

Angelescu, Anda-Irina; Alecu, Ioan Niculae; Badea, Adriana

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ORGANIC FARMING, A VIABLE AND FEASIBLE COMPONENT OF THE ROMANIAN AGRICULTURE

ANGELESCU ANDA-IRINA¹, ALECU IOAN-NICULAE², BADEA ADRIANA³

Summary: *Taking into account the fact that organic farming is not a miracle, but a tangible reality of our days, a trend with more and more followers within the producers and consumers, this paper is included within those trying to demonstrate once more that for Romania also, the organic farming is a viable alternative to the traditional farming that leads in time to the degradation of soil and water resources, to air pollution, degradation of population health etc. By using as working method the direct observation without intervention and consulting specialized reference sources, we have tried to select the most important definitions for the Romanian organic farming. We have also specified the objectives and principles of the organic farming and we have made a selection of the most important legal regulations on which the environment-friendly production is based, both at Community level and at national level. The analysis of the organic farming in Romania also showed that a process of institutional strengthening and development is currently undergoing for the organic farming, as in all the other countries, and the Ministry of Agriculture and Rural Development, by its actions, puts the organic farming in the centre of the development of the Romanian agriculture. As such, the evolution of this sector from one year to another was dynamic, with a steady pace growth of the eco-cultivated areas and of the number of animals resulted from organic livestock breeding. The analysis performed entitles us to consider that the organic farming is an inadequately capitalized opportunity for Romania that could place the country as a front-runner on the European market.*

Key words: *Organic farming, conventional farming, resources, regulations, conversion.*

INTRODUCTION

Although many authors consider that organic agriculture has emerged in Europe as an expression of the lack of faith of people in the food safety measures and as a result of the diseases related to the consumption of contaminated products, the many problems discovered in the last decades lead to the acceptance of the organic farming as the single viable alternative for the production of healthy food and for a sustainable environment protection.

The most important issues for the followers of organic farming and not only are the following:

- Contamination of groundwater and surface waters;
- Alteration of the biological balance by: the occurrence of new diseases, invasion of existent pests, climate heating, disappearance of some pollinating insects, impairment of the wild fauna;
- Air and soil pollution;
- Desertification,
- Decrease of genetic diversity of plants and animals;
- Decrease of the food product quality;
- Population health.
- Problems in the rural society.
- At international level, we can speak about the gap between the developed countries, with a high yield commercial agriculture and the underdeveloped countries with subsistence farming mainly with monocultures.

This is why the main purpose of the organic farming is to settle sustainable, diversified and balanced agricultural systems that protect the natural resources and the consumers' health, emphasizing the natural quality of the products, the quantitative and productivity issues taking a secondary place.

¹ Angelescu Anda-Irina, engineer, Ph.D student, U.S.A.M.V. Bucharest, anda_irina@yahoo.com

² Alecu Ioan-Niculae, professor, Ph.D., U.S.A.M.V. Bucharest, alecuioannicolae@yahoo.com

³ Badea Adriana, engineer, Ph.D student, U.S.A.M.V. Bucharest, badea_adriana09@yahoo.com

MATERIAL AND METHOD

Organic farming is an important component of a sustainable agriculture, contributing to the long-term evolution of the rural space. The effects of introducing this agricultural system are reflected in the sustainable development of the environment, in the rural economy and the society, in general. This article also represents an analysis of the evolution of the eco-cultivated areas, of the number of animals resulted from organic livestock breeding and of the number of operators operating in this field, from 2000 to 2013, based on the statistic data supplied by the Ministry of Agriculture and Rural Development (MARD).

RESULTS AND DISCUSSIONS

Over time, several experts tried to define as exactly as possible the organic farming, and it may be defined as follows:

- “The system that promote the land cultivation by means capable to maintain a balance between the agro-ecosystems and the environment, generating specific agro-climaxes, in favour of preserving all the positive elements and processes included in the contemporary and future agricultural systems”;
- “Holistic production management system that favours the health of the agro-ecosystem, biodiversity, biological cycles and biological activity of the soil;
- “A rational, smart management using all the possibilities offered by the contemporary civilization of the national wealth, environment in favour of agriculture and people”;
- “The production management system that is aimed to the promotion and improvement of the system health, including the biological cycles and the biological activity of soil”;
- “A sum of agricultural techniques based on the natural interaction between the living organisms, soil and water conditions and human actions from which the use of chemical synthesis products is excluded”;

These definitions prove that most of the experts think that the *organic farming* is, on the one hand, a component of the sustainable agricultural system, and, on the other hand, it represents a fair alternative to the *intensive, industrial type conventional farming*. It is also unanimously accepted that the conventional farming proves with each day its limits and shortcomings regarding the quality of the products obtained and the negative effects on the environment, as a result of the use of some important quantities of chemical substances (chemical fertilizers and pesticides).

The organic farming system is based on crop rotation and biological plant protection measures, excluding the use of artificial fertilizers, pesticides, growth hormones and additives in the feeding stuff. Thus, the fundamental objective of the organic farming is to protect the consumer of agricultural goods and the environment. Some of the other objectives of the organic farming are as follows:

- Increase the biodiversity of the entire system;
- Stimulate the biological activity of the soil and preserve its fertility on long term;
- A better recycling of vegetal and animal origin waste with the aim of restoring the nutrients of the soil;
- Diminish, as much as possible, the use of exhaustible resources;
- Large scale use of renewable resources in the agricultural systems, at local level;
- Diminish all types of pollution resulted from growing plants and breeding animals, thus promoting the rational use of soil, water and air;
- Contribute to the animal welfare;
- Obtain healthy and high nutritional quality products;
- Highest respect for the consumer, environment and farmer;
- Optimize local resources and potential;

- Carefully handle agricultural products and use the most adequate processing methods with the aim of preserving in all stages the environmental integrity and the essential quality of the product.

The core principles of the organic agri-food production are:

- Eliminating pollutant technologies, genetically modified organisms and their derived products, except some medicinal products for veterinary use;
- Choosing some production structures and creating crop rotations that mainly use species, varieties and breeds with high resistance and adaptability;
- Using proper crop rotations and natural organic fertilizers with the aim of improving the natural soil fertility);
- Saving the conventional sources of energy and their replacement, at a larger scale, with the rational use of unconventional energy and of the by-products;
- Implementation of animal breeding technologies that satisfy the physiological and behavioural necessities of species and breeds and that ensure the animal welfare.

Legal regulations and methods to support the organic farming

At international level, an important role has the International Federation for Organic Agriculture Movement (IFOAM) that prepared a standard for the biological production. It was translated in 19 languages and distributed globally. IFOAM has a magazine (*Ecology & Farming*) that appears four times per year and specialized working groups, being represented (for consultation) at UNO and FAO.

The organic farming represents the return to the values of the traditional farming, but not to its methods, and EU prepared production standards for the organic farming.

In the European Union, an important part in the development and promotion of organic farming plays the financial aid awarded by the governments for the promotion of this production system.

We can mention several regulations aimed especially to the awarding of financial aid for the promotion of organic farming, such as:

- Regulation (EC) No. 232/91 on the improvement of the efficiency of agricultural structures;
- Regulation (EC) No. 2078/92 on the agro-ecological measures;
- Regulation (EC) No. 3669/93 for the amendment of Regulation (EC) No. 886/90 on the improvement of agricultural produce processing and marketing conditions; organic farming is one of the priorities for eligible investments of the aids;
- Regulation (EC) No. 208/93 and No. 2085/93 favour the establishment of structural funds aimed to rural development by which the obtaining of high quality agricultural products, such as organic products, is supported.

Council Regulation (EEC) No. 2092/91 is supplemented by a proposal including a framework regarding organic zootechnics for the accomplishment of a balanced production, taking into account the environmental protection standards.

As regards the support, it is of several types:

a) **Direct support of the farms**, as reconversion aids, aimed to support this difficult stage from a technical, economic, and financial point of view.

b) **Technical assistance aids** are the most common means in the European countries for promoting and supporting this production system. They include specific popularisation services, subsidies granted by some professional associations to the experts etc.

c) **Education and training** as courses and specific training modules, adapted to the organic farming with different training stages.

d) **Research in the field, pilot projects for the improvement of agri-food product quality etc.**

Compared to what is happening at the European level, organic farming is a relatively new field for the farmers in our country, but of great perspective in the context of the Romanian efforts to align to the standards for agriculture in the European Union.

The potential of the Romanian agriculture to obtain organic products is, according to the experts' assessments, of minimum 15 % of the agricultural area of the country, because many agricultural lands have not been fertilized or chemical treated for years, and the natural conditions and the existent resources are in favour of using the organic farming.

In Romania, the legal basis for organizing the production and marketing of organic products is the Emergency Government Ordinance No. 34/2000, approved by Law No. 38/2001 and by the Government Decision 917/2001 establishing the Implementing rules for the enforcement of the provisions of EGO No. 34/2000.

The national legislative framework also includes the following regulations:

- Order No. 317/190 dated May 11, 2006 on the amendment and supplementation of Annex to the Order of the Minister of the Agriculture, Food and Forestry and of the President of the National Agency for the Consumer Protection No. 417/110/2002 for the approval of the Specific rules for the labelling of organic foodstuff
- Order No. 219/March 21, 2007 for the approval of the Rules for the registration of organic operators
- Order No. 35/February 9, 2009 for the amendment and supplementation of Order No. 219/2007 for the approval of the Rules for the registration of organic operators
- Order No. 407/June 23, 2009 on the amendment and supplementation of the Order of the Minister of the Agriculture, Forestry and Rural Development No. 219/2007 on the approval of the Rules for the registration of organic operators.
- Order No. 4/January 8, 2010 on the amendment and supplementation of the Order of the Minister of the Agriculture, Forestry and Rural Development No. 219/2007 on the approval of the Rules for the registration of organic operators.
- Decision No. 759/July 21, 2010 with the subsequent amendments and supplementations on the awarding of specific aids for the improvement of the quality of organic agricultural goods
- Order No. 252/2010 on the amendment of the Order of the Minister of Agriculture, Forestry and Rural Development No. 219/2007 for the approval of the Rules for the registration of organic operators.
- Decision No. 1095/2010 for the amendment of the Government Decision No. 755/2010 on the specific aid scheme for the cow's milk producers in the disadvantaged areas and of the Government Decision No. 759/2010 on the awarding of specific aids for the improvement of the quality of organic agricultural goods
- Decision No. 1095/2010 for the amendment of the Government Decision No. 755/2010 on the specific aid scheme for the cow's milk producers in the disadvantaged areas and of the Government Decision No. 759/2010 on the awarding of specific aids for the improvement of the quality of organic agricultural goods
- Decision No. 1303/December 15, 2010 for the amendment and supplementation of Government Decision No. 755/2010 on the specific aid scheme for the cow's milk producers in the disadvantaged areas and of the Government Decision No. 759/2010 on the awarding of specific aids for the improvement of the quality of organic agricultural goods.
- Order No. 17/January 20, 2011 on the approval of abatements and exclusions applicable to the payment claims related to the specific aid for improving the quality of organic agricultural goods.
- Decision No. 590/June 8, 2011 for the amendment and supplementation of Government Decision No. 759/2010 on the awarding of specific aids for improving the quality of organic agricultural goods.
- Order No. 147/June 16, 2011 for the amendment of Annex to the Order of the Minister of Agriculture and Rural Development No. 17/2011 on the approval of abatements and exclusions

applicable to the payment claims related to the specific aid for improving the quality of organic agricultural goods,

- Order No. 181/August 16, 2012 on the approval of the Rules for the establishment of the inspection and certification system for organic farming.
- Order No. 187/August 24, 2012 on the supplementation of the Order of the Minister of Agriculture, Forestry and Rural Development No. 219/2007 for the approval of the Rules for the registration of organic operators.
- Decision no. 911/September 5, 2012 for the amendment of the Government Decision No. 759/2010 on the awarding of specific aids for improving the quality of organic agricultural goods and for the amendment and supplementation of Government Decision No. 796/2012 on the specific aid scheme awarded to beef and cow's milk producers in disadvantaged areas
- Decision No. 131/March 27, 2013 on establishing the necessary measures and sanctions in view of observing the provisions of Council Regulation (EC) No. 834/2007 dated June 28, 2007 on the organic farming and the labelling of organic products, as well as for repealing Regulation (EEC) no. 2.092/91.
- Order No. 378/May 23, 2013 on the amendment and supplementation of the Order of the Minister of the Agriculture, Forestry and Rural Development No. 219/2007 on the approval of the Rules for the registration of organic operators.
- Order No. 383/May 23, 2013 on the amendment of Annex No. 8 to the Order of the Ministry of Agriculture and Rural Development No. 181/2012 on the approval of the rules for the establishment of inspection and certification system for the organic farming.
- Decision No. 418/June 26, 2013 for the supplementation of Government Decision No. 759/2010 on the awarding of specific aids for improving the quality of organic agricultural goods
- Order No. 1253/November 6, 2013 for the approval of the Rules for the registration of organic operators
- Order No. 987/2014 - on the amendment and supplementation of the Order of the Minister of Agriculture and Rural Development No. 1.253/2013 on the approval of the Rules for the registration of organic operators, published in the Official Gazette, Part I, No. 454 dated June 20, 2014.

According to the applicable laws, any farmer who wants to apply the organic farming and to be recognized as an organic producer has to observe rules and a legal system regarding inspection that takes into account the followings:

- Familiarity with and enforcement of organic production rules and principles;
- Registration of the organic farming activity at the level of the Ministry of Agriculture and Rural Development;
- A period of conversion from the conventional production to the organic production;
- Control by an inspection and certification body authorized by MARD (13 inspection and certification bodies, approved by MARD are currently operating, according to the national and Community laws for organic farming);
- Labelling of organic products;
- Marketing on the domestic or foreign markets only according to the laws.

The conversion from the conventional farming to the organic farming takes time, covering a transition period named "*conversion period*". This is the period the farmers have for adapting the farm management to the rules of organic farming.

The duration of the conversion period for crop, animal and apiculture production is:

- 2 years for annual field crops;
- 3 years for perennial crops and plantations;
- 2 years for grasslands and fodder crops;
- 12 months for beef cattle;
- 6 months for small ruminants and pigs;
- 6 months for dairy animals;
- 10 weeks for meat production poultry purchased at the age of 3 days;

- 6 weeks for egg production poultry;
- 1 year for bees, if the family was purchased from a conventional apiary.

For crop production, the conversion period is of at least 2 years, prior to seeding and planting, or, in case of perennial crops, except pastures, of at least 3 years prior to the first harvesting of products.

Any organic operator (producer, processor, and importer) has to promote his activity by filling in the Organic farming registration forms. They are available at the County Agricultural Directorate in the area where the producer operates, at the organic farming county officers. This organic farming registration procedure is regulated by the Order No. 219/2007 on the approval of the Rules for the registration of organic operators, with the subsequent amendments and supplementations. All these control and certification procedures are strictly applied in order to ensure the observance of the organic production methods.

Evolution of organic farming in Romania

EU Organic farming has rapidly grown in the last decade, all the European Union countries showing a real *will to develop a field* that, according to the assessments, will have, on short term, more than 10 % of the crop area, approximately 20 % of the agri-food production system and more than 5 % of the system turnover.

In this context, the Romanian consumers are growingly acknowledging that the organic products have a higher nutritional value and quality than those obtained through conventional methods. Besides this important issue, taking into account its importance for the population health, we have to mention its major contribution to the sustainable development, by not using chemical synthesis substances and the observance of animal welfare standards.

Considering all these issues, we can indicate that organic farming had an extremely dynamic evolution in Romania, with a weighted average rate of annual increase of 23 %. In a period of 14 years, the eco-cultivated areas have increased by 19.3 times, from 17,388 ha in 2000 to 336,700 ha in 2013 (table no. 1). The areas certified for wild growing flora harvesting have grown spectacularly, from 50 ha in 2000, to 1,200,000 ha in 2013, meaning an increase by 24,000 times.

Table no. 1 - Evolution of eco-cultivated areas (hectare)

Year	2000	2001	2002	2003	2004	2005	2006
Total of eco-cultivated areas (ha)	17,388	28,700	43,550	56,800	73,300	92,770	104,494
Wild growing flora harvesting (ha)	50	100	300	400	500	17,360	38,700
Year	2007	2008	2009	2010	2011	2012	2013
Total of eco-cultivated areas (ha)	131,448.9	140,132.17	168,288.23	182,705.69	229,947.16	288,260	301,148
Wild growing flora harvesting (ha)	58,728	81,279	88,883.4	77,294.35	338,051	1,082,138	1,200,000

(data source: MARD)

As regards structure of crops in eco-cultivated area, it can be noticed that the areas with cereals have increased by 32 times, from 4,000 ha in 2000 to 129,493.6 ha in 2013 (table no. 2). The areas certified for fruit-bearing trees and vine have grown from 50 ha in 2002, to 18,068.8 ha in 2013, meaning an increase by 361 times (the biggest growth in structure of crops). Vegetables have grown from 38 ha in 2000, to 3,011.4 ha in 2013, meaning an increase by 79.2 times.

Table no. 2 - Structure of crops in eco-cultivated area (hectare)

Year	2000	2001	2002	2003	2004	2005	2006
Cereals	4,000	8,000	12,000	16,000	20,500	22,100	16,310
Grassland	9,300	14,000	20,000	24,000	31,300	42,300	51,200
Oleaginous and protein plants	4,000	6,300	10,000	15,600	20,100	22,614	23,872
Vegetables	38	100	700	200	300	440	720
Fruit-bearing trees and vine	-	-	50*	100*	200*	432*	294
Year	2007	2008	2009	2010	2011	2012	2013

Cereals	32,222	56,337	63,440	72,298	79,167	105,148.5	129,493.6
Grassland	57,600	46,006	39,233	31,579	78,198	105,835.5	81,309.9
Oleaginous and protein plants	27,713	25,391	40,295	53,375	51,028	47,552.7	69,294
Vegetables	310	259	344	734	914	2882.6	3,011.4
Fruit-bearing trees and vine	954	1,518	1,869.4	3,093	4,166.6	7,781.3	18,068.8

* Without vine (data source: MARD)

As regards the organic livestock production, it can be noticed that the number of animals resulted from ecological livestock breeding has increased, in general, in the analysed period, but with some fluctuations: in the period 2008-2009 for dairy cows, in the period 2009-2010 for sheep and goats and in the period 2005-2006 for laying hens (table no. 3). For the entire period, the increase of number of dairy cows was by 28.5 times, from 2100 in 2000 to 60,000 in 2012. For sheep and goats, the number has increased by 94.1 times, from 1700 in 2000, to 160,000 in 2012. For laying hens, 2003 is the first year for which M.A.R.D. offers data, when the number of animals resulted from ecological livestock breeding was of 2000. The trend was ascending for this species also, with an increase by 42.5 times, with a total number of 85,000 animals at the end of 2012. In 2013 we have an incomplete data, without animals in conversion.

Table no. 3 - Evolution of the number of animals resulted from organic livestock breeding (animals)

Year	2000	2001	2002	2003	2004	2005	2006
Dairy cows	2,100	5,300	6,500	7,200	7,200	8,100	9,900
Sheep and goats	1,700	3,700	3,000	3,200	3,200	40,500	86,180
Laying hens	-	-	-	2,000	2,700	7,000	4,300
Year	2007	2008	2009	2010	2011	2012	2013*
Dairy cows	6,265	4,297	10,821	12,761	19,487	60,000	10,488
Sheep and goats	78,076	125,471	26,674	57,678	130,015	160,000	83,341
Laying hens	4,720	6,080	7,500	23,740	58,203	85,000	74,220

*organic certified, without animals in conversion (data source: MARD)

As regards the number of operators (producers, processors and dealers, importers and exporters) which are certified for organic farming, the figure 1 indicates that in 2012, 15,544 operators notified the Country Agricultural Directorates regarding their activity within the field of organic farming. According to the data supplied by M.A.R.D., in 2013, on September 30, 2013, the number of operators registered in the organic farming system was of approximately 16,500. The largest increase was registered in 2011, when their number increased by 3.07 times compared to 2010. In 2012, their number increased by 1.6 times compared to 2011 and by 4.92 times compared to 2010.

M.A.R.D. considers that the ascending trend of the number of operators notifying their activity starting with 2010 was due especially to the existent support measures for the conversion period, awarded based on Art. 68 of Regulation (EC) No. 73/2009 on establishing some common standards for the direct support systems for farmers within the Common Agricultural Policy and for establishing some support systems for farmers.

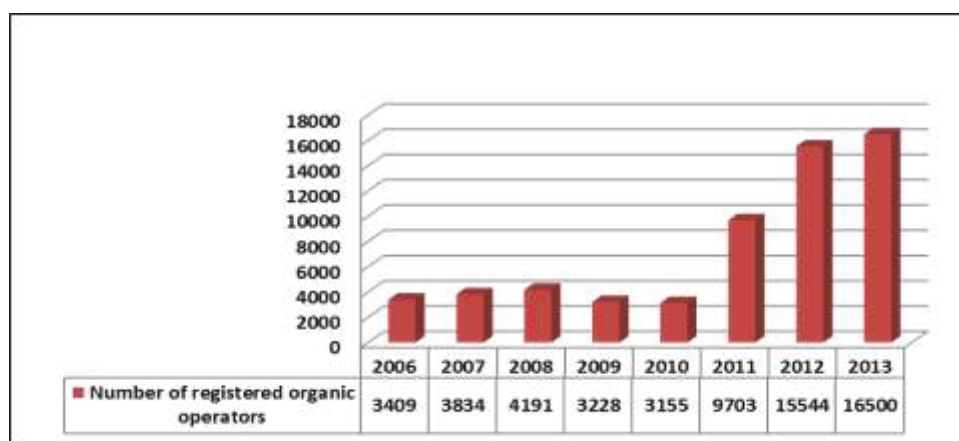


Figure 1 - Evolution of the number of organic operators

CONCLUSIONS

The matters covered in this document lead us to the following conclusions:

1. By its objectives and principles, organic farming represents a component of the sustainable agriculture that is an “*agriculture that is economically viable, environmentally sound and socially just*” aimed to satisfy human needs without destroying the natural resources. Economically viable means that it has to supply the market with the necessary products and to offer the producers a decent standard of living. Environmentally sound means that it produces healthy food products, it does not pollute water and it does not lead to soil degradation. Socially just means that it maintains jobs and develops the area through a better allocation of lands and governmental aids.”
2. The problems occurred at global level in the last decades (ecological imbalances, pollution, increased occurrence of some diseases) led to the acceptance of organic farming as a much healthier alternative to the conventional farming, and a genuine trend of using organic products was created
3. In the European Union, an extremely important role in promoting the organic farming system was played by the regulations for the awarding of financial aids by the governments. These financial aids also led to the increase of the number of organic farming operators in Romania, especially starting with 2010.
4. Although, for Romania, the organic farming is relatively new, its trend in the last years entitle us to state that the importance of using this agricultural system was acknowledged, being assimilated as a solution to the sustainable revitalization of rural area
5. Because Romania has a special potential for continuing the development of this field, it is extremely important to support it by allocating financial support for the organic production and processing.

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