

Giucă, Andreea-Daniela

**Conference Paper**

## Analysis of the plant sector in Giurgiu county in the period 2015-2019: Gaps towards the Sud-Muntemia region

**Provided in Cooperation with:**

The Research Institute for Agriculture Economy and Rural Development (ICEADR), Bucharest

*Suggested Citation:* Giucă, Andreea-Daniela (2020) : Analysis of the plant sector in Giurgiu county in the period 2015-2019: Gaps towards the Sud-Muntemia region, In: Agrarian Economy and Rural Development - Realities and Perspectives for Romania. International Symposium. 11th Edition, The Research Institute for Agricultural Economy and Rural Development (ICEADR), Bucharest, pp. 177-182

This Version is available at:

<https://hdl.handle.net/10419/234388>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# ANALYSIS OF THE PLANT SECTOR IN GIURGIU COUNTY IN THE PERIOD 2015-2019 - GAPS TOWARDS THE SUD-MUNTEMIA REGION

GIUCĂ ANDREEA-DANIELA<sup>1</sup>

**Abstract:** *The geographical location of the Sud-Muntenia region and its relief ensure favorable natural conditions for vegetable crops, especially those in the cereals category, determining the predominantly agrarian character of the region, over 70% of the total area of the region is agricultural area. Agriculture is the basic economic sector for the counties in the southern part of the region - Argeş, Prahova, Dâmboviţa, Călăraşi, Ialomiţa, Teleorman and Giurgiu. As a result of this situation, the plant sector has experienced a continuous development in the recent years, becoming one of the important branches of agricultural production in the region.*

*The objectives of the paper aim to provide an overview of the agricultural plant sector of Giurgiu county, compared to the Sud-Muntenia region. The paper analyzes the evolution of cultivated areas with the main vegetable crops representative of the South-Muntenia region and especially of Giurgiu county (wheat and rye, barley and barley, corn, sunflower and rapeseed) and productions, in the period 2015-2019. Thus, based on the data provided and processed by the National Institute of Statistics and the Agricultural Directorate of Giurgiu County and their interpretation through the methods of statistical analysis, the oscillations that occurred during this period were highlighted.*

**Key words:** *vegetable agricultural sector, surface, output, Giurgiu county, Sud-Muntenia region*

**JEL classification:** *Q10, R14*

## INTRODUCTION

The South-Muntenia region is one of the development regions of Romania, with an area of 34,453 km<sup>2</sup>, which includes the following counties: Argeş, Prahova, Dâmboviţa, Teleorman, Giurgiu, Ialomiţa and Călăraşi, all located in the historical region of Muntenia.

From an economic point of view, the South – Muntenia Region has a predominantly agricultural character, therefore, the type of crops, but also the level of production are significant, from this point of view. South Muntenia is the most productive region in terms of cereals, recording record yields for wheat and corn.

Located in the Danube Meadow, on the left bank of the Danube River, Giurgiu County has an area of 3,526 km, representing 1.5% of the total area of the country. Giurgiu County has an identity of agricultural county, a status that must be revitalized by invigorating agriculture and food industry, key areas for the development of the county. The predominant activities in agriculture are the cultivation of cereals (wheat and rye, barley and barley, corn) and technical plants (sunflower and rapeseed), viticulture, fruit growing and animal husbandry.

## MATERIALS AND METHODS

The paper studies the evolution, in the period 2015-2019, of the areas cultivated with: wheat and rye, barley and barley, corn, sunflower and rapeseed, as well as the dynamics of productions, using the data series of the National Institute of Statistics and the Agricultural Directorate of Giurgiu County. Statistical indicators were calculated to highlight the evolutionary trends of the technical indicators analyzed for each crop. In order to notice the differences registered at the level of the analyzed years, the comparison method was used. The statistical research process cost the following stages: data collection and recording, data processing, analysis and interpretation of results.

---

Research assistant, Giucă Andreea-Danilea, Institute for Agricultural Economics and Rural Development Bucharest, giuca.daniela@iceadr.ro

## RESULTS AND DISCUSSION

The main natural wealth of the South-Muntenia region is agricultural land. The soils are mostly composed of different types of chernozems and alluvial soils, they have a high fertility, which allows large-scale farming, predominantly the cereal sector.

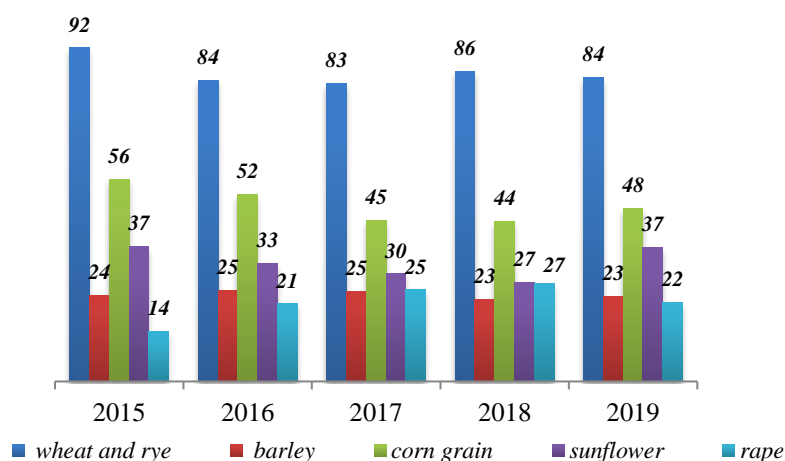
Vegetable production in Giurgiu County in the last five years has had a fluctuating trend in close connection with cultivated areas, agricultural policies and climate change.

Table no. 1: Area cultivated with the main crops in the South-Muntenia region and in Giurgiu county, in the period 2015-2019 (thousand hectares)

Nr. crt.	Category	Region/county	Years				
			2015	2016	2017	2018	2019
1.	Cereal grains	South-Muntenia	1257	1231	1192	1189	1278
		Giurgiu	177	165	156	158	159
2.	Wheat and rye	South-Muntenia	586	588	583	589	591
		Giurgiu	92	84	83	86	84
3.	Barley	South-Muntenia	130	133	115	98	116
		Giurgiu	24	25	25	23	23
4.	Corn grain	South-Muntenia	500	471	455	464	534
		Giurgiu	56	52	45	44	48
5.	Oilseeds	South-Muntenia	433	427	487	501	431
		Giurgiu	56	58	62	60	63
6.	Sunflower	South-Muntenia	243	209	213	216	268
		Giurgiu	37	33	30	27	37
7.	Rape	South-Muntenia	157	188	240	247	126
		Giurgiu	14	21	25	27	22

Source: National Institute of Statistics, [www.insse.ro](http://www.insse.ro)

Figure no. 1: Evolution of cultivated areas with the main vegetable crops in the period 2015-2020 at the level of Giurgiu county (thousand hectares)



Source: National Institute of Statistics, [www.insse.ro](http://www.insse.ro)

In Giurgiu county, the area cultivated with cereals in the period 2015-2019 had a downward trend, with small oscillations, it registered limits between 156 thousand hectares in 2017 and 177 thousand hectares in 2015, the average of the period being 163 thousand hectares. In 2019, of the total area cultivated with grain cereals (159 thousand hectares), the area cultivated with wheat and rye accounted for about 53%, followed by areas cultivated with corn grains and barley and barley, 30% and 15%, respectively.

The area cultivated with oil plants in Giurgiu County in the analyzed period ranged between 56 thousand hectares in 2015 and 63 thousand hectares in 2019 with an average of 60 thousand hectares. In 2019, out of the total area cultivated with oil plants (63 thousand ha), the area cultivated with sunflower represented 59%, and the one cultivated with rapeseed 35%.

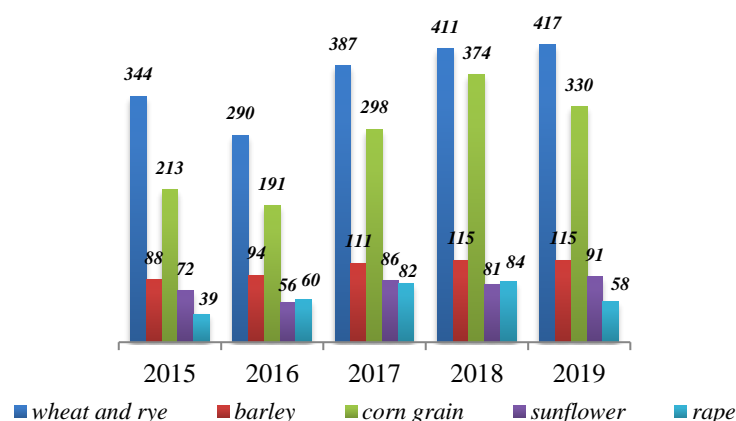
At the level of 2019, out of the total area with cereals for grains from the South-Muntenia region, the cultivated area in Giurgiu county represented 12%. Regarding the area cultivated with oil plants in the region, 15% of it was cultivated in Giurgiu County.

Table no. 2: Vegetable agricultural production, by main crops in the South-Muntenia region and in Giurgiu county, in the period 2015-2019 (thousand tons)

Nr. crt.	Category	Region/county	Years				
			2015	2016	2017	2018	2019
1.	Cereal grains	South-Muntenia	5035	5029	6681	7199	7288
		Giurgiu	662	589	810	918	876
2.	Wheat and rye	South-Muntenia	2366	2417	2986	2889	3025
		Giurgiu	344	290	387	411	417
3.	Barley	South-Muntenia	524	547	549	516	565
		Giurgiu	88	94	111	115	115
4.	Corn grain	South-Muntenia	2033	1959	3020	3674	3579
		Giurgiu	213	191	298	374	330
5.	Oilseeds	South-Muntenia	968	1101	1459	1469	1111
		Giurgiu	125	120	191	190	165
6.	Sunflower	South-Muntenia	481	455	620	672	700
		Giurgiu	72	56	86	81	91
7.	Rape	South-Muntenia	415	576	733	682	299
		Giurgiu	39	60	82	84	58

Source: National Institute of Statistics, [www.insse.ro](http://www.insse.ro)

Figure 2: Evolution of total productions for the main vegetable crops in the period 2015-2020 at the level of Giurgiu county (thousand tons)



Source: National Institute of Statistics, [www.insse.ro](http://www.insse.ro)

In the period 2015-2019, the total production of grain cereals in Giurgiu County had an upward trend, registering values between 589 thousand tons in 2016 and 918 thousand tons in 2018 and an average period equal to 771 thousand tons. At the level of 2019, out of the total production of cereals for grains (7,288 thousand tons), the production of wheat and rye represented 48%, followed by the production of corn grains with 38% and barley and barley with 13%.

The total production of oil plants in Giurgiu County showed an upward trend, with limits between 120 thousand tons in 2016 and 191 thousand tons in 2017 and an average period of 158

thousand tons. Of the total production of oil plants registered in 2019 in Giurgiu County (165 thousand tons), sunflower production accounted for 55% and rape 15%.

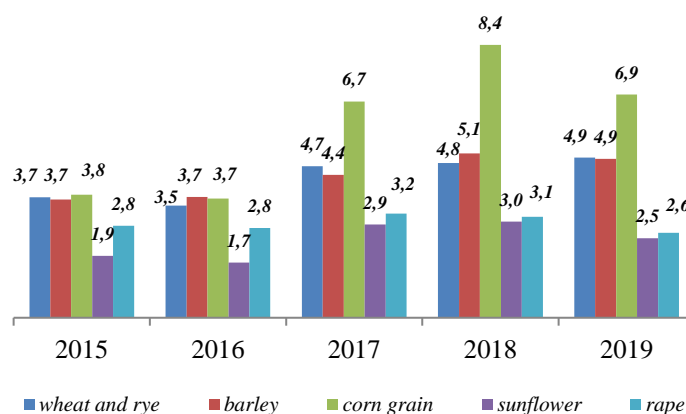
In 2019, from the total production of grain cereals at the level of the South-Muntenia region (7,288 thousand tons), the total production obtained in Giurgiu county (876 thousand tons) represented 12%. The total production obtained from oil plants in Giurgiu County (165 thousand tons) represented 15% of the total production registered in the region (1,111 thousand tons).

Table no. 3: Average production per hectare for the main crops in the South-Muntenia region and in Giurgiu county, in the period 2015-2019 (tons / ha)

Nr. crt.	Category	Region/county	Years				
			2015	2016	2017	2018	2019
1.	Wheat and rye	South-Muntenia	4,04	4,11	5,13	4,90	5,12
		Giurgiu	3,72	3,47	4,68	4,78	4,94
2.	Barley	South-Muntenia	4,03	4,12	4,76	5,24	4,87
		Giurgiu	3,65	3,74	4,41	5,08	4,91
3.	Corn grain	South-Muntenia	4,07	4,16	6,64	7,92	6,70
		Giurgiu	3,80	3,68	6,68	8,43	6,89
4.	Sunflower	South-Muntenia	1,97	2,18	2,91	3,10	2,61
		Giurgiu	1,92	1,71	2,88	2,97	2,45
5.	Rape	South-Muntenia	2,64	3,07	3,05	2,76	2,36
		Giurgiu	2,85	2,77	3,22	3,12	2,63

Source: National Institute of Statistics, [www.insse.ro](http://www.insse.ro)

Figure 3: Evolution of average yields per hectare for the main vegetable crops, in the period 2015-2020 in Giurgiu county (tons / ha)



Source: National Institute of Statistics, [www.insse.ro](http://www.insse.ro)

The average production per hectare for the main representative crops of Giurgiu County in the period 2015-2019, had an upward trend with small oscillations.

In the analyzed time interval, the average production recorded for wheat and rye ranged between 3.5 tons / ha in 2016 and 4.9 tons / ha in 2019. In 2019, the average production obtained for wheat and rye increased by 33% compared to 2015.

According to the article presented on the Gazeta de Agricultura website, in 2018 Giurgiu county was in the top of the counties with the highest wheat yield, with an average production per hectare of 5.8 tons / ha.<sup>2</sup>

<sup>2</sup> <https://www.gazetadeagricultura.info/plante/cereale/21181-recolte-record-in-vara-anului-2018-in-ciuda-culturilor-afectate-de-calamitati.html>

For barley and barley, the average production increased in 2019 by 34% compared to that obtained in 2015. In the analyzed period, the average production varied between 3.7 tons / ha in 2015 and 5.1 tons / ha in 2018.

For large farmers, in 2018 the production exceeded 7 tons for wheat and barley, as is the case of Agro Total in Adunații Copăceni, where wheat and barley production was very good, although rainfall caused damage, but the advantages they brought were greater. Barley yields of 8 tons / ha were obtained, and wheat 7 tons / ha. Agro Total manages about 3,000 hectares of agricultural land, being one of the most profitable agricultural holdings in Giurgiu County.

The average production of corn in Giurgiu County registered limits between 3.68 tons / ha in 2016 and 8.43 tons / ha in 2018. In 2019, the average production of corn increased by 81% compared to that obtained in 2015. Giurgiu was the county that obtained in 2017 the highest average production per hectare for corn crop 6.68 tons / ha, with over 500 kilograms compared to the national average (5.95 tons / ha), according to data communicated by the Ministry of Agriculture and Rural Development (MADR).

In sunflower and rapeseed, the average productions increased with small variations. For sunflower, the average production ranged between 1.71 tons / ha in 2016 and 2.97 tons / ha in 2018, and for rapeseed it varied between 2.63 tons / ha in 2019 and 3.22 tons / ha in 2017. In 2019, there was an increase in average production by 28% for sunflower and a decrease of 8% in rapeseed compared to production obtained in 2015.

## CONCLUSIONS

According to the study based on data processed and provided by the National Institute of Statistics, in 2015-2019, there is a growing trend of areas cultivated with the main crops analyzed, as well as total and average production in Giurgiu County and also South Muntenia region.

Within the South-Muntenia region, at the level of 2019, the largest cultivated area with grain cereals was owned by Călărași County, followed by Teleorman and Ialomița, Giurgiu County ranking fourth with an area of 159 thousand hectares. Regarding the area cultivated with wheat and rye, Giurgiu county ranked fourth with 84 thousand hectares, after Teleorman, Călărași and Ialomița. For barley and barley, Giurgiu county ranked third in terms of cultivated area of 23 thousand hectares, after Călărași and Teleorman. For corn, the largest area was cultivated in Călărași County, Giurgiu ranking on the last place of the region with an area of 48 thousand hectares. The areas cultivated with oil plants increased in the region during the analyzed period. In 2019, Teleorman County occupied the largest area cultivated with oil plants, followed by Călărași, Ialomița and Giurgiu. Regarding the area cultivated with sunflower and rapeseed, Giurgiu County ranked fourth in the top of the region with an area of 37 and 22 thousand hectares, respectively.

At the level of grain cereal productions, in 2019 the highest production was obtained in Călărași County, followed by Teleorman, Ialomița and Giurgiu, the lowest being registered in Dâmbovița. In the production of wheat and rye, Giurgiu County obtained a production of 417 thousand tons, occupying the fourth place in the top of the county after Ialomița, Călărași and Teleorman. Barley and barley production recorded the highest values in Călărași, Teleorman and Giurgiu counties. In the production of corn grains, Giurgiu county ranked fourth in the top of the region with a production of 330 thousand tons. Regarding the production of oil plants, the highest production was obtained in Teleorman County, and the lowest in Dâmbovița County. At sunflower, Giurgiu County obtained a production of 91 thousand tons, thus occupying the fourth place in the top of the region. The rapeseed production registered in Giurgiu County was of 58 thousand tons, ranking the county on the third place, after Teleorman and Călărași.

From those presented, the high potential of Giurgiu County in terms of capitalization of areas with soils in the category of chernozems, favorable to the cultivation of the main crops in the vegetable agricultural sector compared to the South-Muntenia region. Giurgiu is one of the counties with the highest average yields per hectare for cereals, especially wheat and barley.

In the economy of Giurgiu county, a very important share has agriculture, especially crops in the category of cereals, wheat and rye occupying the leading place in the share of agricultural areas and productions.

## BIBLIOGRAPHY

1. Giurgiu Statistical Directorate, [www.giurgiu.insse.ro](http://www.giurgiu.insse.ro), accessed on 05.07.2020;
2. Județul Giurgiu, Agricultura Județului, <http://www.putereagricola.ro/judete/giurgiu/agricultura-judetului>, accessed on 06.07.2020;
3. Ministry of Agriculture and Rural Development, [www.madr.ro](http://www.madr.ro), accessed on 05.07.2020;
4. Producții de peste 7 tone/ha la orz și grâu la Agro Total Adunații Copăcenii, (2019), <http://www.agrostandard.ro/productii-de-pestre-7-toha-la-grau-la-fermierii-mari-din-giurgiu-si-ilfov/>, accessed on 06.07.2020;
5. Profitul agricol, Producția agricolă a anului 2019, 1/2020.
6. Recolte record în vara anului 2018, în ciuda culturilor afectate de calamități, (2018), <https://www.gazetadeagricultura.info/plante/cereale/21181-recolte-record-in-vara-anului-2018-in-ciuda-culturilor-afectate-de-calamitati.html>, accessed on 06.07.2020;
7. The National Institute of Statistics, [www.insse.ro](http://www.insse.ro), accessed on 05.07.2020;