

IMPACT OF ORGANIC FARMING UPON THE ENVIRONMENT

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Abstract: In recent years, all over the world, the concern for preserving people's health as well as a healthy environment acquired a permanent dimension, meant to ensure the meeting of present consumption needs without jeopardizing those of the future generations. In the European Union, the development of organic farming, as an alternative to conventional agriculture, of industrial type, has experienced great progress. In perspective, the organic dimension of the Common Agricultural Policy will grow, as all the EU Member States are obliged to limit the area of ecological aggressions. For Romania, the organic farming is a sector for the future developments that has experienced an increasing trend in recent years, both in the crop production and livestock sector.

Key words: *organic farming, natural resources, environment.*

INTRODUCTION

In the developed countries, organic farming appeared as an alternative to intensive agriculture, which uses large amounts of chemicals. In the ex-socialist countries, organic farming emerged as a result of political and socio-economic changes, which determined production decline or the decline of the imports of chemical fertilizers, pesticides and antibiotics and the emergence and development, in a short time, of the subsistence production.

In the perspective, the Common Agricultural Policy will focus much more on the ecological aspect of farming activity. The European farmer is more often regarded both as a producer and an active entity in the protection and preservation of the natural environment. This new image will be increasingly promoted in order to justify public intervention in favour of farmer income support.

In the sustainable agriculture development context, the "organic" or "biological" agriculture pattern, supported by many ecologists, which totally eliminates the use of chemical fertilizers and synthetic pesticides, is applied on relatively small areas, since the beginning of the '80s, as people became aware of the dangers implied by conventional, intensive farming.

In the field of agricultural policies, the interest in sustainable agriculture development is materialized in the reconsideration of the effects of agriculture upon the environment and of agriculture contribution to its own protection and preservation. That is why, everywhere in the world, but mainly in the developed countries, agriculture and environment enjoy a preferential system of protection by the society, by stimulating the methods of agricultural production compatible with the environment, soil and natural areas protection.

MATERIALS AND METHODS

In the rural area, agriculture, pisciculture and forestry are the main occupations for the greatest part of its inhabitants. These occupations are determining factors of the quality of the rural areas and of the natural environment. It has already been demonstrated that there is a positive correlation between the preservation of the natural environment, the preservation of the agricultural ecosystems and the development of the business environment. Starting from these premises, the paper intends to make an analysis of the contents and elements defining the obvious impact of organic farming activities upon the environment quality. The whole information volume in this article was obtained through specific methods for the selective research, respecting all its stages from the methodological point of view: identification of the researched issue, research framework

delimitation, information collection, data processing, analysis and interpretation drawing up the conclusions. The office research also played an important role in the article, which consisted, on one hand, in the identification of other studies and articles on the same subject, and in the processing of some statistic data, on the other hand. Hence, the information sources used can be classified into governmental sources (statistic, ministerial and from research institutes), and into non-governmental sources (independent publications). As the statistical data on organic farming and its impact upon the economy, environment and human society are very few, the research results are based on a series of mainly qualitative analyses, on the one hand, and on a series of logical rationales, on the other hand.

RESEARCH RESULTS

Due to the interference between the ecosystems Carpathians-Danube and Danube-Black Sea, Romania has a diversified and balanced natural environment, in which large rural areas are integrated, covering over 87% of the country's area and concentrating almost 45% of the total population (According to the NIS indicators used in the analysis from the National Strategic Plan, which is based on these indicators; in the future, the possibility to apply the OECD methodology will be envisaged).

The rural settlements are represented by very small villages with only dozens of houses, villages as a main form of human settlement (12,955 in 2007) and communes (2,856 in 2007). The ruralization level ranges from 20% to 70% (Hunedoara with 23.04% rural population in 2007 and Dâmbovița with 69.96% rural population in 2007). The main activities developed in the rural space are the following: agriculture, pisciculture, and forestry, which, in time, have become a pollution source for the environment and mainly for the waters.

The natural environment of the rural area is generally characterized by a good preservation condition of the natural soil and water resources, by a variety of traditional landscapes and by a high bio-diversity level, associated with a diversity of habitats and ecosystems, forests and valuable agricultural landscapes (National Rural Development Plan 2007-2013, version IV, December 2009).

The unique natural inheritance is given by: the relief made of three major units, in balanced proportion (31% mountains, 36% hills and plateaux and 33% plains and valleys); the temperate-continental transition climate with ocean influences from the West, Mediterranean from South-East and excessively-continental from the East; the relatively dense hydrographic network, the balanced distribution in the territory, with running waters radially distributed; the diversified vegetation, conditioned by the relief and by pedoclimatic elements; terrestrial and aquatic fauna grouped by areas differentiated by the biotope of each species; useful mineral resources, with old mining exploitation tradition.

In general, the natural resources of the Romanian rural area are well preserved. The agricultural land with high natural value cover an important area, but both the abandonment of agricultural resources and the inadequate farming practices appeared as a result of the lack of specialty knowledge or of the limited financial resources, which influenced biodiversity in a negative way and determined the emergence or the aggravation of soil erosion phenomena.

In Romania, in conformity with the legislation into effect, the term *ecological* is similar with the terms *biological*, *organic* or with their combinations: *organo-biological* and *bio-organic*. The process of national legislation harmonization with the EU legislation was completed in the year 2003; the terms ecological, biological, organic agriculture are used with the same meaning, conceptually defining the systems of productions which

create conditions for re-using the lost energy in the production process and ensure a balance between the three dimensions of the agricultural system: economic, social and ecological.

In our specialists' opinion, Romania has national and human potential for organic farming. That is why, the concern for promoting the organic farming's specific rules and principles is supported by a legal framework harmonized with the EU legislation, as well as by an institutional framework from both the public and the private sector.

The organic agri-food production is a relatively new field for the Romanian farmers. It emerged as an alternative to the approach to get closer to the EU standards, where the conventional industrial-type agrifood production proves its limits as time passes, as well as its drawbacks as regards the quality of products and the negative influences upon people and environment.

The potential of Romanian agriculture to produce agricultural products under organic farming conditions accounts for minimum 15% of the agricultural area of our country, according to the specialists' estimates. At this moment, in Romania, quite a large share of agriculture may shift to the organic farming practice, as millions of hectares of land have not been fertilized or chemically treated for many years; organic farming is not only a profitable alternative, but also an ideal change in the production system.

Considering the main contribution of organic farming to sustainable development through its capacity to enhance biodiversity, to protect the environment and increase soil fertility, the farmers in this sector receive support through the agro-environmental measures of the European Commission. In Romania, the organic farmers can benefit from financial support for the certified production, through the National Rural Development Plan (NRDP) – agro-environment sub-measure under Axis 2, through the European Agriculture and Rural Development Fund (EARDF) non-refundable, in conformity with the (EC) Commission Regulation no.1698/2005. At the same time, community support is received for promoting the organic products, through co-financing programs, with 50% funding from the European Commission, 20% from the professional organizations and 30% from the state budget, according to the procedure from (EC) Commission Regulation no. 1071/2005.

The agro-environmental payments can be received by the farmers or other agricultural land users (arable, pasture, grassland, vineyards and orchards) who make voluntary agro-environmental commitments for a 5-year period from the date of first payment receipt. These payments can be also received by other land users in the case when this is justified by reaching the environmental objectives.

The economic efficiency analysis and the establishment of modalities to ensure the viability of the organic farming activities and increase the organic farm profitability, through governmental subsidies included, are priorities that, conjugated with the individual and group efforts at local level and with the political support, can contribute to the support to sustainable development of the Romanian countryside.

The organic products contribute to keeping people in good health, ensures water protection against synthetic pesticides and fertilizers, provides solutions for farmers to surmount their professional difficulties and for rural area development; it also ensures a healthy future for the next generations. The reasons why we should have an ecological agriculture are the following: to protect the next generations; to remove chemicals from our tables; to try better tastes; to protect farmer's health; to support small farmers; the security against bad weather conditions; the soil erosion prevention; the water quality protection; to save energy; to promote biodiversity; to support a real economy.

The ecological agriculture does not exclude the use of modern production means. The agricultural production system compatible with the requirements of environment and natural landscape protection is a complex system. This system appeals to a series of modern production techniques, which preserve and at the same time improve soil fertility. In order to achieve this, either it does not use synthetic chemical products, not even in the process of obtaining raw products or in their processing, or it uses these synthetic products in limited amounts according to the strict requirements of crop development and to the potentiality of the agricultural, soil and weather conditions.

To sum up, the organic farming practice, generating long-term economic, social and ecological benefits, means the knowledge and application of certain agro-environmental practices, which feature high diversity depending on the characteristics of the zone where they are applied, but which have to ensure the diversification and improvement of income sources for the local communities through the sustainable use of local resources, the development of services and necessary infrastructure.

CONCLUSIONS

The obvious impact of farming activities upon the environment quality determined an increased concern for compatibilization between the two terms of the equation. These orientations reflect the new evolutions of the sustainable development process in the rural area and an ecological approach to agriculture.

In Romania, organic farming is a dynamic sector that has experienced an increasing trend in recent years, both in crop production and in the livestock sector. The state and private organizations are deeply involved in producers' information, in the training activities and promotion of ecological agriculture, while the higher education institutions are concerned with training specialists in this field. The direct expression of this phenomenon is represented by the great contribution of the producers in this sector to the sustainable development through biodiversity growth, environment protection and soil fertility increase, as well as by the emergence and affirmation of the Romanian organic products on the domestic and world markets.

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