# STUDY REGARDING THE EVOLUTION OF ORGANIC FARMING IN ROMANIA

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***Abstract:*** *Organic farming appeared as an alternative to intensive farming. This type of agriculture implies the use of a set of techniques and practices that result in yield that provide the necessary foods for the population taking into account sustainable use of resources. This study presents the results of an analysis regarding the evolution of organic farming in Romania during 2007-2013, emphasising the number of economic actors operating in organic farming, areas cultivated in an organic system, and the main organic crops. The main conclusion of the study is that organic agriculture is a dynamic sector of Romanian agriculture with an ascending trend in the last years, with true opportunities for development through the conversion of the farming system specific to subsistence agriculture into organic farming.*

***Key words:*** organic farming, development, yield

## INTRODUCTION

The evolution of society causes increasing demands and changes that materialise in all fields of activity, mainly in agriculture. As a result of the increasing demand for foods and of the need for higher and higher profits, agriculture has distanced from nature in parallel with the evolution of science and technology, which made it appeal to mechanisation, chemisation, irrigation, and genetic engineering. In this context, agriculture has become a major pollutant of the environment, which results, sooner or later, into intensification of destructive phenomena – flooding, landslide, avalanches, decrease of natural soil fertility, desertification, pollution, etc., as well as disease outbursts that affect all vegetal, animal, and human immune systems. [1]

Increasing productivity in agriculture has made it possible to reduce the number of people employed in agriculture; however, energy inputs (fuel for agricultural machinery, for irrigation systems, industrial manufacture of pesticides and commercial fertilisers, electricity for automated feeding and raising of livestock) increased significantly. The most unwanted effects have been caused by the wide use of chemical treatments on all types of crops. [2]

The role of the organic farming system is to produce cleaner food, more suitable to human metabolism, in full agreement with environmental conservation and development while fully observing natural laws. One of the main goals of organic farming is to produce foods with genuine, attractive taste, flavour and texture. These foods can be produced at farm level through strict defence of genetically modified organisms (GMOs and their derivatives) and through drastic restrictions regarding the use of synthesis fertilisers and pesticides, of growth enhancers and regulators, of hormones, antibiotics, and intensive livestock raising systems. [7,8]

The relationship between agriculture, nutrition and health is increasingly obvious since most diseases of modern civilisation are caused by improper nutrition (quantitatively and qualitatively) as a result of excessive use of chemicals in intensive farming: hence, the increasing interest in and appreciation of organic, "bio" products on the market. [3,6]

Thus, organic farming has become a modern practice whose results rely on scientific data that develop a new conception of life, work, and agriculture with increased

effectiveness and that can ensure produce in agreement with consumers' over particular demands. This is of great importance for long-term economic development since it plays a major role in the improvement of environmental quality. [4]This type of farming can contribute to rural development making it viable through the expansion of economic activities with great added value and through the generation of jobs. Romania can valorise the advantage of less polluted soils by activating one of the engines of our economy – organic farming. Entrepreneurship generates prosperity in society: it is a determining element in economic increase and in the generation of jobs. Supporting entrepreneurship in organic farming can be a solution for the re-launch of national agriculture and for the alleviation of poverty. Encouraging the establishment or the development of a business in this field should become a priority in Romania where 45% of the population live in the rural area.

## MATERIALS AND METHODS

The following have been used as bibliographical and information sources in the field of organic farming: specialty books published in Romania and abroad by authors acknowledged nationally and internationally, articles published in national and international databases, as well as publications of certain institutions such as *Monitorul Oficial* or the Ministry of Agriculture and Rural Development. Data thus collected were analysed in various way to capture the evolution of the phenomenon and draw proper conclusions. To process data and to render them graphically, we used the Microsoft Excel Programme.

## RESEARCH RESULTS

"Organic farming" is a term protected and attributed by the European Union to define this farming system: other Member-States us its synonyms "ecological farming" and "biological farming".

The role of organic farming is to produce cleaner, more fitted food for the human body, in perfect agreement with environmental conservation and protection. One of the main goals of organic farming is to produce fresh, genuine foods that observe natural and environmental factors. In organic food processing, it is forbidden to use food additives, complementary substances and synthesis chemicals. Organic farming contributes largely to the sustainable development of agriculture, to the increase of economic activities with important added value, and to the increase of the interest in rural development.

The objectives, principles and norms of organic farming are covered in both European Community and Romanian legislation in the field. These norms, together with the definition of the production method in vegetal, animal and fishery sectors also regulate the following aspects of organic farming: processing, labelling, trade, import, inspection, and certification.

All economic actors, be they producers, processors, importers or exporters, operating in organic farming are compelled to register with the Ministry of Agriculture and Rural Development before starting working. The registration procedure is regulated by Order no. 1253/2013 regarding the registration of organic farming operators, with later additions and modifications [9].

In Romania, in 2010, the number of organic farming operators registered with the Ministry of Agriculture and Rural Development was 3,155; it increased gradually to 15,194 and then decreases to 10,562 in 2016 (Table 1, Figure 1). The number of organic farming operators increased with 300% in 2011 compared to 2010 due to the subsidies for conversion farms (passage from conventional to organic farming) in 2011.

**Table 1**

**Evolution of certified organic farmers and of total organic area in Romania**

| Specification | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of certified organic farmers | 3834 | 4191 | 3228 | 3155 | 9703 | 15544 | 15194 | 14470 | 12231 | 10562 |
| Total organic area (ha) | 123666 | 1333979 | 1511116 | 182706 | 229946 | 288261 | 301148 | 289252 | 245924 | 226309 |

*Source: MADR – Agricultura eologică, 2018 [9]*

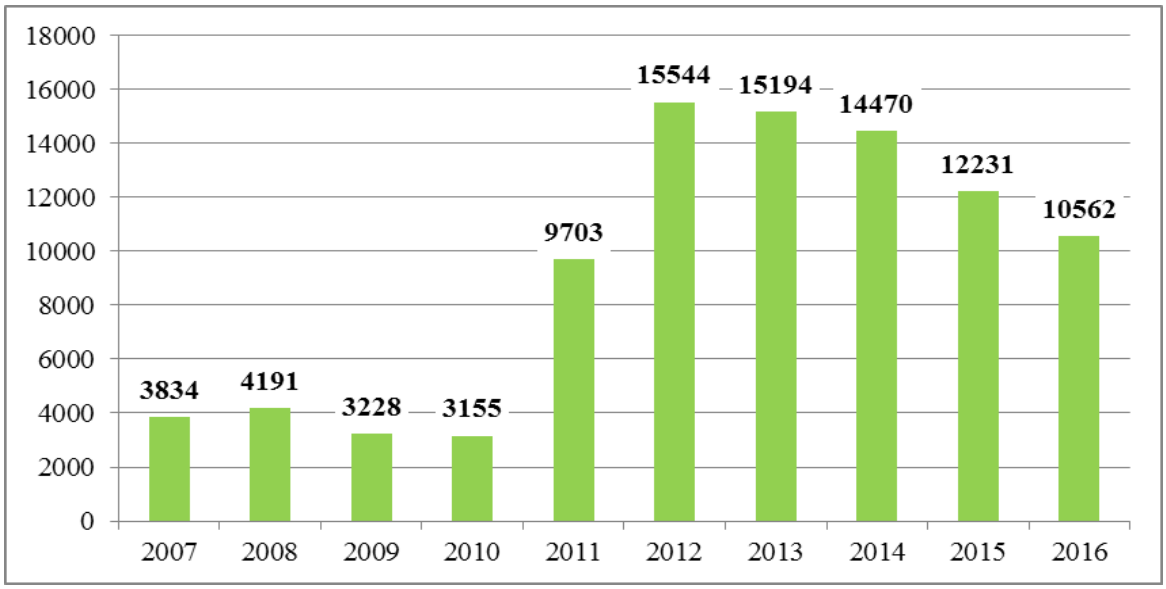


**Figure 1. Number of certified organic farmers in Romania**

In 2007, total cultivated organic area was 123,666 ha; it reached a peak in 2013 with 301,148 hectare, to decrease considerably after.

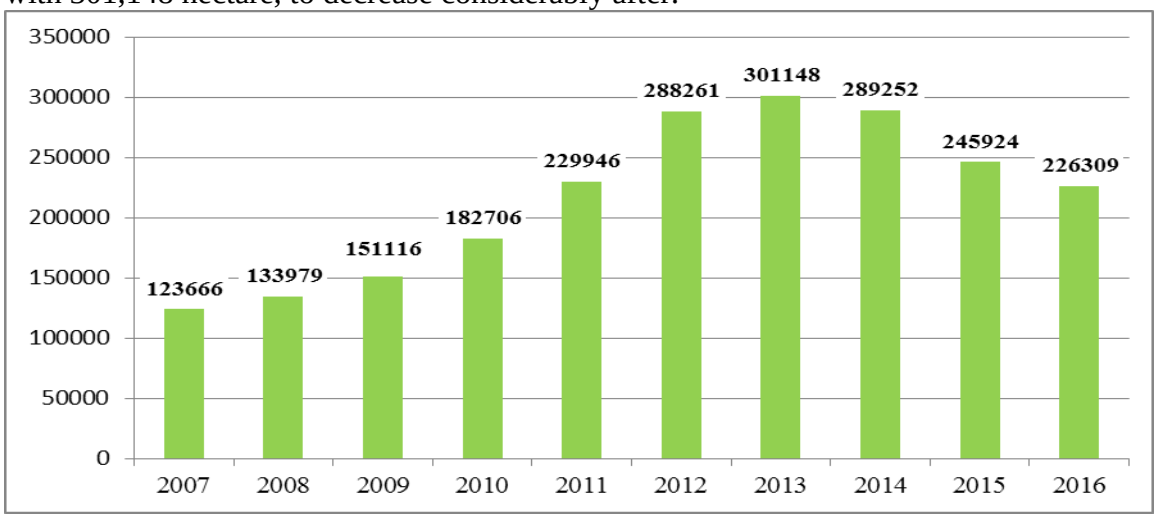


**Figure 2. Total organic crops in Romania (ha)**

In 2016, he areas cultivated with cereals shared most or organic areas (75,198.31 ha), followed by grasslands and haymaking fields (57,611.65 ha). Areas cultivated with fruit trees and vine shared only 12,019.81 ha, while vegetables shared less (1,210.08 ha).

**Table 2**

**Main organic crops in Romania (ha)**

| Specification | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Cereals | 72297,8 | 79167 | 105149 | 109105 | 102531,47 | 81439,5 | 75198,31 |
| Dried and protein grain legumes | 5560,22 | 3147,36 | 2764,04 | 2397,34 | 2314,43 | 1834352 | 2203,781 |
| Total tuber and root crops | 504,36 | 1074,98 | 1124,92 | 740,75 | 626,99 | 667.554 | 707,026 |
| Industrial crops | 47815,1 | 47879,7 | 44788,7 | 51770,8 | 54145,17 | 52583,11 | 53396,86 |
| Green harvested crops | 10325,4 | 4788,49 | 11082,9 | 13184,1 | 13493,53 | 13636,48 | 14280,55 |
| Other crops on arable lands | 579,61 | 851,44 | 27,77 | 263,95 | 29,87 | 356,22 | 258,47 |
| Vegetables | 734,32 | 914,08 | 896,32 | 1067,67 | 1928,36 | 1210,08 | 1210,08 |
| Permanent crops: orchards, vineyards | 3093,04 | 4166,62 | 7781,33 | 9400,31 | 9438,53 | 11117,26 | 12019,81 |
| Permanent crops: grasslands and haymaking fields | 31579,1 | 78197,5 | 105836 | 103702 | 95684,78 | 75853,57 | 57611,65 |
| Uncultivated lands | 10216,8 | 9758,55 | 8810,73 | 9516,33 | 9058,66 | 7225852 | 9457,2 |
| **Total** | **182706** | **229946** | **288261** | **301148** | **289252** | **245924** | **226309** |

*including cereals and legumes

*Source: MADR – Agricultura ecologică, 2018 [9]*

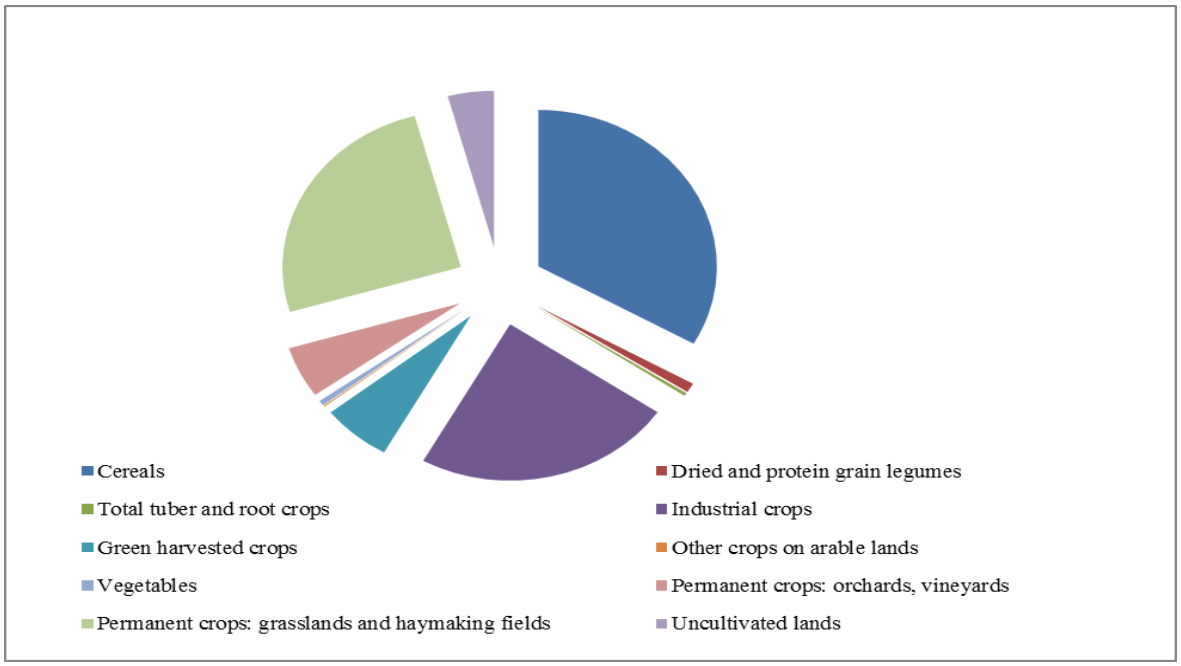


**Figure 3. Structure of organic crops in Romania in 2016**

## CONCLUSIONS

- Organic farming belongs to the future because the demand for healthy organic foods (both domestic and foreign) is increasing and because it promotes sustainable, diversified and balanced agricultural practices that prevent pollution and protect the environment;
- Agriculture plays two important roles: it produces food for the population and it manages rural areas (because it models the diversity of natural landscapes and harbours rich, varied flora and fauna): organic farming is the type of agriculture that can harmonise both;
- Organic farming is a dynamic sector in Romania: its trend in the last years was an ascending one since the number of certified organic farmers increased from 3,834 in 2007 to 10,562 in 2016: this sector can develop through the conversion of subsistence farms into organic farms while opening to the modern market (passage from conventional to organic farming and from subsistence farming to commercial farming).

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