

# How Has the Pandemic Changed the Agroindustrial Complex

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**Keywords:** Agroindustrial Complex, Pandemic, Export, Food Security, World Trade.

**Abstract:** Nowadays, the coronavirus pandemic is a serious trial for all countries of the world. Global food security is one of the high priorities. Senior officials around the world have realized the need to investigate the impact of the pandemic on global trade. Like many sectors of the economy, the agro-industrial complex is undergoing a transformation, the true scale of which can only be appreciated after the end of the crisis. The pandemic has become a driver for the growth of the vegetable protein market: the increasing cost of producing animal products and concerns about their safety are prompting consumers to look for an alternative. The article reflects the measures taken by the Ministry of Agriculture of the Russian Federation to maintain the domestic market, describes the current agricultural products export situation. As of December 31, 2020, Russian exports of agricultural products amounted to USD 30,658.3 million, which is 18.7% higher compared to the same period last year.

## 1 INTRODUCTION

As the pandemic spreads, countries are facing new challenges and the ability to respond quickly to changes become important to economic viability. Playing a key role in ensuring food security, the agribusiness sector is undergoing a transformation, the true scale of which can only be appreciated after the end of the crisis.

In this situation, the standards and rules of world trade are changing, the principles of ensuring food security are being reassessed, the seemingly sustainable models of production, logistics and retail are being transformed, new eating habits and patterns of purchasing food products are emerging. The restructuring of households' preferences, a drop in their incomes and the instability of food supply are putting pressure on individual commodity markets, which in turn have a complex effect on the global agro-industrial complex. The greatest effect of the pandemic falls on food-importing countries and developing countries that depend on agricultural exports.

To minimize the negative consequences, on March 26, 2020, the G20 leaders made proposals for maintaining economic stability, which can be divided

into 4 blocks: medicine, financial system support, trade and international interaction.

G20 leaders agreed rally to ensure the uninterrupted supply of medical supplies, essential agribusiness products and other goods across borders to maintain the health and well-being of people. The coronavirus pandemic and the resulting quarantine measures have had a serious impact on some segments of the global food market. The coronavirus has caused uncertainty around the world for consumers and businesses alike.

Thus, there was a decrease in demand for products focused on the HoReCa segment: crustaceans, some types of meat, fish, wine and dairy products due to the closure of catering, hotel and other channels of distribution.

Consumers are refuse their usual grocery shopping spots in favor of online stores and trusted supermarket chains. People began to spend more time in their homes and home-cooked meals became popular again; the demand for snacks and on-the-go food is falling. At the same time, the pandemic is driving the growth of the vegetable protein market: the rising cost of animal products and concerns about their safety are prompting consumers to find new alternatives (Benzeval et al., 2020).

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The pandemic of a coronavirus infection, COVID-19, has set challenges for many product manufacturers (Long and Khoi, 2020). Enterprises around the world find themselves in a difficult economic situation. A ban has been introduced by China (the largest food buyer in the world) on the supply of products from enterprises where cases of coronavirus have been identified.

There was also a shortage of seasonal labor in a number of regions of the world due to the departure of labor migrants (Malaysia - palm oil, Europe and the United States - producers of vegetables and fruits).

To order to maintain a stable situation in the domestic market in 2020, the Ministry of Agriculture of the Russian Federation developed additional measures to support the internal market:

- As a part of decision of the Government of the Russian Federation of March 31, 2020 № 385 «On the introduction of a temporary quantitative restriction on the export of grain crops outside the territory of the Russian Federation to states that are not members of the Eurasian Economic Union, and the establishment of a case in which temporary periodic customs declaration of goods is not applied» quotas were introduced for grain export (wheat, rye, barley and corn) in the amount of 7 million tons for the period April 1 to June 30, 2020 (Decision of the Government of the Russian Federation of March 31, 2020);
- The decision of the Board of the Eurasian Economic Commission of March 31, 2020 № 43 «On amendments to the Decision of the Board of the Eurasian Economic Commission of April 21, 2015 № 30 «On measures of non-tariff regulation» established a temporary ban on the export of from the countries of the Eurasian Economic Union of certain types of food products (onions, garlic, turnips, rye, rice, buckwheat, millet, grits, flour and pellets from cereal grains, buckwheat grain collapsed, soybeans, sunflower seeds, ready-made food products from buckwheat). Export was prohibited for the period from April 12, 2020 to June 30, 2020 (Decision of the Board of the Eurasian Economic Commission of March 31, 2020);
- The decision of the Council of the Eurasian Economic Commission April 3, 2020 № 33 «On amendments to some decisions of the Commission of the Customs Union and on approval of the list of critical imports» approved the decision of the Commission of the

Customs Union on the introduction of tariff benefits for potatoes, onions, garlic, cabbage, carrots, pepper, rye, long grain rice, buckwheat, buckwheat groats, ready-to-eat foods for babies, the basis for breast milk substitutes, until June 30, 2020 (Decision of the Council of the Eurasian Economic Commission April 3, 2020).

All the measures mentioned above made it possible to keep the food-security inside the country at the same level as before the pandemic.

## 2 RESEARCH METHODOLOGY

Simultaneously, much attention was paid to the export of agricultural products. In accordance with the decision of the President of the Russian Federation of May 7, 2018 № 204 «On the national goals and strategic objectives of the development of the Russian Federation for the period up to 2024», it is necessary to ensure by 2024 the achievement of the export volume of agricultural products in the amount of USD 45 billion.

The pandemic and related restrictions had low influence on russian agricultural exports.

As reported by the Federal Customs Service of Russia and Rosstat, agricultural exports in 2021 were USD 21,776.3 million in comparable prices as of October 31, 2021, down 5.3 percent from the same period in 2020.

The export structure is shown in Table 1 below.

Table 1: Structure of exports of agricultural products as of October 31, 2021.

Products	Export (31.10), USD million			Average price per ton, USD million		
	2020	2021	%	2020	2021	%
Fat and oil	3716	5454	+47%	581	919	+58%
Grains	7491	8190	+9%	202	255	+26%
Fish and seafood	4325	5241	+21%	2274	3207	+41%
Meat and dairy products	917	1195	+30%	1648	1981	+20%
Products of food and processing industry	3323	3646	+10%	467	556	+19%
Other agricultural products	3229	3626	+12%	442	553	+25%
The overall result	23001	27352	+19%	381	513	+35%

Source: Federal Customs Service, 7.11.2021.

The top 10 countries-importers of Russian agricultural products include: Turkey, Kazakhstan, Egypt, South Korea, the Netherlands, Ukraine, Saudi Arabia Kingdom and Azerbaijan.

Under the current conditions, manufacturers and exporters should look for new countries to supply Russian products to world markets and constantly work to improve competitiveness. For these purposes, constant interaction between the authorities and business at seminars and exhibition-congress events (forums, EXPOs, business missions) is of great significance.

In the first half of 2021, Molvest Group supplied 610 tons of dairy products to foreign markets, which is 4 times (315.7%) more than in the same period last year. Particularly, at the beginning of 2021 the producer entered Chinese market with high quality permeates. Permeates are widely used in the confectionery and dairy industries. The product is in demand in sports nutrition, and the breadth of its requesting continues to expand. Negotiations are currently underway to supply dry protein blends with concentrated forms of animal proteins, such as milk whey proteins and blood plasma proteins of slaughtered animals, to Singapore, Japan and the United Arab Emirates (Official website of company group «Molvest»).

The main tasks of the Government of the Russian Federation for the coming years are the opening of new sales markets and further work to diversify export supplies. The main directions for the fulfillment of these tasks are:

- active political support for Russian non-resource supplies. It is necessary to eliminate tariff and non-tariff barriers in order to open new sales markets as well as work to expand the number of companies accredited to supply to the foreign markets;
- organizing favorable conditions for expanding the export-oriented base, attracting foreign investment in the Russian manufacturing sector;
- facilitate access of small and medium-sized enterprises to foreign markets. It is necessary to simplify procedures, such as obtaining export permits, obtaining phytosanitary/veterinary certificates, as well as to create favorable conditions for e-commerce export;
- emergence of new regional and international «institutions to support the export of agricultural products» (Lusk, 2020).

Various events are used to promote Russian goods abroad. Usually these are exhibitions in different countries, where there are meetings of consumers and producers of products. There it is possible to taste goods, communicate with manufacturers, and make

arrangements for supplies.

In 2021, Gulfood, SIAL Shanghai, China International Import Expo, Saudi Agriculture, Green Week and Anuga were the key events to promote Russian agricultural production abroad (Official website of the Ministry of Agriculture of the Russian Federation).

Gulfood (based in United Arab Emirates) is one of the key exhibitions for Russian exporters of agricultural products, the largest in the Gulf region. The event is held in February. That expo is attractive to the business community and food producers, as well as governmental delegations from different countries to discuss increasing international trading at the B2G sessions.

SIAL Shanghai is one of the world's largest food and beverage exhibitions in China (Shanghai). Thematically, the exhibition is divided into four sections: foodproduct, meat, dairy, vineandbeverage. The event is held in May.

China International Import Expo is the first specialized import exhibition in the world, held in China (Shanghai) in June. The expo is co-hosted by the Ministry of Commerce of China and the Shanghai Municipal Government. The expo has the purpose of promoting the Chinese domestic market to foreign companies, and to boost domestic consumption.

Saudi Agriculture is a comprehensive exhibition showcasing the latest technological progress, such as: equipment, tools, machines and services in the field of agriculture. This exhibition also presents a variety of agro-industrial products to promote the development of the agricultural sector of the Kingdom of Saudi Arabia. The event is held in October.

The exhibition «Green Week» traditionally demonstrates the products of various areas from agro-industrial complex – food, timber and woodworking industry, landscaping and horticulture. Recently there has been a growing interest in the «Green Week» from experts from Central and Eastern Europe, especially from Russia. International Green Week is held in January at Messe Berlin, which combines 26 exhibition halls with a total area of 160,000 square meters and open-air exhibition areas, conference rooms, offices, an exhibitor service center, various gastronomic facilities. During Green Week, in addition to viewing the exhibition, you can take part in symposia, meetings with experts, various seminars and round tables in different pavilions. The Berlin International Congress Center provides its largest hall for the official opening ceremony of the «Green Week» and comfortable rooms for all kinds of conferences.

Anuga is one of the largest trade shows in the world specializing in food and beverages. The exhibition is held every two years in October in the Federal Republic of Germany (Cologne). The exhibition has a 100-year history and is the oldest in the food and beverage industry.

The Ministry of Agriculture of Russia is creating a network of attaches with a mission to promote agricultural cooperation. Today, attaches are already establishing communication with partners in Mexico, Thailand, Malaysia, UAE, India, Egypt, Indonesia, Saudi Arabia, and China.

Their responsibilities include preparing proposals for cooperation development, working on international agricultural agreements and contracts, establishing contacts with government and business representatives, and facilitating negotiations between Russian companies and potential partners. The establishment of a network of attaches will encourage the promotion of domestic agricultural products and foodstuffs on foreign markets, and strengthen the country's export potential.

Among the Ministry's representatives abroad are the best graduates of the Agricultural attaché professional training programme, which has been implemented at Moscow State Institute of International Relations since 2019. According to the plan, attaches will be sent to 50 foreign countries by the end of 2022.

The above tools for promoting and positioning agricultural products in foreign markets are only a part of the elements undertaken by the government to increase the attractiveness of Russian products for foreign buyers. In addition to the measures taken by

the Russian Federation, each company itself develops marketing strategies (Cohen, 2020).

Furthermore, we will review the export indicators of agricultural products in the Voronezh region.

### 3 RESEARCH RESULTS

In 2020, the export of agricultural products in the Voronezh Region decreased by 0.5% compared to 2019 and amounted to 1,771.9 thousand tons or USD 504.6 million. The 2020 plan was exceeded by 3.6% (USD 487.0 million).

Main export categories are:

- wheat (598.4 thousand tons in the amount of USD 128.7 million);
- sunflower, cottonseed, safflower oil (114.6 thousand tons worth USD 101.8 million);
- molasses (370.7 thousand tons for the amount of USD 43.7 million);
- beet pulp, bagasse (sugarcane pulp) (178.7 thousand tons, worth USD 28.8 million);
- cake (146.4 thousand tons for the amount of USD 25.0 million).

The main countries where products were supplied from the Voronezh region were: Turkey (12.9% of the total export of agricultural products), Latvia (9.5%), Egypt (8.9%) and Uzbekistan (7.9%).

As of October 31, 2021, the export volume of the agro-industrial complex of the Voronezh Region in comparable prices amounted to USD 327.5 million, which is 57.5% of the target value (USD 570 million) (Table 2).

Table 2: Exports of the Voronezh region.

Agroindustrial complex	USD millions, 31.10.2021		% of the plan	The same period of 2020,%	Forecast (2021)	% of the plan	Thousand tons	
	Plan for 2021	Fact					Fact, 31.10.2021	The same period of 2020,%
TOTAL	570.0	413.9	57.5%	8.2%	548.7	76.8%	1,014.6	-28.1%
In comparable prices		327.5		-14.4%	437.7			
Oil and fat		160.5		44.7%	221.3			
In comparable prices		96.4		-13.1%	131.7			
Grains		100.0		-9.0%	132.6			
In comparable prices		80.6		-26.6%	105.4			
Fish and seafood		0.1		-55.7%	0.1			
In comparable prices		0.1		-58.6%	0.1			
Meat and dairy		13.4		157.2%	16.4			
In comparable prices		10.0		92.1%	10.1			
Food and processing		82.7		-21.7%	104.9			
In comparable prices		99.1		-6.1%	132.8			
Other agricultural products		57.1		12.9%	73.4			
In comparable prices		41.2		-18.5%	57.6			

Source: Federal Customs Service, 7.11.2021

It is predicted that in 2021 that goal will not be achieved by the Voronezh region. The result will be about USD 437.7 million or 76.8% of the value of the planned indicator. Industries for which there is a lagging export dynamics relative to the same period in 2020 are: grain (-26.6%), fat and oil (-13.1%), food and processing industry products (-6.1%), other products agroindustrial complex -18.5%).

Since 2018, there has been a decrease in the total volume of exports of agricultural products due to a change in the structure and a decrease in grain associated with a change in the place of declaring grain products.

At the same time, in the period from 2018 to 2020 the export level of food and processing industry products, fat and oil products, meat and dairy products is increasing, the average export price per ton of products is growing (from USD 208 per ton in 2018 to 285 in 2020) (Figure 1).

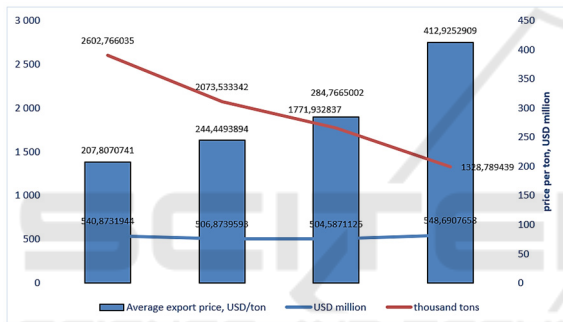


Figure 1: Average export price of agro-industrial products of the Voronezh region for the last 4 years.

#### 4 THE DISCUSSION OF THE RESULTS

Since 2018, the Voronezh Region has completed the implementation of export-oriented investment projects (meat, dairy, fat and oil, confectionery, food industries).

Currently, 5 export-oriented investment projects are being implemented with a total value of over 21 billion rubles. The increase in the volume export proceeds from the implementation of projects is estimated at USD 139.3 million by 2024.

Below in Table 3 are the most important exporting companies in 2020-2021 for the Voronezh region of the Russian Federation.

Table 3: Major exporting companies in 2020-2021.

Supplied products	Enterprises	Key importing countries
Grain (wheat, corn, barley)	LLC «Avangard-Agro-Voronezh», LLC «Krosna», LLC «Yarovit EXP», OJSC «Verkhnekhavsky elevator»	Egypt, Turkey, Libya, Yemen, Switzerland
Meat and dairy products (pork and pork offal, butter, cattle meat)	LLC «Bobrovsky Meat Processing Plant», LLC «Borisoglebsk Meat Processing Plant», LLC «7 Utra», LLC «Dairy Plant», LLC «Zarechnoye»	Ukraine, Hong Kong, Armenia, Azerbaijan, China
Oil and fat (sunflower oil, cake, mustard oil)	LLC «Bunge CIS», GC «Blago», JSC «Pavlovskagroprodukt», LLC «MEZ» Yug Rusi» LLC «Altair»	Uzbekistan, China, Denmark, Latvia, Tajikistan
Food and processing industry products (molasses, pulp, sugar, malt)	GC «Prodimes», GC «ASB», LLC «Avangard-Agro-Voronezh»	Turkey, Latvia, Uzbekistan, Netherlands, Ukraine
Other agricultural products (yeast, oil seeds and fruits)	LLC «Saf-Neva», LLC «PK Mivok»	Latvia, France, Turkey, Poland, Azerbaijan
Fish and seafood (canned fish, dried or smoked fish)	LLC «Fosforel»	Germany, Belgium, USA, Kazakhstan, Ukraine

Source: Federal Customs Service of Russia based on data from column 31 of the customs declaration.

#### 5 CONCLUSIONS

Nowadays the Voronezh region carries out measures to support exporters of agricultural products. For example, the state reimburses part of the costs for purchasing of high-tech machinery and equipment produced outside the territory of the Russian Federation (it is necessary to increase export revenues). Also tax benefits are provided for the purchase of land that is used for the construction of export-oriented enterprises.

All in all, the article examines the impact of the pandemic on the agribusiness sector, including measures to promote and position russian products of the agro-industrial complex on foreign markets. The situation with the export of agricultural products in the Voronezh region and investment projects are described in detail.

The Ministry of Agriculture of the Russian Federation constantly monitors the situation in the domestic and foreign markets and, if necessary, regulates it with help of regulatory documents.

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