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Oilseed market: global trends

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Abstract. According to FAO estimates, the world food products markets still remain fairly balanced, which is due to sufficient stocks of wheat and corn and the recovery of oilseeds production. The value of oilseeds in the national economy is almost impossible to overestimate, since their food and non-food role in the world is constantly increasing. Vegetable oils obtained from oilseeds form the basis of human nutrition, they are widely used in various types of industry. The increasing role of oilseeds is also due to their use as a raw material for the production of biodiesel. The paper additionally considers the specificity of the market oilseeds. The main regions are the producers of individual oilseeds and major oilseeds in the world. The analysis of the production of major oilseeds, their production structure and global trends, which allowed to determine the main factors influencing the market of oilseeds. The composition of the countries-exporters and importers in the market of oil seeds and their share is given. The vector in the development of the world oilseed market and the role of alternative oilseeds on it are also reviewed in the paper.

1. Introduction

The world market for agricultural products is a complex mechanism, the state of which depends on many factors, most of which cannot be quantified. However, the decision of not only the problem of food security but also the problem of maintaining economic and political stability in the world depends on the correct assessment of the market [11-13].

According to the International Association of Vegetable Oils, oilseeds and fats in the global commerce operations include more than 25 kinds of oilseeds, with more than 95% of production and the world market accounted for 7 basic types: soybean, rapeseed, cotton, sunflower, peanut, oil palm, and copra [1].

The market of oilseeds has its own specifics, which is expressed in a high degree of interchangeability of products, dependence on other agricultural and food markets (the market of grain, meat, animal fats, etc.), as well as a complex composition.

2. Main Part

In the world agriculture, oilseeds occupy a significant area under crops – more than 180 million hectares (soybean, cotton, sunflower, rapeseed, and peanuts). The diversity of natural conditions does not universally provide a sufficiently high efficiency of production of oilseed seeds, thus playing an important role in the placement of these crops in accordance with their biological requirements, as well as zonal features [2]. The main producers of oilseeds are the countries of the European Union, which account for more than 50% of the gross yield [3] (Table 1).



Table 1. Major countries-producers of oilseeds in the world.

Oilseeds	Producing regions
Sunflower	Ukraine, Russia, Argentina, EU countries
Rape	Canada, China, India, France, Austria, Great Britain, Germany, Poland, Denmark, Czech Republic, Slovakia, USA, Russia
Soybean	USA, Brazil, Argentina, China, India, Paraguay, Bolivia, Russia
Cotton	USA, Brazil, China, Pakistan, Uzbekistan
Safflower	China, USA, Spain, Portugal

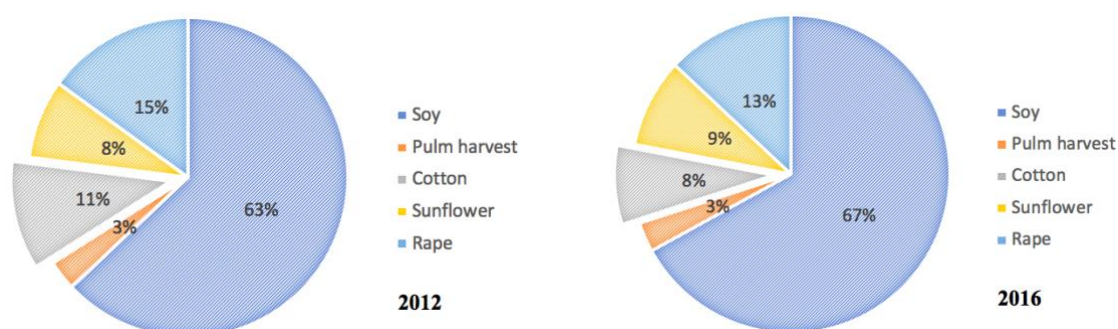
The world market of oilseeds is developing quite dynamically. The global production of seeds of major oilseeds has a positive trend. Since in 2016, it has been at the level of 500 million tons, which is 20% higher than the 2012 level (Table 2).

Table 2. Dynamics of production of major oilseeds in the world, mln. tons.

Culture	Year					2016 to 2012, %
	2012	2013	2014	2015	2016	
Soybeans	268,5	282,5	319,8	313,5	346,0	128,9
Rape	64,1	71,7	71,4	70,2	68,5	106,9
Sunflower	36,0	42,3	39,4	40,5	45,4	126,1
Cotton	46,4	45,0	44,4	35,9	38,9	83,8
Palm fruits	15,1	16,0	16,6	16,0	17,0	112,6
Total	430,1	457,5	491,6	476,1	515,8	119,9

Considering the dynamics of world production of basic oilseeds, it is also possible to note a positive trend for all groups of crops, with the exception of cotton, which production in the reporting year decreased by about 17% in comparison to the 2012 level.

The main factor that has led to the expansion of oilseed production is the ever-growing demand for protein feed (Figure 1).

**Figure 1.** Dynamics of the structure of world production of oilseeds, %.

During the study period, the structure of oilseed production in the world has changed slightly: soybean retained its leading position, which share in the reporting year increased by 4 percentage points if compared with 2012. The main producers of soybeans in the world are the three countries: the USA, Brazil, and Argentina.

Despite the reduction of rapeseed acreage, its gross yield is still among the top three in world oilseed production. The largest rapeseed production was recorded in Canada (23%) and China (21%).

The next leader is sunflower, which occupies 9% in the structure of world production of oilseeds. The main producers of oilseeds of sunflower are Ukraine, the Russian Federation, the EU countries, which account for more than 70% of its production. [4].

The positive trend in the study period is also preserved by the international trade in oilseeds, as evidenced by the growth of commodity volumes of export-import operations by more than 40%. In 2016, oilseed imports were recorded at 157 million tons, and exports were slightly higher – 161 million tons.

However, despite the above-mentioned positive trends, the value of trade in oilseeds, by contrast, is declining, so imports in 2016 decreased by 9% compared with 2012, and exports – by 6%.

Among the importers of oilseeds should be distinguished the EU countries, which purchase more than 70% of fruits and seeds of oil palm, about 25% of rapeseed, 13% of soybeans, and 15% of sunflower. China and Turkey can also be attributed to the leading importers, as they buy more than 65% of soybean, 20% of rapeseed, and also about 50% of sunflower. From the countries of the Customs Union and the Common Economic Space, the importer is the Russian Federation, which purchases small amounts of soybean seeds, about 1% of all world's soybean imports.

China remained the main importer of soybean in 2016 and the year before. In terms of exports, the United States came out on top in the world, while still being ahead of Brazil.

Considering the oilseed rape market, significant changes can be noted, since China reduced its purchases by almost a quarter, but Germany, on the contrary, increased them. Canada remains the main exporter of oilseed rape, occupying 50% of the world market.

The main importers of sunflower in the reporting year were France, Spain, and Turkey.

The main exporters of oilseeds include such countries as Canada, Brazil, the United States and EU countries. The main exporter of rapeseed is Canada, which accounts for 60%. Soybean seeds are mainly exported by Brazil and the USA. Fruits and seeds of oil palm export four countries of the world, the main volumes fall on the Solomon Islands and Thailand.

Romania, China, and Bulgaria continue to retain their positions in the global market, being the largest exporters of sunflower seeds [5].

The demand on the world market is determined by such factors as the standard of living, climatic conditions, seasonality of production. Factors such as social and economic policies, environmental protection, which belong to the constantly acting factors, have the greatest influence on demand [6].

In our opinion, it is possible to identify the following factors of growth and decline, which directly affects the market of oilseeds in the world (Figure 2).

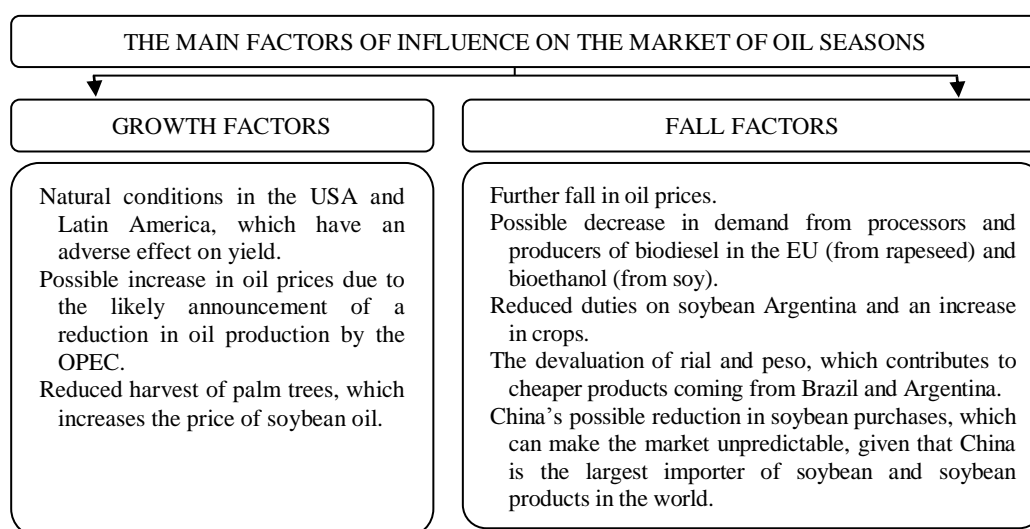


Figure 2. The main factors influencing the global oilseed market.

The use of oilseeds in the livestock industry allows to link the two markets: oilseeds and grains. Also, the increased interest in the production of biodiesel fuel determines the influence of the oil market on the energy market. The influence of the oil products market on the prices of vegetable oils, including sunflower oil, which is not used for the production of biofuels, is also high. This is

confirmed by the following trend: the higher the price of petroleum products, the higher the price of all vegetable oils [7, 14].

The main factors behind the growth in demand for sunflower oil is the decline in the income of the population. Therefore, in countries with a low standard of living, it is used as a cheap food product, and processed products are used as a valuable protein supplement for animals. It should also be noted that in economically developed countries, there is a re-orientation in the structure of nutrition from animal fats to vegetable ones.

Another important factor in favor of oilseeds is that they are cultivated as tilled crops, clearing the soil from weeds and are satisfactory predecessors for grain crops.

3. Conclusion

Based on the foregoing, it can be concluded that in the long term, the demand for oilseeds will increase; therefore, there is an increase in the area under oilseeds, an increase in their yield due to the introduction of new varieties and hybrids, and an improvement in the technology of their cultivation, which ensures constant increase in their production and processing industry load. However, the expansion of the areas under oilseeds should be approached quite reasonably and carefully, because exceeding the scientifically based standards for their saturation in crop rotation leads to depletion of the soil, loss of their fertility and negatively affects the crop yield of the crop rotation. In this regard, the search for alternative types of oilseed crops, which could be successfully cultivated in the world, is becoming particularly relevant. Evidence of this is the increased interest among farmers and processing organizations to such alternative oilseeds as camelina, safflower, oilseed flax, and others.

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