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**Conference Paper**

## Comparative analysis of technical and economic indicators for wheat and maize crops in the European Union and Romania in the period 2015-2023

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# COMPARATIVE ANALYSIS OF TECHNICAL AND ECONOMIC INDICATORS FOR WHEAT AND MAIZE CROPS IN THE EUROPEAN UNION AND ROMANIA IN THE PERIOD 2015-2023

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**Abstract:** *The purpose of this paper is to perform a comparative analysis of the technical and economic indicators for wheat and corn crops in Romania and the European Union, in the period 2015-2023. The paper focuses on the evolution of cultivated areas, productions and prices, with the objective of identifying the differences between agricultural results in Romania and in other European Union member states. The working method used in this paper was the comparative method, the method of quantitative and qualitative analysis of data and used in the literature. Following this analysis, the conclusions obtained will provide an overview of the competitiveness and efficiency of these crops analyzed in the national and European agricultural context.*

**Keywords:** agricultural sector, indicators, outlook, market

**JEL classification:** J43; Q13

## INTRODUCTION

Wheat is one of the most important food crops, providing nearly one-fifth of the world's calorie intake (Mitchell, et al, 2015). Wheat is a key global commodity in terms of area and marketable value and as a staple food in household diets. Cereals are currently the most important contributor to the global human food supply. About 21% of the world's food depends on annual wheat crops, which often have relatively low stocks. (Enghiad, et al. 2017).

Corn is a cereal used in human nutrition, animal feed and as a raw material in various industries. (Soare, et al, 2016). Corn is the most demanded cereal in the world and is among the fastest growing in annual volume. Currently, the annual production and demand of corn exceeds 1 billion tons. (Martinez, et al, 2019).

## MATERIAL AND METHODS

The data based on which the calculations in the paper were elaborated are data provided by the European Commission (eurostat.eu), in order to achieve the main objective of this work, the technical and economic indicators for wheat and corn crops in Romania and the European Union in the period 2015-2023 were analyzed. The research method used is the analysis method, the statistical method, the graphical method, and the tabular method.

## RESULTS AND DISCUSSIONS

As a result of the analysis, from the data used, the cultivated areas, the total productions and the price for the wheat and corn crop in Romania and in the context of the European Union were evaluated, the cultivated areas were analyzed in order to highlight the recent developments and their distribution compared to other European Union member states.

The average and total productions were evaluated according to the climatic conditions, the agricultural practices and the technologies used, highlighting the variations in the yields obtained. Regarding prices, the analysis included their trends and fluctuations on the domestic and European markets, their impact on farmers' incomes and the importance of price stabilization to balance the market.

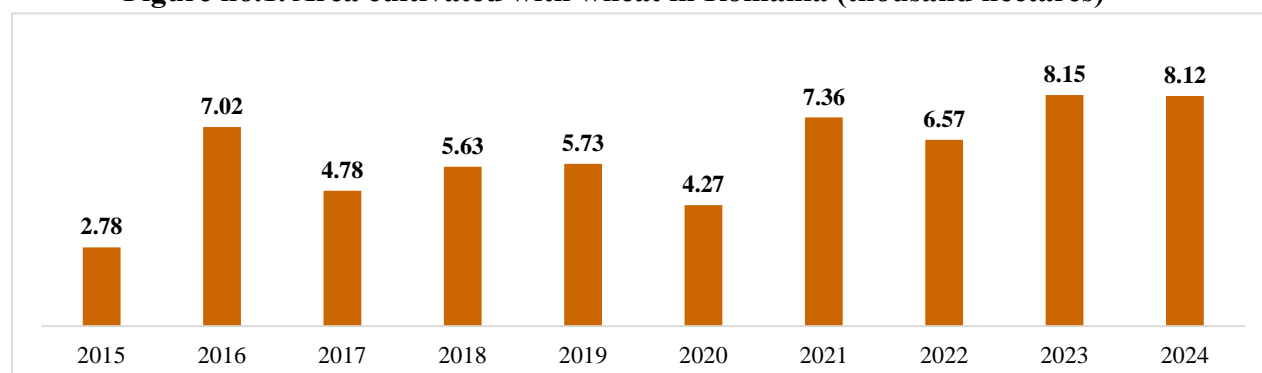
**Table no. 1. Ranking of EU countries according to the area cultivated with wheat in 2024 (thousand hectares)**

| Country  | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2024   | 2024/<br>2015<br>(%) |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|
| Italy    | 1328.9 | 1383.7 | 1304.9 | 1278.4 | 1224.0 | 1210.4 | 1228.5 | 1238.0 | 1269.3 | 1134.7 | -14.6                |
| Spain    | 347.9  | 448.2  | 417.6  | 374.6  | 266.6  | 250.9  | 259.1  | 278.7  | 268.5  | 272.3  | -21.7                |
| France   | 318.8  | 403.0  | 370.0  | 353.9  | 245.5  | 252.3  | 294.2  | 253.0  | 235.7  | 230.3  | -27.8                |
| Greece   | 333.4  | 388.2  | 296.3  | 296.5  | 253.9  | 262.7  | 313.9  | 317.7  | 161.7  | 170.1  | -49.0                |
| Slovakia | 21.5   | 40.7   | 42.6   | 48.0   | 43.6   | 34.0   | 49.0   | 62.9   | 65.6   | 47.0   | 118.9                |
| Hungary  | 19.3   | 29.8   | 33.6   | 44.3   | 36.9   | 27.0   | 29.5   | 36.7   | 37.5   | 33.5   | 74.2                 |
| Austria  | 19.1   | 23.3   | 22.9   | 21.9   | 16.7   | 16.5   | 19.5   | 23.3   | 23.4   | 26.3   | 37.9                 |
| Romania  | 2.8    | 7.0    | 4.8    | 5.6    | 5.7    | 4.3    | 7.4    | 6.6    | 8.2    | 8.1    | 192.1                |
| Cyprus   | 12.0   | 7.6    | 7.1    | 7.8    | 6.4    | 7.6    | 7.4    | 7.3    | 6.5    | 6.9    | -42.4                |
| Portugal | 2.7    | 4.7    | 4.1    | 4.2    | 4.2    | 3.6    | 4.3    | 5.5    | 4.1    | 4.9    | 80.9                 |

*Source: Eurostat.eu, own calculations*

In 2024, at the level of the European Union, Italy is at the top of the areas cultivated with wheat with an area of 1.13 million hectares, followed by Spain with 272.32 thousand hectares and France with 230.3 thousand hectares. Although these countries have significant areas at the level of 2024, they have registered decreases compared to the areas presented in 2015. Romania ranks 8th in 2024 with a cultivated area of 8.12 thousand hectares of wheat.

**Figure no.1. Area cultivated with wheat in Romania (thousand hectares)**



*Source: Eurostat.eu, own calculations*

Regarding the area cultivated with wheat in Romania, in 2015, the area cultivated with wheat was 2.78 thousand hectares, and in 2024 it increased to 8.12 thousand hectares, showing an increase of over 198%.

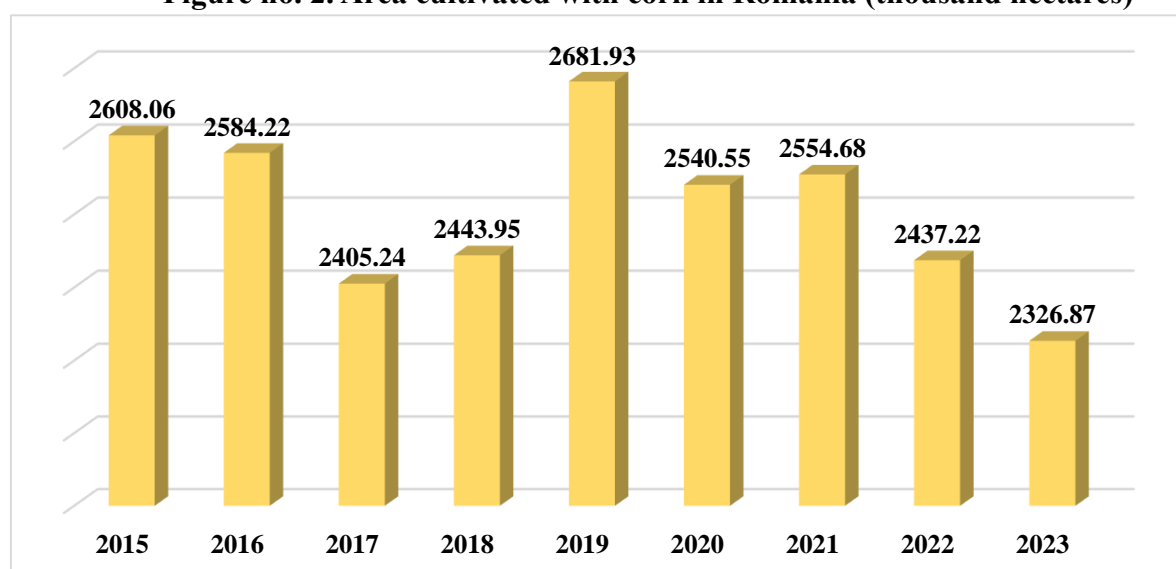
**Table no.2. Ranking of EU countries according to the area cultivated with maize in 2024  
(thousand hectares)**

| Country         | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2023/2015 (%) |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|
| <b>Romania</b>  | 2608.1 | 2584.2 | 2405.2 | 2444.0 | 2681.9 | 2540.6 | 2554.7 | 2437.2 | 2326.9 | -10.8         |
| <b>France</b>   | 1637.1 | 1442.8 | 1435.7 | 1426.3 | 1506.1 | 1730.0 | 1549.5 | 1456.1 | 1299.1 | -20.6         |
| <b>Poland</b>   | 670.3  | 593.5  | 562.1  | 645.4  | 665.0  | 946.0  | 998.5  | 1196.0 | 1255.6 | 87.3          |
| <b>Serbia</b>   | 1010.2 | 1010.0 | 1002.3 | 901.8  | 962.1  | 996.5  | 1020.3 | 952.2  | 923.0  | -8.6          |
| <b>Hungary</b>  | 1146.1 | 1011.6 | 988.8  | 939.1  | 1027.6 | 981.0  | 1054.6 | 816.6  | 767.9  | -33.0         |
| <b>Bulgaria</b> | 498.6  | 406.9  | 398.2  | 444.6  | 560.9  | 581.5  | 573.0  | 520.5  | 533.0  | 6.9           |
| <b>Italy</b>    | 656.0  | 660.7  | 645.7  | 591.2  | 628.8  | 602.9  | 588.6  | 563.7  | 498.5  | -24.0         |
| <b>Germany</b>  | 455.5  | 416.3  | 432.0  | 410.9  | 416.0  | 419.3  | 430.7  | 456.7  | 466.4  | 2.4           |
| <b>Croatia</b>  | 264.0  | 252.1  | 247.1  | 235.4  | 255.9  | 288.4  | 288.0  | 268.1  | 266.0  | 0.8           |
| <b>Spain</b>    | 398.3  | 359.3  | 333.6  | 322.4  | 356.8  | 343.8  | 358.3  | 314.3  | 249.2  | -37.4         |

*Source: Eurostat.eu, own calculations*

In the top of the countries with the largest area cultivated with corn at the level of the European Union, there is Romania with 2.3 million hectares in 2023, followed by France with 1.3 million hectares and Poland with 1.25 million hectares.

**Figure no. 2. Area cultivated with corn in Romania (thousand hectares)**



*Source: Eurostat.eu, own calculations*

At the level of Romania, in 2015, the area cultivated with corn was 2608.06 thousand hectares, reaching in 2023 the area of 2326.87 thousand hectares, representing a decrease of over 13%.

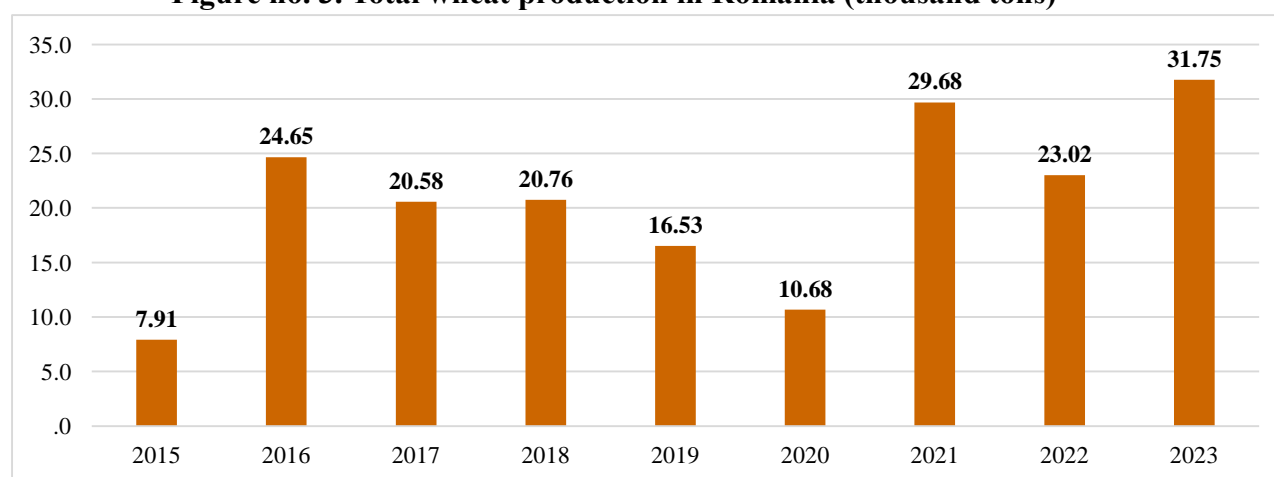
**Table no. 3. Ranking of EU countries according to total wheat production (thousand tonnes)**

| Country    | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2023/<br>2015 (%) |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|
| Italy      | 4509.8 | 5242.5 | 4373.9 | 4303.1 | 3996.4 | 4033.9 | 4220.5 | 3831.2 | 3829.1 | -15.1             |
| France     | 1784.4 | 1676.0 | 2094.1 | 1774.6 | 1548.0 | 1310.4 | 1574.6 | 1330.4 | 1266.5 | -29               |
| Greece     | 820.4  | 1172.8 | 721.1  | 774.3  | 683.9  | 793.7  | 881.0  | 940.5  | 534.6  | -34.8             |
| Spain      | 968.0  | 1107.1 | 1111.0 | 1342.1 | 736.8  | 824.1  | 806.2  | 695.3  | 451.9  | -53               |
| Slovakia   | 113.3  | 239.7  | 182.9  | 225.8  | 187.8  | 173.5  | 287.4  | 312.7  | 403.1  | 255.8             |
| Germany    | 87.3   | 134.6  | 170.4  | 138.1  | 154.7  | 183.0  | 206.9  | 218.4  | 238.0  | 172.6             |
| Hungary    | 93.9   | 149.9  | 159.1  | 209.1  | 162.5  | 120.7  | 162.3  | 136.2  | 195.2  | 107.9             |
| Austria    | 88.0   | 123.3  | 91.1   | 90.9   | 80.2   | 78.9   | 88.3   | 119.8  | 139.2  | 58.2              |
| Bulgaria   | 33.2   | 55.6   | 46.6   | 61.0   | 39.5   | 30.3   | 50.3   | 58.1   | 79.7   | 140.2             |
| Romania    | 7.9    | 24.7   | 20.6   | 20.8   | 16.5   | 10.7   | 29.7   | 23.0   | 31.8   | 301.4             |
| Cyprus     | 36.2   | 6.8    | 14.3   | 12.4   | 18.5   | 20.4   | 16.3   | 20.2   | 15.5   | -57.1             |
| Portugal   | 6.1    | 13.2   | 9.7    | 11.6   | 12.2   | 10.6   | 12.3   | 13.1   | 7.9    | 28.6              |
| Croatia    | 10.1   | 2.5    | 3.3    | 1.9    | 1.8    | 3.3    | 3.6    | 4.3    | 1.2    | -88               |
| Luxembourg | -      | -      | -      | -      | -      | 0.5    | 1.4    | 1.3    | 0.7    | -                 |

*Source: Eurostat.eu, own calculations*

At the level of 2023, Italy occupies the first position in terms of total wheat production with a value of 3.8 million tons, followed by France with 1.3 million tons and Greece with 534.6 thousand tons. Romania ranks 10th in terms of total wheat production in 2024 with a production of 31.8 thousand tons.

**Figure no. 3. Total wheat production in Romania (thousand tons)**



*Source: Eurostat.eu, own calculations*

As for the total wheat production in Romania, we can note that in 2015, Romania produced a quantity of 7.91 thousand tons of wheat, and in 2023 the total production increased to 31.75 thousand tons, which represents an increase of over 300%.

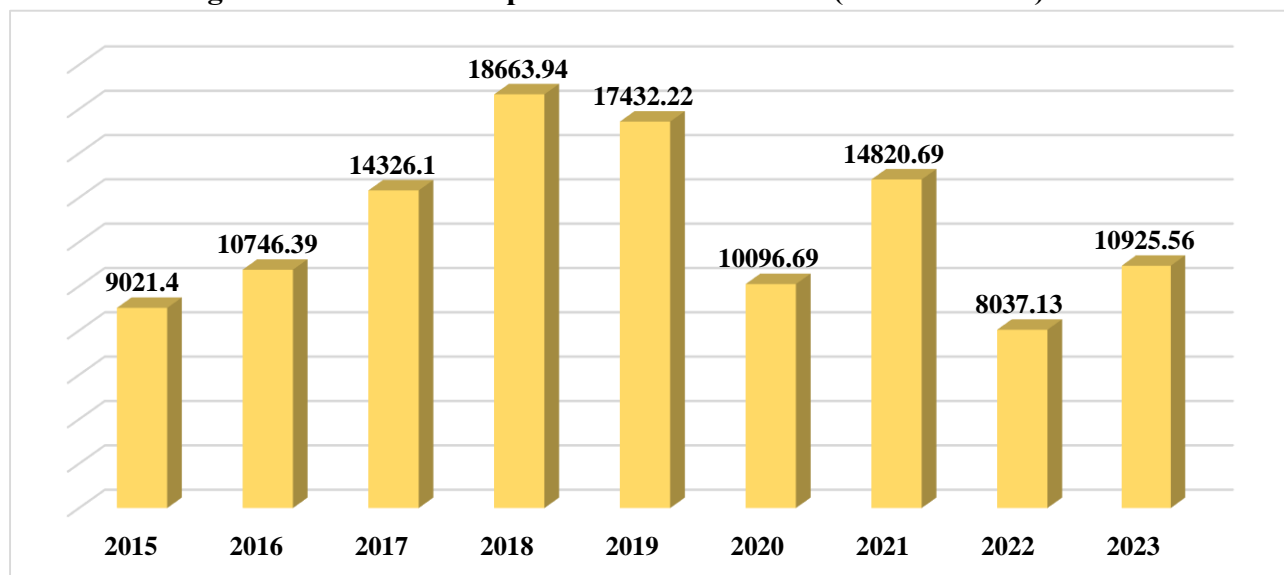
**Table no. 4. Ranking of EU countries according to total maize production (thousand tonnes)**

| Country        | 2015          | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022          | 2023           | 2023 /2015 (%) |
|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|----------------|
| France         | 13556.6       | 11702.1        | 14365.9        | 12580.4        | 12845.0        | 13726.4        | 15358.3        | 10877.2       | 12622.0        | -6.9           |
| <b>România</b> | <b>9021.4</b> | <b>10746.4</b> | <b>14326.1</b> | <b>18663.9</b> | <b>17432.2</b> | <b>10096.7</b> | <b>14820.7</b> | <b>8037.1</b> | <b>10925.6</b> | <b>21.1</b>    |
| Poland         | 3097.5        | 4262.1         | 3946.8         | 3792.1         | 3664.6         | 6694.4         | 7321.9         | 8344.9        | 8981.9         | 190.0          |
| Hugary         | 6594.2        | 8679.2         | 6700.0         | 7930.6         | 8229.7         | 8365.4         | 6424.6         | 2765.6        | 6236.1         | -5.4           |
| Italy          | 6612.4        | 6861.8         | 6068.2         | 6199.2         | 6279.1         | 6793.1         | 6080.0         | 4697.2        | 5348.7         | -19.1          |
| Germany        | 3973.0        | 4017.8         | 4547.6         | 3344.3         | 3664.8         | 4020.0         | 4462.4         | 3837.4        | 4498.9         | 13.2           |
| Spain          | 4564.4        | 4069.5         | 3775.7         | 3842.5         | 4184.5         | 4214.1         | 4597.7         | 3590.3        | 2908.2         | -36.3          |
| Bulgaria       | 2709.5        | 2277.9         | 2610.2         | 3522.5         | 4059.8         | 3014.1         | 3427.3         | 2554.4        | 2445.3         | -9.8           |
| Austria        | 1637.9        | 2179.6         | 2076.0         | 2130.3         | 2298.9         | 2411.9         | 2434.9         | 2114.0        | 2105.1         | 28.5           |
| Croatia        | 1709.2        | 2154.5         | 1559.6         | 2147.3         | 2298.3         | 2430.6         | 2242.1         | 1641.9        | 1974.0         | 15.5           |

*Source: Eurostat.eu, own calculations*

From the analyzed table, it emerges that France ranks first in terms of total corn production obtained in 2023 with 12.6 million tons, followed by Romania with 10.9 million tons and Poland with about 9 million tons.

**Figure no. 4. Total corn production in Romania (thousand tons)**



*Source: Eurostat.eu, own calculations*

Graph no. 4, presents data on the total corn production in Romania. In 2015, the total corn production recorded in Romania was over 9 million tons, reaching a total production of 10.9 million tons in 2023, showing an increase of 21%.

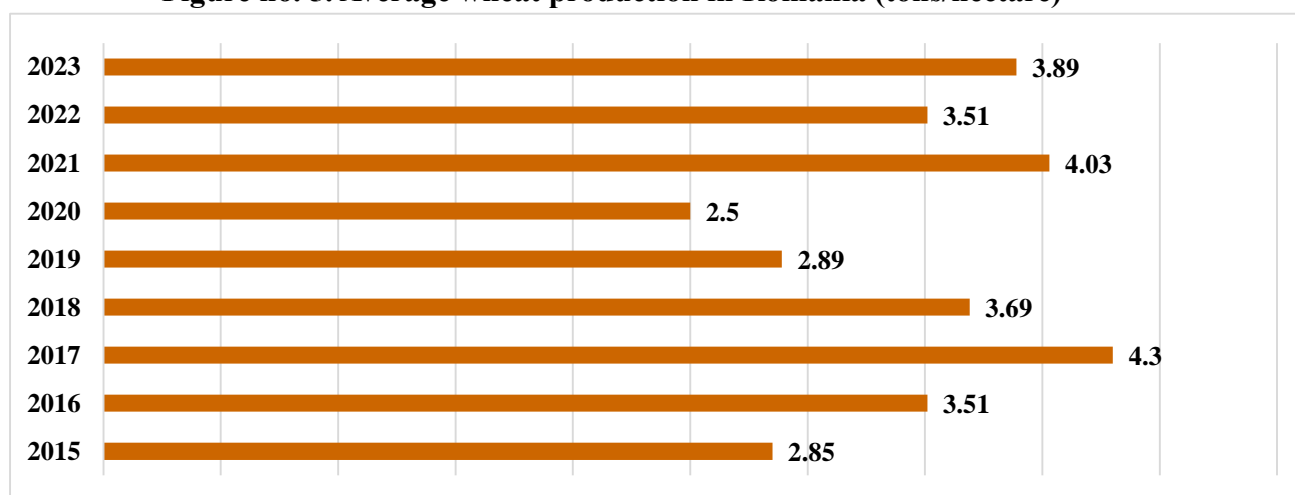
**Table no. 5. Ranking of EU countries according to average wheat production  
(tonnes/hectare)**

| Country               | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024/<br>2015 (%) |
|-----------------------|------|------|------|------|------|------|------|------|------|-------------------|
| <b>Slovakia</b>       | 5.16 | 4.37 | 4.30 | 4.82 | 4.29 | 5.12 | 5.87 | 4.97 | 6.14 | 19.0              |
| <b>Austria</b>        | 4.61 | 5.30 | 3.98 | 4.15 | 4.80 | 4.78 | 4.54 | 5.15 | 5.95 | 29.1              |
| <b>Germany</b>        | 4.65 | 5.33 | 5.75 | 4.58 | 4.92 | 5.38 | 5.51 | 5.35 | 5.75 | 23.7              |
| <b>Czech Republic</b> | -    | -    | -    | -    | -    | -    | -    | -    | 5.54 | -                 |
| <b>France</b>         | 5.60 | 4.16 | 5.66 | 4.98 | 6.21 | 5.20 | 5.35 | 5.24 | 5.37 | -4.1              |
| <b>Hungary</b>        | 4.88 | 5.03 | 4.74 | 4.72 | 4.40 | 4.47 | 5.50 | 3.71 | 5.20 | 6.6               |
| <b>Bulgaria</b>       | 3.41 | 4.13 | 4.30 | 4.09 | 4.23 | 3.91 | 5.57 | 4.81 | 4.97 | 45.7              |
| <b>Croatia</b>        | 6.58 | 5.00 | 5.26 | 5.15 | 5.06 | 4.28 | 5.12 | 5.12 | 4.05 | -38.4             |
| <b>Luxembourg</b>     | -    | -    | -    | -    | -    | 4.13 | 4.76 | 5.06 | 4.04 | -                 |
| <b>Romania</b>        | 2.85 | 3.51 | 4.30 | 3.69 | 2.89 | 2.50 | 4.03 | 3.51 | 3.89 | 36.5              |
| <b>Greece</b>         | 2.46 | 3.02 | 2.43 | 2.61 | 2.69 | 3.02 | 2.81 | 2.96 | 3.31 | 34.6              |
| <b>Italy</b>          | 3.39 | 3.79 | 3.48 | 3.37 | 3.27 | 3.33 | 3.44 | 3.09 | 3.02 | -10.9             |
| <b>Cyprus</b>         | 3.02 | 0.89 | 2.01 | 1.60 | 2.89 | 2.68 | 2.19 | 2.76 | 2.39 | -20.9             |
| <b>Portugal</b>       | 2.25 | 2.81 | 2.34 | 2.79 | 2.89 | 2.94 | 2.83 | 2.39 | 1.92 | -14.7             |
| <b>Spain</b>          | 2.78 | 2.47 | 2.66 | 3.58 | 2.76 | 3.28 | 3.11 | 2.50 | 1.68 | -39.6             |

*Source: Eurostat.eu, own calculations*

From the analyzed table, it follows that Slovakia is in the top of the E.U. countries in 2023 with an average wheat production of 6.14 tons/hectare, followed by Austria with an average production of 5.95 tons/hectare and Germany with 5.75 tons/hectare. Romania ranks 10th in terms of wheat yield in 2023 with 3.89 tons/hectare.

**Figure no. 5. Average wheat production in Romania (tons/hectare)**



*Source: Eurostat.eu, own calculations*

In the figure above, at the level of Romania, for the wheat crop, the yield in 2015 was 2.85 t/ha, reaching a yield of 3.89 t/ha in 2023, which represents an increase of over 36%.

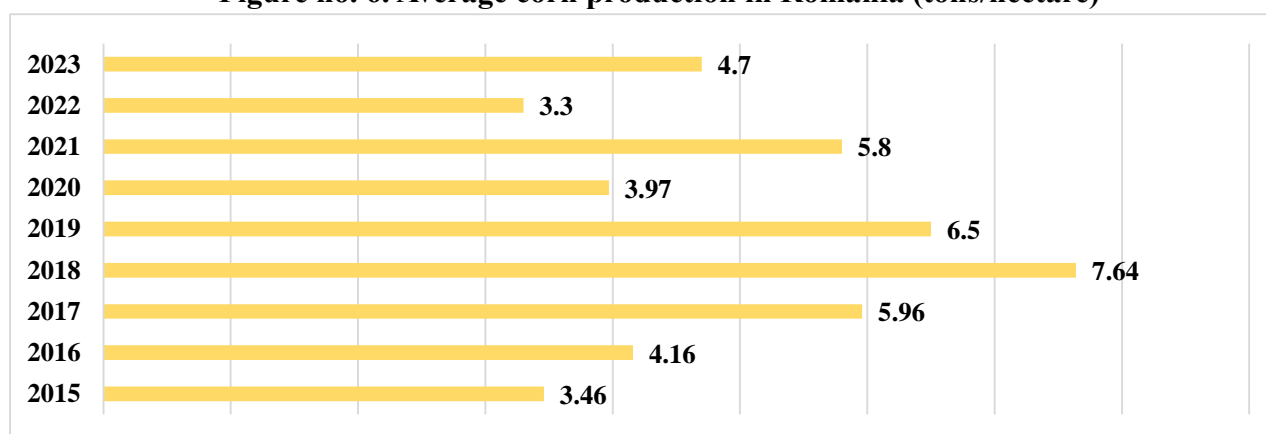
**Table no. 6. Ranking of EU countries according to average maize production  
(tonnes/hectare)**

| Country        | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2023<br>/2015 (%) |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|
| Spain          | 11.46 | 11.33 | 11.32 | 11.92 | 11.73 | 12.26 | 12.83 | 11.42 | 11.67 | 1.83              |
| Italy          | 10.08 | 10.38 | 9.88  | 10.13 | 10.05 | 11.27 | 10.33 | 8.33  | 10.73 | 6.45              |
| Portugal       | 8.45  | 8.02  | 8.61  | 8.56  | 9.80  | 9.35  | 10.10 | 9.62  | 10.67 | 26.27             |
| Netherlands    | 8.30  | 6.46  | 10.16 | 6.49  | 7.80  | 8.54  | 9.96  | 8.79  | 10.14 | 22.17             |
| Austria        | 8.68  | 11.16 | 9.91  | 10.15 | 10.42 | 11.35 | 11.16 | 9.82  | 9.93  | 14.40             |
| Belgium        | 9.40  | 7.47  | 10.28 | 7.00  | 8.83  | 8.11  | 9.33  | 7.96  | 9.82  | 4.47              |
| France         | 8.28  | 8.11  | 9.97  | 8.79  | 8.48  | 7.94  | 9.91  | 7.45  | 9.73  | 17.51             |
| Germany        | 8.88  | 9.65  | 10.53 | 8.14  | 8.81  | 9.59  | 10.36 | 8.40  | 9.65  | 8.67              |
| Greece         | 10.59 | 10.84 | 9.86  | 10.63 | 10.68 | 10.09 | 11.24 | 10.58 | 9.50  | -10.29            |
| Slovenia       | 8.97  | 9.51  | 7.11  | 9.45  | 9.27  | 10.79 | 9.39  | 6.68  | 8.79  | -2.01             |
| Switzerland    | 7.69  | 10.31 | 10.82 | 9.89  | 11.03 | 11.13 | 7.95  | 10.01 | 8.63  | 12.22             |
| Lithuania      | 4.81  | 6.94  | 5.74  | 6.54  | 7.67  | 7.01  | 5.86  | 5.31  | 8.24  | 71.31             |
| Hungary        | 5.75  | 8.58  | 6.78  | 8.44  | 8.01  | 8.53  | 6.09  | 3.39  | 8.12  | 41.22             |
| Czech Republic | 5.54  | 9.79  | 6.84  | 5.98  | 8.29  | 9.46  | 9.65  | 7.95  | 7.88  | 42.24             |
| Slovakia       | 5.47  | 7.76  | 5.61  | 8.41  | 7.39  | 8.29  | 7.77  | 4.31  | 7.57  | 38.39             |
| Croatia        | 6.50  | 8.50  | 6.30  | 9.13  | 9.01  | 8.43  | 7.79  | 6.13  | 7.42  | 14.15             |
| Sweden         | 5.76  | 8.03  | 7.33  | 4.18  | 6.96  | 6.77  | 8.56  | 6.92  | 7.36  | 27.78             |
| Serbia         | 5.40  | 7.30  | 4.01  | 7.72  | 7.63  | 7.90  | 5.91  | 4.50  | 7.18  | 32.96             |
| Poland         | 4.62  | 7.15  | 7.02  | 5.88  | 5.52  | 7.08  | 7.33  | 6.98  | 7.15  | 54.76             |
| Luxembourg     | 5.36  | 5.45  | 7.00  | 5.07  | 4.62  | 5.49  | 6.41  | 5.14  | 5.58  | 4.10              |
| Denmark        | 6.13  | 7.59  | 7.54  | 5.63  | 7.56  | 6.25  | 7.07  | 7.23  | 5.44  | -11.26            |
| Romania        | 3.46  | 4.16  | 5.96  | 7.64  | 6.50  | 3.97  | 5.80  | 3.30  | 4.70  | 35.84             |

*Source: Eurostat.eu, own calculations*

As for the average corn production at the level of the European Union, Romania is at the bottom of the ranking with an average production of 4.7 t/ha, the first places being occupied by Spain (11.67 t/ha), Italy (10.73 t/ha) and Portugal (10.67 t/ha).

**Figure no. 6. Average corn production in Romania (tons/hectare)**

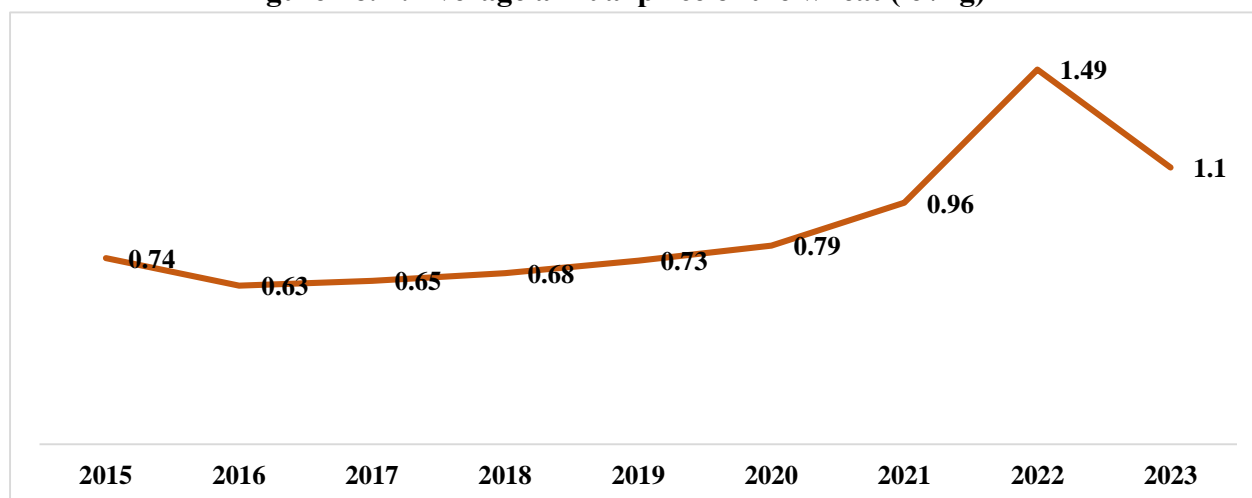


*Source: Eurostat.eu, own calculations*



At the average corn production in Romania, we can say that in 2015, Romania had a yield of 3.46 t/ha of the corn crop, reaching a yield of 4.7 t/ha in 2023, which shows an increase of over 35%.

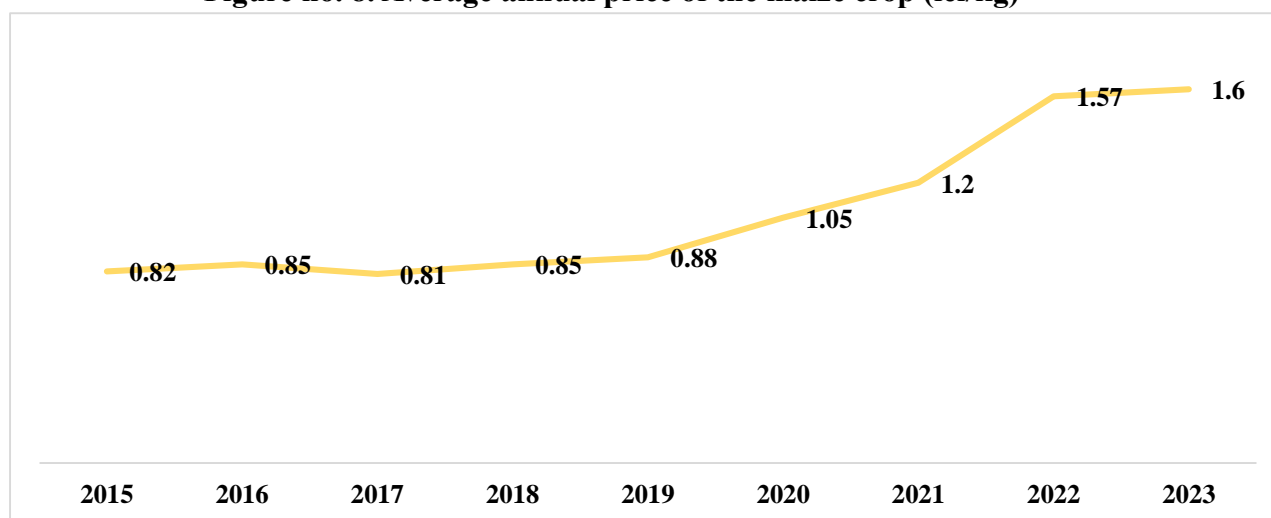
**Figure no. 7. Average annual price of the wheat (lei/kg)**



*Source: Eurostat.eu, own calculations*

Regarding the price analysis for wheat and corn crops, in Romania, wheat recorded a price of 0.74 lei/kg, reaching 1.1 lei/kg in 2023, thus showing an increase of 48%.

**Figure no. 8. Average annual price of the maize crop (lei/kg)**



*Source: Eurostat.eu, own calculations*

As for the average annual price for the corn crop, it is noted that in 2015, the average price of a kilogram of corn was 0.82 lei/kg, reaching 1.6 lei/kg in 2023, which represents an increase of over 95%.

## CONCLUSIONS

Comparative analysis of the main technical and economic indicators for maize and wheat crops highlights a number of key aspects. First, economic factors such as production volume, market prices, and production expenses have a significant impact on the performance of these crops.

Agriculture remains an essential field in Romania's economy, involving an important part of the population and playing a major role in the country's socio-economic development. With generous natural resources and a long tradition in agriculture, Romania has considerable potential in the agricultural sector, thus contributing to food security, both nationally and globally.

Corn and wheat play a special role in Romanian agriculture, providing not only essential food for the population, but also contributing to farmers' incomes and rural development. These crops occupy a significant part of the agricultural land in the country, being cultivated in various regions and having an important influence on national agricultural production.

By evaluating yields and areas allocated to maize and wheat crops, significant variations and trends are observed, determined by factors such as climatic conditions, agricultural practices and the technologies used. The analysis of this data is crucial for an effective management and planning of agricultural production, especially in the context of the need to optimize production and ensure food security.

From the price analysis for corn and wheat it provides a deeper understanding of market dynamics and the factors influencing their fluctuations. Prices are influenced by factors such as the supply-demand ratio, changes in agricultural policies and international economic developments.

In conclusion, this paper provides a solid basis for decision-making on farms, contributing to the creation of a more efficient, competitive and sustainable agricultural sector.

## REFERENCES

1. Enghiad, A., Ufer, D., Countryman, A.M. and Thilmany, D.D., 2017. An overview of global wheat market fundamentals in an era of climate concerns. *International Journal of Agronomy*, 2017(1), p.3931897.
2. Martinez, E.L. and Fernandez, F.J.B., 2019. Economics of production, marketing and utilization. In *Corn* (pp. 87-107). AACC International Press.
3. Mitchell, D.O. and Mielke, M., 2015. Wheat: The global market, policies, and priorities. *Global agricultural trade and developing countries*, pp.195-214.
4. Soare, E. and Dobre, I., 2016. Changes and trends of corn production in Romania.
5. \*\*\* Datavase Eurostat [www.ec.europa.eu](http://www.ec.europa.eu)