Beef and dairy cattle breeding: development trends of small agribusiness in conditions of state support

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Abstract. Current development trends of the global and national economies require a search for effective approaches to expand participation of small agribusiness entities in providing population with domestic livestock products. The article focuses on state support programs for family livestock farms and novice farmers in the framework of the national project “Creating a system of support for farmers and the development of rural cooperation.” Development trends of the meat and dairy cattle breeding industry in the Rostov region—a large agricultural region of Russia—have been noted. A deep comprehensive economic analysis of the composition and structure of financing state programs to support small regional agribusiness entities in the livestock industry was conducted, and the ways for its further development have been determined. Regional authorities have been established to be able to identify and significantly expand priority areas for the development of the meat and dairy cattle breeding industry, while consolidating state support measures regarding the distribution of grants to family farms and novice farmers. The need to develop industrial and economic relations of small business in the livestock sector of the region due to the system of consumer cooperation has been justified. A considerable potential for cooperation in the dairy industry has been noted. The methodology of the research on the problem was based on a system of general scientific and local methods and techniques. The information-analytical basis of the study was the data of the Ministry of Agriculture and Food of the Rostov Region and data of the Federal State Statistics Service of the Russian Federation.

1. Introduction

Geopolitical instability in the global economy consists in increasing disagreements between different countries, generates not only economic conflicts, but also political and military confrontations, negatively affects the development of the national economy, and does not allow it to develop effectively. The current carries political, social, and even ideological confrontations exacerbated by sanctions against Russia is a new form of global political and economic transformation and requires a search for a new path for the economic development of the agricultural sector of the national economy, including the domestic livestock industry.
2. Materials and research methods
The methodology of the research on the problem proposed is based on a system of general scientific and local methods and techniques that were determined by the tasks, the subject and object of the study, the structure and form of state regulation of this issue.

3. Results
Providing breakthrough scientific, technological, and socio-economic development of the Russian economy was enshrined in the RF President’s May Decrees dated May 7, 2018 No. 204 “On National Goals and Strategic Objectives of the Russian Federation through to 2024.” National projects were developed and started to be implemented in 12 strategic directions. In the agricultural sector of the Rostov region, of great importance is the National Project “Creating a system of support for farmers and the development of rural cooperation” as part of a support program for small agribusiness; its key objective is not only to increase the efficiency of farmers, but also widen the participation of small agribusiness entities in providing population with food staples produced domestically, including livestock products. For instance, in 2018 the share of regional small business was about 90.0% in milk production and 46.7% in meat production. In crop production, the share of small agribusiness accounted for 84.5% in production of vegetables, 69.1% of potatoes, 37.2% of sunflower, and 32.6% of grain (figure 1).

![Figure 1. Structure of core agricultural production in the Rostov region in 2018, %.
Source: [1]](image)

4. Discussion
The Rostov Region has been actively participating in support programs for small agribusiness in the countryside since 2006 and is a leader among Russian regions. Studies showed that financing of farms increased 9 times for the period of 2006-2018. In 2018, the total amount of financing of farms amounted to 1,440.0 million RUB, with a trend of small agribusiness entities to enlarge (table 1).

| Parameter                          | 2006    | 2018    | 2018 to 2006, % |
|------------------------------------|---------|---------|-----------------|
| Total land area on average per farm, ha | 122.9   | 220.8   | 179.6          |
| Financial state support, mln. RUB  | 160.0   | 1440.0  | 9.0 times      |
| Average milk yield per cow, kg     | 3716.0  | 5371.0  | 144.5          |

Source: [1]

We revealed that the regional grant policy gives priority to novice farmers in the livestock sector (table 2). This is explained by the fact that the livestock industry has lower profitability and high capital intensity and contributes to employment in comparison with sub-sectors of crop production [2, 3, 4, 5, 6]. The total grants increased to 1.7 billion RUB for 2012-2018.

For the period of 2012-2018, 678 farms were provided with grants; 583 of them were novice farmers and 95 were family livestock farms (figure 2).
Figure 2. Grants distributed in industries of Rostov region for 2012-2018, units.

Source: compiled by the author according to [2]

Figure 3. State support mechanism for small business in Rostov region.

Source: developed by authors (on research materials)
Table 2. Dynamics of grants implemented in farms in Rostov region, 2012-2018.

|                      | Amnt units | Investment invited, ths. RUB | Amnt units | Investments invited, ths. RUB |
|----------------------|------------|-------------------------------|------------|-------------------------------|
| Cattle breeding      |            |                               |            |                               |
| Cattle milk          | 210        | 744154.22                     | 7          | 33 338.05                     |
| Goat milk            |            |                               |            |                               |
| Cattle milk          | 210        | 744154.22                     | 7          | 33 338.05                     |
| Beef                 | 199        | 512 778.44                    | 24         | 68509.0                      |
| Lamb                 |            |                               |            |                               |
| Poultry/rabbits      | 24         | 68509.0                       | 24         | 75828.3                      |
| Plant production     |            |                               |            |                               |
| Crops                | 172        | 241183.33                     | 16         | 21522.76                     |
| Vegetables           |            |                               |            |                               |
| Mushrooms            | 5          | 7241.39                       | 16         | 22891.8                      |
| Perennials           |            |                               |            |                               |
| Vineyards            | 5          | 6987.1                        |            |                               |

In 2018, all program participants produced 20.9 thousand tons of milk (26.4% of the total volume produced by peasant farms) and 6.9 thousand tons of meat (22.11% of the total volume produced by peasant farms). We believe that these figures indicate an effective farm incentive measures [6, 7].

An average startup size in the Rostov region amounted to 1.5 million RUB for a young farmer and 10 million RUB for a young farming family (figure 3). As part of the program, young farmers not only created their own business, but also provided village with additional 934 jobs.

However, small agricultural businesses in the countryside are experiencing serious difficulties with food marketing [7, 8, 9, 10]. The analysis of the main sales channels of manufactured products in the livestock industry indicated that its insignificant share is sold through large retail chains (figure 4).

![Figure 4. Share of main meat types sold by regional small agribusiness through various distribution channels, 2018.](image)

The volume of beef produced in small business entities and sold in large retail chains amounted to 13.8% in 2018, while pork and poultry produced in a large-format sector of the Rostov Region were distributed to large retail chains.

The current negative trend indicates the need for the development of industrial and economic relations in the field of small agribusiness through the agricultural consumer cooperation system in the framework of the National Project “Creating a system of support for farmers and the development of rural cooperation” that in terms of developing new sales markets creates an appropriate institutional environment for developing a framework for small agribusiness strategies [11, 12, 13].

In this regard, we studied the potential of 43 municipal districts of the Rostov Region to develop agricultural cooperation in the dairy industry (according to the methodology proposed by scientists of the Nikonov VIAPI – a branch of the All-Russian Scientific Research Institute of Agricultural Economics). The research results showed that the most cows were concentrated in small farms in 40 districts of the region (figure 5). Consequently, 93.0% of the districts under study demonstrated the highest and high potential for the development of industrial and economic relations through a cooperation system in the dairy farming industry [14, 15].
Figure 5. Municipal districts of Rostov region with respect to their potentials for the dairy cooperation development, 2018.

The highest potential – Azovsky, Bagaevsky, Bokovsky, Verkhnedonsky, Dubovsky, Egorlyksky, Zavetinsky, Kamensky, Kasharsky, Konstantinovsky, Krasnouslinsky, Kuibyshevsky, Martynovsky, Milyutinsky, Morozovsky, Oblivsky, Oktyabrsksky, Peschanokopsky, Proletarsky, Remontensky, Rodionovo-Nesvetaevsky, Salsky, Semikarakorsky, Sovetsky, Tarasovsky, Tatsinsky, Ust-Donetsky, Tselinsky, and Sholokhovsky;
High potential – Belokalitvensky, Volgodonsky, Zernogradsky, Zimovnikovsky, Millerovsky, Orlovsky, Neklinovsky, Tsimlyansky, and Chertkovsky;
Moderate potential – Aksaysky;
Relatively low potential – Matveyevo-Kurgansky and Myasnikovsky.

Source: developed by authors according to [3]

A serious problem that contradicts the agricultural consumer cooperation in the dairy industry in the region is the lack of large dairy plants that enable completing ties in the cooperation chain, as well as the lack of financial resources necessary to increase the technical equipment of efficient cooperatives.

5. Conclusion
The study showed that the strategic vector for the development of small agribusiness entities in the meat and dairy industries of the Rostov Region is determined by key directions of state agrarian policy, one of which is the development of an agricultural cooperation system.

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