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AN EXPLORATORY RESEARCH REGARDING ROMANIAN ORGANIC FARMING SECTOR

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Abstract

The paper is aimed to identify how large is the sector of organic farming in Romania and why this sector should be developed. Because of the changes in the social structure, the economic crisis and the ageing of population, Romania must identify other segments and industries for an economic prosperity. This study focuses on a market niche represented by organic farming. In order to present how large is the sector of organic farming in Romania, statistical data regarding agricultural areas and livestock under organic farming were gathered and analyzed. Results shows that organic farming has a low impact in Romanian agriculture, and in agro-food system, but because of accelerated growth of indicators, Romania has a big potential and interest in developing the organic sector. As a conclusion, it is a very interesting and attractive subject, because people are more and more focused on consuming natural products for a healthy life.

Key words*: agriculture, organic farming, evolution, sustainable development, Romania.*

INTRODUCTION

According to the Codex Committee on Food, organic farming is a production system management that promotes and also enhances the agro-system health, biodiversity, biological cycles and soil biological activity. On the other hand, this is a form of agriculture that is based on techniques like green manure, crop rotation, biological pest control and compost. Organic food also includes fertilizers and pesticides which include insecticides, herbicides, but all of these are natural, like bone meal for animals or pyrethrin for flowers. In this process, the use of other methods, which includes the synthetic petrochemical fertilizers and pesticides, is excluded.

Organic farming is one of the most important sectors of agriculture and of Romanian economy, because it can bring significant contribution to a sustainable development, increasing the economic activities, thanks to the significant added value of the organic products. The premium price of organic products is paid by people from countries where there is a sizeable middleclass in the population, and where consumers are more educated and informed of food issues, and they incline to buy organic products, whether for food safety, concern over the environment or health reasons (Voilcilas Dan Marius, 2009).

The concept of sustainability, which is incorporated into the definition of organic farming, has a wider sense, not only to underline the conversion of non-renewable resources (soil, minerals and energy), but also in the social sustainability (Radev et al., 2012). Organic farming also increases the interest in rural areas; the methods and materials that organic farmers use in order to keep and build soil structure and fertility are: crop rotation, the right soil cultivation at the right time, composted and recycled crop wastes and animal manures, mulching on the soil surface and green manures and legumes. In order to control pests, diseases and weeds, the methods and materials are: a good cultivation practice, encouraging useful predators that eat pests, careful planning and crop choice, increasing genetic diversity, crop rotation, using natural pesticides, and the use of resistant crops. A good practice of organic farming also involves

a careful use of water resources and a good animal husbandry.

Moreover, the main objective of ecological food system is to produce cleaner food according to environmental conservation and development, using safe methods in correlation with nature and its systems (Manole, 2006). Organic farming has a small share in the Romanian agriculture, in terms of agricultural area and livestock production, however Romania has a high potential for developing the organic farming sector (Ion Andreea-Raluca, 2012).

This paper aims at answering the question how large is the organic farming sector in Romanian agriculture. In pursuing this, statistical data regarding agricultural areas and livestock under organic farming were gathered and analyzed.

MATERIALS AND METHODS

In order to analyze the organic farming sector in Romania, the following indicators were used: area under organic farming (hectares), area under organic farming, by category of use (percentage), area under organic farming, by main plantations and crops (hectares), evolution of livestock under organic farming (heads). For analyzing how large the organic farming sector is, we used data collected from the Ministry of Agriculture and Rural Development (MARD) and the European Commission (Eurostat), and the period analyzed was 2002-2012. The data collected has been statistically processed and interpreted, building the trend line and setting up the forecast for the next years.

According to Eurostat in 2011, the EU27 had a total area of 9.6 million hectares cultivated in accordance with the organic farming rules, up to 5.7 million in 2002. It increased by 1.6%, during the last decade. Although the whole organic area represents only 5.5% of the total utilized agriculture area in EU, we can say that is a significant increase. The European Commission provided Eurostat data which shows that in 2012 the area under organic farming is 5.7% of utilized agriculture area in EU27, which increased by 0.2% than 5.5% in 2011.

In Romania, agriculture is now one of the major branches of the Romanian economy. The contribution of agriculture, forestry, fisheries in gross domestic product, stands around 6% of GDP and the EU Member States stands at about 1.7%, according to INS Bucharest.

In Romania, in 2013, according to MARD, the total area cultivated in accordance with the organic farming rules, was of 301,148 hectares. In 2003 the surface was 56.800 hectares, which means that it increased 5 times between 2003-2013 (Table 1).

Table 1. Evolution of land under organic farming, in Romania, 2003-2013 (hectares)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
56,800	73,300	92,770	107,582	131,401	140,132	168,288	182,706	229,946	288,261	301,148

Figure 1. View from a land under organic farming

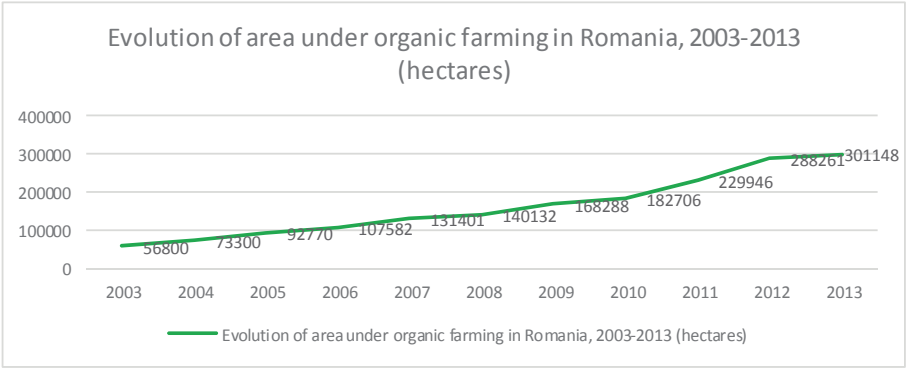

Figure 2. Evolution of area under organic farming in Romania, 2003-2013 (hectares)

In Figure 2, we can see that during 2003-2013, the evolution of area under organic farming in Romania has increased, mainly because the farmers were attracted to invest in organic farming, due to the satisfactions they can later obtain.

In 2012 Romanian agriculture area was 14,615.1 thousand hectares, of which 64.26% arable land, 22.38% pasture, 10.57% meadows, 1.44% vineyards and nurseries, and 1.35% orchards and nurseries, according to INS Bucharest (Figure 3).

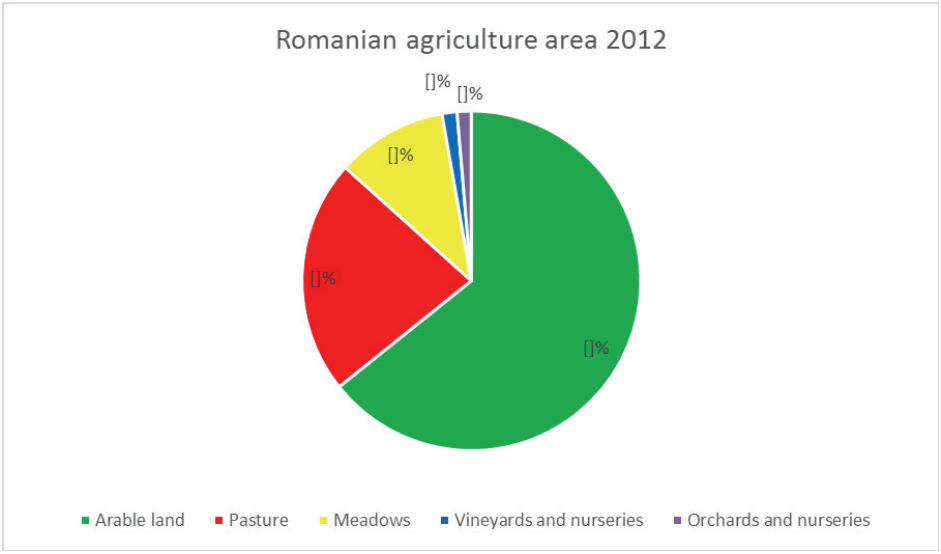

Figure 3. The Romanian agriculture area under organic farming, by category of use, 2012

In Table 2 surfaces of cereals under organic farming increased almost seven times during 2006-2013. Wheat is grown on more than half of the area occupied by cereals. Areas planted with roots, permanent orchards and vineyards become larger almost every year. Surfaces planted with dried pulses, fresh vegetables and permanent pastures, vary from year to year.

Table 2. Evolution of land under organic farming, in Romania, 2003-2013 (hectares)

Plantation/Crop	2006	2007	2008	2009	2010	2011	2012	2013
Cereals	16,310	32,222	56,337	63,446	72,298	79,167	105,149	109,105
- Wheat	11,965	18,418	36,137	38979	39,159	40,529	56151	-
Dried pulses	7,777	1,394	870	6,088	5,560	3,147	2,764	2,397
Roots	29	45	407	435	504	1,075	1,125	741
Fresh vegetables	727	310	259	344	734	914	896	1,068
Permanent pastures	51,200	57,611	46,007	39,233	31,579	78,198	105,836	103,702
Permanent orchards and vineyards	294	862	1,551	1,870	3,093	4,167	7,781	9,400

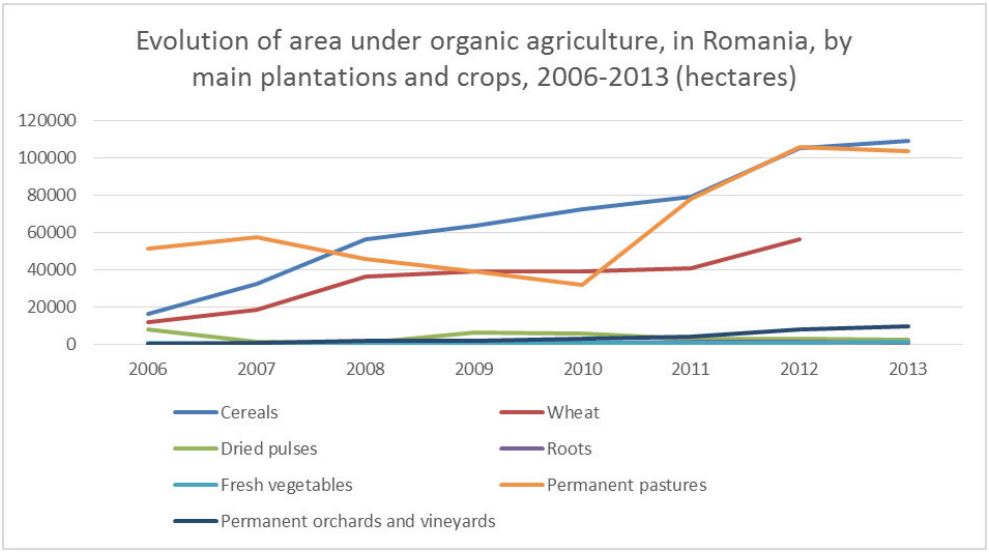

Figure 4. Evolution of area under organic agriculture, in Romania, by main plantations and crops, 2006-2013

In Figure 4 we can see the evolution of the area under organic agriculture, in Romania, by main plantations and crops. The highest increase was registered by cereals, especially wheat. In 2006, the wheat crop was 11,965 hectares and in 2012 it was 56,151 hectares. It means that wheat crop increased almost five times during 2006-2013.

In Table 3 we can see the evolution of livestock under organic farming in 2006-2012. As we can see in this table, the livestock under organic system is depends on the species. The number of sheep decreased with 60% during 2006-2012, but also had one of the largest oscillations from this sector. The number of cattle, swine and goats, vary from year to year. The number of bees and poultry are the ones which increased significant during the analyzed period.

Table 3. Evolution of livestock under organic farming, in Romania, 2006-2012 (heads)

Species	2006	2007	2008	2009	2010	2011	2012
Sheep	86,180	59,680	121,175	51,470	18,883	27,389	51,722
Bees	30,796	37,260	52,599	59,414	64,836	77,994	85,225
Cattle	11,365	6,985	7,567	8,145	5,358	6,894	7,044
Poultry	4,300	4,320	6,080	9,400	21,580	46,506	60,121
Swine	1,652	1,174	416	603	320	414	344
Goats	117	215	4,296	4,738	1,093	801	1,212

RESULTS AND DISCUSSIONS

Currently, Romanian agriculture is one of the most important sectors of the Romanian economy. The contribution of agriculture, forestry, gross domestic product in Fisheries, stands around 6% of GDP. Sector represented agriculture occupies a small share of Romanian agriculture.

The data supplied from European Commission and MAPDR reveals the increasing importance of the organic sector and the positive evolution of areas under organic farming like cereals (especially wheat)

Areas planted with roots, permanent orchards and vineyards become larger almost every year. The number of bees and poultry are the ones which increased significant during the analyzed period. All of this are proves that the organic This shows potential and initiative of development in Romania. Both land areas under organic farming and the number of animals under organic farming increased in the investigated period (with minor exceptions). The trend is increasing and the perception of this sector as an alternative activity and income source is positive. Every farmer knows that his organic products will bring an added value.

In Romania, in 2013, there were 15,194 operators practicing organic agriculture. In 2010, their number was 3,155, which means that in 2010-2013, the number of operators increased almost five times. This increase is due to increasing awareness and information on the notion of agriculture and organic products.

Table 4. Evolution operators under organic farming, in Romania, 2010-2013 (heads)

	2010	2011	2012	2013
Operators under organic farming	3,155	9,703	15,544	15,194

CONCLUSIONS

The organic sector in Romania is highly increasing from year to year, and is characterized by diversity. This sector has an insignificant weight in agro-food system, regarding agricultural area and livestock production. However, it has a high potential of development due to accelerated growth of indicators. This sector can bring significant contribution to a sustainable development, and can increase the economic activities, thanks to the significant added value of the organic products. The premium price of organic products is paid by people from countries where there is a sizeable middleclass in the population, and where consumers are more educated and informed of food issues, and they incline to buy organic products, whether for food safety, concern over the environment or health reasons. The organic market is increasing, and is characterized by diversity from year to year and the supply of products on the market. The demand for certified organic products is growing in Europe, because the consumers are more educated. However, consumption of organic products in Romania still remains at a low level compared with other European countries - which is determined mainly by the low purchasing power of the population and additional price difference of about 20-40% compared to conventional products (eco products consumption in Romania, representing about 1% on total consumption of products, while the European average is 3-5%). Even in these circumstances, with the appropriate information and pro-motion, designed to increase public awareness regarding organic products, Romania could significantly increase market share and attractiveness of the organic products.

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REFERENCES

Atasanev Y., 2014. A comparation of organic farming support polices in Turkey and the EU. Review of Research and Social Intervention, Vol. 44, Expert Projects Publishing House, 199-211.

Ion R.A., 2012.Analysis of Organic Farming Sector in Romania. Review on International Comparative Management, Vol. XIII, Issue 3, ASE Editorial, Bucharest, 449-455.

Rade V.T., Borisov P., Nikolov D., 2012. Policy intervention effects on landscape management in Bulgaria. European Association of Agricultural Economists, 2nd Seminar, Skopje, 1-11.

Todorova S., Ikova J., 2014. Multifunctional Agriculture: Social and Ecological impacts on the organic farms in Bulgaria. Procedia Economics and Finance 9, Vol. 9, Elsevier Ltd, Greece, 310-320.
Voicilas D.M., Alboiu C.F., 2014. Applied EU quality schemes and organic products on Romanian Market. Economics of agriculture, Vol. 61, No. 2, Issue 2014-06, Balkan Scientific Association of Agrarian Economists, Belgrade, 381-395.
Voicilas D.M., 2009. New challenges for Romanian agriculture – Organic farming. Institute of Agricultural Economics, Vol. 6, Issue 2009, Balkan Scientific Association of Agrarian Economists, Belgrade, 125-142.
***Ministry of Agriculture and Rural Development, Romania (2013).
*** EUROSTAT, European Commission (2012).
***The World of Organic Agriculture. Statistics and Emerging Trends 2007, Edited by Helga Willer & Minou Yussefi.
***European Commission, Agricultural and Rural Development (2012) - An analysis of the EU organic sector.