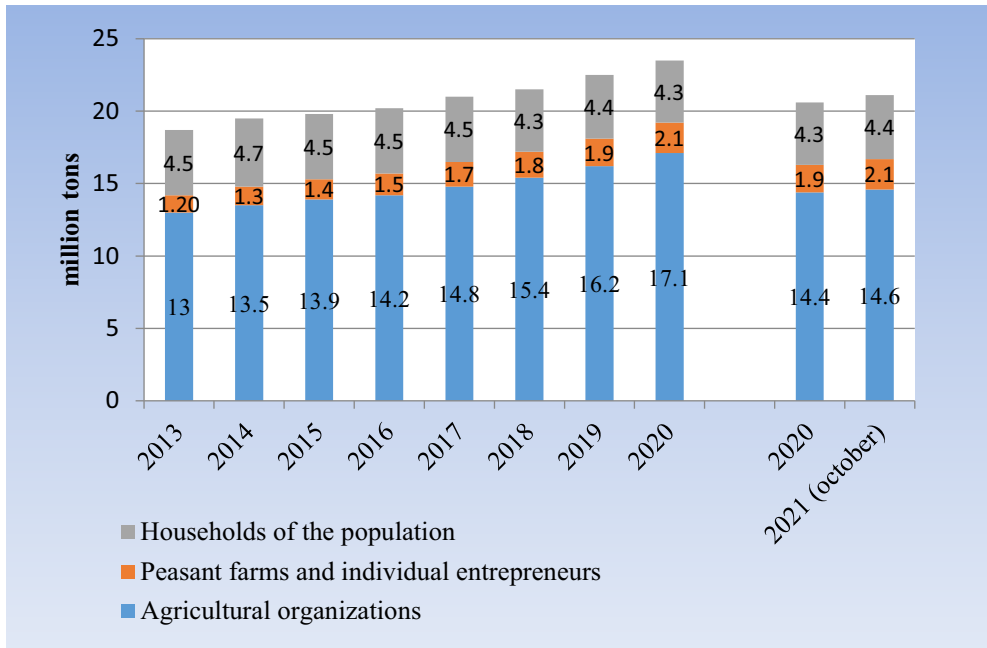


Fig. 2. Production of marketable milk in the territory of the Russian Federation.

The decrease in milk production can also be attributed to the increase in prices for high-energy feeds, when agricultural enterprises had to adapt to more affordable feed units [6]. Growth in world prices and low solvency contributed to a decrease in the share of imports of dairy products in 2021 (Figure 3).

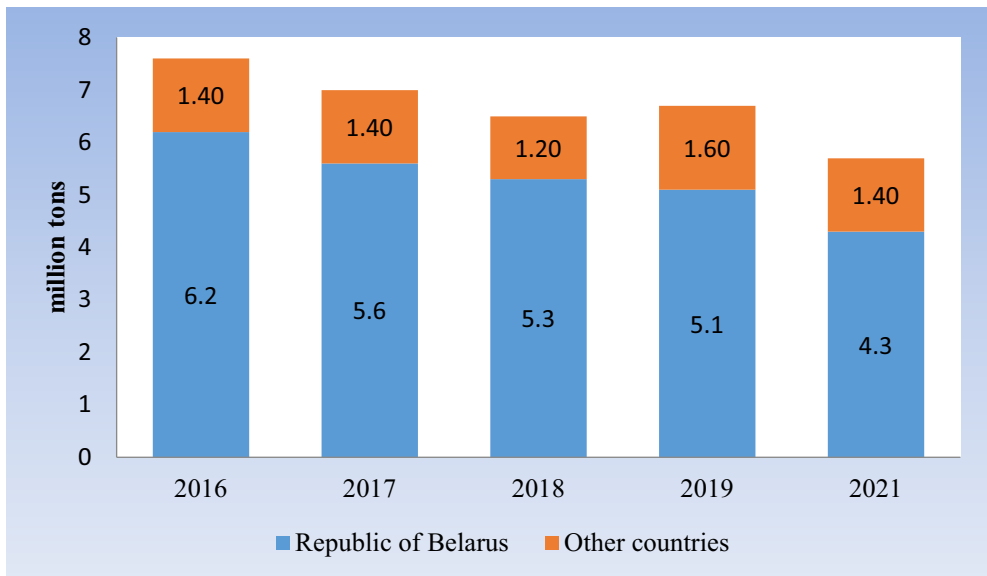


Fig. 3. Import of dairy products

In January-October 2021, 822 thousand tons of milk equivalent were exported, which is 15% higher than the level of the same period in 2020. The increase in exports was due to an increase in shipments to Kazakhstan, the USA, Ukraine, Belarus, Uzbekistan, etc. (Figure 4).

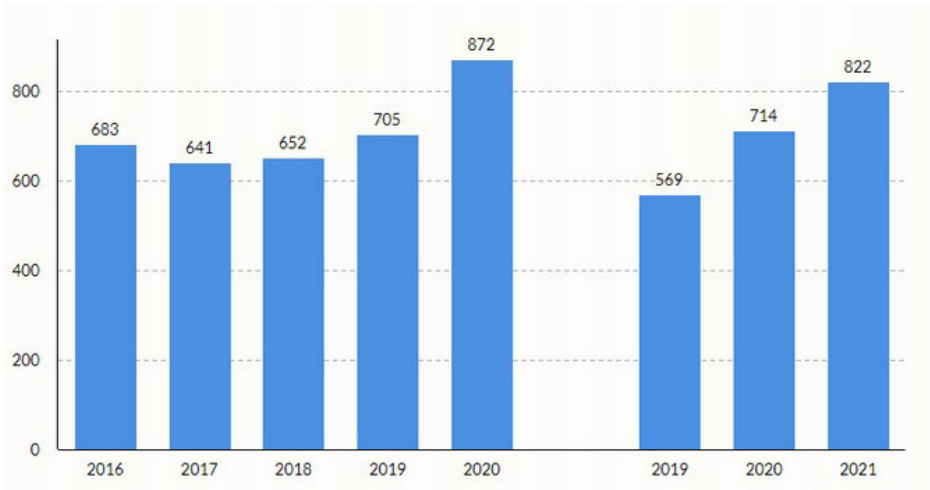


Fig. 4. Export of dairy products of agricultural organizations

In general, there is a decrease in the number of livestock on the territory of the Russian Federation with a simultaneous increase in milk yield. According to the data of the regional Ministry of Agriculture, Chuvashia ranks 2nd among the subjects of the Volga Federal District in terms of production efficiency and milk production per 100 hectares. In the farms of the republic, there is an annual increase in milk yield - from 1990 to 2020 they increased by 2.9 times. And even in the current difficult period, there are small increases - 0.80% for 2021. The productivity of cows has increased by 30% over the past five years. At the same time, there is an increase in breeding animals in the total livestock from 26% to 45.1%. Chuvashia shows good results in terms of milk self-sufficiency - 140.7% (in Russia - 89%). In 2021, Chuvashia produced 442.6 thousand tons of milk (Figures 5).

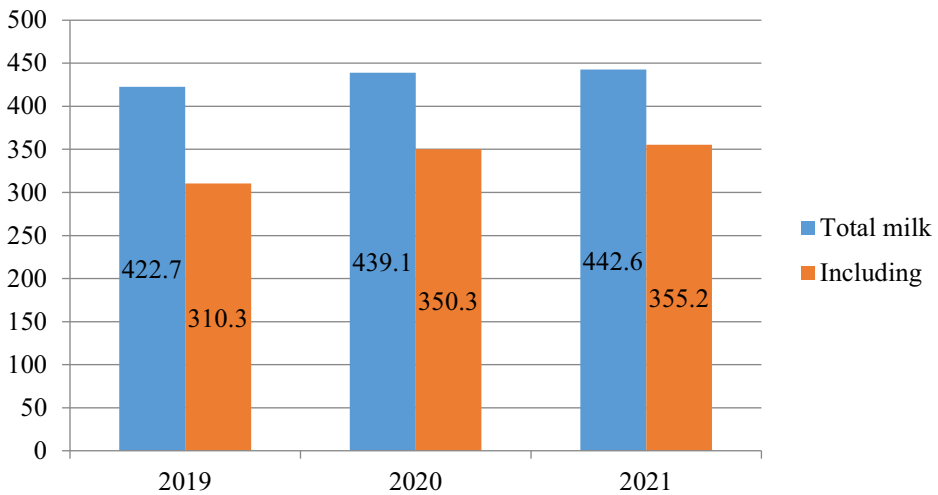


Fig. 5. Milk production in farms of all categories

Rosstat data show that over the past three years, the main share of marketable milk production falls on personal and subsidiary farms and agricultural organizations.

The main data on indicators of the number of dairy cattle and milk productivity obtained by Chuvashstat have a stable direction of milk production (Figure 6 and 7).

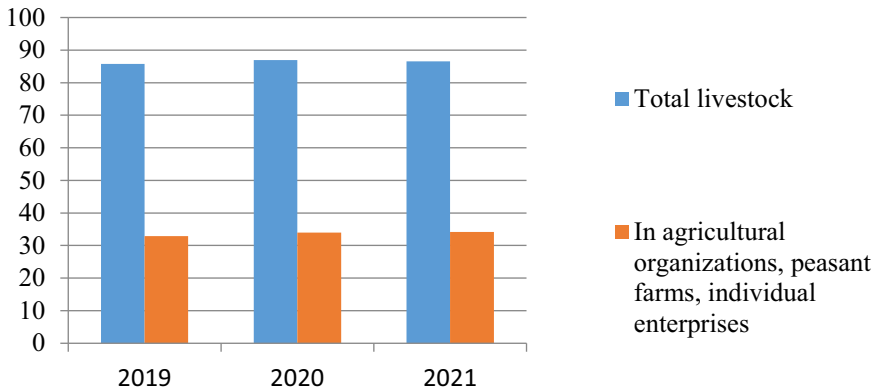


Fig. 6. The number of cows at the end of the year in farms of all categories, thousand head

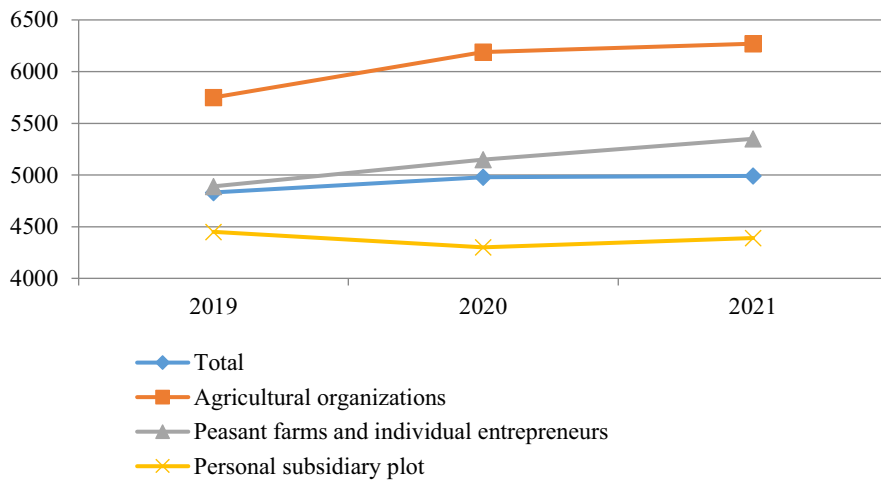


Fig. 7. Milk productivity of cows, kg/ year

In the Chuvash Republic, over the past 7 years, milk production has increased by 31.7% in agricultural organizations, and by 2.3 times in peasant farms. The increase in the productivity of cows in Chuvashia is associated with the high modernization that took place in 2020 (Figure 8).

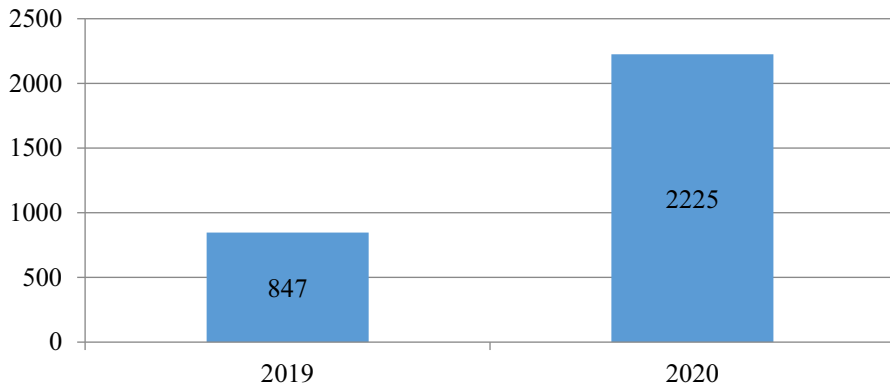


Fig. 8. Commissioned new and modernized stalls

Taking into account the decrease in the number of livestock and the increase in the productivity of cows, the load on the cow's udder increases. In this regard, in Chuvashia, special attention is paid to the prevention of diseases of the mammary gland of cows. It has been experimentally proven that careful processing of the udder before and after milking favorably affects both productivity and udder health and the prevention of mastitis. Farms of the Chuvash Republic for the production of milk use various means for hygienic treatment of the udder: based on chlorhexidine, iodine, probiotic bacteria and plant components, for example, chamomile, aloe, calendula [2, 3, 4, 5].

The sector of small business forms is actively developing on the territory of the republic. Since 2012, with the help of grant support, the share of the farm product in the total gross output has doubled from 7.5% to 14.3%.

Chuvashia also ranks third among the regions of the Volga Federal District in terms of the share of milk production in personal subsidiary plots.

In the dairy farming of the republic, one can single out the work of such enterprises as CheboMilk LLC, Smak-agro LLC, Akkond-milk, farms of Illarionova S.R., Khairtdinova G.M., Sanzyapova R.Sh. and a number of others.

4 Conclusion

Based on the results of the analytical assessment, the main problems of milk production were identified, which showed that with an increase in costs, the cost of milk increases. Growth in world prices and low solvency contributed to a decrease in the share of imports of dairy products in 2021. During the previous reporting year, 822 thousand tons of milk equivalent were exported, which is 15% higher than the level of the same period in 2020.

The priority direction of milk production is the modernization of dairy farms, equipping them with modern high-tech equipment.

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