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EVOLUTION OF THE CEREALS MARKET IN ROMANIA IN THE PERIOD 2017-2021

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Abstract: *The paper presents the evolution of the market for the main cereal crops (wheat, corn, barley) at the national level in the period 2017-2021. These cereals, as well as others, constitute one of the groups of food carriers that occupy the largest share of the total food consumed, representing for the population the basic food present in the daily meals in different forms. In this study I proposed to analyze statistical data regarding cultivated areas, production, prices, consumption, import, export, the particularities of this market and based on I will draw a series of conclusions from them. The research method used in the study is statistical processing, economic analysis, but also the calculation of certain indicators based on the official data available on specialized websites. Due to the pedoclimatic conditions, Romania is considered a cereal country. Statistical data show that in 2021 Romania was the second largest exporter of cereals in the EU, the first place being corn.*

Keywords: *grain market, consumption, evolution.*

Clasificare JEL: Q11, Q13, L11

INTRODUCTION

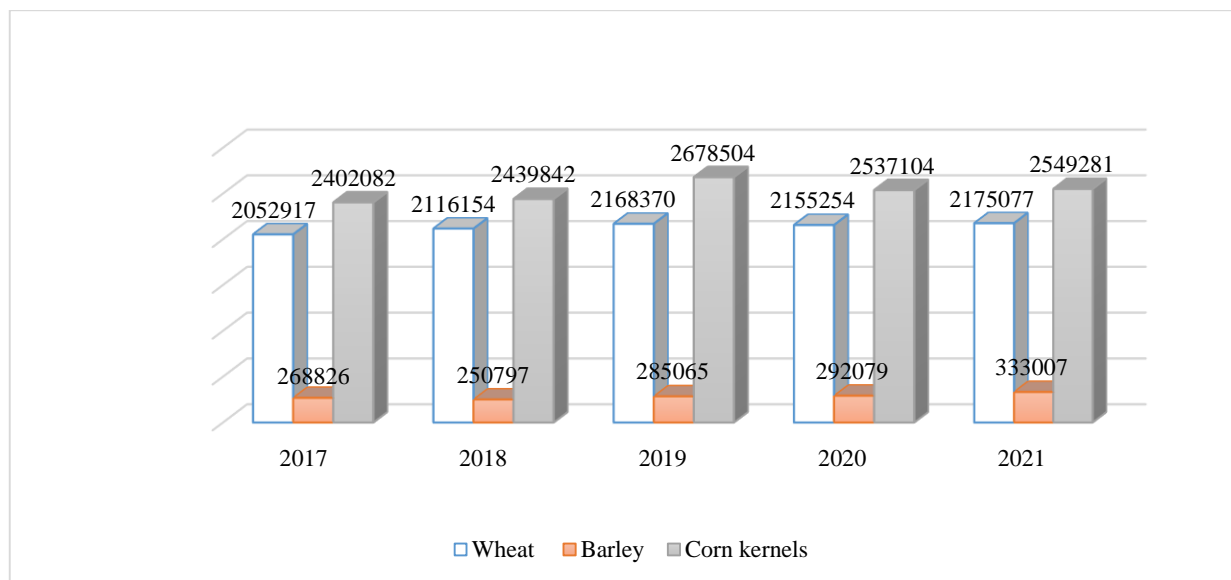
In this paper I proposed to study more closely the cereal market, over the last five years, analyzing the existing statistical data, regarding productions (wheat, corn, barley), cultivated areas (wheat, corn, barley,) consumption, prices, import, the export, the particularities of this market but also the conclusions that are the basis of this study. Cereals are seasonal agricultural products, which can be stored and preserved for periods longer than one year (Ion Raluca Andreea, 2005). For this reason, but also because of its food qualities, wheat is considered a product strategically, for national reserves (SWOT-Analysis-National-Strategic-Plan-2021-2027, MADR). The main cereal crops characteristic of our country are the following: wheat, corn and barley, this being the main reason why I chose to analyze these crops. These cereals, along with others, represent one of the groups of food carriers that make up the largest percentage of the total the food consumed, which provides the population with basic food (Constantin Maria, 2007).

MATERIAL AND METHOD

The research method used in the study is the statistical processing and economic analysis of official statistical data such as INS, MADR, but also websites, specialized magazines. Based on these data, comparative analyzes of the cereal market at the national level were carried out.

RESULTS AND DISCUSSION

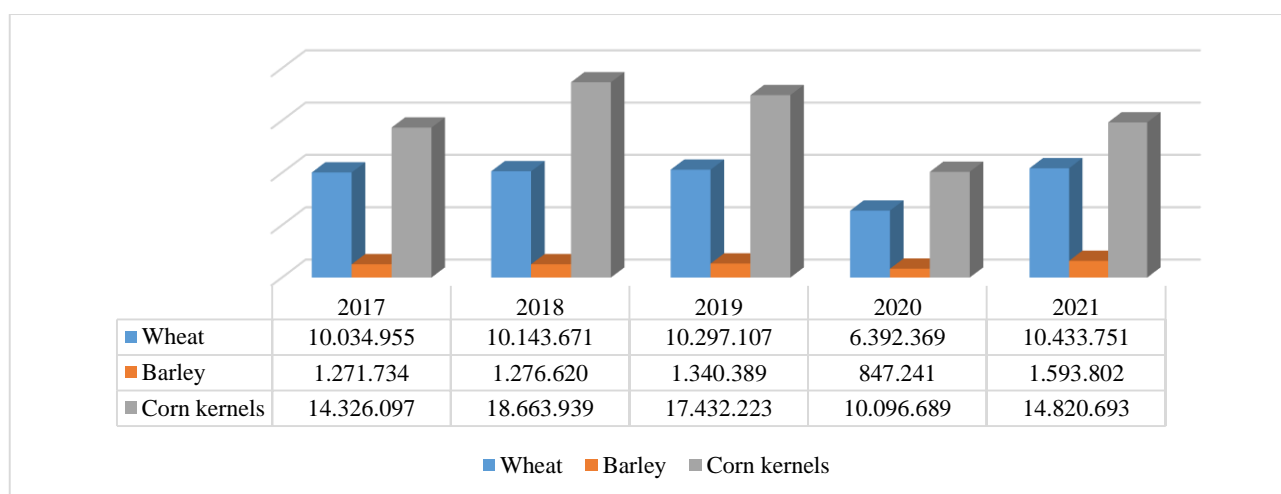
At the national level, in 2021, the cultivated area of wheat registered an increase of 5.95% compared to 2017, when a cultivated area of 2,052,917 hectares was recorded. For the barley crop, the cultivated area in the last year of study had an increase of 23.87% compared to 2017 where a cultivated area of 268,826 hectares was recorded. The area cultivated with grain corn had an increase of 6.13% compared to 2017 when a cultivated area of 2,402,082 hectares of grain corn was recorded.



Graphic 1. Surface cultivated

Source: National Institute of Statistics data processing

Graph no. 2 shows the total production of cereals (wheat, barley, grain corn) at the national level over a period of five years. An increase in the wheat crop in 2021 of 3.97% compared to 2017 was recorded. In the barley crop, an increase of 25.33% was recorded in the last study year compared to 2017 when a production of 1,271,734 was recorded. In the grain corn crop, the highest value was recorded in 2018 with a value of 18,663,939 tons and the lowest value in the five years of analysis was recorded in 2017.



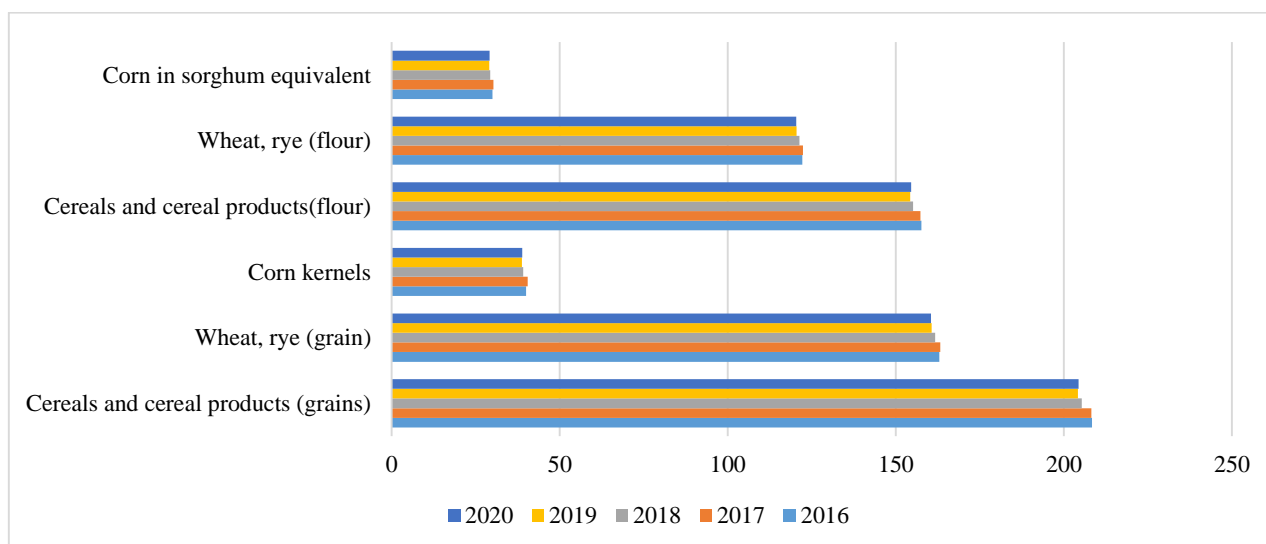
Graphic 2. Total production

Source: National Institute of Statistics data processing

Table 1. Average annual consumption (kg)

<i>The main food products</i>	<i>Period</i>				
	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>
Cereals and cereal products (grains)	208.4	208.2	205.3	204.2	204.4
Wheat, rye (grain)	163	163.2	161.7	160.7	160.5
Corn kernels	40	40.4	39.1	38.7	38.8
Cereals and cereal products (flour)	157.6	157.3	155.1	154.3	154.6
Wheat, rye (flour)	122.2	122.4	121.3	120.5	120.4
Corn in sorghum equivalent	30	30.3	29.3	29	29.1

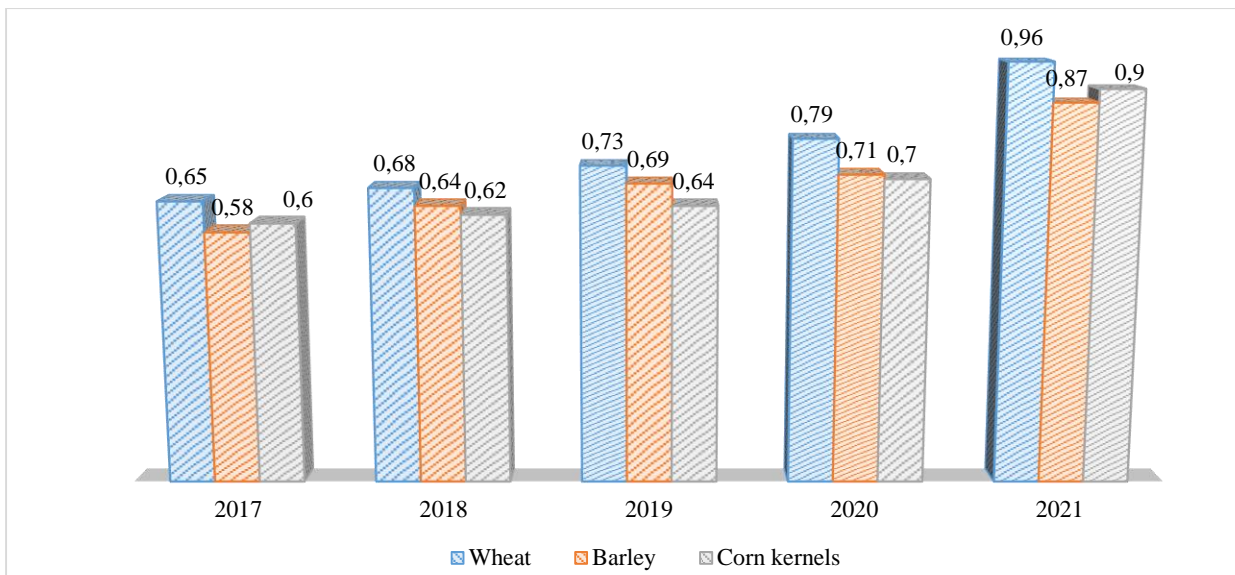
Source: National Institute of Statistics data processing

**Graphic 3. Average annual consumption**

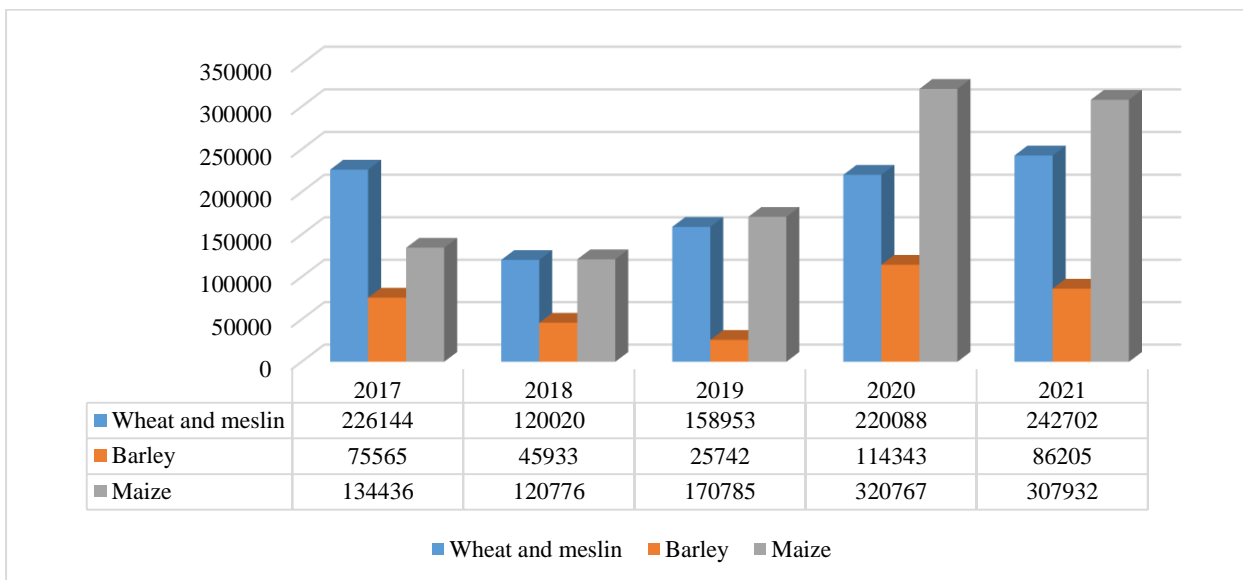
Source: National Institute of Statistics data processing

In graph no. 3, the average annual consumption per inhabitant (kg) in the period 2016-2020 is presented. For cereals and cereal products, a maximum of 208.4 kg/year was recorded in 2016 and a minimum of 204.2 kilograms in 2019. For wheat, rye (grains), a maximum of 163.2 kilograms/inhabitant was recorded/year in 2017 and in 2020 a consumption of 160.5 kilograms/inhabitant/year was recorded, the lowest consumption during this period. For grain corn, we have a recorded maximum of 40.4 kilograms/inhabitant/year and a minimum of 38.7 kilograms/inhabitant/year in 2019. For cereals and cereal products (flour), a maximum of 157 was recorded, 6 kilograms/inhabitant/year and a minimum of 154.13 kilograms/inhabitant in 2019. In the wheat, rye (flour) category, a maximum of 122.4 kilograms/inhabitant/year was recorded. In the category of corn in maize equivalent, the average annual consumption reached a maximum of 30.3 kilograms in 2017 and a minimum of 29 kilograms.

Graph no. 4 shows the evolution of prices for wheat, barley and grain corn over a period of five years. The wheat crop had an increasing evolution in 2021 compared to the first year of the study by 47.69%. the barley crop saw a 50% increase in 2021 compared to 2017. For the grain corn crop, the price reached 0.90 lei/kg in 2021 from 0.65 lei/kg in 2017, representing an increase of 50%. A cause of these increases could be due to the very high demand but also to the production costs that have increased a lot in the last period.



Graphic 4. The price of cereals (lei/kg)
 Source: National Institute of Statistics data processing

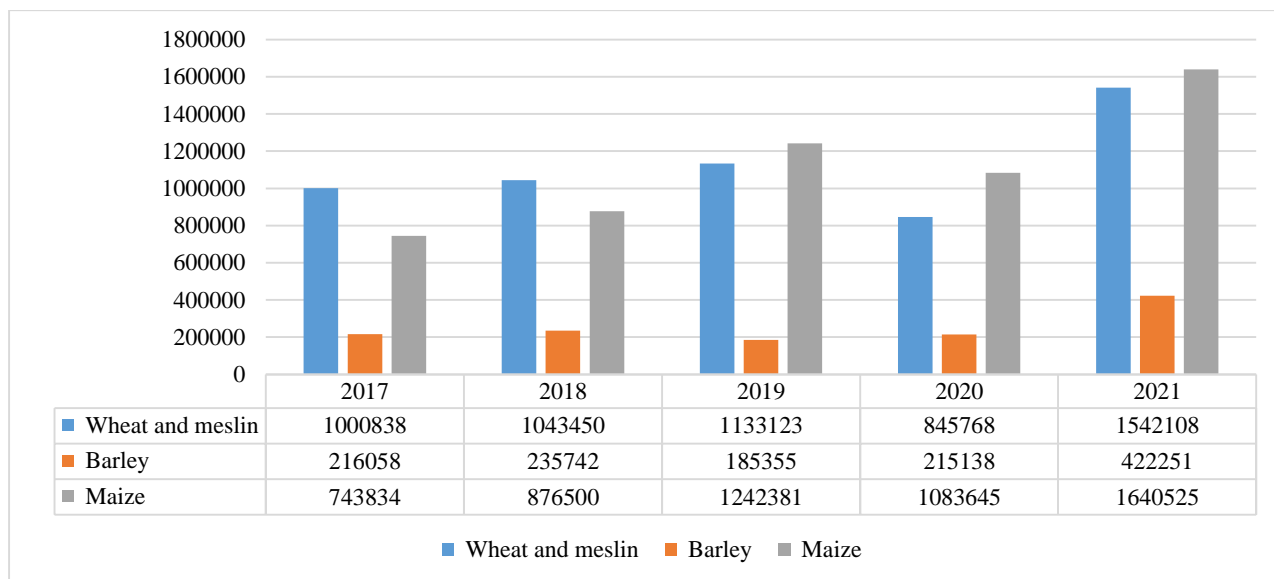


Graphic 5. The value of the import (th. euro)
 Source: National Institute of Statistics data processing

In graph no. 5, the import value of wheat and meslin recorded a maximum of 242702 thousand euros in 2021 and a minimum of 120020 thousand euros in 2018, resulting in an increase in 2021 compared to 2018 of 50.55%. Import value barley recorded a maximum of 114,343 thousand euros in 2020 and a minimum of 25,742 thousand euros in 2019. The value of corn imports recorded a maximum of 320,767 thousand euros in 2020 and a minimum of 120,776 thousand euros in 2018.

Graph no. 6 shows the export value in the period 2017-2021. In the wheat and meslin category, the export value reached a maximum of 1542108 thousand euros and a minimum of 845768 thousand euros recorded in 2020. The maximum export value of barley was recorded in 2021 with a value of 422251 thousand euros and the minimum was recorded in 2019 with a value of 185355 thousand euros. The export value of corn recorded a maximum of 1640525 thousand euros in 2021 and a minimum of 743834 thousand euros in year 2017. Analyzing the situation of the national export

value, we observe an increase in 2020 for wheat and meslin and in 2021 for barley and corn, this ranking us in the ranking of the largest grain exporters.



Graphic 6. Export value (th. euro)

Source: National Institute of Statistics data processing

Particularities specific to the grain industry:

- a. Cereals are field plants grown for seeds;
- b. The most widespread cereals are wheat, corn, barley, oats;
- c. Cereal grains are used in human nutrition, animal feed and as a raw material in industry;
- d. Cereals are the most important agricultural products subject to international trade;
- e. The cereal supply chain can be studied both from the point of view of their economic and nutritional importance, it continues with production, transport, storage, processing, distribution and last but not least, consumption;
- f. The grain market is distinguished from other marketing subsystems because of the dynamic relationship between supply and demand.
- g. The grain market can be an indication of the pulse of the market, which can anticipate changes and directions of action for the companies in its sphere of influence, but also on the commercial environment.

CONCLUSIONS

The most significant cultivated area was recorded by the grain maize crop in 2019 with a total of 2678504 ha, followed by wheat 21750277 ha (2021) and barley 333007 ha (2021).

The largest agricultural production at the national level in the period 2016-2020 was recorded in the maize crop with a value of 18,663,939 tons (2018), followed by wheat 10,433,751 (2021) and barley 1,593,802 (2021).

Regarding the average annual consumption per inhabitant (kilograms) in the category of cereals and cereal products (grains), we have a maximum recorded in 2016 of 208.4 kilograms and a minimum of 204.2 kilograms in 2019. In the rye wheat category (grains) a maximum of 163.2

kilograms was recorded in 2017 and a minimum of 160.5 kilograms in 2020. In the grain corn category we have a maximum of 40.4 kilograms in the analyzed period and a minimum of 38, 8 kilograms in 2020. In the category of cereals and cereal products (flour), the maximum recorded was in 2016 with a total of 157.6 kilograms and a minimum of 154.3 kilograms in 2019. The average annual consumption per inhabitant in the category of wheat, rye (flour) recorded a maximum of 122.4 kilograms in 2017 and a minimum of 120.4 kilograms in 2020. A maximum of 30.3 kilograms in 2017 was recorded in the maize equivalent category and a minimum of 29 kilograms in 2019.

In terms of price, a maximum of 0.96 lei/kg was recorded in 2021 for wheat and a minimum of 0.65 in 2017. For barley, the maximum value recorded was 0.87 lei/kg in 2021 and the minimum was 0.58 lei/kg in 2017. Grain corn recorded a maximum value of 0.90 lei/kg in 2021 and the minimum was 0.60 lei/kg.

The value of imports at the national level for wheat and meslin recorded a maximum in 2021 with a value of 242702 thousand euros and a minimum of 120020 thousand euros in 2018. For barley, the maximum import value is 114343 thousand euros in 2020 and the minimum had a value of 25742 thousand euros in 2019. For corn, the maximum import value was recorded in 320767 thousand euros in 2020 and a minimum of 120776 thousand euros in 2018.

The export value at the national level for wheat and meslin reached a maximum of 1542108 thousand euros in 2021 and a minimum of 845768 thousand euros in 2020. For barley, the maximum export value was 422251 thousand euros in 2021 and the minimum of had a value of 185355 thousand euros in 2019. In the corn category, the highest export value was recorded in 2021 with a total of 1640525 thousand euros and the lowest value was recorded in 2017 with a total of 743834 thousand euro.

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