ANALYSIS OF THE DEVELOPMENT OF THE WORLD MARKET OF DAIRY PRODUCTS

Abstract. According to researchers, one of the most significant products in the consumer basket is milk and dairy products. The dairy industry is of no small importance in ensuring the food security of the population. The features of the functioning of milk processing enterprises at the present stage are closely connected with the change of strategic guidelines in their activities. The main strategic direction of development of the dairy industry in general and the processing industry in particular is to increase the efficiency of operations.

For the developed market of milk and dairy products in Kazakhstan, the experience of its organization and regulation in economically developed foreign countries. It should be noted that dairy cattle in foreign countries is a specialized industry with well-developed meat cattle breeding.

Keywords: world experience, production, milk, dairy products, processing, efficiency.

INTRODUCTION

Milk production in foreign countries is carried out in mainly on specialized dairy farms. General trend recent years for all economically developed countries is their consolidation and reduction of the number. Especially dramatic reduction in the number of farms occurred in Belgium, Denmark, France, Italy, Spain and Sweden, where in 1995 there were 44-55% less than in 1985 the number of farms was less sharp than in Europe, but the increase in size herds were more significant. On average, the herd has grown from 40 to 62 heads. Currently, dairy farms with a population of 100 animals give 50% of milk produced in the United States. In Canada, over the past 20 years, the number dairy farms decreased by more than 3 times, and the average livestock in per farm reached 49 heads [23]. What is presented in the table one, below?

<table>
<thead>
<tr>
<th>Year</th>
<th>Developing countries</th>
<th>Industrial countries</th>
<th>Transition countries economy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall</td>
<td>Production</td>
<td>Overall</td>
</tr>
<tr>
<td>1979-1981</td>
<td>129,5</td>
<td>112,3</td>
<td>207,5</td>
</tr>
<tr>
<td>1997-1999</td>
<td>239,1</td>
<td>219,3</td>
<td>225,8</td>
</tr>
<tr>
<td>2015</td>
<td>375,8</td>
<td>346,2</td>
<td>240,4</td>
</tr>
<tr>
<td>2030</td>
<td>523,1</td>
<td>484,0</td>
<td>250,5</td>
</tr>
</tbody>
</table>

The dynamics of milk production is characterized by long-term growth trend. According to the forecast of production and consumption of dairy products by 2030, an increase of more than 2 times will occur in developing countries.

MAIN PART

The enlargement of dairy farms is accompanied by an increase in productivity. Cows, which is achieved by proper feeding and genetic improvement of livestock. Only in the period from 1997 to 1999,
the yield per cow per year increased in the United States from 7653 to 8043 kg, in Canada from 6464 to 6830, Great Britain - from 6674 to 6565 kg. In recent years, he has compiled France 5627 kg, Finland - 6435, Australia - 4906, New Zealand - 3462 kg [24]. According to the International Dairy Federation (IDF), in 2013 in the world produced 473.2 million tons of cow milk. Largest milk producers are European Union countries (144 million tons), the USA (91 million tons), India (58 million tons), China (35 million tons), Russia (31 million tons) (table 2). These countries provide 2/3 of the total world milk production.

Table 2 - Production of milk in the world

<table>
<thead>
<tr>
<th>Countries</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2013 y. in % to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries EU</td>
<td>142920</td>
<td>143750</td>
<td>143850</td>
<td>100,7</td>
</tr>
<tr>
<td>USA</td>
<td>88978</td>
<td>90824</td>
<td>91444</td>
<td>102,8</td>
</tr>
<tr>
<td>India</td>
<td>53500</td>
<td>55500</td>
<td>57500</td>
<td>107,5</td>
</tr>
<tr>
<td>China</td>
<td>30700</td>
<td>32600</td>
<td>34500</td>
<td>112,4</td>
</tr>
<tr>
<td>Russia</td>
<td>31646</td>
<td>31917</td>
<td>31400</td>
<td>99,2</td>
</tr>
<tr>
<td>Brazil</td>
<td>30715</td>
<td>31490</td>
<td>32380</td>
<td>105,3</td>
</tr>
<tr>
<td>New Zealand</td>
<td>18965</td>
<td>20567</td>
<td>19678</td>
<td>103,8</td>
</tr>
<tr>
<td>Argentina</td>
<td>11470</td>
<td>11679</td>
<td>11796</td>
<td>104,4</td>
</tr>
<tr>
<td>Ukraine</td>
<td>10804</td>
<td>11080</td>
<td>11160</td>
<td>103,3</td>
</tr>
<tr>
<td>Mexico</td>
<td>11046</td>
<td>11274</td>
<td>11270</td>
<td>101,8</td>
</tr>
</tbody>
</table>

In world milk production, by 2013, there was a trend towards an increase in production from 0.7 in the EU countries to 12.4% in China, while in Russia in the period from 2011 to 2013 milk production decreased by 0.8%. An increase in milk production is also observed in Iran, Indonesia, Argentina and Brazil, which is ensured by an increase in milk yield.

Herds and an increase in the number of cows. In the United States, an increase in the number of livestock has occurred in the past 5 years by 2.4%, or 2.3 million heads. The largest reduction in cattle livestock is observed in Ukraine - 27.9%, or 1.2 million heads. The total volume of milk consumption increases every year by an average of 15 million tons [25]. Currently, about 7 billion people inhabit the planet, and the number of cattle is 1.3 billion heads, that is, on average, there is about one cow for every five people.

Table 3 - the ratio of population and livestock cattle in selected countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Value</th>
<th>Country</th>
<th>Value</th>
<th>Country</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand</td>
<td>1:2.3</td>
<td>France</td>
<td>3:3:1</td>
<td>Hungary</td>
<td>14:3:1</td>
</tr>
<tr>
<td>Ireland</td>
<td>1:1:5</td>
<td>USA</td>
<td>3:3:1</td>
<td>Korea</td>
<td>14:7:1</td>
</tr>
<tr>
<td>Australia</td>
<td>1:1:2</td>
<td>Mexico</td>
<td>3:4:1</td>
<td>Indonesia</td>
<td>15:2:1</td>
</tr>
<tr>
<td>Argentina</td>
<td>1:1:2</td>
<td>India</td>
<td>3:7:1</td>
<td>Philippines</td>
<td>16:2:1</td>
</tr>
<tr>
<td>Sudan</td>
<td>1:1:2</td>
<td>Germany</td>
<td>6:4:1</td>
<td>Greece</td>
<td>18:8:1</td>
</tr>
<tr>
<td>Brazil</td>
<td>1:1:1</td>
<td>Russia</td>
<td>7:1</td>
<td>Algeria</td>
<td>21:5:1</td>
</tr>
<tr>
<td>Bolivia</td>
<td>1:1</td>
<td>Spain</td>
<td>7:6:1</td>
<td>Japan</td>
<td>29:1</td>
</tr>
</tbody>
</table>

From table 3 it follows that there are countries where the livestock of cows exceeds the number of inhabitants. For example, in New Zealand there are twice as many cows as humans. The largest amount of milk per person produced in New Zealand is 3814 kg. In this country, dairy products mainly go to export is about 13 million tons shipped to other countries. In addition to New Zealand, the most successfully solve the problem of the production of milk-cold countries like Ireland-1390 kg, Australia-526, Belarus-490, France-419 kg, etc. [37, 21]. In order to fully provide the inhabitants of the planet with milk (at the rate of 360 kg of dairy products per person per year, according to the norms of the World Health Organization of the United Nations), it is necessary to produce 2.5 billion tons of milk annually, which is three times more than what is currently produced.

Milk production in the Member States of the Customs Union in 2013, distributed as follows: Russia-31 million tons, Kazakhstan-4.9, Belarus-6.7 million tons, but an analysis of production showed that in per
capita terms, the Republic of Belarus holds the leading position — 704.1 liters of milk per 1 person (in Russia-219.3 liters, in Kazakhstan-299.4 liters).

The Belarusian dairy market is export-oriented: export revenues from the supply of dairy products to the foreign market in 2010 amounted to $ 1.5 billion. USA. Today Belarus is a major participant in the global food market [26].

According to the Food and Agriculture Organization of the United Nations (FAO), the TOP-20 includes Belarus in 10 export positions, and in the main - in the top five of the world's leading food exporters. The export structure of dairy products is as follows: milk and cream, condensed and dry - 37.65% of total exports, cheese and cottage cheese - 23.73, milk and cream not condensed - 15.22, butter - 14.3, other products - 9.09%.

Russia is the strategic external market for Belarusian dairy products. For example, about 92% of all dairy products were exported to Russia, Venezuela, Iran, African countries and the European Union. However, over the past 10 years, exports of dairy products to the CIS countries have increased by 30.5 times, while to non-CIS countries (namely, to Western Europe) decreased almost 10 times. This circumstance is a significant threat to the Belarusian dairy market. Difficulties in expanding the geography of supplies are due to lower quality of raw materials compared to EU countries and lower levels of fat and protein [26].

The rapid economic growth of China’s economy and the high level of demand for dairy products determine the great potential of dairy producers operating in the country. The Chinese government is encouraging the creation of large dairy farms. This influence the grow of self-sufficiency in dairy products, the level of which in 2014 was 86%. Abroad, the Chinese government encourages the expansion of its dairy companies by acquiring foreign and building partnerships.

Chinese industrialists are betting on the diversification of products, the expansion of product lines. The growing demand and the evolution of consumption have predetermined the demand for premium eco-friendly products.

The government creates incentives to invest in dairy farming, the industry is growing from family farms to professionally managed large dairy farms. Importers with whom China signs contracts and is in partnership are meeting the growing demand for dairy products.

In all regions of the world, the requirements for the management of dairy farming are increasing, taking into account the need to protect ecosystems. An increasing number of farmers are switching to farming without the use of fertilizers and pesticides (organic farming) or using them in small quantities (integrated farming). This is due to the growing popularity of whole milk consumption among the population.

According to experts, world consumption of dairy products, including milk, cheese and butter, will increase by 36% by 2024 and reach 710 million tons. The growth in demand for milk in the next decade will be due to population growth and its welfare in countries Asia, Africa and Latin America, which will lead to a shortage of dairy products on world market and, consequently, to the inevitable increase in prices for this type of product. In the camps of Europe and North America, on the contrary, there is a decrease in demand for dairy products, more precisely, for traditional goods.

In the European and North American markets, manufacturers in order to attract the attention of consumers are forced to offer more and more advanced dairy products, with improved nutritional properties, including additional nutritional components [26].

However, growing demand in less developed markets stimulates dairy producers to increase their own production. At the same time, a situation of toughening the struggle for high-quality raw materials (raw milk) with countries - exporters of raw materials.

States with a high demand for dairy products to achieve a level of product self-sufficiency invest in the development of production, improve the assortment policy and enter into contracts for the supply of quality raw materials.

Unfortunately, in Kazakhstan, the level of technical equipment and the scale of production of compound feed products allows us to serve the needs of small farms. The division into feed mills and feed houses depends not on the production volumes, but on the quality characteristics of the finished product. In addition, feed mills are placed in separate production areas.
In medium-sized farms, as a rule, outdated equipment is installed on the territory, which is often not even allocated as a specialized feed processing facility. The production conditions are low-tech; therefore, a significant part of the products in this segment is defined as “feed mixtures”.

Thus, the fodder production system in the Akmola region has a number of significant problems that hinder the growth of the efficiency of the dairy business in general. These include:

1. Small-scale production, the consequence of which is the underdevelopment of industrial feed production and their high cost.

2. The gap in agrarian science and feed production, insufficient funding for research, poor adaptation to the real needs of animal husbandry, the need for staff development.

3. Decrease in the quality of hay feed due to the violation of harvesting technology. The composition and quality of purchased feeds do not actually correspond to the required recipe for each gender and age group and does not provide the planned milk yield.

4. Industrial production of mixed feed and feed preparation system are practically absent at the enterprises.

5. The existing technical and technological support of small workshops does not contribute to the provision of high-quality production processes in feed preparation, which leads to high specific production costs.

6. Reconstruction of feed houses should be accompanied by significant changes in production capacity, which is often not technically acceptable. Thus, in the preparation of rations, rationing is carried out for 25 nutrients, and on a dairy farm, it is necessary to have at the same time mixed feed prepared according to eight different recipes. Having such an assortment when imported from the outside is almost impossible.

In dairy cattle breeding, there are opportunities to reduce production costs through the introduction of innovative resource-saving technologies in feed production. It is advisable to invest in the improvement of technological processes that will allow producers to reduce unit production costs, improve the quality of milk, and thereby ensure the growth of profitability. The most important direction for improving the quality of feed for dairy cattle is the construction of new ones, as well as the reconstruction and modernization of existing feed mills and workshops.

In order to produce competitive products, processors must purchase raw materials at a cheaper price. However, the cost of raw milk from manufacturers, given the high cost of feed is much higher.

As a result, there is a vicious circle: raw milk producers cannot sell their products at a reasonable price, and milk processors cannot buy raw milk at a price that suits them. At the same time, many enterprises that were focused on the production of butter, cheese, and powdered milk due to the high cost of production and the lack of a sales market are forced to reduce their production, or even to stop production of these types of dairy products altogether, repurposing production to quickly pay back and more cost-effective types.

At the same time, since butter and cheeses are in great demand among the population and should be present in the daily diet, consumers buy imported cheaper products, which adversely affect not only the work of the dairy industry, but also the whole economy of the country. Therefore, only in 2012, the import of dairy products amounted to about 400 million US dollars. These financial resources could be directed to the development of domestic milk processing enterprises.

To solve this problem, a mechanism for guaranteeing the purchase price is envisaged, which involves subsidizing the difference between the price at which agricultural producers can profitably sell the produced dairy raw materials, and the price at which processors can profitably buy it. The main condition for subsidizing costs is that the purchased milk should be directed to the products of deep milk processing, for which there is a high share of imports - butter, dried milk and cheese.

CONCLUSION

Provision of state support to processing enterprises will allow increasing the production of competitive dairy products by 15%, which in turn will reduce the dependence on imports of products for the deep processing of milk.

Mechanisms of subsidizing the costs of milk processing enterprises for the purchase of raw materials for the production of powdered milk, butter and cheese. To increase the supply of domestic raw materials, a mechanism for guaranteeing the purchase price is foreseen, which involves subsidizing the difference between the price at which agricultural producers can profitably sell the produced dairy raw materials, and
the price at which processors can profitably buy it. The implementation of this measure from the republican budget provides 44,400,000 thousand tenge until 2020.

In addition, the increase in the production of affordable milk powder will solve the problem of a shortage of raw milk for processing companies in the winter period.

A. Ж. Байтужипова

«Нархоз» университети

ДОСТУРЛІ ОНІМДЕРІНІҢ ЖЕЛЕ РЫНКЫН АДАМЫН РАТИМДАУ

Анонциация. Зерттеулердің айтылуына, түпінік темадының мәнінде өнімдері бірі - сүт және сүт өнімдер. Халықтардың азық-түлік құрылымын қамтамасыз етуге сүт өнеркәсібі мәнінде емес. Құрылғы кезектегі сүтті кайта өндіру қоспасындарының жұмыс ісі әрекеткерлері олардың құрамындағы стратегиялық бағыттардың өзгерісімен түзет қайталанысы. Жалпы сүт өнеркәсібінің және өндіру өнеркәсібінің өмір сүреті стратегиялық бағыт - операциялардың құмдылығы арттыру.

Қазақстандағы сүт және сүт өнімдерінің құрамына нарғыз ұлға, оны ұйымдастыру әкімшілігі және экономикалық құрылымдагы пік елдерде реттелуі. Айта көп көркем, пік елдерде сүт мазы жақсы құралыған еті бөл маньзыздырғандың өндірісі мүмкіндіктерін.

Ключевые слова: жасыл, тәжірибе, өндіріс, сүт, сүт өнімдері, өндіру, құмдылық.

УДК 339.13.637.12.

A.Ж.Байтужипова

Университет «Нархоз»

АНАЛИЗ РАЗВИТИЯ МИРОВОГО РЫНКА МОЛОЧНОЙ ПРОДУКЦИИ

Анонциация. По мнению исследователей одним из значимых продуктов в потребительской корзине является молоко и молочная продукция. Молочная отрасль имеет немаловажное значение в обеспечении продовольственной безопасности населения. Особенности функционирования молокоперерабатывающих предприятий на современном этапе тесно связаны с изменением стратегических ориентиров в их деятельности. Основным стратегическим направлением развития молочной промышленности в целом и отрасли переработки в частности является повышение эффективности деятельности.

Для формирования в Казахстане развитого рынка молока и молочной продукции большой интерес представляет опыт его организации и регулирования в экономически развитых зарубежных странах. Следует отметить, что молочное скотоводство в зарубежных странах является специализированной отраслью при хорошо развитом мясном скотоводстве.

Ключевые слова: мировой опыт, производство, молоко, молочная продукция, переработка, эффективность.

Information about author:
Baigazinova A. I. - Doctoral student 2 courses University "Narkhoz" - https://orcid.org/0000-0002-3414-2213

REFERENCES

[1] The program of development of the territory of Akmola region for 2016-2020

309