

## EVOLUTION OF ORGANIC AGRICULTURE IN ROMANIA AND ITS IMPORTANCE IN SUSTAINABLE RURAL DEVELOPMENT

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### *Abstract*

*Organic farming uses sustainable production systems, diversified and balanced to prevent environmental and harvest pollution. In this paper I wish to highlight the opportunities arising from the practice of sustainable agriculture and the efficient management of natural resources in Romania. Sustainable rural development can be achieved with the transition from subsistence agriculture to organic agriculture by building and strengthening competitive small and medium enterprises in rural areas. For this we analyzed empirical data provided by the Ministry of Agriculture, Forests and Rural Development and the National Institute of Statistics. The analyzed period covers the years 2006-2011. The organic food market in Romania is contoured by statistical methods and the opportunities and limitations incurred by those who choose this form of exploitation.*

*Key words:* evolution, organic agriculture, Romania, sustainable rural development

### INTRODUCTION

Harmony between the rural economy and the environment has a simple solution – organic farming. Just as we can say that agriculture is the backbone of the rural economy (Otiman P.I., 2006), we can equally say that organic farming is the key component of any sustainable rural development program.

Organic farming is subject to regulation (EC) no. 834/2007 of 28 June 2007 on organic production and labeling of organic products, organic farmers combine the best environmental practices, ensuring a high level of biodiversity, are concerned about the preservation of natural resources, applying high standards on animal welfare and using a production method involving only natural substances and processes. Thus, the organic production method plays a dual societal role, as it on one hand provides for a specific market responding to consumer demand for organic products, and on the other hand, delivers public goods contributing to environmental protection, animal welfare and sustainable rural development.

Consumers are the engine of organic food markets and the demand for organic products

is justified by the need for food safety, health, food fears (mad cow disease, bird feed contaminated with dioxin, carcinogenic food additives). Also, consumers of organic products satisfy their need for authenticity of the product, flavor and a return to traditional values (Otiman P.I., 2006).

Environmental protection is a concern for many organic product consumers, who must know that their product selection should have as a key element the place of origin. Additionally, it must be a local and certified manufacturer, because a green product made elsewhere in the world would pollute through transportation.

Traceability and transparency are essential marketing tools for organic production (Toncea I., Toncea A.V., 2010).

### MATERIALS AND METHODS

In order to characterize the evolution of organic agriculture in Romania the following indicators were used: the number of registered farmers in organic agriculture divided on regions, total land fund by use, surfaces used in organic farming by category of use.

The period analyzed in this study was 2006-2011.

The data, collected from the Ministry of Agriculture and Rural Development, the Department of Statistics and the Ministry of Agriculture and Rural Development, have been statistically processed and interpreted, building the trend line and setting up the forecast based on the 2014-2016 period.

## RESULTS AND DISCUSSIONS

The land fund (Table 1) of Romania is a wealth that organic farming can highlight.

Table 1, Total land fund, by use (end of year), thousand hectares

	2005	2006	2007	2008	2009	2010
Total area of the land	23839,1	23839	23839,1	23839	23839	23839,1
Agricultural area	14741,2	14731	14709,3	14702	14685	14635,5
Arable	9420,2	9435	9423,3	9415,1	9423	9405
Pastures	3364	3334	3330	3333	3314	3288,8
Hayfields	1514,7	1525	1531,4	1532,4	1528	1529,7
Vineyards and vine nurseries	221,1	223,7	218	214,5	215,4	213,4
Orchards and tree nurseries	218,2	213,4	206,6	207,3	205,2	198,6

Half the land is owned by persons without legal personality, with an average area of 2.29 ha (Table 2). The scattering of parcels is a major problem for conventional agriculture. Organic agriculture can transform this disadvantage in business but requires investments (organic certification costs), proper management (managing the conversion from conventional to organic agriculture, observing food chain traceability, quality certification, representation and social and environmental realities, maximizing profits through multi functionality), technical knowledge (respect for the organic agriculture principles through: soil fertility management, management of plant and animal protection, food production and the processing of agricultural and food products) and clever marketing (development of marketing strategies with an emphasis on the market and new technologies, compliance with labeling legislation; although it is forbidden to write on the label GMO, pesticides, ionizing radiation-free products, processors may use the expression: organic farming standards prohibit their use, because during this

technological chain organic products can be contaminated, so the legislation allows max. 5% GMO). A farmer requires at least 0.30 ha of vegetable crops to receive the subvention for organic agriculture and must comply with the regulation on animal welfare. Parallel production (conventional - organic) is not prohibited, livestock farmed conventionally can be kept on the same holding provided that they are clearly separated and from different species (Toncea I., Toncea A.V., 2010).

Table 2, Agricultural holdings, agricultural area in use and agricultural area in use as an average per agricultural holding, by legal status of agricultural holdings, year 2007

	Agricultural holdings-total	Agricultural area	Average agricultural area (in hectares) per agricultural holding
Agricultural holdings – total (number)	3931350	13753046,5	3,5
Individual agricultural holdings	3913651	8966308,55	2,29
Units with legal status	17699	4786737,94	270,45

Government Decision number 759/2010 specifies the conditions of eligibility and payments for quality agricultural products in the organic farming sector:

Beneficiaries of organic crop production:

- to have in use at least 0.30 ha of farmland, filled with culture, annual, perennial crops or permanent pasture and meadow;
- to be registered, in each year for which they seek specific support, with the Ministry of Agriculture and Rural Development, an organic farming producer;
- to conclude a contract with an inspection and certification body, accredited within the European Union and approved by the Ministry of Agriculture and Rural Development;
- to have a document, in accordance with the European legislation on organic production and labelling of organic products with regard to organic food production, labelling and control, which can be called a certificate of

conformity / master certificate / certificate confirming the conversion, to indicate the status of farms in conversion year 1, year 2, year 3, culture and area, issued by the inspection and certification organism contracted.

e) to have no debts to the state budget or local government

Beneficiaries of livestock production species: birds, cattle and sheep / goats and beneficiaries of beekeeping must have a certificate of conformity / master certificate / certificate confirming the conversion, to indicate the status of farms in conversion year 1, and the number of animals, or as the case may be, the number of bee families, issued by the inspection and certification organism contracted and comply with paragraphs b, c, d, e; as for land area owned, it must comply with the conditions of high standards on animal welfare, with a maximum number of animals per hectare equivalent to 170 kg N / ha / year.

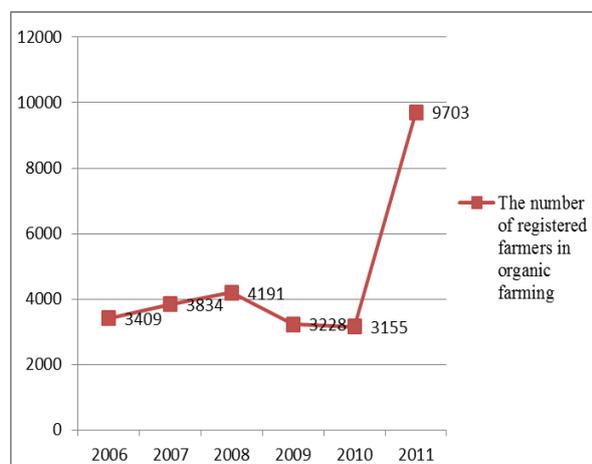


Figure 1. Evolution of operators in organic farming, Romania

The number of registered farmers in organic farming was constant between 2006 and 2010, but the surprise came in 2011 when their number tripled. I believe that the explanation of this phenomenon lies in clarifying specific aid rules, the conditions of eligibility and payments for quality agricultural products in the organic farming sector being presented in Government Decision number 759/2010; also, there are counties where the number of organic producers is very high, which is

explained by the effect generated by the example of others farmers from organic farming enterprises that have been successful.

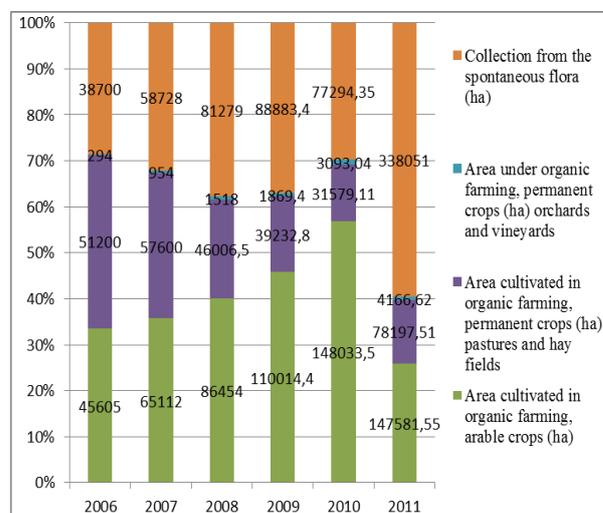


Figure 2. Evolution of the area cultivated in organic farming, Romania

The conversion period for plant production, livestock and beekeeping is: 2 years for annual field crops; 3 years for perennial crops and plantations; 2 years for grassland and fodder crops; 12 months for beef cattle; 6 months for small ruminants and pigs; 6 months for dairy animals; 10 weeks for poultry for meat production, bought at the age of 3 days; 6 weeks for poultry for egg production; 1 year for bees, if the family was purchased from conventional apiaries. Additional annual payment / holding for each category 2012/2013: vegetal production and livestock, species and size of the farm and the ceiling set are listed below; the amounts are an encouragement that will lead to an increase in the number of organic producers.

Table 3, Manufacturing plant: annual crops, perennial crops, permanent pastures (pastures and meadows) in conversion:

Category	Holding size	Additional annual payment Maximum / farm-Euro-
1	0,30-5 ha	1500
2	5,1-20 ha	2300
3	21-50 ha	2900
4	51-100 ha	3400
5	over 100 ha	3800

A processor of organic products may collaborate, on average, with 49.89 Romanian organic producers and a retailer may collaborate, on average, with 80.66 Romanian organic producers.

Table 4. Livestock in conversion:Poultry

Category	Holding Size	Additional annual payment Maximum / farm-Euro
1	Less than 500 heads	1500
2	Over 500 heads	3000

Table 5. Livestock in conversion:Cattle

Category	Holding size	Additional annual payment Maximum / farm-Euro
1	Less than 20 heads	800
2	Over 20 heads	2000

Table 6. Livestock in conversion:Ovines / goats

Category	Holding size	Additional annual payment Maximum / farm-Euro
1	Less than 20 heads	500
2	21-100 heads	1500
3	Over 20 heads	3500

Table 7, Livestock in conversion:Beekeeping

Category	Holding size	Additional annual payment Maximum / farm-Euro
1	0-50 families	750
2	51-100 families	850
3	Over 101 families	950

Table 8, The total ceiling allocated for additional annual payments

Sectors for which support is given	Allocated annual ceiling (€)
Plant production	3,139,000
Animal production	959,000
Total	4,098,000

The number of importers is 1.8 times higher than that of the exporters, and exporters of organic products may collaborate, on average, with 744.6 Romanian organic producers. This data reveals large discrepancies between the number of producers in different counties,

and also reveal large discrepancies between the high number of organic producers in counties, such as Suceava (3196) and Bistrita Nasaud (2320), and the small number of retailers in these counties. Large urban areas have a significant lack of retailers, for example in Bucharest, with a population of over 3 million inhabitants, there are only 21 registered retailers, but none of the large urban agglomeration benefits from the necessary infrastructure in retailers of organic products.

It is obvious that we need more organic processors, as organic products will be capitalized with a higher added value, and available for a longer period by means of processing, yet the shelf life periods are lower than those for conventional products as the list of permitted preservatives is strictly restricted. It is obvious that we need a marketing strategy for organic products, as the number of retailers is small (Table 9) and the variety of organic products is small in supermarkets. A solution would be the direct contact between consumers and producers (farmers), which brings a significant advantage for both sides in terms of price, exchanging knowledge and improving the cultural level.

The organic food production shall pursue the following general objectives: it establishes a sustainable management system for agriculture that observes nature's systems and cycles and sustains and enhances the health of the soil, the water, plants and animals and the balance between them; it contributes to a high level of biological diversity; it makes responsible use of energy and the natural resources, such as water, soil, organic matter and air; it observes high animal welfare standards and, in particular, meets the animals' species-specific behavioural needs; it aims at producing products of high quality, a wide variety of foods and other agricultural products that respond to consumers' demand for goods produced by the use of processes that do not harm the environment, human health, plant health or animal health and welfare.

By achieving these objectives of organic food production presented in Council Regulation

(EC) No. 834/2007 of 28 June 2007 on organic food production and labelling of organic products and repealing Regulation (EEC) No 2092/91, the basis of sustainable rural development shall be established.

Table 9. The structure of manufacturers, processing units, retailers, exporters and importers of organic products by county

Counties of Romania Year 2011	Manufacturers of organic products	Processing units of organic products	Retailers of organic products	Exporters of organic products	Importers of organic products
Alba	68	3	4	*	1
Arad	92	9	10	1	*
Arges	33	4	2	*	*
Bacau	124	6	7	*	*
Bihor	30	6	1	*	*
BistritaNasaud	2320	1	*	*	*
Botosani	321	3	1	*	*
Braila	44	3	1	*	*
Brasov	36	2	1	*	1
Bucuresti	7	16	21	*	3
Buzau	18	3	*	*	*
Calarasi	48	8	*	*	*
CarasSeverin	604	*	2	*	*
Cavasna	66	1	1	*	1
Cluj	149	5	2	*	*
Constanta	86	8	2	*	*
Dambovita	16	4	*	1	*
Dolj	12	*	*	*	*
Galati	71	3	*	*	1
Giurgiu	32	4	*	3	*
Gorj	14	3	3	*	2
Harghita	14	1	1	*	*
Hunedoara	194	4	2	*	1
Ialomita	94	4	3	2	2
Iasi	715	4	*	*	1
Ilfov	3	7	13	*	5
Maramures	78	3	5	2	1
Mehedinti	23	12	*	*	*
Mures	257	5	4	3	3
Neamt	31	3	1	*	*
Olt	14	3	4	*	*
Prahova	29	7	2	*	*
Salaj	252	1	*	*	*
Satu Mare	35	1	*	*	*
Sibiu	94	5	5	*	*
Suceava	3196	4	*	*	*
Teleorman	101	6	*	*	*
Timis	63	17	15	1	*
Tulcea	204	8	6	*	*
Valcea	15	2	1	*	*
Vaslui	23	3	*	*	*
Vrancea	54	2	*	*	2
<b>TOTAL</b>	<b>9680</b>	<b>194</b>	<b>120</b>	<b>13</b>	<b>24</b>

## CONCLUSIONS

Considering the announcement of programs that will support and transform familiar agriculture from subsistence to market agriculture, various European financing programs aimed at rural individuals' qualification, easy access to information via the Internet and through various regional organisms, the organic sector will continue to witness a constant annual evolution.

The market niche that is now organic farming can turn into Romania's chance to impose on the market in an area that allows farmers to live in a clean environment with beautiful rural landscapes and biodiversity and provides them with a decent living by means of the capitalization on organic agricultural products, their price being higher than that of conventional products.

## ACKNOWLEDGMENTS

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## REFERENCES

- [1] Guide for applicants concerned with specific aid schemes for improving the quality of agricultural products in the sector of organic farming, 2012  
<http://www.apia.org.ro/buget/eco/Ghid%20agricultura%20ecologica%20versiunea%203%20.pdf> p 12, p25-26,
- [2] Otiman P.I., 2006. Sustainable development in Romania, Romanian Academy Publishing House, Bucharest, p. 390-413
- [3] Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91  
<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2007R0834:20081010:EN:PDF>
- [4] Samuil C., 2007. Organic farming technologies, Iasi, [http://www.uaiasi.ro/FUSPA/agricultura\\_ecologica.pdf](http://www.uaiasi.ro/FUSPA/agricultura_ecologica.pdf)
- [5] Toncea I., Toncea A.V., 2010, Consultancy in agriculture, translation into Romanian of the paper, "Organic Farming Consultor" developed within the project "FORECOLOGIA", ES/03/B/F/PP-149080 reference number, adjusted and adapted to the situation in Romania.  
[www.projects.ifes.es/porqualLeonardo/do/get/.../Consultor.pdf](http://www.projects.ifes.es/porqualLeonardo/do/get/.../Consultor.pdf)