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## ORGANIC PRODUCTION IN ROMANIA. PERSPECTIVES IN EUROPEAN CONTEXT

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### Abstract

Organic food products are a “must” for consumers who aim at a healthier lifestyle based on clean food and a friendly development of human society, in harmony with the environment. Orientation towards organic products is increasingly present in the European population, which also has the material means to purchase these products, which are more expensive than conventional products. This paper aims at presenting the organic products sector at European and national level. The data needed for research were taken from national and European statistics. Organically cultivated areas at European level have evolved over the last period, over the past 5 years, the recorded increase being of over 25%. Although ecological production may represent a market niche, Romania's evolution is atypical, contrary to the European trend. Thus, during the period when statistical data are reported at European level (2012-2015), the number of Romanian farmers has fallen by almost half and the ecologically cultivated area has decreased by 10%. National support measures for ecological agri-food producers have proved to be insufficient, and the ministry of agriculture's policies inefficient.

**Keywords:** ecological production, evolution, European Union, Romania

**JEL Classification:** Q01, Q15, Q57

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### Introduction

The term ecological used for agricultural production in Romania is similar to the organic or biological variants used by other EU Member States. The ecological production system has the function of producing cleaner food, in line with the requirements of human metabolism, in conjunction with the conservation and development of the environment. One of the main purposes of ecological agriculture is the production of fresh and authentic agri-food products that respect natural and environmental factors. The production and marketing of ecological products, focusing on finished products with high added value, the development of exports towards areas with high economic potential and the penetration of Romanian exports into new markets are some of the priorities of the National Export Strategy (SNE) 2012-2016 in the field of ecological agriculture in Romania.

### 1. Literature Review

Koklic et al (2019) analyses the consumption patterns of organic food in Slovenia. The research included a survey conducted on 462 adults, examining the relationship between consumption tradition and intentions to buy ecological food, ecological concern, or personal

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rules. The results have shown that the tradition in ecological food consumption influences purchasing decisions more strongly than personal rules or environmental concerns. Besson et al (2019) shows that specific attributes of an organic food can frequently lead to a health halo effect. Consumers believe that ecological food is characterized by a lower energy value compared to conventional products due to the reactivation of positive implicit evaluations and / or the reactivation in memory of a semantic association between the "organic" and "non-caloric" concepts. By applying the Bayesian Model and statistical processing over two samples with a total of 420 users, the authors have demonstrated that the ecological label leads to an underestimation of the caloric value, and the halo effect is not attenuated by implicit evaluations Proshchalykina et al. (2019) presents the peculiarities and characteristics of the world market of ecological agriculture, highlighting the existing demand and supply. The price of organic products must cover the differences in yield and productivity, the need for crop rotation, harvest and storage losses, the cost of research and development. The authors have identified the development factors of the ecological product market, systematized in the following groups: organizational and legal, financial and economic, technological and socio-psychological. According to the authors, a systematic approach to the development of production on an investment-innovative basis, the creation of an institutional environment, the sustainable development of rural territories, the development and implementation of strategies for the development of vertical integrated structures are necessary actions, taking into account the territorial differentiation for the development of the ecological agricultural products. In an analysis of ecologic agriculture production in the vegetable sector, Kirchmann (2019) shows that a relevant comparison between organic and conventional crop systems should include the environmental consequences caused by changing land use and lost ecosystem services. The concept of ecological agriculture is generally based on philosophical principles about nature rather than on biological scientific arguments. There is no scientific evidence to support the abandonment of synthetic mineral fertilizers as nutrients for crops, and the scientific community is bound to follow rigorous scientific criteria in the analysis of ecological agricultural production. Hurtado-Barroso et al (2019) shows that the production and consumption of ecological food have steadily increased in recent years worldwide, despite the low productivity of ecological crops. Analysing the impact of a diet based on ecological food, the authors point out that ecological agriculture appears to contribute to maintaining good health and to reducing the risk of developing chronic diseases. However, scientific evidence is relatively low and long-term studies are needed to make sure that an ecological diet is healthier than a diet that includes conventional foods. Oncioiu et al (2019) analyse the trends of the ecological grain market in Romania, taking into account the ecological wheat market and production in large farms versus individual exploitations. The research results indicate that the negotiating power of legal buyers is significantly higher than that of small ecological wheat producers without a legal form of organization that benefit from significantly reduced prices. The conclusion of the article is that ecological wheat can be one of the most profitable businesses in Romania for the big agricultural producers. Petrescu et al (2017), propose a study on the attitudes of Romanian consumers in relation to ecological food. The survey on consumer attitudes towards organic food targeted 672 consumers in Romania. The results have shown that a positive attitude of consumers towards ecological food will further increase purchasing intentions. In view of the increase of the Romanian ecological production, Viotoris et al (2016) analysed the opinions and preferences regarding the ecological food products of 350 respondents in Romania. The findings of the study show that for Romanian respondents the most powerful reason for purchasing ecological food is health care. Respondents indicated they prefer ecological food purchases directly from manufacturers, followed by that from supermarkets, specialized stores or pharmacies. Respondents are willing to pay for ecological food by 5-10% more

than for conventional foods. Năstase and Toader (2016), show that ecologic farming is an integral part of sustainable development strategies and a viable alternative to conventional agriculture in Romania, but rigorous ways of certifying ecological production are required. Ecological labelling can be a quick and easy way for consumers to recognize ecological products and a guarantee of compliance with quality standards. An assessment of the ecological potential of the Romanian fisheries sector is carried out by Stanciu et al (2015). The authors state that although the sector has potential, there is little interest from Romanian farmers and the investments necessary for the development of the sector are high. Research made by Stanciu (2014) shows that ecological products can be a valid alternative to Romanian agriculture. The natural resources for ecological production in Romania are represented by large agricultural areas that have not been conventionally cultivated for a long time, the presence of a small number of industrial polluters and the tradition of the national agricultural sector. The reduced development of intensive agricultural production can be a strategic advantage in the development of the Romanian ecologic agricultural sector.

## **2. Material and methods**

Information on the dynamics of ecological production in Romania, the number of certified agricultural producers, the criteria and agencies specialized in organic certification have been collected from the MARD Ministry of Agriculture and Rural Development press releases. For European statistics on organic production the Eurostat database was consulted. Data were processed statistically, graphically and commented. The results obtained were correlated with the research literature, in order to obtain the best conclusions.

## **3. Ecological production conditions in Romania**

The terms ecological, organic or biological are equivalent in meaning, their use being associated with the traditions of certain geographic areas (Stanciu, 2014). According to the national regulations, the ecological term is regulated in Romania, ecological production being defined as obtaining agri-food products without the use of chemical synthesis products, according to the rules and principles of ecological production.

European Union legislation The EU defines ecological production as a global system of agricultural and food production management, combining best environmental and climate action practices, high biodiversity, natural resource conservation and high animal welfare standards, and high production standards that meet the requirements of more and more consumers seeking products obtained through natural substances and processes (European Parliament and Council of the European Union, 2018). Organic products are certified in Romania by a recognized control and certification body (Government of Romania, 2000). The objectives, principles and rules applicable to organic production are governed by specific Community and national legislation. According to MARD (2019), along with the definition of the organic production method in the plant, livestock and aquaculture production sectors, the rules regulate processing, labelling, trade, import, inspection and certification issues. The provisions on the labelling of products obtained from organic agriculture laid down in Regulation ((EC) no. 834/2007 of the Council on ecological production and labelling of ecological products and Regulation ((EC) no. 889/2008 of the Commission laying down the rules for the application of Regulation (EC) 834/2007 aim to provide consumers with confidence in ecologic products, obtained and certified in accordance with strict production, processing, inspection and certification rules. Ecological products are labelled with specific labels and logos when marketed, the national and Community legislation specifying the manner of award of the ecologic trademark and the labelling requirements (Table 1).

**Table no. 1 Ecological label**

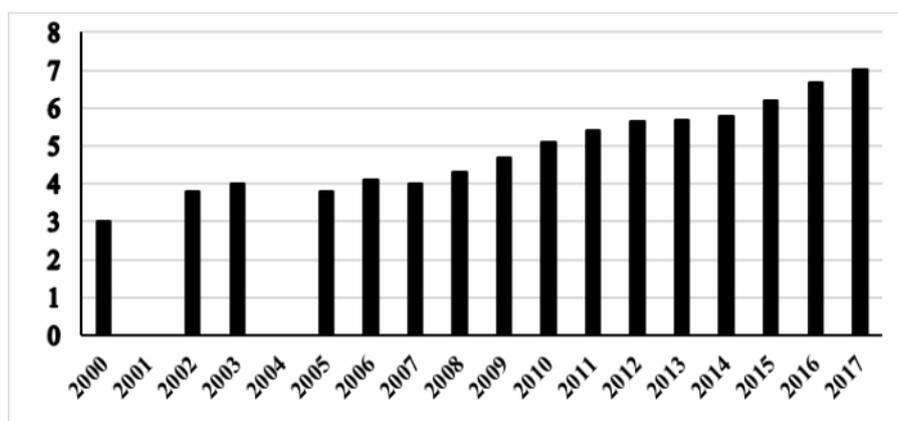
Trademark	Logo	Observations
<b>European trademark</b>		It offers recognition to certified ecologic products in the European Union. The logo is accompanied by an indication of the place of production of the agricultural raw materials (EU, non-EU and / or the name of the country where the product / raw materials were obtained). The label shall specify the code number of the control authority / control body regulating the activity of the operator who carried out the last production or preparation operation. The use of the EU logo for ecologic production is optional in case of products imported from third countries.
<b>National trademark</b>		The "ae" logo, MARD property, guarantees that the product comes from ecologic agriculture, being certified by an approved inspection and certification body. The use of the logo is done in accordance with Annex 1 to the Common Order amending and supplementing the Annex to the Order of the Minister of Agriculture, Forests and Rural Development no. 317/2006 and of the president of the National Authority for Consumer Protection no.190 / 2006 approving the Specific Rules on the labelling of ecologic agri-food products.

*Source MADR, 2019*

Ecological producers must undergo a rigorous certification process and a conversion period of at least two years in order to pass from the conventional production to the organic one, their work being verified by inspection and certification bodies for the purpose of assessing compliance with the rules in effect on ecologic production. In Romania, the control and certification of ecological products is ensured by 15 private inspection and certification bodies, approved by MARD in accordance with Order no. 181/2012. The approval of the Inspection and Certification Bodies by MARD is preceded by their accreditation by the Romanian Accreditation Association (RENAR) in accordance with European Standard EN ISO 45011: 1998 (MARD, 2019). RENAR accredits the control bodies in accordance with the requirements of European Standard EN ISO / CEI 17065: 2012 "Requirements for Bodies Certifying Products, Processes and Services" or other equivalent accreditation bodies in the European Union that are signatories to the Multilateral Recognition Agreement for European Accreditation EA -MLA and approved by the Ministry of Agriculture and Rural Development MARD to carry out this activity (MARD, 2019).

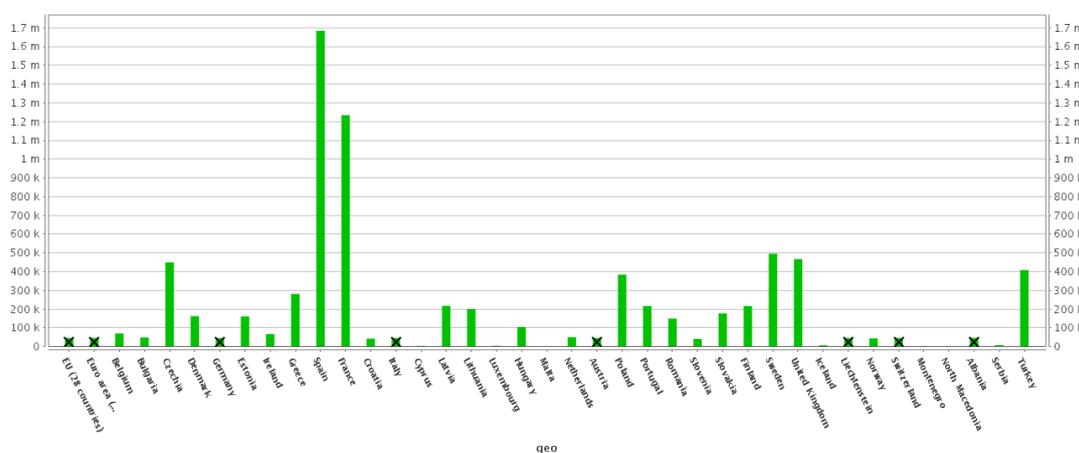
#### **4. European ecological food production**

The total agricultural area for ecological production at EU level has been steadily rising in recent years. From a 3% share in 2000, ecological crops reached over 7% of total agricultural areas at European level in 2017 (an absolute value of 12.6 million ha) (Eurostat, 2019).



**Fig. no.1** The share of agricultural areas allocated to organic agriculture in the EU  
 Source Eurostat, 2019

Compared to 2012, the total increase in areas allocated to organic crops at European level has exceeded 25%. The Eurostat analysis proposes an assessment of the weight of the ecologically cultivated areas, relative to the total agricultural area. According to European statistics, the largest shares of the agricultural areas allocated to organic production are recorded in Austria (23.4%), Estonia (19.6%) and Sweden (19.2%), followed by Italy (14.9%), Czech Republic (14.1% Latvia (13.9%) and Finland (11.4%). With a 1.9% share, Romania is well below the EU average and occupies one of the last positions in the ranking, outpacing only Ireland, Iceland and Malta. In absolute terms, Spain (2,082,173 ha), Italy (1,908,570 ha), France (1,744,420 ha) and Germany (1,138,372 ha) occupied the top positions in the list of organically cultivated agricultural areas at European level (Figure 2).



**Fig. no. 2** The ranking of organically cultivated agricultural areas at European level  
 Source Eurostat, 2019

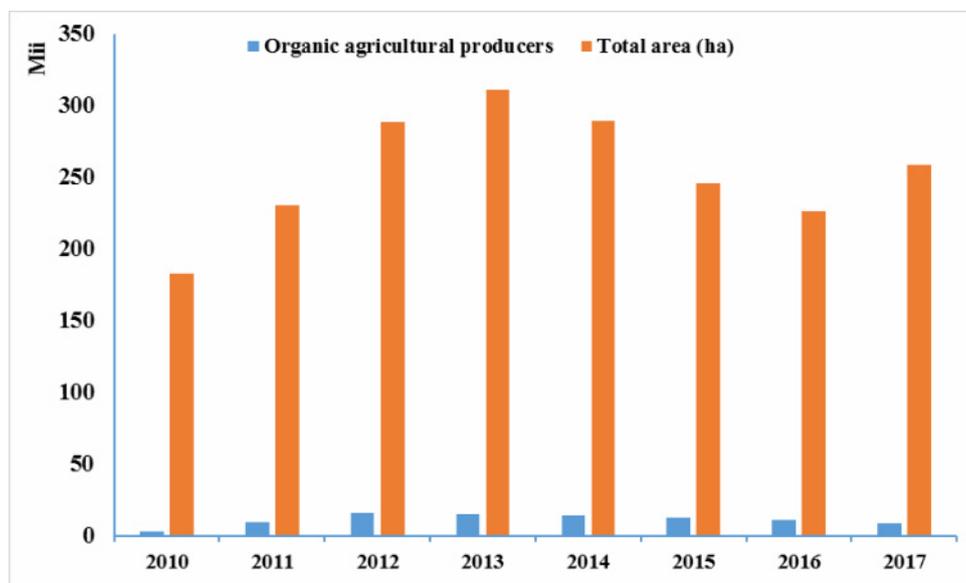
Summing up, the organically cultivated agricultural areas by the 4 Member States exceeds 54% of the European total (12,560,191 ha in 2017). These regions are also the main market for ecological products. Although an increase in domestic ecological production has been registered, Western Europe is the main destination for organic production in other EU or non-EU Member States.

### 5. Evolution of ecologic production in Romania

Romania benefits from fertile lands, favourable to ecologic crops. The existence of uncultivated agricultural lands (about 3 million hectares of land, according to Bio Romania, 2019) and of about 2 million small subsistence farms, are trumps for the conversion of indigenous agriculture to organic production. If there was a government support, with subsidies for production and processing, Romania could become one of the world's largest eco-producers.

According to Eurostat data (2019), in Romania 208,478 hectares were cultivated ecologically in 2017, less by 10% compared to 2012. The data presented by MADR (2019) show an increase in the agricultural areas allocated to organic crops as well as in the number of certified producers in Romania in the period 2010-2013, followed by a decrease in the last years (Figure 3).

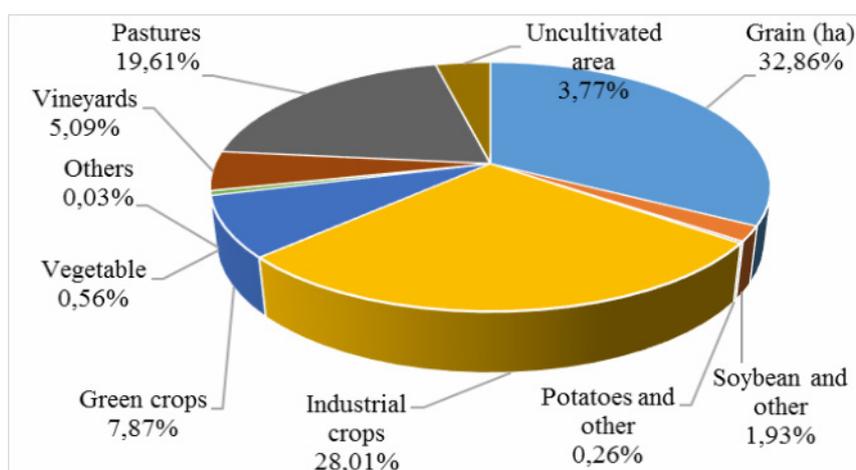
Romania exports over 90% of ecologic products in the form of raw materials to partners in Europe where they are processed and marketed as finished products. The main destinations are Germany, Italy, Spain, Great Britain, Nordic countries (Bio Romania, 2019). On the Romanian market the range of organic products is restricted, most of the food being imported (canned vegetables, fruits, some bakery products).



**Fig. no. 3 Organically cultivated areas and certified producers in Romania**

*Source Data Processing MADR, 2019*

In Romania, in the year 2017, the largest share of ecologic crops was allocated to cereals (84,926 ha), followed by industrial plants (72,388 ha) and pastures and meadows (50,686 ha). The least widely spread crops were soy and other leguminous (4,995 ha), potatoes and roots (666 ha), and vegetables (1,459 ha) (Figure 4).



**Fig.no. 4 Share of ecologic crops in Romania (2017) (2017)**

Source *MARD, 2019*

According to the Business Hub study (2018), the most demanded organic products in Romania are milk, eggs, yogurt, fruit, vegetables and meat products. Total sales of ecologic products in Romania were estimated at about 10 million euro in 2018, accounting for less than 1% of the retail market, below the European average (5-6%). Similar to the situation in the Czech Republic and Hungary, the demand for organic products has increased in Romania after joining the EU, but the market has not matured.

### Conclusions

Romania has significant natural resources with potential for the development of the ecological production sector. The main directions targeted by native producers are highly mechanized crops (cereals, industrial plants, meadows and pastures) that lead to raw materials for export. Although there is a high demand for organic products on the European market, domestic producers do not exploit these opportunities. Lack of government support measures, reduced investment in processing plants, insufficient knowledge of the European market or reduced entrepreneurial culture affect national agriculture, including organic production.

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