# The Agricultural Crops Production of Romania

# Radu Laurentiu The Bucharest University of Economic Studies, Doctoral School radu.ilaurentiu@yahoo.com

# **Abstract**

Romania is one of the European countries with the most favorable pedo-climatic conditions for agriculture. The natural conditions of Romania, indicate us that more than 40% of the total surface of the country can be used for agriculture, moreover if we are to extend the agricultural areas and complete them with forestry areas we will see that Romania has conditions which not many countries have.

Although Romania has a high agricultural potential, both, the farmers and the government cannot exploit it at its true value, due to problems such as land fragmentation, the low level technology in the agricultural sector, for both agricultural machinery and irrigation systems and a low degree of attraction of investment funds.

The agricultural crop production sector of Romania can produce quality products in significant quantities that can cover an important segment of domestic demand of agro-food products.

Key words: agriculture; crops; cultivated land; crops production;

J.E.L. classification: Q10; O13.

# 1. Introduction

The role of agriculture is an extremely important one for today's society, providing the necessary food production for the population, and representing in a source of raw materials for different industries. Agriculture is one of the sectors where the European Union member countries have agreed to share both their public funding and responsibilities. While the European farmers have access to the entire European market, the existence of a common approach in support of the agriculture sector, ensures a level playing field for farmers operating on the European and international markets as well. Romania is one of the main producers of agricultural crops at European level and it has the sixth largest agricultural land used among the countries of the European Union. Romania is also one of the top ten world exporters of wheat and corn. (Rotaru, 2017). The agricultural potential of the country results from the structure of land use, while depending on the qualities and geographical position of the agricultural land, the various sectors of agriculture have also been structured and developed. (Patrut, 2017)

The present article aims to present the current situation of the agricultural crops production of Romania.

# 2. Theoretical background

The agriculture sector is one of the few sectors of the economy that put Romania at the top of the European charts duet the generous grain and oilseed crops productions obtained each year.

For example, in 2016, Romania ranked first in the European Union charts in sunflower production and second place in the production of wheat and maize, after France, according to data from the National Institute of Statistics.

At national level, agriculture is one of the important branches of the Romanian economy, taking into account that the contribution of agriculture, forestry and fish farming to the formation of the Gross Domestic Product(GDP) is around 6%, and in the European member states, the contribution of the agricultural sector for the GDP it is around 1.7%. (MADR 2018)

However, Romania's agriculture cannot reach its full potential due to the massive fragmentation of agricultural areas, lack of technology, and an old, outdated irrigation system, reasons why Romania is registering some of the weakest yields per hectare for its main cultures, compared with the other member states from the European Union. (Deacu, 2017)

Agriculture has become one of the most vulnerable sectors to climate change, and the future predictions are that this trend will increase. The current irrigation system continues to face a number of problems caused by the location and technical state of the irrigation infrastructure, resulting in a high cost of water, that only the large farmers can pay and it is prohibitive for small farmers. (MADR 2015, p.35)

The Romanian land resources are huge, but certain laws regarding the land property have caused a fragmentation of agricultural areas.

Romania is suffering because of the fragmentation of agricultural property, while compared with the other European Union member states, Romania has an average holding size similar to Malta or Cyprus, island countries with far less agricultural land than Romania. (PwC 2017)

Almost 75% of the farms in Romania are under 2 hectares and the share of farms under 10 hectares is about 98% of the total number and 38% of the total agricultural area used. At the opposite end, farms with a size of more than 100 hectares' account for only 0.5% of the total but exploit 49% of the agricultural area. (Profit.ro 2017)

Agriculture sector plays an important role in Romania, with about 30% of the total population being engaged in agricultural activities compared with about 3 % to 14% in the European member states. There is a major difference between the rural and the urban areas, while the people that live in the rural areas are being marked by a significantly higher level of poverty and low living standards compared to the people that live in the urban areas. (MADR 2015, p. 10)

The majority of Romanian farmers, suffer from lack of a clearly defined professional status with negative or ambiguous implications on tax plan and social and health insurance. This is also reflected in the fact that the most of those involved in agriculture in Romania do not have the necessary professional training to provide them with an appropriate level of knowledge, skills and abilities suited for the competitive farming sector. Therefore, mostly of the Romanian farmers rely only on their practical experience and only 7% of the farmers overall have the elementary or full agricultural training. Although it is no unusual in the EU, the lack of farming education is more pronounced in Romania. (MADR 2015 p.54)

# 3. Material and Methods

The present article aims to present the current situation of the agricultural crops production of Romania. The data used for the article is retrieved from the official databases of the National Institute of Statistics and from Eurostat and it refers to the vegetal production for the main agriculture cultures and the cultivated area for each type of crops.

The cultivated area represents the total area used for agriculture, respectively, in our article, the areas are determined for each type of crops and it is expressed in thousand hectares.

The total production represents the produced quantity of agricultural products for each type of crops for the analyzed year and it is expressed in thousand tones.

# 4. The agricultural crops production

In order to present the current state of the agricultural crops production of Romania we have decided to analyze the difference from the year 2016 to 2017, between the production of the crops and between the cultivated areas for the main crops.

Overall by analyzing the available data we can observe that the agricultural production has increased for the main crops represented by cereals, dried pulses, oilseed crops, sugar beet, potatoes and vegetables, and the cultivated areas have increased for dried pulses, oilseed crops, sugar beet and have decreased for cereals, potatoes and vegetables.

Table no. 1 Cultivated area and production of main crops

	<b>Total Production</b>		Cultivated Area			
Year	2016	2017	2016	2017	Difference betw	een 2017 and 2016
Unit	<b>Thousand Tones</b>		Thousand Hectares		<b>Thousand Tones</b>	Thousand Hectares
Cereal grains	21765	27139	5487	5192	5374	-295
of which						
- Wheat	8431	10035	2138	2053	1604	-85
- Barley	1817	1907	482	455	89	-26
- Oat	381	408	170	166	26	-5
- Corn	10746	14326	2581	2402	3580	-179
Dried pulses	99	302	59	119	202	60
Oilseed crops	3597	4986	1629	1766	1390	137
From which						
- Sunflower	2032	2913	1040	998	880	-41
- Rapeseed	1293	1673	456	598	381	142
- Soy beans	263	393	127	165	130	38
Sugar beet	1012	1175	25	28	162	3
Potatoes - total	2690	3117	182	167	427	-15
Vegetables - total	3358	3638	228	225	280	-4

Source: data retrieved from the National Institute of Statistics

The production of cereal grains has increased from the year 2016 to 2017 by 5374 tones, respectively 24.69% while the cultivated area decreased by 296 hectares, respectively 5.37%. While the wheat production has increased by 19%, reaching a value of 10035 thousand tones, the cultivated area decreased by 85 hectares, registering a decrease of 3.97%. The barley production has also increased by 89 thousand tons from 2016 to 2017, registering an increase of 4.92% while the cultivated area decreased by 26 thousand hectares, respectively 5.43%.

The oat production registered an increase by 26 thousand tons, respectively, 5% while the cultivated area decreased by 5 thousand hectares, respectively 2.69%. We can see that there is the same situation for the corn, while the production increased by 3580 thousand tones, respectively 33.31%, the cultivated area decreased by 179 thousand hectares, respectively 6.93%. We can see that overall for cereal grains the yield per hectare has increased significantly from the year 2016 to 2017.

The production of dried pulses increased from the year 2016 to 2017 by 202 thousand tones, respectively 203.77% and the cultivated area increased by 60 thousand hectares, respectively 101%. We can observe that both the yield per hectare and the cultivated area for this type of crops have registered a significant growth from the year 2016 to 2017.

The production of oilseed crops has increased from the year 2016 to 2017 by 1390 thousand tones, respectively 38.63% while the cultivated area has also increased by 137 thousand hectares, respectively 8.4%. while the sunflower production increased by 880 thousand tones, respectively 43.32%, the cultivated are for this type of crops decreased by 41 thousand hectares, respectively 3.98%.

The production of rapeseed increased by 381 thousand hectares, respectively 29.44% while the cultivated area increased by 142 thousand hectares, respectively 31.15%. The production of soy beans also increased by 130 thousand tones, respectively 49.40% while the cultivated area increased by 38 thousand hectares, respectively 29.76%. While the yield per hectare increased for all the oilseed crops mentioned in the table no. 1, the cultivated area increased for rapeseed and soybeans and decreased for the sunflower.

For the year 2017, The production of sugar beet increased by 162 thousand tones, respectively % 16.04% while the cultivated area has increased by 3 thousand hectares, respectively 13.16% compared to the previous year

The production of potatoes increased by 427 thousand tones, respectively 15.88%% while the cultivated area decreased by 15 thousand hectares, respectively 8.13%.

The total production of vegetables registered an increase by 280 thousand tones, respectively 8.34 % while the cultivated area decreased by 4 thousand hectares, respectively 1.56%.

In order to highlight the current state of the Romanian agricultural production of wheat, corn, sunflower and potatoes we have decided to represent the production of the agricultural crops and the cultivated areas of Romania alongside with the agricultural production and cultivated areas of different European member states as shown in the Figure no. 1 for the agricultural crops production and Figure no. 2 for the cultivated areas.

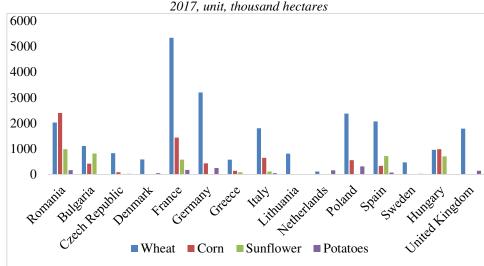


Figure no. 1. Cultivated areas with wheat, corn, sunflower and potatoes for EU member states, year

Source: Eurostat

Figure number 1 is a graphic representation of the total cultivated areas of wheat, corn, sunflower and potatoes for different European Union countries, respectively Romania, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Italy, Lithuania, Netherlands, Poland, Spain, Sweden, Hungary and United Kingdom.

We can see that Romania's cultivated areas for grains, corn and sunflower are situated in the top four along with France, Germany, Spain.

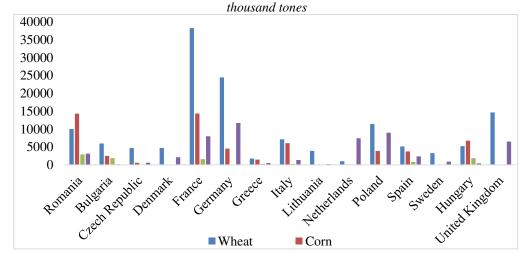


Figure no. 2. Production of wheat, corn, sunflower and potatoes for EU member states, year 2017, unit,

Source: Eurostat

Figure number 2 is a graphic representation of the total production of wheat, corn, sunflower and potatoes for different European Union countries, respectively Romania, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Italy, Lithuania, Netherlands, Poland, Spain, Sweden, Hungary and United Kingdom.

We can see that Romania has a good position compared to other countries regarding the agricultural production. Romania had the largest area cultivated with sunflower and registered the biggest production of sunflower from Europe in the year 2017.

Romania was second after France, for both the cultivated area and production of corn. Also, Romania ranked sixth with the production of potatoes after Germany, Poland, France, Netherlands and United Kingdom and fourth in the cultivated area after Poland, Germany and France. Regarding the production of wheat, Romania ranked fifth after France, Germany, Poland and Spain, and for the cultivated area it ranked the same fifth place, after France, Germany, Poland and Spain.

#### 5. Conclusion

Romania has a great agricultural advantage but at present the country does not have the capacity to exploit it at its full potential.

Although Romania has the natural advantages for producing high amount of crops, the lack of technology and the absence of irrigation systems are significantly affecting the agricultural production sector. While Romania is producing important quantities of crops our country cannot keep up with the agricultural production sector of developed countries such as France or Germany.

Romania must adopt a strategic position in order to tackle the challenges and opportunities that the agricultural sector is facing. In this manner, Romania must maximize the favorable global and European trends as well as its own competitive advantages by actively participating in the European agricultural market and in third countries markets as well.

Therefore, Romania must try to identify and manage its internal constrains and also, to identify the best ways to approach the external factors, such as climate changes. The agricultural sector must move towards a medium and long – term vision, taking into account that Romania is benefiting from numerous reform initiatives from both its government and the European Union.

# 6. References

- Deacu, E., 2017. *România are potențial agricol ridicat, dar îi lipsește productivitatea*, Adevarul.ro, [online]. Available at: <a href="https://adevarul.ro/economie/afaceri/studiu-romania-potential-agricol-ridicat-lipseste-productivitatea-1">https://adevarul.ro/economie/afaceri/studiu-romania-potential-agricol-ridicat-lipseste-productivitatea-1</a> 58bee2ed5ab6550cb81c08e7/index.html> [Accesed on 5 November 2018].
- Eurostat, https://ec.europa.eu/eurostat/data/database, [Accessed on 1 November 2018].
- Ministerul Agriculturii si Dezvoltarii Rurale, 2015, *Strategia pentru dezvoltarea sectorului agroalimentar pe termen mediu și lung orizont 2020-2030*, [online]. Available at: <a href="http://www.madr.ro/docs/agricultura/strategia-agroalimentara-2020-2030.pdf">http://www.madr.ro/docs/agricultura/strategia-agroalimentara-2020-2030.pdf</a> [Accessed on 3 Novembre 2018], pp. 10, 35, 54.
- Ministerul Agriculturii si Dezvoltarii Rurale, 2018. *Date generale despre agricultura Romaniei*, [online]. Available at:< http://www.madr.ro/agricultura.html> [Accessed on 6 November 2018].
- National Institute of Statistics, 2018, www.insse.ro, [Accessed on 1 November 2018].
- Patrut, B., 2017. *Agricultura României*, Revista EduSoft, [online]. Available at: <a href="https://www.edusoft.ro/agricultura-romaniei/">https://www.edusoft.ro/agricultura-romaniei/</a> [Accessed on 6 November 2018].
- Profit.ro, 2017. Analiză: România are 6-a cea mai mare suprafață agricolă utilizată dintre țările UE, dar o producție slabă din lipsă de bani, instalații și fermieri pregătiți, Profit.ro, [online]. Available at:
   https://www.profit.ro/stiri/social/analiza-romania-are-6-a-cea-mai-mare-suprafata-agricola-utilizata-dintre-tarile-ue-dar-o-productie-slaba-din-lipsa-de-bani-instalatii-si-fermieri-pregatiti-16828061> [Accessed on 6 Novembre 2018].
- PwC Romania, 2017. Comunicat de presă, România ar deveni singurul Stat Membru al Uniunii Europene care lasă plata contribuțiilor de asigurări sociale și de sănătate exclusiv în sarcina angajatului, arată o analiză PwC România, www.pwc.ro, [online]. Available at:<a href="https://www.pwc.ro/en/press\_room/assets/2017/RO/social-contributions-ro.pdf">https://www.pwc.ro/en/press\_room/assets/2017/RO/social-contributions-ro.pdf</a> [Accessed on 2 November 2018].
- Rotaru, R., 2017. Agricultura, asul din mânecă al României, Ziarul Financiar, [online]. Available at: <a href="https://www.zf.ro/suplimente/agricultura-asul-din-maneca-al-romaniei-16394254">https://www.zf.ro/suplimente/agricultura-asul-din-maneca-al-romaniei-16394254</a>> [Accessed on 6 November 2018].