

THE ECOLOGICAL AGRICULTURE, THE SOURCE OF LONG LASTING DEVELOPMENT IN THE ROMANIAN RURAL TERRITORY

Turcuț Nicolae Olimpiu*

*Banat University of Agricultural sciences and Veterinary medicine Timisoara, 119, Calea Aradului, 300645 Timișoara, jud. Timiș, România e-mail: nicu.turcut@instalvest.ro

Abstract

There is a strong belief that the industry and the effluents are the main factors that affect people's health and the nature. The recent researches prove that the food we eat contains a large amount of dangerous chemical substances which come from agriculture. During the time, the agriculture became an important source of environmental pollution. Considering the agricultural development and the long lasting rural development there comes a question: How can we make the development without harming the environment and the human health? The solution for this problem comes from the ecologic agriculture. Our aim in this paper is to prove how the ecological agriculture can become the source of a long lasting development in the Romanian rural territory.

Key words: agro-ecology, organic farming, traditional agriculture, long lasting development.

INTRODUCTION

A long time ago, the erroneous idea that industry and municipal wastewater discharges are the main factors of pollution affecting human health and nature was spread. But lately, data from water, air and soil quality monitoring, indicates the substantial presence of many hazardous chemicals and toxic products from agriculture (Cucu V., 1977). Research has proven that a large proportion of them are found in food. Therefore, agriculture, the permanent source of development, became at the same time a permanent source of pollution for the environment and especially for the water.

Given that agriculture is considered a source of sustainable development, agricultural production and rural development (Oțiman, PJ, 1997), implicitly, there is a legitimate question: can this growth be sustained without prejudice to the environment and human health?

MATERIAL AND METHOD

This difficult problem was approached with the concept of sustainable agriculture, which is a complex, laborious and costly process. The development and the implementation of integrated plans and programs, for a good farming practices ecologically measures for assessing and monitoring can be achieved largely in order to develop the objectives of ecological environment (Lificiu P., April 2003).

By definition, organic farming is an agricultural system that appeals to all means and instruments of labor necessary to obtain high quality, clean productions, with the ultimate goal of achieving environmental and consumer protection (Stugren B., 1982).

Organic farming practices do not provide assurance that the product is completely free of pesticide residues due to environmental pollution in general. However, in order to reduce the environmental pollution (air, soil, water) different methods are used. Compared with the negative aspects associated to conventional farming (which relies on agriculture resources, such as soil, water and genetic diversity, are outdated and degraded the overall ecological processes that ultimately depend on agriculture, are adversely affected and the social conditions that lead to conservation are altered and removed), organic farming accounts for all agricultural systems that favor obtaining food products that satisfy the three basic dimensions of agriculture based on the concept of sustainability: social, economic and environmental protection (Stugren B., 1982).

RESULTS AND DISCUSSIONS

Principles and components for organic farming:

Agricultural ecosystems are located at the intersection of the external action of natural factors (biotic), internal factors (the genotypes that make up the agro-ecosystems) and human population pressure (socio-economic requirements), which influences their management methods, which highlights the complexity of the agro-ecology studied problems. (Gruia R., 1998)

Agro-ecology, has carefully taken into account the effects of human beings on agricultural ecosystems (by means of socio-economic factors). Man is the builder, regulator and the beneficiary of the agro-system production. Sometimes "social order" can eventually become harmful for agro-ecosystems and human society (Odum E. P., 1975).

Agro-ecology, contributes to substantiating the theoretical basis and practical lessons to draw from them the necessary development of ecological agriculture, according to the nature of biological processes in the biosphere and human company requirements, with quality of life "(Puia I., et al, 2001).

Organic farming is defined by I, Puia and V. Soran (1984) (Puia I., Soran V. 1984) as "system which promotes farming means capable of maintaining a balance between agro-ecosystems and the atmosphere, generating specific agro-climax, conscious of all the positive elements and processes which come the composition of contemporary and future agricultural systems".

Along with the concept of "organic farming" meet similar concepts,

like "biodynamic agriculture", "organic agriculture". Still practicing traditional agriculture in the period (which lasted from ancient times until the eve of scientific-technical revolution of our day) have emerged some adverse effects caused by deforestation, erosion, land cultivation empirical, unscientific irrigation, overgrazing. Adverse effects were accentuated by the modernization of agriculture, the irrational use of chemical fertilizers (nitrogen), the effect of environmental pollutants and pesticides on food, damage (sometimes severe) bio-chemical cycles of major nutrients, isolation and hypertrophy of links of natural chains, sometimes exceeding the ecological limits (e.g. separation imposed by immediate economic interests - of arable land, pasture and domestic animals with positive and negative consequences). Integrated organic farming on the present and future of these bases can provide food and some of mankind's energy needs still growing in number.

Production capacity of varieties and hybrids used in culture directly influences the levels of the plant production. Using biological material production can increase technological limits (irrigation). Low productive varieties resist the unfavorable factors (diseases and pests, frost and drought, etc.) limits the possibility of improving the culture technology and production levels (Fărcaș I., 1999). The plant material is grown now "fundamentally different forms of wild, yet in many cases determining the origin of the cultivated species represents a highly specialized problem."(Glosan N., 1979)

Contributing to sustainable rural development through organic agriculture in Romania

Environment and food security is the priority component of the strategy and policies of the Ministry of Agriculture, Forestry and Rural Development to align the future Community policy, oriented towards promoting sustainable agriculture. Romania has the unique conditions for the development of organic farming and good times that could motivate the development of this production: fertile and productive soils, spread across a large area of arable land (Bold I., 1973), chemical processing and industrialization have not reached the levels of EU countries, there able to distinguish organic perimeters, where to apply clean farming practices. The current Romanian agriculture with small plots is very well suited to the application of technology after organic production (Angelescu A., Visan S., 2006). The demand for organic products is increasing, giving Romania a chance to export such products and last but not least, the prices of organic products are beneficial and lead to increased farmer income.

Many of the practices and principles of organic agriculture in Romania have been used since ancient times, when the vast majority of cases, farmers obtained the agricultural products using various' biological

methods "inherited from generation to generation, but they remained at this stage and with the advent of synthetic products, the manufacturer has ceased to use them. Until 1990, although in practice many European countries for some time, organic farming and improved technologies in this respect, Romania, on the whole agricultural area is producing only conventional system, perhaps with a few exceptions, namely pastures hill-mountain area, where the natural waistline and not use any synthetic product, but without being recognized or provided somewhere in this.(Badescu I., Radu N., 1980)

As in Europe, organic farming has been promoted and supported for the first time in the private sector without government interference. The first step in this direction was made in 1997, when Bio-agriculture's Association set up in Romania "Bioterra" based in Cluj, which in 2001 totaled a number of 2687 members (producers environmentalists), with a total area of agricultural 11 931 ha (Puia I., et al, 2001). Another important step in promoting and developing organic agriculture in Romania is the foundation of the Bio-agriculture's Review, in 1999, which published a series of articles on organic farming in support of producers and processors of organic products(Naşcu H., 1997).

In 1998, under Law 21/1924, the Romanian Association set up Sustainable Agriculture (ARAD), which are promoted economic principles and effective agricultural practices and healthy for humans and other components of the environment, water, air, soil, plants and animals for restoration and conservation of environmental resources. The legal regulation on organic production in Romania began in 2000 with the advent of the first legal document in this field, namely, GEO. 34/2000, on ecological agricultural products, which defines organic production, specific terms found in organic production and processing, the main rules of organic production, labeling, inspection and certification system, import and export sanctions.

At the same time it established the National Organic Products (ANPE), as a specialized service within the Ministry of Agriculture and Food, which provides specific legal compliance and control of food organic production methods (Şchiopu D., 1997). In 2001 products have been approved by Government Decision no. 917/2001, rules for the application of GEO. 34/2000, which refer to ecological agricultural products. Under this rule are detailed rules on the principles of organic production plants and plant products, livestock and livestock products, bee keeping and bee products and a list of products allowed to be used in organic farming (soil enhancers, pesticides, foraging for food additives, ingredients and processing methods that can be used in preparing organic foods) (Mohan Gh., Neacşu P., 1992).

In 2002 was approved OMAAP No. 186, approving the inspection requirements and precautionary measures under the inspection and registration of operators on the market of organic products.

In 2003, it approved OMAAP no. 527, to approve the rules on the system of inspection and certification and accreditation requirements of inspection bodies and certification in organic agriculture, the Ministry of Agriculture order which repeals Order no. 186/2002. For 2004 it was intended to subsidize the farming level registered and certified by the manufacturer, but only for primary and processed livestock production.

Nevertheless, the farmers who are moving and using this culture system have a high score to finance projects through the EAFRD and those who are benefiting from the conversion of specific aids to improve the quality of agricultural products in the organic sector(Budeanu C., Calinescu E., 1982).

CONCLUSIONS

To sum up, the eco-agriculture promotes organic production systems sustainable, diversified and balanced harvest and to prevent environmental pollution. Organic crop production without use of harmful traditional products, knows a special concern for decades in countries economically (Odum E. P., 1971). Interest in organic products and production is increasing and our country. Following the promising start that had organic agriculture in Romania, and a spectacular leap in terms of area and total production obtained in the ecological system, we can be optimistic to become one of the main exporters of organic products in Eastern Europe (Pop D., 2009). Organic production is placed in the center of the Romanian agriculture to reach either a "motor" of sustainable development.

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