

# Farm labor: problems and main directions of growth

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**Abstract.** Increasing the productivity of farmers and the efficiency of peasant (farm) farms, including timely sales of agricultural products to the population, today they are strategically important the tasks of ensuring food security in our country. Comprehensive scientific research of farm labor in in modern conditions, highlighting problems and points of growth peasant (farm) farms, designed to help the solution of this strategic task. The article presents socio -philosophical analysis of farm labor culture in the Sverdlovsk region. The purpose of the study is defined as analysis subjective and objective factors of efficiency improvement farm labor: technical and technological equipment, logistics, motivation of economic behavior of farmers, the level of state support, as well as key issues in the activity modern farmers. To investigate the problem posed a set of theoretical and empirical methods was used: system approach, document analysis, analysis of modern foreign and domestic literature on development problems peasant (farm) farms, statistical analysis, as well as conducting a sociological study among farmers Sverdlovsk region. The results of the study, formulated in the form of recommendations, reflect the nodal points the growth of the development of peasant (farm) farms in modern difficult conditions and require taking into account such growth points in implementation of the agrarian policy of the region.

## 1 Introduction

Currently, in the context of unprecedented sanctions imposed against Russian Federation in connection with the conduct of a special military operation in Ukraine, the issues of ensuring food security and sustainable development of agriculture in our country, as in other countries of the world, are particularly acute. A quick and effective solution to the most acute problems of the subjects of agricultural production is one of the resources for solving these vital tasks. The traditional subject of agricultural production in Russia, which has been actively developing since the beginning of the 90s of the XX century, is the peasant (farmer) economy.

The results of the agricultural micro-census of 2021, published in the form of a presentation on Rosstat website, show that the number of peasant (farmer) farms and farms of individual entrepreneurs in our country has decreased compared to 2016. At the same

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time, the area of agricultural land increased in peasant (farm) farms and enterprises of individual entrepreneurs in 2021. and the events are published in the presentation on Rosstat website. In total, 34.4 thousand agricultural organizations were registered in Russia in 2021, in 2016 there were 36 thousand of them. Including: agricultural organizations that are not related to small business entities - 9.6 thousand (in 2016 – 7.6 thousand) small enterprises – 6.5 thousand (in 2016 – 7.1 thousand) microenterprises – 14.4 thousand (in 2016 – 17.2 thousand). The number of peasant (farm) farms and sole proprietors in 2021 amounted to 102.4 thousand (in 2016 – 136.7 thousand) and 20.8 thousand, respectively, against 136.7 thousand and 38 thousand in 2016. The area of agricultural land by agricultural organizations on average per object in 2021 was distributed as follows: agricultural organizations not related to small business entities - 6353.4 ha (in 2016 – 5885.1 ha) small enterprises – 4123.3 ha (in 2016 – 3786.4 ha) microenterprises – 1380.2 ha (in 2016 – 964.7 ha) Total the area of farmland on average per peasant (farm) farming and individual entrepreneurship in 2021: peasant (farm) farming 476.8 ha (in 2016 – 256.3 ha), individual entrepreneurship 306.6 ha (in 2016 - 119.1 ha) On average, there are 3408.9 hectares of farmland per agricultural enterprise in Russia [1].

With the marked decrease in the total number of peasant (farmer) farms and individual entrepreneurs in our country, the number of agricultural products produced in farms increased in 2021. According to Rosstat, in the structure of agricultural products produced in 2020 by type of farms, the production of farms and individual entrepreneurs amounted to 14.9%, in 2019 it was 13.7%, in 2018 – 12.5% [2].

Therefore, increasing the productivity of farmers and the efficiency of peasant (farmer) farms, including timely sales of agricultural products to the population, are currently strategically important tasks to ensure food security in our country. Comprehensive scientific research of farm labor in modern conditions, highlighting the problems and growth points of peasant (farm) farms, are designed to help solve this strategic task.

For agrarian sociology, the key research direction in the current conditions is the study of objective and subjective factors affecting the production of high-quality food for the population, including in peasant (farmer) farms.

In January-February 2022, our research group conducted an initiative sociological study on the topic "Farm labor culture". The subject of the study was farm labor in Sverdlovsk region. The purpose of the study was to analyze subjective and objective factors of increasing the efficiency of farm labor: technical and technological equipment, logistics, motivation of economic behavior of farmers, the level of state support, as well as key problems in the activities of modern farmers. Based on the position that culture has regional characteristics, the task of studying the characteristics and key problems of farm labor in Sverdlovsk region is set.

## 2 Method

The methodological basis of the study was the works of outstanding Russian agricultural economists A.V. Chayanov, N.D. Kondratiev, N.P. Makarov, I.Ya. Petrenko, M. Tugan-Baranovsky. Of particular importance to us was the idea of A.V. Chayanov that the family-labor peasant economy was a traditional socio-economic and organizational-legal form of development of agricultural organizations in Russia. "Family and labor peasant economy A.V. Chayanov considered as a special socio-economic and cultural way of life...A family-labor peasant farm is basically a natural economy, its purpose is to meet the needs of members of a peasant family, and not to extract maximum profit. The needs of family members and their number determine the volume of agricultural production" [3, p. 79].

To study the problem, a set of theoretical and empirical methods was used: a systematic approach, analysis of documents, analysis of modern foreign and domestic literature on the

development of peasant (farm) farms, statistical analysis, as well as conducting a sociological study among farmers of the Sverdlovsk region [4, p. 13].

The sociological research was conducted using a qualitative research strategy – a written and oral survey (in-depth interview) of active agricultural producers from Beloyarsk, Sysertsky, Tugulymsky, Bogdanovichevsky, Irbit, Talitsky, Kamensky and other districts of Sverdlovsk region. In total, 23 expert farmers were interviewed, who head farms of various forms of ownership and organizational and legal form (peasant (farmer) farms, individual entrepreneurs, limited liability companies), representing mainly small-scale farms with an average labor force of 7 people.

### **3 Study detail and result**

Today, the problems of the development of farms as one of the sources of agricultural production and its growth have become the subject of close research by scientists, both in Russia and in foreign countries.

Foreign researchers analyze the problems of increasing labor productivity in family and non-family farms, the economic viability of farms, the working conditions of farm workers and their impact on labor productivity.

The problem of overtime work during the sowing campaign and harvest, overwork of workers on family and non-family farms in Japan is being investigated by Hironori Yagi and Tsuneo Hayashi [5, pp. 249-250]. Comparison of the common accounting and alternative economic method of calculating the income of farm labor is considered in the work of Yu. Shpichki and P. Derenika. The authors conclude that there is a high variability of opportunity costs when calculating the economic viability of farms in the EU countries [6, p. 49]. Kostlyva V., Fucsova Z., Rudinskaya T. the latent class model is used to identify technological classes of farms with a determining influence of the index of structure and localization, which affect labor productivity on the farm and the economic efficiency of farms [7, p. 298]. Antoshova I., Khazukhova N., Stavkova Y. studied the incomes of agricultural households in the EU countries. The researchers found that the income of an agricultural household currently does not reach the average household income in any of the EU countries. and concluded: "Living conditions at a satisfactory level can be achieved regardless of the economic situation of an agricultural household, although they depend on the appropriate formulation of agrarian policy" [8, p. 128].

Foreign researchers pay special attention to agri-food logistics, the preservation of existing and the formation of new agri-food chains "from farm to store". In the context of the Covid-19 pandemic, unprecedented sanctions announced by the Russian Federation, international and domestic agri-food chains have turned out to be one of the most vulnerable links, many of them are rapidly disintegrating.

Eric Hunter, Andreas Norrman and Eva Berg explore supply chain opportunities in alternative food chains in Sweden (AFN), which include farm shops, farmers' markets and farmers' food hubs. The authors conclude that effective management of alternative supply chain activities leads to an increase in farm profits, fair wages for participants in alternative supply chains, as well as cooperation, happiness and confidence in the future [9, p. 83].

Peng Liang, Melat Sima, Yu Huang, Xiaoyu Sun explore the advantages of the model of direct purchases of agricultural products by supermarkets from farmers based on income distribution contracts in China. The researchers emphasize that revenue sharing contracts offer an approach to risk sharing to ensure supply chain coordination and profit optimization for all participants in the logistics chain [10, p. 230].

P.A. Corsi, V. Frontuto, S. Novelli conducted a survey of consumers in open markets in four cities of Italy on the impact of personal relationships between buyers and sellers of agricultural products on the choice of food. The authors of the study concluded that "the

average value of personal relationships is 13.5-24.4% of buyer's spending on fruits and vegetables" [11, p. 245].

In recent years, a large number of works on peasant (farmer) farms have appeared in the domestic literature as an important part of the multi-layered agrarian economy in our country. The ratio of large and small forms of agricultural production organization is considered in the works of V.I. Denisov, V.G. Egorov, A.A. Inshakov, E.V. Shavina and others. The authors identify a number of functions in agricultural production that are currently performed by peasant (farmer) farms and individual entrepreneurs, for example, the development of new lands for agricultural land [12, p. 65] or the provision of the food market with environmentally friendly or organic food [13, p. 657].

The problems of legal support of the organization and activity of peasant (farm) farms are presented in the works of B.A. Voronin, Y.V. Voronina, S.V. Savelyev, N.N. Simachkova, N.N. Tyutereva, O.V. Tsukanov, etc.

The problems of state regulation and state support of participants in agricultural production, including farms, have been actively considered in the last two decades by domestic scientists and economists: A.S. Baranova, I.K. Borodina, A.V. Buyarova, O.A. Vasilyeva, B.A. Voronin [14, p. 14], O.A. Zubrenkova, A.Ya. Kibirova, V.I. Kudinova, V.A. Kundius, V.V. Laktyushina, T.P. Maksimova, N.V. Maltseva, A.B. Melnikova, P. V. Mikhailushkina, A.N. Mitina, O.N. Mikhailyuk, V.L. Shabanova, N.V. Sharapova, S.A. Shelkovnikova, N.A. Potekhina, N.I. Proki, V.I. Savkina, A.N. Semina, O.A. Solovieva, etc. The authors, in particular, note that state support measures should be evenly distributed among peasant (farmer) farms in the regions [15, p. 5].

The issues of cooperation of peasant (farmer) farms in our country are analyzed in the works of A.A. Gorokhov, L.I. Guskova, I.I. Sorokolet, I.P. Chupina [16, p. 160], Yu.A. Shikhanova. There are studies on the role of peasant farms in the agrarian economy of Russian regions, their contribution to the formation of regional food markets, including environmentally friendly and organic products: the works of B. A. Voronin, M. Leshcheva, A.N. Pustuev, O.A. Ruschitskaya, I.P. Chupina, V.M. Sharapova and others. O.A. Ruschitskaya, in particular, notes that peasant (farmer) farms and individual entrepreneurs are the main subjects of the formation of the market of environmentally friendly and organic agricultural products in our country [17, p. 117].

The analysis of modern Russian literature on the organization, functioning and development of peasant (farmer) farms shows that organizational, legal and economic issues of farming, its state regulation, the role of farming in ensuring food security of our country are being actively developed. At the same time, sociological studies of farming as a special social group, objective and subjective factors of farm labor, its motivation and effectiveness are not carried out enough.

In the sociological study of the culture of farm labor, we used the concept of peasant (farmer) economy in accordance with Federal Law No. 74-FL of 11 June 2003 "On peasant (farmer) economy" [18] as "associations of citizens related by kinship and (or) property having property in common ownership and jointly engaged in production and other economic activities (production, processing, storage, transportation and sale of agricultural products) based on their personal participation". Accordingly, we defined farm labor as purposeful interaction with natural, land, and bio-organisms to create food for our own consumption and for the population.

All the farmers we interviewed rated their farm as ecological. One of the interviewed experts stressed: "We do not use pesticides/herbicides in crop production, we do not use preservatives in food production. We consider our products to be eco-friendly." But at the same time, respondents noted the dependence on the ecological situation in the region and losses from climate change, air pollution, pastures and land, which cannot but affect the quality of agricultural products.

The majority of respondents noted the possibility of using renewable resources of the farm itself (vermin-compost, biomass) in the process of agricultural production and energy sources (for example, a wind turbine), but expressed the opinion that "we cannot do without traditional energy sources today". 4 of the surveyed farmers noted that they have begun to recultivate fields and put land plots into production of agricultural crops, use crop rotation to increase land fertility.

Our hypothesis about the predominance of heavy physical labor in modern family farming has not been confirmed. Even small farms use various technological innovations: a milk pipeline with automatic flushing according to the program; manure removal; software tools for milk processing, milk pipelines and tanks, milk coolers and others. Only one out of ten farmers surveyed rated the degree of technologization of their farm as low.

The average assessment by experts of the safety and quality of products produced in their farm on a 5-point system is 4.8, a fairly high indicator in modern conditions. Respondents noted that their farms and processing plants operate without the use of chemicals and herbicides, fully comply with veterinary and sanitary requirements. At the same time, not all farms have yet implemented the Hazard Analysis and Critical Control Point system, which allows for systematic identification and evaluation of the use of substances that can affect the quality of food products, which is an important indicator of the quality of manufactured products.

The conducted research allowed us to conclude about the growth of market activity of farmers who demonstrate in their responses the skills of marketing their products both online and offline and effective communication with market agents (consumers, intermediaries, suppliers, credit and financial organizations, the media). Answering the questions, farmers used economic and marketing terms (profit, profitability, increase in sales volume, lost profit, market segment, rural marketing, logistics, and others). Many farmers have managed to establish communication with consumers, as a rule, communication goes through a network of stores that purchase farm products, less often through individual contacts with regular consumers.

The central task of our research was to identify the motives of farm labor, which follows from its specifics. Land management is a special system that is not comparable to any other industry. According to one of the respondents: "Not everyone will be able to become a farmer, as knowledge of an agronomist, economist and manager is needed for this. A successful farmer can be at the conclusion of profitable contracts with suppliers of his products, which are competitive in relation to the products of other farmers".

For many respondents, creating their own farm was a "long-standing dream" based on love for the land, nature, and animals. As one of the farmers replied: "The farmer's work as a producer of environmentally friendly products attracts. The motives and goals of running a farm are the production of environmentally friendly products and making a profit from its sale".

Among other motives for organizing their own business, experts noted:

- work for yourself and your family;
- the opportunity to live and work in an environmentally friendly environment;
- the possibility of self-realization;
- outdoor work;
- employment in rural areas;
- the ability to ensure the well-being of the family;
- potential for professional growth.

According to experts, not everyone is capable of becoming a modern farmer. As one of the respondents said: "A successful farmer is distinguished by hard work, perseverance, kind attitude to animals and land, curiosity, ability to navigate the market for products". The respondents called the main qualities of the farmer: perseverance, hard work,

intelligence, love and affection for the land, animals. "A farmer can work as a villager who likes to work in agriculture, knows the basics of growing crops and farm animals."

Among the problems that make it difficult to work, farmers named the following:

- problems with suppliers on terms related to the sale of products,
- refusal of suppliers from products,
- "expensive" loans, financial problems with banks, lack of funds for the purchase of equipment and seeds,
- there are not enough agricultural land plots to expand the economy,
- the problem with working personnel (shortage of qualified machine operators, veterinarians, specialists with digital competencies),
- problems of social and domestic order (quality of education and medical care, road condition, lack of gasification, etc.),
- unfair provision of state aid to small agricultural producers,
- insufficient information about existing farmer support programs,
- bureaucratization when applying for grant support.

Another important task for us was to find out which system of support for farm labor would be useful for the development of farming. Here is the most typical answer: "Farmers are in favor of state support being distributed more fairly. Per-hectare support over the past 5 years has been received by about 15% of farms, subsidies for milk - only 1%. Grant support programs and additional subsidies to farmers whose farms have suffered from drought are in great demand among farmers".

## 4 Discussion

The conducted research allowed us to draw several conclusions about the features and main modern problems of farm labor.

The socio-economic and cultural way of farming is based on values alien to entrepreneurship, such as ecological thinking and lifestyle, the "sense of the owner" inherent in the peasant, due to his proximity to the land and close connection with the natural rhythms of life, traditions of good neighborliness and mutual assistance.

The uniqueness of the family form of management lies in its versatility, combining the roles of the customer, the performer, the main producer and the seller of products necessary for the life and well-being of all family members.

In our opinion, it is the family farm, due to its specifics, that can become one of the drivers of the development of the modern agrarian economy in our country and provide the population with high-quality food.

In conclusion, we will highlight the key recommendations that will further increase the productivity and efficiency of farm labor, and help solve systemic problems of ensuring food security in our country.

- Strengthening of credit and financial assistance to farms: conducting a stable and credit policy, issuing loans to farmers at low rates, which is critically important today. It is necessary to provide tax holidays for novice farmers, subsidizing interest rates on investment loans, the development of leasing of machinery, agricultural equipment, breeding cattle, grant support.

- Improvement of rural marketing management: organization of systematic measures to maintain demand for farm products of all major market entities, including the practice of public procurement of farm products, assistance in organizing the sale of products produced by farmers, sustainable logistics chains from producer to consumer, regular fairs, markets for the sale of agricultural products and the organization of direct deliveries of products from farmers to grocery stores, including large chains.

- Organization of consulting support for farm labor: creation of an information and advisory service represented by specialists in various fields (managers, marketers, financiers, accountants, agronomists, agricultural engineers, designers, veterinarians, lawyers, etc.) to assist farmers on a free basis, organization of networking meetings, conferences, seminars and webinars with specialists and farmers.

The highlighted recommendations reflect the nodal points of growth of the development of peasant (farmer) farms in modern difficult conditions and require taking into account such points of growth in the implementation of the agrarian policy of the region.

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