

EU EXPERIENCES IN ORGANIC AGRICULTURE; POSSIBLE SUGGESTIONS FOR SOUTH-EAST ASIA

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Summary

There is huge and extending demand for organic products in Europe. To be sure with origin of the products, it was necessary to build up the necessary legislation. Agriculture in Europe has changed during the last 70 years and get extremely intensive which could be achieved only with artificial fertilisers and other chemical substances even in crop and horticultural production and even in animal products. The lost product quality has called the need for organic agriculture and the need for safety has called the legislation. In case of some animal species as goats and sheep the local and traditional way of production could exist until nowadays so the organic animal husbandry can be easily continued based on the local production systems. The aim of organic regulation for goats and sheep is mainly for keep this traditional production and management method. The problem is bigger in case of cow milk or in poultry meat/egg or in pig meat production, where the farming method has turned into very intensive. The farmer who wants to produce organic labelled pig or poultry product has to change the breed, variety, the whole housing and feeding system to achieve the organic demands. The animal welfare is a very important key factor for animal breeding.

The situation in crop production or in horticulture production is similar with poultry or pig farming. The varieties were changed to intensive farming conditions. The new varieties and hybrids are usually cannot stand the organic farming requirements. They all were bred for artificial fertilisers and chemical plant protection substances based farming. The new organic farming methods have to be based on traditional systems but the new farming results have to be integrated into it. In Asia, where the traditional farming is still existing the key point is to avoid the intensification and keep the organic way of farming which gives quality product for the EU market.

Introduction

An FP6 SSA project with contract number FOOD-CT-2004-003375 called CHANNEL with full title: “Opening Channels of Communication between the Associated Candidate Countries and the EU in Ecological Farming” started on 15th November, 2004 with 25 partners from 15 countries. Task of the project is to assess the characteristics of organic agriculture in 10 new, in 2 candidate and in 3 old member countries of the European Union. The results of this project could give us a very clear picture of the present EU experiences in various fields of organic agriculture.

Main principles of ecological farming

1. Ecological farming is the construction of a closed farming system that uses local resources. The aim of such a farming system is to minimize input (resources and energy invested) and loss, not only on the farm but also on the regional level. The main areas are the

enhancement of biological nitrogen absorption, use of self-produced fodder, composting of (urban) kitchen waste, reduction of erosion loss, treatment of animal waste and plant residue.

2. Long-term sustainability of soil fertility. Long-term soil fertility puts plant production on a solid basis without using easily soluble synthetic fertilizers. Biological activity, organic matter content, soil balance, soil structure and nutrient content are important elements of soil fertility. In ecological farming great stress is put on crop rotation, on the application of legumes and undersowing, on minimal disturbance of soil life, on stimulating the activities of earthworms and soil life in general, on the exclusion of simple or complex easily soluble synthetic fertilizers as previously mentioned, on proper treatment and application of manure, on the adequate choice of soil cultivation form and time, and on the reduction of pesticides.

3. Minimizing agriculture based pollution effects. The main agricultural activity related polluting factors are: erosion, washing out of nutrients and pesticide residue. The aim of the following applied methods is to minimize these problems: year-round soil coverage where possible; soil cultivation that follows layers; crop rotation that minimizes the nutrient loss; minimizing loss in manure ripening and application; use of products based on natural agents instead of pesticides. Weed and pest control is assured through crop rotation, intercropping, resistant varieties and biological means of protection but above all is based on the natural immunity of healthy plants with a balanced nutrient supply. Direct intervention is only occasional.

4. Production of food with high nutritive value in sufficient quantities, meaning both the quantitative increase of valuable substances and the decrease of problematic substances in foodstuff, while also playing a role in technological processing opportunities, appearance of product and environmental sensitivity of the production system.

5. Minimizing the use of fossil fuels in the whole production system. Minimizing the use of fossil fuels takes place first of all through the exclusion of synthetic fertilizers and plant protection products. Instead, we stimulate biological process in the soil (i.e. microbiological activity) and increase the use of renewable energies (e.g. solar, wind). Local or direct sale also contributes to the reduction of energy consumption.

6. Satisfying the physiological and ethological needs of farm animals. We should assure enough space to the animals so they follow their characteristic behaviour patterns. By feeding, priority is not the short production process but on the satisfaction of the animals' individual fodder needs. Feeding should be based on fodder crops produced on-farm as often as possible, and we should avoid using crops suitable for human consumption. Animal health is assured through proper keeping, housing, feeding and hygiene. Preventive medical treatments are not allowed. In case of parasites or disease, we apply the most harmless methods. The purpose of breeding is not only to increase productivity but also to assure long life, improve immunity and, in ruminants, more efficient use of fibres. When planning types and number of farm animals, we should be careful to fit them to the farm.

7. Farmers and their families should have a safe lifestyle. Living and well-being (i.e. income, number of working hours, stress-free environment) is at least as important as the health of the soil or animals. It is essential to preserve the rural population by assuring job opportunities that assure and provide safe living.

8. Preservation of the countryside and non-agricultural habitats. The preservation of non-agricultural habitats is a main aim of organic agriculture. Its main forms are: afforestation, plantation of trees and hedges and establishment of lakes. The reduction of pesticides has a positive impact on wild flora and fauna.

Ecological farming is a production method that excludes the application of synthetic fertilizers, plant protection products, regulators of growth (hormones and antibiotics in animal husbandry). The crop rotation system, plant remains, animal manure, legumes, green manure, organic waste from outside the farm, mechanical cultivation, mineral powders and biological

plant protection all act in service to soil fertility, cultivation, nutrient accessibility nutrients, and weed and pest control. The concept of soil as a living system also means that the activity of useful organisms is essential from the point of view of its functioning.

International regulation of organic productions

The framework set up by European Commission, in synergy with main world food and health Organizations (i.e.: FAO., IFOAM., WHO.), in the area of organic production, represents part of the wider context of quality Policies for human health and food productions. This framework gives a wide range of economic opportunities to the producers, in a sector affected by structural handicaps, providing also the integration of environmental protection in the agriculture, promoting and managing quality and safety for food productions.

The EEC Regulation 2092/91 governs in a sharp way to manage in the Member States (by means of processing, labelling, marketing) the products arising from the organic farming. This Regulation has been added to on several occasions. In particular, it has to be underlined that EU Regulation 1804/99 instead governs the organic livestock productions.

We have to specify that we are talking about a system on voluntary base, so the organic agriculture logo related this regulation, may also be used in conjunction with national government or private logos for identifying organic products. To label a product as organic, first it has to be totally conform to the provisions of the mentioned Regulation (EEC) 2092/91, which provides minimum rules governing the production, processing and import of organic products, including inspection procedures, labelling and marketing, for the whole of Europe. Only producers whose systems and products have been found on inspection able to satisfy EU regulations requirements can then use this label. The logo for organic products is foreseen since 2000 at EU level, and it can be used throughout the whole EU. This logo may only be used if organic products reach a level minimum of 95 percent of the ingredients and they have been processed, packaged and labelled in the EU or in foreign Countries with an equivalent inspection system.

EEC Regulation n. 2092/91 on organic production is the top point of the process of official recognition of organic farming, in the context of European Union. It has given a strong contribute in harmonizing different standards existing in this subject, clarifying concepts for the consumers and making easier fighting frauds, especially those concerning fraudulent use of labelling. Thanks to the EU Policy of development of organic productions, the organic farming became a relevant economic sector, providing also high level of environmental protection.

Characteristic of EU organic agriculture

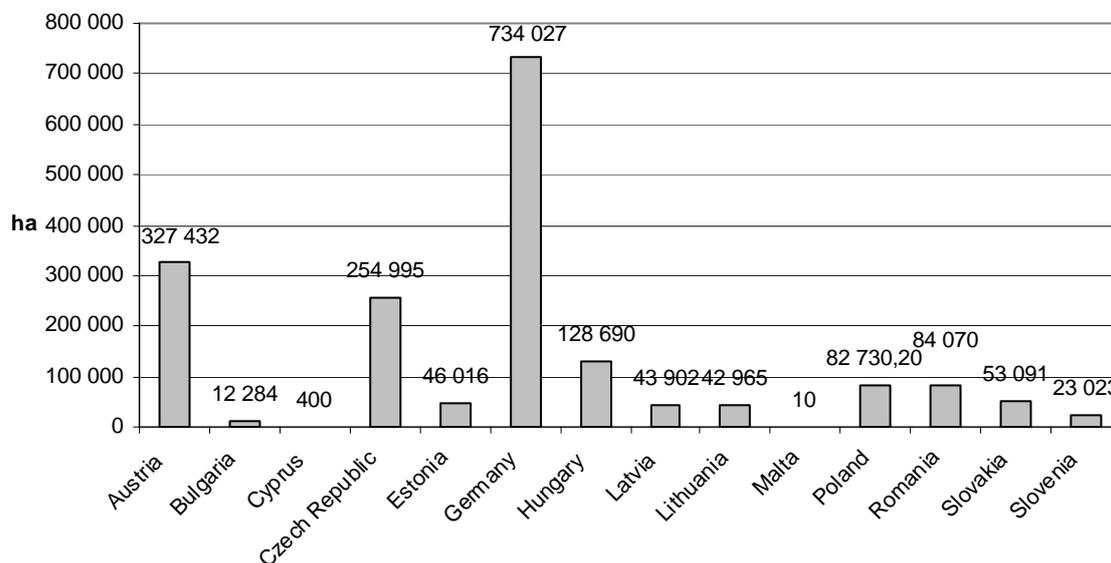
Area of organic farming is 26,300,000 ha in the world, 6,300,000 ha in Europe and 1,833,635 ha in the examined countries.

Germany, Austria has the highest and Malta the lowest percentage of organic area compared with the total utilised agricultural area (UAA). You may find a big organic area in Italy as well but we did not get information from Italy during the project so the graph cannot present it.

There is a big difference in organic area and demand for organic product consumption in some cases of EU countries. The Netherlands has a limited organic are but the organic product percentage is very high here. The Netherlands is a traditional trader in Europe, so they buy a big proportion of products and resell it all over the World.

It is clear now, that the organic product’s market is not able to fulfil the requirements for organic products in EU. The biggest lack of product can be detected in vegetables, fruits and animal products.

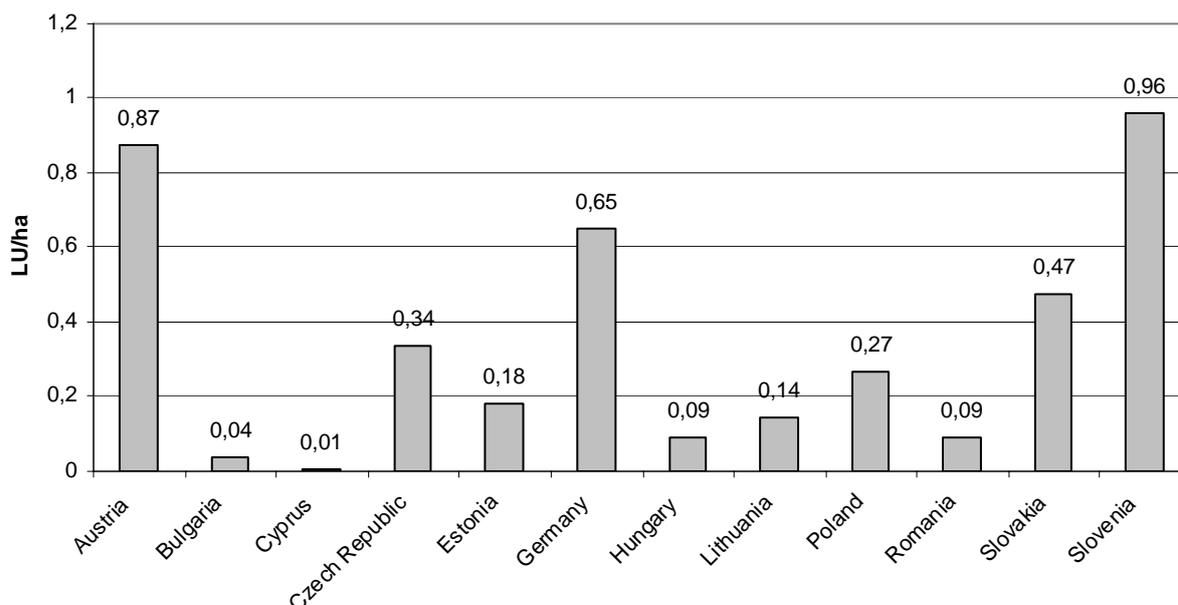
Area of organic farming in the project participating countries



Problems for organic production in EU

There is a lack of animals in organic farming which means a lack of certified animal manure for soil fertility management.

Organic livestock units (LU) per hectare in project participating countries



The ideal percentage would be about 2 LU/ha. So it is quite clear that less than third of the necessary percentage available in EU in most cases.

The main big threat for organic movement is the GMO production. However GMO is strictly forbidden in organic production it is very hard to separate the GMO free organic production area from GMO producing farms. There is only in Hungary in EU where the total GMO ban is still existing. Where the GMO production is allowed you have to create a very wide separation between organic and conventional GMO producing fields. In a small country as Hungary is, it would be almost impossible to keep the GMO free production in any other way. The changes of agricultural production from traditional to intensive gave us high yields but poisoned the soil with chemicals for ages. Therefore it is a very strict rule in organic to convert the field before your products can be sold as certified. The conversion period is mainly for clear the fields from pesticides. The intensive plant varieties are mainly used for high yield production therefore they cannot work without high use of pesticides. This is why you have to find your applicable varieties during the conversion period.

Possibilities for South-East Asia

Agriculture is in its natural organic stage in most parts of South-East Asia, which gives a big advantage to sell organic certified products in EU market. There is no need to change the traditional way of farming. If the farmers want to sell their own products for EU organic market they only need to get the inspection and certification. The 80% of the South-East Asian agriculture is now fulfil the organic requirements so this certification cannot be difficult. You only need to resist against the intensifying projects in agriculture. That does not mean the resist against the new machinery but against the pesticide based intensification and especially against the GMO crops.

This way may be more easily to join the organic production with Fair Trade Movement. This movement will help local farming groups and provide stable income. There are several European inspection bodies who can inspect and certify in South-East Asia or you may organise your own institution and apply for acceptance to EU.

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