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To cite this article: A I Altukhov *et al* 2019 *IOP Conf. Ser.: Earth Environ. Sci.* **274** 012005

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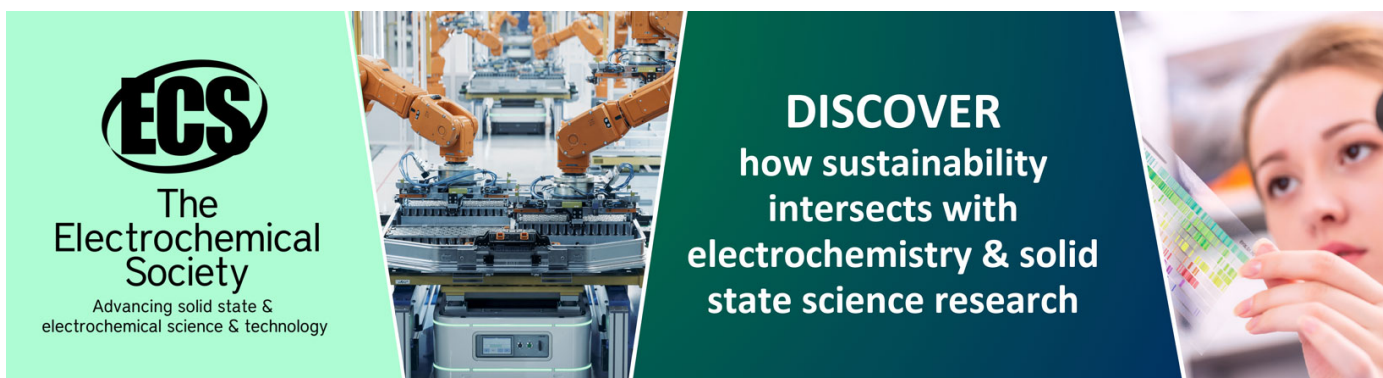
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Increasing competitiveness the agro-food complex is impossible without its rational territorial organization

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Abstract. The article considers the concepts of “competitiveness” and “competitive advantages”. It gives the summary of available competitive advantages and the ones to be formed in the agricultural sector as well as specifies the factors to influence the competitiveness of the agricultural produce. Among the priority and controllable factors (conceptual framework) which have a major positive or negative impact on the state of competitiveness the following ones have been identified: inequitable cross-sector exchange not in favour of the agricultural sector; territories zoning based on the production possibilities for agri-food produce; possibilities to use digital economy in the agricultural production.

1. Introduction

Increasing the competitiveness of the agro-food complex will make it possible to solve such important tasks for the state as ensuring the country's food independence, preserving employment and raising the incomes of the rural population, and increasing the number of jobs in the agricultural sectors serving agriculture. However, an analysis of the contents of previously adopted and approved concepts, strategies, programs shows that they do not adequately describe the mechanisms for increasing the competitiveness of agricultural production in the first place, while scientific publications deal with only certain aspects of the solution of this problem. At the same time, many authors rightly link the possibility of increasing competitiveness with the need to modernize the industry, which will require significant investment, and therefore, the adjustment of macroeconomic policies in favor of agriculture.

2. The Urgency of the Problem

The actualization of the solution to the problem of increasing the competitiveness of the agro-food complex continues to be one of the significant problems on which the speed and stability of the socioeconomic development of the country depend. Therefore, it is no coincidence that the President of the Russian Federation, in his decree of May 7, 2018, “On national goals and strategic tasks for the development of the Russian Federation for the period until 2024”, called among the tasks: “ensuring sustainable growth in real incomes of citizens, creating ... in the agro-food complex ... high-



performance export-oriented sector developing on the basis of modern technologies, the formation of ... global competitive non-commodity sectors in agriculture ..., the achievement of export volumes (in value terms) agricultural products - 45 billion US dollars per year”.

The solution of the tasks, one way or another, is connected with the need to increase the competitiveness of the agro-food complex, which is actually identified in all policy documents and concepts related to: ensuring the country's food independence; co-storage of rural employment; increase in jobs in industries serving agricultural production; acceleration of social and economic development of rural areas; increase of incomes of the population in the sphere of production and processing of agricultural products, which in economically developed countries are a significant source of increasing the well-being of the population; reducing the dependence of the national economy and political composition by reducing risks from unpredictability of the state of the world oil and gas market, foreign policy ambitions, etc.

In the methodological recommendations of the Ministry of Economic Development of the Russian Federation, when preparing the sectoral development strategies, it is indicated that it is necessary to solve the task of ensuring the competitiveness of the domestic sectors of the economy and the economy as a whole. At the same time, development strategies for the economic sectors are developed if they meet one of the following criteria: the contribution of the industry to GDP in the future should be more than 1%; the industry provides the solution of problems of technological development and production of products aimed at maintaining the security and defense capability of the country; the industry in the process of changes in the macroeconomic situation has acquired an intersectoral character and the indices of this sector have a significant impact on the development of related industries [3, p.1.1-1.2].

3. Methods of Research

As is known, the concept of “competitiveness” as a system consists of its elements - realized “competitive advantages”. “With respect to the economic sphere, competitiveness in its most general form can be understood as the possession of properties; which create advantages for subjects of economic competition (competition) ... Bearers of these properties - competitive advantages - can be various subjects of competitiveness: types of products, enterprises and organizations ...” [4, p. 5].

With reference to the agrarian sector of the economy, its sectoral and intra-industry specifics under competitive advantages, it is necessary to understand the properties inherent in production systems, the realization of which forms a certain level of competitiveness of products. Competitive advantages are only potential opportunities for the production of competitive products, associated primarily with the effective use of the resource potential. Thus, the level of competitiveness of agricultural production is largely determined by the state of the resource potential, the technologies used, the organization of labor processes, the stimulation of labor (Fig.1). In the process of production such indicators characterizing its effectiveness are formed, such as the productivity of livestock and the yield of agricultural crops, the production cost of production, and at the marketing stage - the commercial cost and sales prices. And the indicators of productivity, production costs and sales prices can be viewed as indicators of the effectiveness of using the potential of competitive advantages.

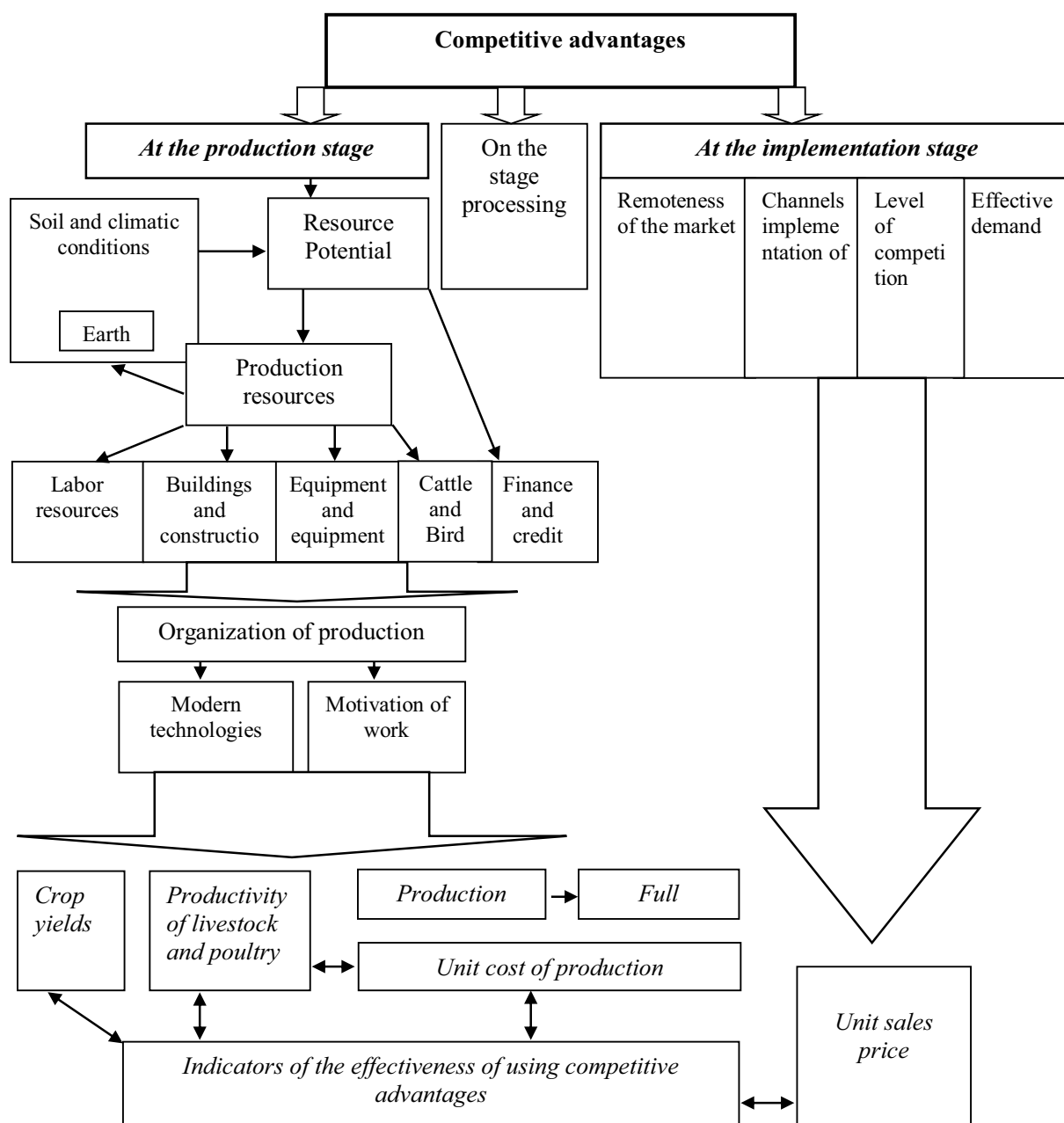


Figure 1. Existing and formulated competitive advantages in agriculture.
Source: author's development.

At the production stage, the actual assessment of the level of use of competitive advantages may change at the stage of processing agricultural products due to changes in the range and quality of food products, that is, the profitability of the commodity sector may be dependent on the results of the work of processors of its products, when the same milk producer sells it to different dairy plants.

From the analysis of the above scheme of the influence of factors (elements) on the competitiveness of agricultural products (Figure 2) [1, p. 859], it can be concluded that competitiveness as a system is characterized by a set of constantly changing interdependent and

diverse factors influencing the system, including, for example, the territorial organization of agriculture.

In view of the foregoing, it can be concluded that the complexity of the notion of "competitiveness" as a system of interdependent and multidirectional elements (on the impact on the system) is supplemented by the complexity of organizing the regulation of their interaction. In this regard, in the methodological plan it is important to determine the significance of the influence of certain factors on competitiveness, the priority of their implementation.

4. Results

In the current macroeconomic situation, the production of competitive agricultural products largely depends on eliminating the negative consequences of inequivalent inter-sectoral exchange not in favor of agriculture, the lack of an acceptable credit system for the industry and other macroeconomic factors, including low incomes of agricultural producers. This shows that the solution of the problem of increasing the competitiveness of the industry is largely determined by the possibilities of state regulation conducted by the macroeconomic policy, since, for example, the current situation with the incomes of agricultural producers shows, on the one hand, the existence of price disparity as a source of hard-to-solve problems, and on the other hand - the need for measures to eliminate the negative consequences in the industry.

The huge territory of the country with a variety of its natural conditions for agriculture has a different impact on the production of competitive agro-food products. As is known, zonal differences in certain regions are classified as natural-economic zones (Sverdlovsk region), natural-economic zones (the Republic of Bashkortostan). So, in Sverdlovsk region the following natural-economic zones are distinguished: mountain forest, forest (taiga), forest-forest and forest-steppe. The last two zones are located partly in the Urals, and mainly in the Trans-Urals. In the Republic of Bashkortostan, there are also several natural and economic zones: mountain forest, forest-steppe and steppe. In turn, the forest-steppe is divided into northern, north-eastern and southern, and the steppe - on the pre-Urals and Trans-Ural. At the same time, the share of agricultural land in the Sverdlovsk region on an all-Russian scale is 0.8%, in the Republic of Bashkortostan - 3.1%. Thus, even in relatively small local areas of the country, the possibilities for producing competitive products can differ significantly.

The existing territorial differences and their influence on increasing or de-creasing competitiveness should be considered among the priority and less costly directions in addressing the problem under consideration.

However, in order to do this, "... First, it is necessary to change the existing state policy aimed at maximizing the self-sufficiency of each region with food to take fuller account of the advantages of the territorial-sectoral division of labor in agro-industrial production, the development of interregional exchange; secondly, to develop interregional exchange as the basis for the creation of specialized zones for the production of certain types of agricultural products, the effective functioning of the agro-food market and its product segments" [5, p. 11].

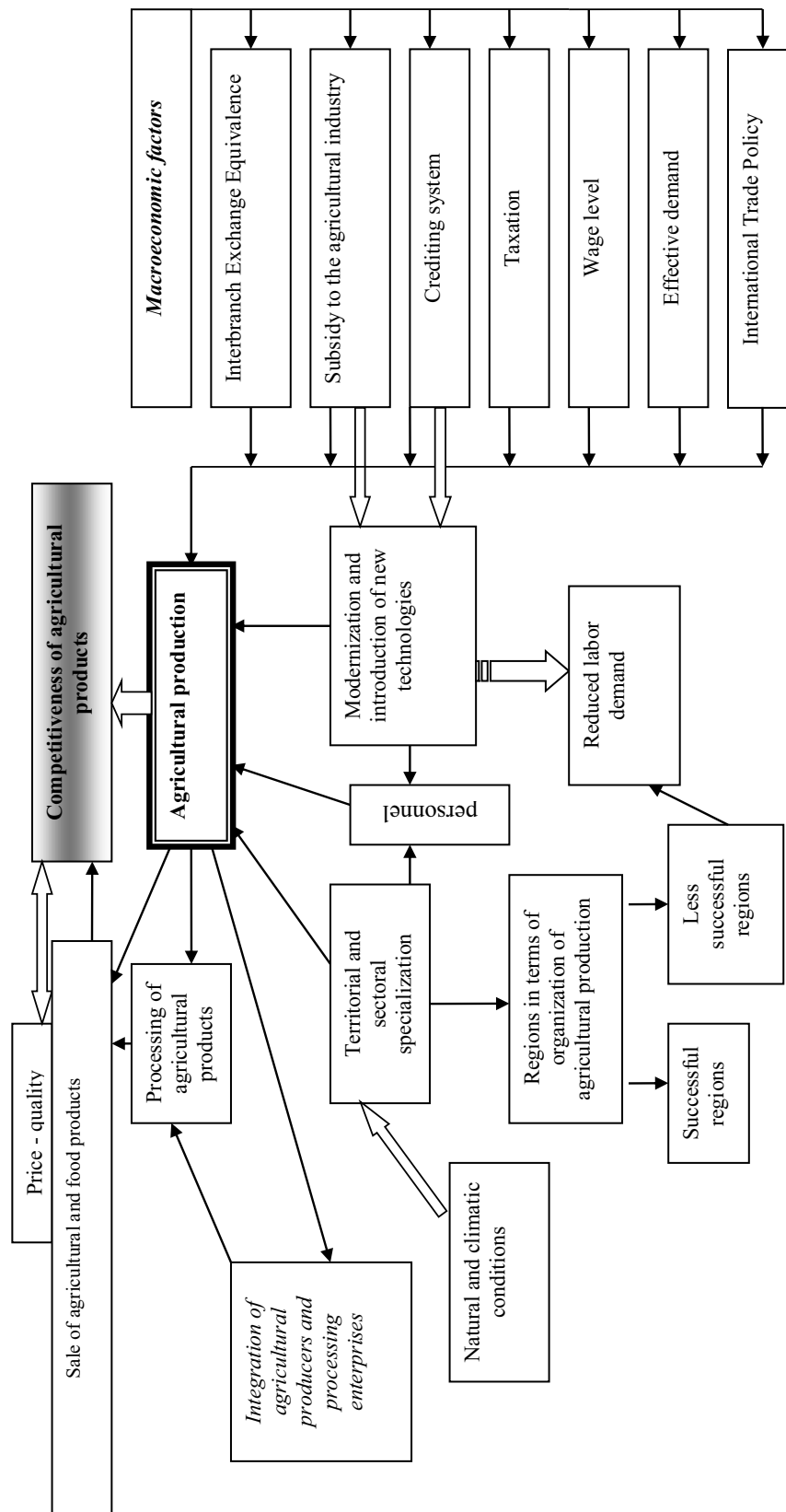


Figure 2. The main factors affecting the level of competitiveness of agricultural products.
Source: author's development.

The influence of certain regional differences on the specialization and results of agricultural production can be seen by comparing the southern and northern regions of the country (Table 1).

Table 1. Features of the territorial location of individual regions.
Countries that characterize their existing specialization and outcomes agriculture in 2016.

Indicators	Southern regions		Northern regions	
	Krasnodar region	Rostov region	Kostroma region	Vologda Region
Grain yield (average for 2012-2016), centner / ha	51.9	27.9	14.0	19.7
Production of agriculture - total, million rubles.	402846	280942	21505	30822
Share (%): Crop production	75.3	71.3	49.5	33.2
animal husbandry	24.7	28.7	50.5	66.8
Plant production per hectare of arable land, thousand rubles.	78.7	35.1	10.2	15.4
Livestock production per hectare with land, thousand rubles.	22.9	10.5	9.0	20.1
Level of profitability (without subsidies) for all activities of agricultural organizations, %				
2015	33.6	19.0	10.6	2.1
2016	21.0	16.2	1.4	4.8
Share of arable land in the total area of the territory, %	51.1	56.6	7.8	7.5

Source: calculated according to Rosstat and Ministry of Agriculture of Russia.

In the southern regions of the country, the yield of grain crops and the production of agricultural products per hectare of arable land are much higher. At the same time, in the Krasnodar Territory, for example, the cost of produced crop production exceeds the cost of livestock 3 times, and in the Rostov region - 2.5 times. In the northern regions, for example, in the Vologda region, on the contrary, the cost of livestock products exceeds the cost of crop production by 2 times. This means that in the southern regions of the country, as a rule, there is predominance of plant-growing specialization, and in the northern regions, livestock breeding. In these regions, the profitability (excluding subsidies) of agricultural organizations is much higher (Table 2). So, in 2015, the difference in the level of profitability of agricultural organizations without subsidies between its extreme values was 32.3 pp. (Southern and Far Eastern Federal Districts). The difference in indicators equaled by subsidies was 17.5 percentage points. While in the Southern Federal District the profitability through subsidies increased by 4.9 pp, in the Far-East - by 19.7 pp.

Table 2. Profitability (loss) of agricultural organizations on all economic activities (with and without allowance for subsidies) in federal districts.

Federal Districts	Profitability (unprofitableness), %						The difference, pp.		
	without subsidies			with subsidies					
	2005	2010	2015	2005	2010	2015	2005	2010	2015
Central	2.0	-6.0	13.8	5.9	5.0	21.1	3.9	11.0	7.3
Northwestern	6.5	-3.7	3.1	13.7	8.1	15.6	7.2	11.8	10.5
Southern	7.6	9.9	26.1	11.0	15.5	31.0	3.4	5.6	4.9
North-Caucasian	-	2.7	19.5	-	11.9	26.3	-	9.2	6.8
Privolzhsky	-1.8	-22.4	5.2	4.6	3.0	16.3	6.4	25.4	11.1
The Urals	1.0	-6.8	2.5	8.3	10.3	12.3	7.3	17.1	9.8

Siberian	2.1	4.9	9.4	9.2	14.2	18.4	7.1	9.3	9.0
Far Eastern	-1.9	-9.8	-6.2	5.5	12.9	13.5	22.4	22.7	19.7
Russian Federation	2.1	-6.4	11.8	7.8	8.3	20.3	5.7	14.7	8.5

Source: calculated from the Ministry of Agriculture of Russia.

Significant impact on the cost of production of agricultural products, and consequently, on its competitiveness, is provided by the costs of field mechanical work. This is primarily due to the configuration and size of the fields, the composition of their soils, and, in general, to the technical characteristics of the land, as can be seen from the comparison of typical production rates for arable work in the Krasnodar region and the Vologda region. Thus, in the replacement rates of production in arable work, the fields of the Krasnodar Territory have an average length of 1000 m, and the Vologda region - 150-300 m [6]. According to the collection of normative materials [7], arable work in the fields of the Krasnodar Territory can be attributed to the fourth group of shifting production rates, and the Vologda region to the VII group.

Comparative data on shifting production rates and fuel consumption are given in Table 3. From their analysis it follows that in the Krasnodar region the replacement rates of production in arable work can exceed similar indicators of the Vologda region by 28-32%. In the Vologda region in arable work, fuel consumption can be higher by 25-28%.

Table 3. Changeable rates of cultivation on plowing, ha
(the agrofon is a layer of perennial grasses, the depth of plowing is 25-27 cm).

Composition of the unit		Group of norms		IV group in % to VII	Fuel consumption of the VII group in% to IV
tractors	agricultural machinery	IV	VII		
K-700, K-700A	PGN 7 - 40	12.1	9.2	132	126
MTZ - 1221	PN4 - 35	6.8	5.3	128	128
DT- 75 M	PN4 - 35	5.7	4.4	130	125

On non-arable work, the rates of production differ more significantly. So, depending on the composition of aggregates, the production rates for the first group of norms exceed the fourth group of norms for sowing grain crops by 30-45%, and on rolling up by 60-70%. Given these data and the difference in the yields of grain crops, it is not difficult to calculate the competitive advantages of the Krasnodar region when compared with the Vologda region.

As you know, the organization of agricultural production in the country is characterized by its multi-structure. In this industry, agricultural organizations, house-holds, peasant (farmer) farms and individual entrepreneurs. Each of these forms (categories) of management has its own niche and importance for ensuring food security of the urban and rural population of the country, social and economic development of rural areas. For example, during the initial period of reform, the population's economy played a large role in providing livestock products to the population, when, for example, milk production in this category of farms in 2008 increased to 16.7 million tons in comparison with 1990 (by 25.6%). However, despite this, the food social importance for the state of this category of farms was underestimated.

Since 2009, on the farms of the population (FP), there has been a steady decline in milk production. In 2016, compared to 2008, it amounted to 3212.5 thousand tons (Figure 3). In the agricultural organizations (ACO), during the same period, milk production increased only by 794.3 thousand tons, and in general for all categories of enterprises (ACE) it decreased by 1638.4 thousand tons.

Calculations show that further decline in milk production in households will lead to a decrease in the economic accessibility of the rural population (with its relatively low incomes) to dairy products, that is, exacerbate the problem of ensuring food security for a significant part of the population.

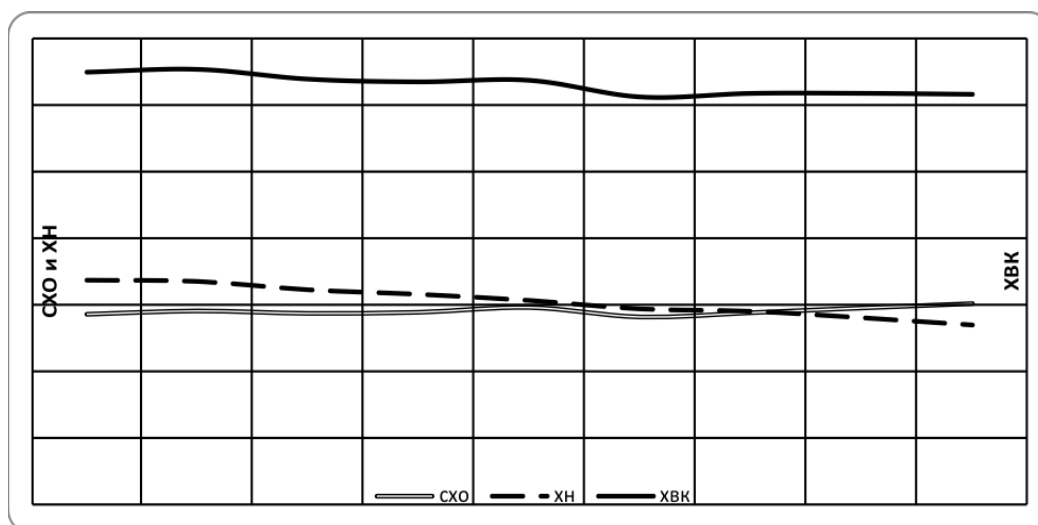


Figure 3. Dynamics of milk production by main categories farms in the Russian Federation.

Source: based on Rosstat data.

Thus, under the current macroeconomic conditions, this category of farms should not only be preserved in the near future but should also receive an impetus for development. This was pointed out by the President of the Russian Federation in his speech at the meeting in Voronezh on issues of agricultural development: “At the same time, the level of involvement of small forms of management in agricultural cooperatives is still low ... Ultimately, all this directly affects the increase in incomes and the standard of living of people, it is an important factor in providing employment, developing agricultural territories, and solving urgent social problems”¹. In this regard, the need to solve the problem of the rational combination of various forms of management in agricultural production.

The need to solve this problem is primarily due to the immense length of the Russian territory with various regional soil and climatic conditions for agriculture, the territorial differences in the distribution of urban and rural populations, and the possibilities for producing competitive products. All this, in the long run, led to structural changes in the system of organization of agricultural production.

Under the influence of regional peculiarities, the degree of influence of these or those categories of farms on the regional volumes of agricultural production is spontaneously formed and continues to change. Table 4 shows the data characterizing the change in the contribution of each category of farms to food security, depending on their location. So, the territorial features have less impact on the production of grain by agricultural organizations (the difference is 15.6 pp). High influence of territorial differences is observed in milk production by agricultural organizations and house-holds (70.8 and 61.4 percentage points, respectively).

Table 4. The share of certain categories of farms in the total volume produced agricultural products in the federal districts in 2016.

Categories of farms	Maximum values		Minimum values		The difference, pp.
	federal districts	%	federal districts	%	
<i>Corn</i>					
Agricultural organizations	Central	80.8	The Urals	65.2	15.6
Households of the	The Urals	3.5	Privolzhsky	0.3	3.2

¹ Meeting on the development of agriculture in Voronezh, October 13, 2017

population P(F) H and IE	Siberian	35.5	N.-Western	7.9	27.6
Potatoes					
Agricultural organizations	Central	20.9	F.- Eastern	6.4	14.5
Households of the population	Siberian	86.6	Central	70.7	15.9
P(F) H and IE	Southern	17.8	Siberian	5.4	12.4
Milk					
Agricultural organizations	N. -Western	84.0	N. -Caucasian	13.2	70.8
Households of the population	N. -Caucasian	73.0	N. -Western	11.6	61.4
P(F) H and IE	F.- Eastern	18.6	N. -Western	4.4	14.2
Cattle and poultry for slaughter, slaughter weight					
Agricultural organizations	Central	92.3	Southern	54.2	38.1
Households of the population	Siberian	41.3	N. -Western	3.9	37.4
P(F) H and IE	N. -Caucasian	10.5	Central	0.7	9.8

Source: according to Rosstat (from the sample, regions with minimal volumes are excluded).

The formation of peasant (farmer) households and individual entrepreneurs is significantly affected by territorial differences in the production of grain (27.6 pp), less potatoes (12.4 pp) and meat (9.8 p. p.). Therefore, when adjusting the agri-food policy, the existing territorial differences and their possible impact on priority areas of development and support of certain forms of organization of agricultural production should certainly be taken into account. Thus, small forms of management "... provide a significant part of production and employment, actively participate in providing local food markets, preserving and developing the livelihoods of rural settlements. As a rule, they are more environmentally efficient and are able to use environmentally friendly technologies" [7, p. 13]. These forms of management still do not receive the state support that would correspond to their real contribution to ensuring food and environmental security, to social and spiritual development, the preservation of rural areas.

Speaking about unequal conditions of competition between the functioning categories of farms "... generated by the existing system of state support ...". V. Ya. Uzun and N. I. Shagaida writes: "The levels of state support for the subjects of the Russian Federation are 10-15 times different. The same can be said about the support of different categories of farms: production in private underage economies is practically not supported. The average national levels of state support for peasant farms are 30% lower than those of agricultural enterprises" [9, p. 73]. Therefore, considering that in the long term small forms of management will retain their food, social, economic importance, the state needs to pay attention to increasing their competitiveness.

In small forms of management, there is a higher material interest in the production of high-quality products, it is cheaper to obtain operational objective information about the state of animals and fields, there are no overhead costs, due to which, ultimately, the "small-scale effect". At the stage of realization of the products produced on a cooperative basis, the possibility of using the "large-scale effect" is also created. The combination of these effects can be regarded as one of the competitive advantages in assessing the importance of support and development of a particular form of management in a particular region of the country.

In recent years, the pace of increasing competitiveness in various spheres of activity has been increasingly associated with the pace of their informatization. The possibility of effective use of digital informatization of production processes in the agrarian sector of the economy is proved by examples

of the integrated introduction of “Precision Farming Technologies” (Table 5). So, if the average cost price of grain production amounted to the introduction of the technology of precision farming - 6579.5 rubles per ton, then after its introduction - 5066.2 rubles per ton [10].

Table 5. Structure of the cost of production of grain before and after integrated introduction of precision farming technologies, %.

Indicators	Salary	Fertilizers	Planting material	Petroleum products	OS content	Chemicalization	IT Costs	Other costs	Total
Before implementation	13.2	8.7	16.2	15.6	18.3	5.1	0.1	22.8	100.0
After implementation	7.8	4.5	11.4	10.2	15.7	3.2	5.0	19.2	77.0

Source: data of the Analytical Center of the Ministry of Agriculture of Russia.

Precision farming technologies make it possible to increase the yield of agricultural crops and reduce the cost of production of their products. Of course, this is one of the most effective directions for using the elements, methods and techniques of the digital economy. At the same time, as an object of improving the digital economy in agricultural production, one can also consider the possibilities of generalizing and disseminating the already existing positive experience in the traditional and widely used crop and livestock production organization.

The level of efficiency of the organization of production of agricultural products depends largely on the objective and subjective conditions, their multiple differences, which in turn are due to considerable spatial disconnection. In such an environment, positive, less positive or negative practical experience is formed.

The possibility of obtaining and using additional information, the source of which is the results of a comparative analysis of the existing practices, can be seen on the examples of the actual cost price and its individual structural elements in milk production in the Sverdlovsk Region (Table 6). For example, in the first three departments of agriculture with a productivity of cows over 7,000 kg, the cost of milk does not almost differ from the cost of management with a cow productivity of less than 5000 kg. This, to some extent, provides a basis for comparing the indicators of the conditional cost of milk, calculated as the sum of costs for the lowest values of all its structural elements that occurred in all departments of the region. This amount amounted to 1,533 rubles. Which is 20% lower than the average regional cost of milk (1,927 rubles). And lower by 8% of its lowest in one of the regional departments (1,666 rubles). The practical meaning of this comparison is that the production costs for each structural element depend on the adopted technology the level of organization of labor and production processes for its implementation. With relatively similar soil and climatic conditions, high production costs for various structural elements of the cost of milk can be reduced to the level of effective agricultural producers.

Table 6. Differences in the productivity of cows, the cost of production and its structural elements on milk production in some areas of the Sverdlovsk region.

District management rural households	Milk yield per cow, kg	Cost, rub / c	including:					Cost of feed units
			salary	feed	OS content	Fuels and lubricants	electric power	
Beloyarskoe	7667	1960	300	989	231	29	53	1164
Irbitskoe	7579	2043	358	905	196	52	58	943
Bogdanovichskoe	7294	1872	313	844	331	57	59	938

...	...	...	...	...	...	...	...	...
Suburban	4991	1791	433	813	180	102	107	739
Krasnoufimskoe	4972	1943	449	916	203	84	109	833
Artinskoe	4760	2001	356	937	277	30	64	807
On average in the region	6616	1927	338	876	257	59	69	882
Values of indicators from among all the departments of the region:								
the maximum	7667	2211	449	1080	369	102	109	1164
the minimum	3855	1666	258	722	131	22	52	633
Exceeding the maximum performance over the minimum, times	2.0	1.3	1.7	1.5	2.8	4.6	2.1	1.8

Source: according to the Ministry of Agriculture and Food of the Sverdlovsk region.

Separate fragments of the analysis of its level of detail can be seen on the example of comparison of one of the most significant structural elements of the cost of production of milk - feed costs. So, in the Sverdlovsk region, their share in the cost of milk is on average 45.5% and varies between management from 722 to 1080 rubles.

For a comparative analysis, two closely spaced controls were selected, which had almost the same in 2016 and the highest productivity of cows in the region (Table 7). The actual cost of feed in the cost of milk varies in the management by 9%, the consumption of feed units - by 13%, the cost of feed unit - by 23%. In the Beloyarsk management, the feed consumption per one centner of milk is 11.4% lower than in Irbitsky, but 23.4% higher than the cost price of the feed unit, and therefore 9.3% higher than the total cost of feed consumed for production one centner of milk. If in the Irbit management it was possible to provide the ration with the same feeding structure and reduce the consumption of feed units to the level of the Beloyarsky administration (0.85 feed units), and in the latter to reduce the cost price of the feed unit to the level of the Irbit management (943 rubles), the estimated cost of feed in both offices would be 801 rubles. In this case, a possible reduction in the cost of feed per centner of milk would have amounted to 188 rubles in Beloyarsky management, and 104 rubles in Irbitsky. Under this condition, the level of profitability in the production and sale of milk could be increased in the first management by 13.3 percentage points, and in the second - by 5.8 percentage points. (Table 8).

Table 7. Reducing (minimizing) the cost of feed in the production of milk due to the possible alignment of the conditions of their production and feeding structures for cows.

District management rural households	Milk yield per cow, kg	Feed consumption per 1c, q.un. (quantity of units)	Cost of feed. units, rub.	The cost of feed in the cost of 1 kg of milk, rub.		Possible reducing the cost of feed in the cost of 1 kg of milk, rub.
				actual	calculated *	
Beloyarskoe	7667	0.85	1163	989	801	188
Irbitskoe	7579	0.96	943	905	801	104

Source: according to the Ministry of Agriculture and Food of the Sverdlovsk region.

* The product of the minimum feed consumption (0.85 q.un.) by the minimum cost of the feed unit (943 rubles) = 801.5 rubles.

In 2016, 30.2 thousand tons of milk was sold in the Beloyarsky district, in the second - 101.1 thousand tons. Additional profit could be in the first case - 56.8 million rubles, and in the second - 105.2 million rubles.

Table 8. Increased profitability due to possible reduction the cost of feed in the production of milk.

District management rural households	Selling price of 1 kg of milk	A commercial the cost of 1 kg, rub.		Profitability (without subsidies), %		
		actual	Taking into account the possible reduction in the cost of feed, rub.	actual	given the reduction in the cost of feed	difference, pp
Beloyarskoe	2498	1974	1786 (gr.3-188)	26.6	39.9	13.3
Irbitskoe	2459	2148	2044 (gr.3 - 104)	14.5	20/3	5.8

Source: according to the Ministry of Agriculture and Food of the Sverdlovsk region.

The development and implementation of this area of digital technology in agri-culture deserves the most serious attention, as one of the possible factors for increasing the competitiveness of agri-food products. The complexity of its implementation is primarily due to the lack of necessary information for this. So, in our case, further analysis would require comparable in terms of information on the structure of feeding rations, on the organization of labor and production processes for growing feed crops, processing them into finished food, etc. The process of deepening the detail of the analysis can be continued further. The final boundary of this process will be determined by the pace of development of science, the possibilities for the practical realization of its achievements.

The vast territory of the country with various soil and climatic conditions that have (in combination with many other multidirectional factors) influence on the organization of agricultural production, create favorable conditions for the effective use of principles, methods and techniques of digital technologies in the agricultural sector in general and in agriculture in particular.

Considerable spatial dissociation of agricultural producers and producers contributes to the rapid increase in the mass of diverse practical experience, the generalization and use of which will make it possible to make better use of the so-called "large-scale effect". "States have a competitive advantage in the world market whose industries are based on the technologies for analyzing large amounts of data"[10]. With regard to agriculture, the above statement can be supplemented with the words: analysis of a large amount of data, further characterizing the specificity of the territorial organization of production in this industry.

The level of wages on its production has a significant impact on the competitiveness of agricultural products. Low wages contribute, on the one hand, to a reduction in production costs, that is, it acts as a specific and regulated competitive advantage, and on the other hand, this factor does not stimulate an increase in the efficiency of workers employed in production.

Despite the fact that the average monthly wages in agriculture, hunting and forestry in 2015 increased more rapidly than in the whole economy compared to 2000, it still remains low compared to other industries. If in 1990, "... the average monthly nominal value (wages in agriculture) was 95.4% of the average for the national economy and almost 93.0% of the industry level [11, p. 7], then in 2015 its level reached 58.0% against 44.3% in 2000. This and other factors contributed to the outflow from the countryside of the most active part of the population. So, if in 2014 compared with 1990 the number of the rural population decreased by 4.6%, then the average annual number of employees in agriculture - by 44.3%. In 1990, the share of workers in agriculture in the total rural population was 24.9%, in 2014 - 14.6%, that is, it decreased by 10.3 percentage points. At the same time, the number of people employed in agriculture declined more rapidly in agricultural organizations. Their average monthly number in 2014 compared to 2010 decreased by 13.9%. The number of people employed in P(F) H and in the sphere of individual entrepreneurship decreased only by 0.7%. The number of

people employed in their own households increased by 7%. In general, in all business entities over this period, the number of people employed in the industry decreased by 6.2%.

Improving the competitiveness of agricultural products based on productivity growth inevitably leads to a reduction in the number of employees employed in the industry. In this case, their decrease does not allow to assert about the increase in its competitiveness at the same pace. Considering that increasing the competitiveness of products is considered as the main real mechanism of socio-economic development of rural areas, improving the quality of life of the rural population, wages and other incomes of the rural population, increasing their labor employment is an objective necessity. This, in turn, necessitates the adjustment of those macroeconomic decisions on which the solution of the problem of improving competitiveness and the quality of life of the rural population depends. Moreover, the income level of the rural population should stimulate the desire not only to work effectively, but also to his desire to live in rural areas. Revenues should ensure the possibility of obtaining high-tech medical services and a decent education for children.

5. Conclusion

Increasing the competitiveness of the agri-food complex should be considered as a really working mechanism for solving the following tasks that are socially important for the state: achieving food-related independence; provision of employment in rural areas; increase the income of the rural population; increase in the number of jobs in the agricultural industries. At the same time, the existing territorial differences and their influence on the increase or decrease in competitiveness, the combination of various forms of organization of agricultural production should be considered among the priority and less costly areas when solving the problem of a real increase in the competitiveness of the agri-food complex.

In conceptual terms, it is advisable to determine the possible territories of production of certain types of competitive products (economic aspect) and territories where it is not possible to produce competitive products (a socially important factor in the necessary organization of agricultural production).

Improving the competitiveness of agri-food products can also be considered as one of the directions in the mechanism of socio-economic development of rural areas. Among the priority macro-economic problems, the solution of which contributes to the increase of the competitiveness of the agri-food complex, is the need to eliminate the negative consequences of inequivalent inter-sectoral exchange not in favor of agriculture.

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