

ORGANIC AGRICULTURE. A PERSPECTIVE FOR THE FUTURE

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Abstract

Organic farming (similar to ecological or biological farming) is a modern process to cultivate plants, to fatten livestock and produce food products, which fundamentally differs from conventional agriculture. Organic farming system is based on compliance with some production rules and principles, according to current Community and national regulations of implementing Community legislation.

Key words: *organic farming, synthetic fertilizers, alimentary safety, the farm.*

INTRODUCTION

Organic farming (similar to ecological or biological farming) is a modern process to cultivate plants, to fatten livestock and produce food products, which fundamentally differs from conventional agriculture.

Organic farming does not use: synthetic fertilizers and pesticides, stimulants and growth regulators, hormones, antibiotics and intensive systems of animal husbandry. Genetically modified organisms and their derivatives are prohibited in organic farming.

Awareness of alimentary safety and environmental problems by consumers has contributed to the development of organic farming in the EU in recent years. European Parliament is concerned about maintaining consumer confidence, preventing contamination with genetically modified organisms and increased imports.

European Commission presented in 2004 a communication entitled “Action Plan on Organic Food and Farming”, which has set 21 areas of action designed to sustain the sector development. In this text, Commission admits for the first time that organic farming plays an important role in achieving the objectives of the new common agricultural policy (CAP) and supports the approach based on stimulating organic farming.

MATERIALS AND METHODS

The idea of an organic agriculture arose in the early 20th century, when industrial society began to replace the rural, traditional one.

The development of agriculture, at the beginning of the third millennium, can not be separated from larger issues humanity currently faces, such as population growth, energy and raw materials crisis, environmental issues.

Agriculture has opportunities to reduce energy consumption, especially that related to plant protection, herbicide, fertilization and irrigation. Reducing the use of fungicides, herbicides and chemical fertilizers will help prevent pollution of soil, water, plants and harvest.[*D. GAVRILESCU, 1995*]

Nowadays more and more consumers have access to information on methods of producing organic food, as a consequence of Community initiative “Farm to Table”, and want to be sure that all precautions for safety and quality, in all stages of their production, were taken.

Organic products and food differ from conventional agriculture products by quality, hence higher prices.[*IONESCU A.*] The quality of these products is given by the following: fruits from the organic farming system have a chemical composition comparable to those from conventional agriculture, but the taste is better, with no traces of aromatic substances from chemical preparations used in technology or using biodynamic compost on husks of barley and wheat and nitrate content of vegetables decreases with a rate of 30 to 50%.

Development and modernization of agriculture determines deepening the division of labor, specialization, consequently the emergence of new farming systems, alternatives to those currently existing.

All agricultural systems, the new or older ones, bring in the equation of their future evolution the same supreme criterion: human health. This criterion requires the achievement of two objectives: alimentary safety and environmental protection.[*DAVIDESCU D., DAVIDESCU V*]

Each farming system has a different approach of these major aspects, depending on many factors: the level of general development of the economy, relations and structures of production, the level of civilization.

Organic farming promotes the cultivation of land by those means which ensure a balance between agroecosystems and ambience.

Organic farming is in fact synonymous with the agriculture of years to come, an agricultural system that ensures the integrity of the biosphere, to make the most of the productive capacity of agroecosystems and obtaining products of good quality. It requires the deployment of a more conscientious and imaginative work and will create conditions to ensure an optimal

quantity of food, in terms of reducing consumption of fossil energy, maintaining or increasing natural fertility of the soil, improving the living environment of people and ambient environmental protection as a whole.

RESULTS AND DISCUSSION

The principles of organic agriculture are based on detailed knowledge of production systems that take maximum advantage of local resources, reducing to minimum the economic and environmental risks, integrating traditional knowledge with science progress from all field of biology and agronomy.[*PUIA I, SORAN V*]

These principles are formulated as follows:

- ✚ maintenance of soil fertility, because the focus of organic farming activities is organic soil, considered as a living, complex environment, but who seems still little known, that closely interacts with plants and animals that inhabit it;
- ✚ environmental protection. Many cultural techniques applied in recent decades have unintended consequences on the environment, contributing to soil erosion, degradation of ecological systems, pollution of ground water and crops with pesticides and nitrates.
- ✚ respect for consumer's health. The goal of practicing organic farming is to achieve quality agricultural products without pesticide residues, but containing a balanced balance of nutrients (protides, lipids, carbohydrates): organic acids, vitamins and minerals. Vegetables, fruits, grapes are mostly consumed fresh, so their nutritional and hygienic quality are of particular importance in the diet of modern man.
- ✚ overview of interactions in nature. In organic farming the emphasis is on the quality of unaggressive human interventions on nature, compared with conventional agriculture.
- ✚ the farm - a unit, a body in balance. Organic farming implies giving up a narrow specialization and a unilateral, intensive exploitation. Organizing a farm must be in strict compliance with the laws of the biosphere, always taking into account that the synthetic indicator of a good management is the conservation and enhancement of soil fertility.

The prospects of Romania's integration, including its agriculture, in the structures of the Community of Europe, requires the adaptation of agro-industrial production to the current quality standards, which meet the requirements of the buyer of such products.[*DONA I., 2010*] To this end the current EU regulations on organic products must be known.

CONCLUSIONS

Organic farming, also called the agriculture born in the present for the future, is to be thought at a larger and larger scale, this being the only way to ensure people's prosperity and to maintain intact nature all over the world. This was considered as a solution to solve two problems: meeting the demand for products produced without the use of artificial or synthetic substances and increasing the means of environmental protection.

But with all the benefits it has on the environment and on humans, there are opinion currents that pinpoint a number of drawbacks, of risks of applying organic farming:

- ✚ conversion period, of transition from traditional agriculture to the organic one, is very long and expensive; farmers without financial support are at risk of bankruptcy - the yields obtained in this period are reduced in quality and efficiency is lower than in the case of industrialized farming;
- ✚ it is considered that organic farming is more expensive than traditional one, because it uses more consistent human resources and production yields obtained are much lower;
- ✚ although there is a very favorable opinion current about organic products, yet the actual number of consumers who buy them is quite small; the main impediment is the their higher price.

Organic farming is therefore an alternative to industrial (conventional) agriculture and to the abandoned, savage one; it is the alternative where plant cultivation and animal husbandry are based on ecological principles (diversity, stability, equity, productivity); elements of conventional technology are replaced with organic ones (eco-technologies); plant and animal structures are replaced with corresponding structures of trophic cycles - producer of biomass - consumer – decomposer; the rotation of crops, with the sequence in time and space for the grown and cultivated plant species; mechanization with flow of energy, including cosmic and atmospheric energies; fertilization using nutrients recycling.

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