

Ecological Plant Production in Turkey by Schematically

Nilda ERSOY

Selçuk University, Agricultural Faculty,
Horticultural Department,
42031, Konya/Türkiye,
nersoy@selcuk.edu.tr

Cumhur ERSOY

Akdeniz University, Vocational High School,
07070, Antalya/Türkiye,
cersoy@akdeniz.edu.tr

Abstract: In recent years, organic farming not only in developed countries, has been spreading rapidly in developing countries. This case is largely result of the increasing importance among consumers for healthy food consumption and environment protection. Suitable for organic production and ecological conditions that has a production potential of our country, the world market share of organic products and food is low.

The main purposes of this study are the current ecological farming products, the advantages and disadvantages of organic farming products in the world and especially in Turkey is considered to be schematically.

Key Words: Ecological agriculture and Turkey

What is the Meaning of Ecological Agriculture?

Ecological (organic, biological) agriculture based on the use of high input industrial agriculture human health, the economy and the environment occurs in terms of the negative results have emerged as alternatives in the face of an agricultural system. (Altındışli and İlter 1999).

Ten Reasons for Ecological Agriculture

1. To protect future generations
2. To prevent soil erosion
3. To protect water quality
4. To protect the energy
5. To away from the chemicals from our food
6. To protect the health of agricultural workers
7. To help small farmers
8. To ensure a stable economy
9. To ensure biological continuity
10. To consume more delicious products (Aksoy 2005).

Proposes and Properties of Ecological Agriculture

Ecological agriculture is an agricultural system targeted a high quality. The main purpose of soil-plant-animal and human life in the production chain optimization in a healthy manner can provide (Figure 1).

This is a production system which has contractual, planned, each stage has been recorded, controlled, certificated, primarily based on mutual trust (İlter and Altındışli 1996).

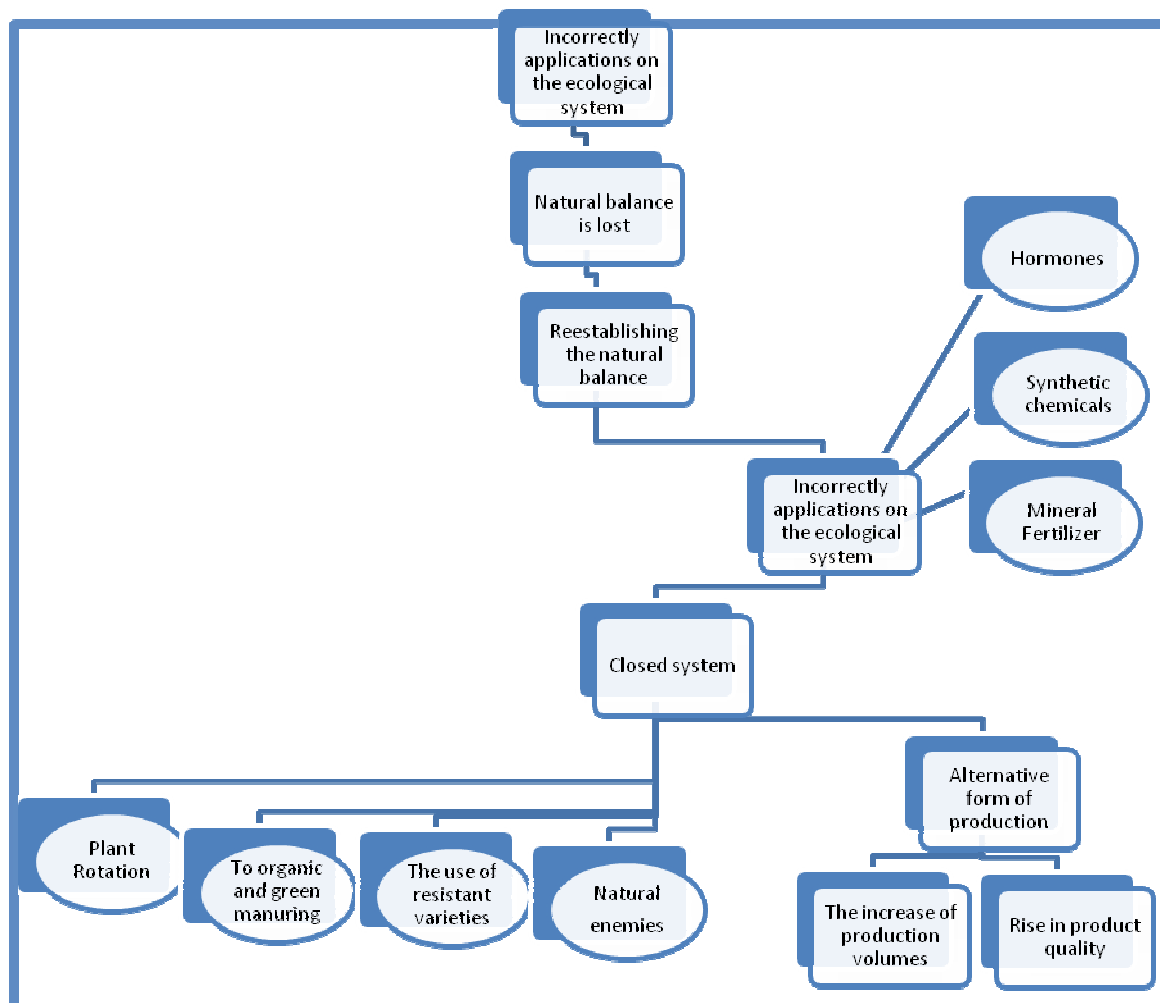


Figure 1. Proposes of Ecological Agriculture

How Ecological Agriculture has been Started?

The world trade in organic products has started in the 1970s. Later, European companies have demanded ecological products from companies of Turkey. Thus, the ecological agriculture in our country began in 1984-1985. In these years, Turkey has produced the traditional export products organic dried figs and raisins in the Aegean region. Then such as products of dried apricots, hazelnut spread different regions (Aksoy 2005).

Legal Regulations in Turkey

- ✓ 1992, Establishment of the Association of Ecological Agriculture Organization
- ✓ December 24th 1994, First Regulations
- ✓ June 29th 1995, Regulation changes
- ✓ July 11th 2002, Regulations on the re-edit
- ✓ July 22 2003 Establishment the Office of Alternative Agricultural Production Techniques
- ✓ December 3rd 2004, Publication of the Organic Agriculture Law
- ✓ June 10 2005, the publication of new regulations (Anonymous 2009a, Kayahan and Tan 1999).

Advantages of Ecological Agriculture System

- ⊙ Synthetic chemicals in our country by a large number of farmers used very little, or never used. Therefore, the transition to organic agriculture is expected to be easy.

- ⊙ The manufacturer's revenue is increasing.
- ⊙ Rapidly increasing price of chemical fertilizers, pesticides and energy savings are entries.
- ⊙ The manufacturer's product is guaranteed to be taken by contract farming.
- ⊙ Export price of the ecological products at a rate 10-20% higher than the other products.
- ⊙ Special information for the ecological farming model of Agricultural Engineers create new employment fields (Anonymous 2009b).

Disadvantages of Ecological Agricultural System

- ⊙ Supply of agricultural products year after year in our country, significant fluctuations are seen. The young and rapidly increasing population, consumption levels and the steady increase in diversity and the environment in almost all the countries of the demand of agricultural products because of the features of organic farming (in efficiency can occur due to a decrease) in short-term growth appears to be difficult.
- ⊙ Plant production in the emerging ecological farming methods a problem of land is too small, fragmented, and is close to each other. This situation negatively affects the organic production.
- ⊙ Ecological farming systems, especially in the marketing of farm products for the domestic market is an issue of new and uncertain. Enough agricultural extension studies has not been done because of the new topic. Also in this area include lack of qualified personnel (Anonymous 2009b).

Ecological Agriculture in the World

Approximately 31 million hectares area is managed as ecological according to the world-wide research.

39% of ecological agricultural land is in Oceania, 23% is in the Europe and 19% in the Latin America in the world.

Countries have more ecological agriculture land are Australia (11.8 million ha), Argentina (3.1 million ha), China (2.3 million ha) and USA (1.6 million ha) respectively.

Ecological agriculture is quickly developed world-wide. At the moment this agricultural system is being implemented in over 120 countries (Anonymous 2009c).

Ecological Agriculture in Turkey

In our country, ecological agriculture, has been in demand from European buyers. The first, ecologic raisin and dried Figures are grown in the Aegean region in 1984-85. When in 1990 only 8 different products produce as organic and the number of products and the amount of production has increased year by year (Anonymous 2009b).

Offer a product to market as organic were monitored in our country are shown in schematic way (Figure 2).

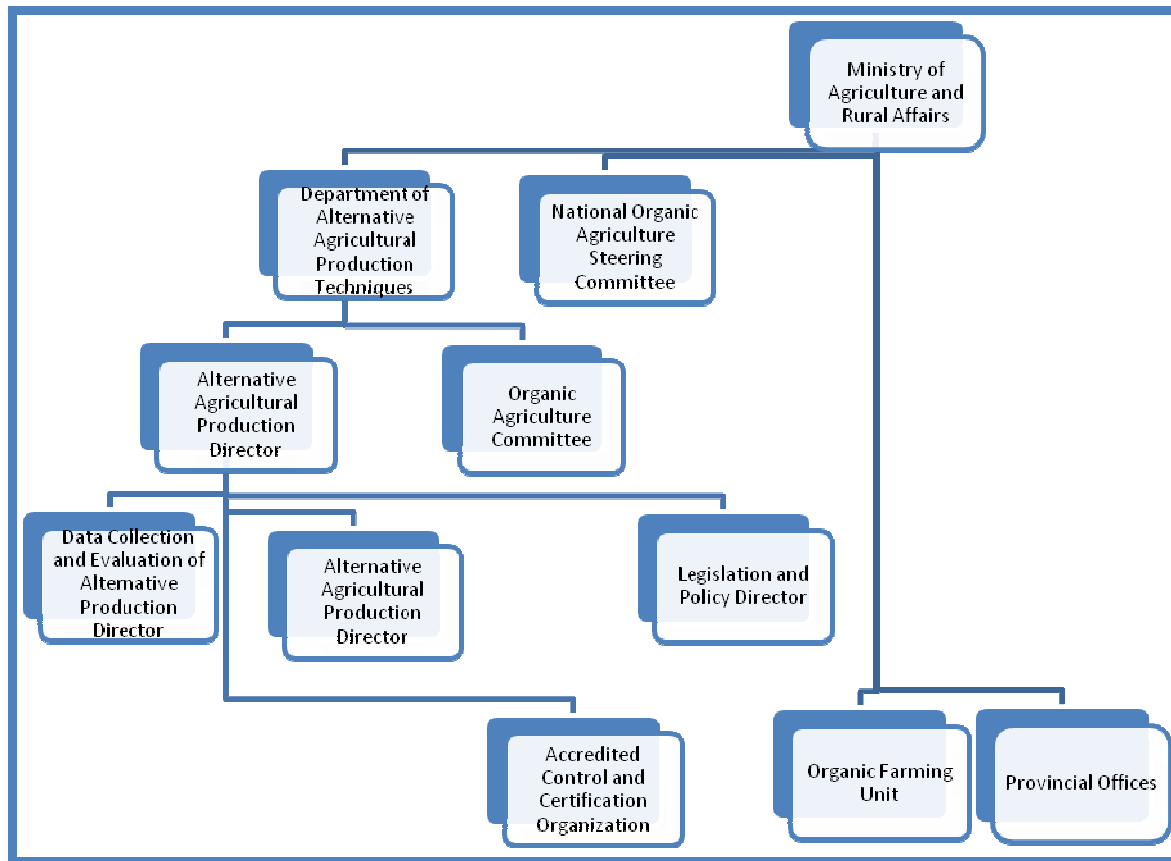


Figure 2. Chart of Organic farming organization in Turkey

Most of organic products produced in our country are exported. Turkey exported the more organic products to Germany, USA and UK respectively in 2006 (Anonymous 2009c).

The number of organic produce producers, production quantity, production areas and product range are increasing year after year in our country. While the number of producer is 1.947 in 1996, this value has reached 14.926 in 2008 (Figure 3) (Anonymous 2009a, Anonymous 2009d). As a result, the number of organic producers has increased 7 times in 10 years.

Percentages of organic producers in Turkey are 39 % in Aegean Region, 18 % in Black sea Region, 13 % in East Anatolia Region, % 13 Middle Anatolia Region, % 13 in the Mediterranean, 3 % in Marmara Region and 1 % in South-East Anatolia according to the 2006 data (Figure 4) (Anonymous 2009a).

While the Turkey's ecological agriculture area is 6.789 ha in 1996, this area has reached at 166.883 ha in 2008. The amount of the field has been increased 24.5 times (Figure 5). Percentages of ecological agriculture area are 38 % in Aegean Region, 31 % in Black sea Region, 13 % in East Anatolia, 6 % in Middle Anatolia, 5 % in the Mediterranean, 5 % in Marmara and 2 % in the South-East Anatolia according to the 2006 data (Figure 6) (Anonymous 2009a).

In recent years, the production area has been falling. The reason for this drop is the decline of the natural field collection area. While the total product types are 26 in 1996, the type number has reached 247 in 2008 (Figure 7) (Anonymous 2009a, Anonymous 2009d).

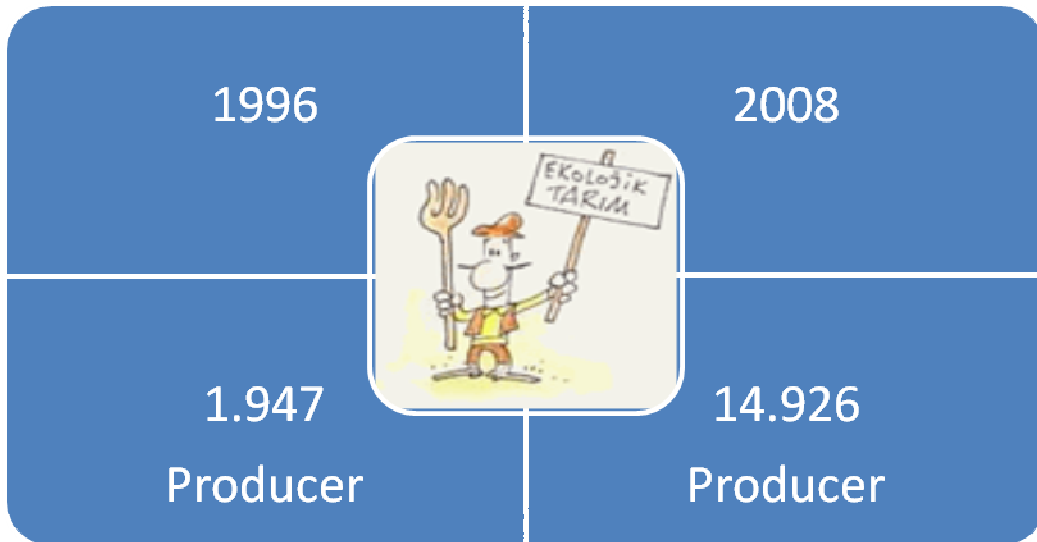


Figure 3. Numbers of ecological producers in Turkey

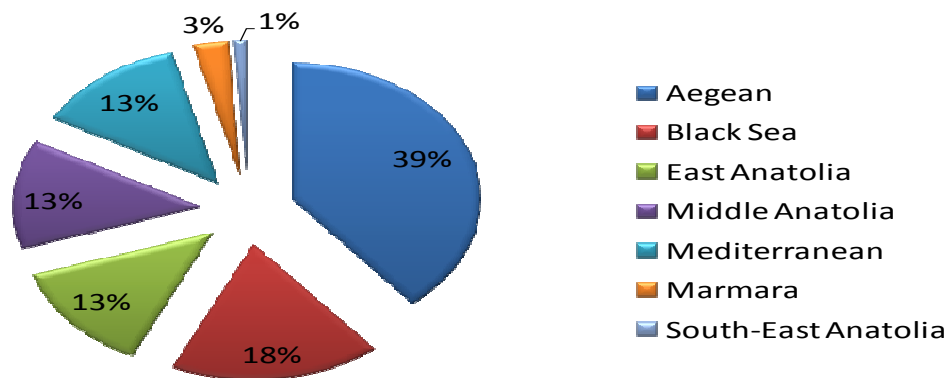


Figure 4. Numbers of farmers according to the regions of Turkey

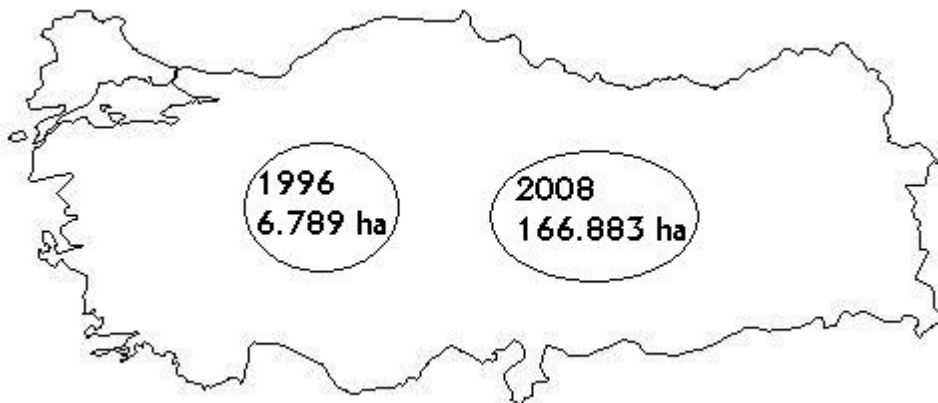


Figure 5. Area of ecological agriculture in Turkey

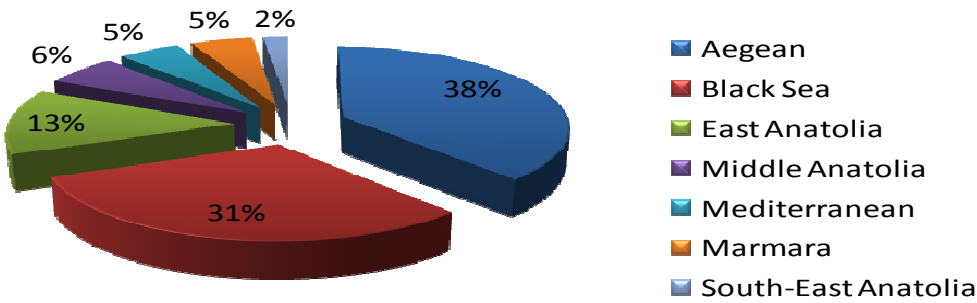


Figure 6. Field Production in Turkey by Region (ha)



Figure 7. The number of ecological products in Turkey.

Acknowledgements

Thanks to Selçuk University Coordination of Scientific Research Projects for Financial Support.

References

- Anonymous (2009a). <http://www.tarim.gov.tr/TarimPortal.html>
- Anonymous (2009b). <http://www.izmirtarim.gov.tr/organik/ekavdez.asp>
- Anonymous (2009c). <http://eto.org.tr/duneko.asp>
- Anonymous (2009d). <http://www.genbilim.com/content/view/4342/34/>
- Altındışli A. & İter E., (1999). Eko-Tarımda İlke ve Kavramlar. Ekolojik Tarım, ETO Ekolojik Tarım Organizasyonu Derneđi, s:24-29.
- Aksoy, U., (2005). Bahçe Bitkileri Tarımında Çevre Dostu Üretim Teknikleri (Editör: Prof. Dr. Ayşe Gül) Bölüm 1: Çevre Dostu Üretim Teknikleri, ISBN: 975-93098-3-1, 1-32.
- İter, E. & Altındışli, A., (1996). Ekolojik (Organik, Biyolojik) Tarım (Editörler: Prof. Dr. Uygun Aksoy, Dr. Ahmet Altındışli), Ekolojik Tarım ve İlkeleri, 1-6.
- Kayahan, S. & Tan, İ., (1999). Ekolojik Tarım, ETO Ekolojik Tarım Organizasyonu Derneđi, Ekolojik Tarımda Yasal Uygulamalar, 258-268.