

Development of organic agriculture in Turkey

Demirkol C., Karadeniz C.F., Pezikoglu F., Dogan S.

in

Nikolaidis A. (ed.), Baourakis G. (ed.), Isikli E. (ed.), Yercan M. (ed.).
The market for organic products in the Mediterranean region

Chania : CIHEAM

Cahiers Options Méditerranéennes; n. 61

2003

pages 23-30

Article available on line / Article disponible en ligne à l'adresse :

<http://om.ciheam.org/article.php?IDPDF=800147>

To cite this article / Pour citer cet article

Demirkol C., Karadeniz C.F., Pezikoglu F., Dogan S. **Development of organic agriculture in Turkey.** In : Nikolaidis A. (ed.), Baourakis G. (ed.), Isikli E. (ed.), Yercan M. (ed.). *The market for organic products in the Mediterranean region.* Chania : CIHEAM, 2003. p. 23-30 (Cahiers Options Méditerranéennes; n. 61)



<http://www.ciheam.org/>
<http://om.ciheam.org/>

Development of Organic Agriculture In Turkey

Celal Demirkol¹, Cemile Feyza Karadeniz², Filiz Pezikoğlu³ and Serpil Doğan⁴

¹ Department of Agricultural Economics, Agricultural Faculty of Tekirdag, Trakya University, Tekirdag, Turkey

² Department of Agricultural Economics, Agricultural Faculty, Akdeniz University, Antalya, Turkey

³ Atatürk Central Horticultural Research Institute, Yalova, Turkey

⁴ Rapunzel Organic Ltd., Izmir, Turkey

1. Introduction

The increase in the world population and the improvement of industrialization led to an influx problem concerning human health and environment. One of the major problems is brought on by the use of excessive fertilizers and pesticides to obtain higher productivity. Both fertilizers and pesticides increase productivity of agricultural production but the chemical residue influences human health.

Recently, in developed countries, conscious consumers have been inclined to consume products that do not affect the natural balance and human health.

Developed countries produce and import organic products, while developing countries only produce and export organic products. The domestic market of organic products has not improved significantly in the developing countries.

In this study, the development of organic agriculture in Turkey is examined in terms of its history, production, foreign trade and marketing system.

2. Organic Agriculture in Turkey

2.1. The History of Organic Agriculture in Turkey

Farmers in Turkey produced organic agricultural products until the end of the 1950's. Following 1950's, due to increasing productivity of agricultural production, producers began to use excessive fertilizers and pesticides.

The first organic production was performed in the Aegean Region with dried figs and raisins. Subsequently this type of farming was used to produce apricot, hazelnut, cotton and pulses. Thus organic farming spread to other regions (Olhan, 1997).

With the development of organic agriculture, European companies have demanded organic products from Turkish companies. Upon that demand, organic agriculture started in 1984-1985 in Turkey.

The "Association of Organic Agriculture" was established in 1992 for the purpose of carrying out organic agriculture in Turkey. The members of this organization were the producers, exporters, importers, researchers and consumers who were related with this sector. In the following years, this association started to work on education, publication and meetings.

The legal arrangement took place in 1994 by publishing "Regulations Concerning the Production of Crops and Livestock Products by Organic Methods" in the Official Journal of the Re-

public of Turkey. Liability has been given to The Ministry of Agriculture (Aksoy & Altındışli, 1999).

Production of organic agricultural products started in the Aegean Region because numerous processing companies are located in Izmir and most of the products are exported from the port of Izmir. Furthermore, the offices of organization foundations, controlling and certification firms belonging to the organic agricultural sector, are located in Izmir (Aksoy and Altındışli, 1999).

2.2. Organic Agriculture Applications

Organic agriculture was first performed in Turkey due to the demand of European consumers since 1983. When the importer firm wants organic products, the firms determine the producing regions and they choose the producers in this region. The controlling firms visit listed producers in order to obtain information about the producers' opinion on organic agriculture and their agricultural business. Producers sign contracts and commit to apply organic agricultural methods according to the regulation applied to these methods (Olhan, 1997).

The controllers visit the farms several times to take samples from the fields that are used to produce organic products. If the products are appropriate for organic agriculture according to the controllers' report, the products that are produced in the first and second years are named as transition period products, the products that are produced subsequently are named as whole organic products (Olhan, 1997).

The general structure of the organization system of the organic sector in Turkey is given in Figure 1.

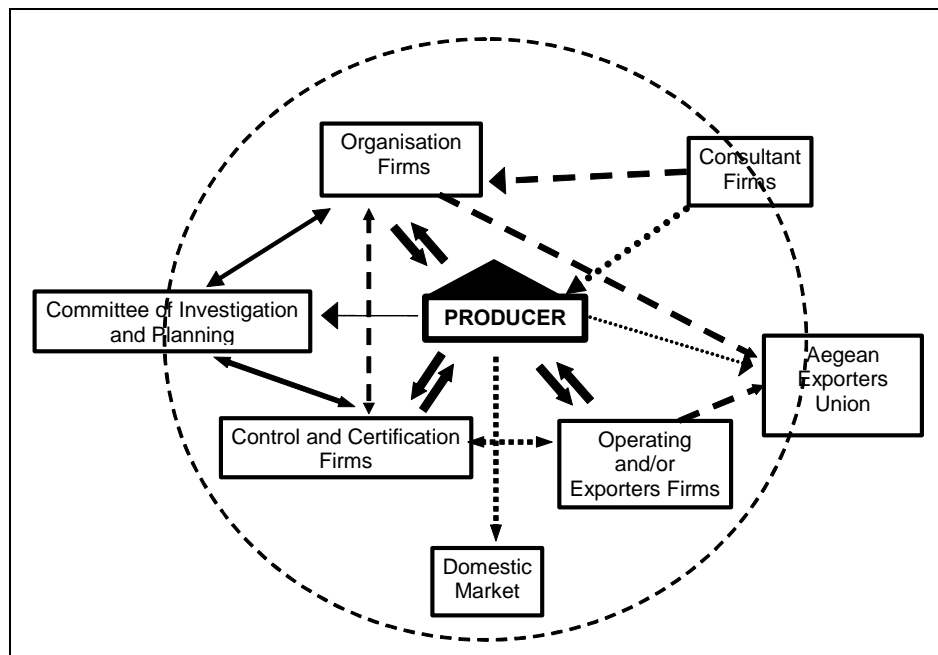


Figure 1. Organization system

As can be seen, the producer is situated in the centre of the system. The producer must apply to following institutions to be a part of this system;

- Organisation Firms,

- Exporter and/or Processed Firms,
- Direct Control and Certification Firms.

Upon completion of this process and having permission from The Ministry of Agriculture and Rural Affairs, producers may join the organic agricultural system.

The Committee of Investigation and Planning controls exporters and/or operating firms, producers and representatives of foreign firms. Control and Certification Firms control the production of products and then certify them. Consultant Firms provide technical support to the producer or firms that are in the system. The Aegean Exporter Union works as a co-ordinator in this system and helps in the exporting process of organic products. The Organisation Firms organise the marketing of organic products in domestic or/and foreign markets.

2.3. Certification

The production must be certificated by the certifying firms before production. The organic product must have the transition period that varies between 2 and 5 years to have the certificate. The certification firms inspect the production areas and products and they then inform these activities to the Ministry of Agriculture and Rural Affairs (Altındışli, 2001).

Seven companies have been conducting certifying activities in Turkey. Six of these firms are representatives of foreign firms and one of them is a Turkish firm.

Table 2.1. The Certification Firms in Turkey

Names	Addresses
BCS-ÖKO GARANTİE GmbH	1464 St. No: 57/4 Alsancak / IZMİR
BiO AGRICOP	161 St. No:22/A Bornova / IZMİR
ECOCERT	220 St. No:29/3 P.K 37 Bornova / IZMİR
ETKO	160 St. No:7 Bornova / IZMİR
IMO (Instut Für Marktokologie)	225 St. No:29/3 P.K 37 Bornova / IZMİR
INAC	Zeytinaları Mah. 141. St. No:3 Urla / IZMİR
SKAL	Girne Bulvarı No:28 D:1 Karşıyaka / IZMİR

Resource: www.izmir-tarim.gov.tr

3. Production and Export of Organic Products

3.1. Production

Organic agriculture began with the production of dried figs, raisins and apricots in 1985 and today 13 187 producers produce approximately 95 types of agricultural products organically on 59 648 980 hectares of land. They consist of vegetal products, processed food products, and other agricultural and food products (Akkaya et al, 2001).

The numbers of producers are provided in Figure 2. In 1990, 313 farmers produced organic products and this number increased to 13 385 in 2000.

The amount of production areas between 1990 and 2000 is depicted in Figure 3. The production area has increased 58 times between 1990 and 2000.

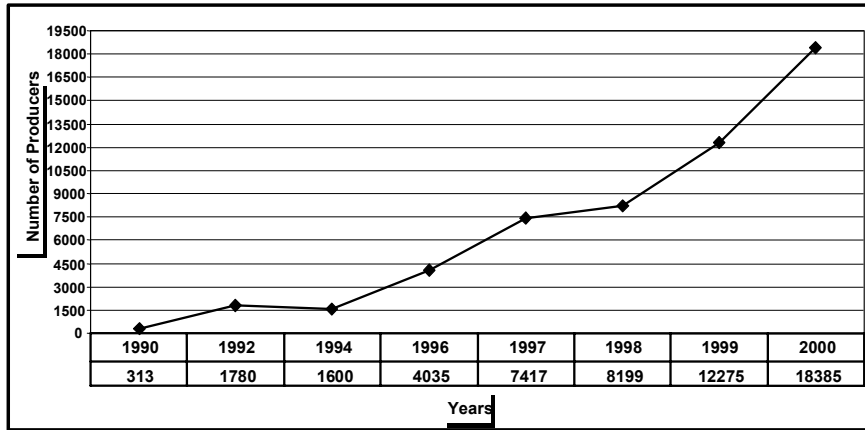


Figure 2. The Numbers of Producers (1990-2000).
Source: Akkaya, et al, 2001

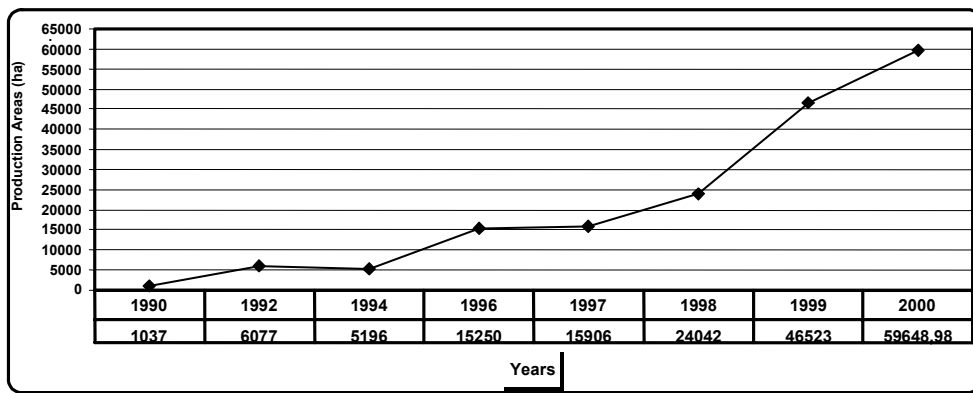


Figure 3. Production Areas (1990-2000).
Source: Akkaya, et al, 2001

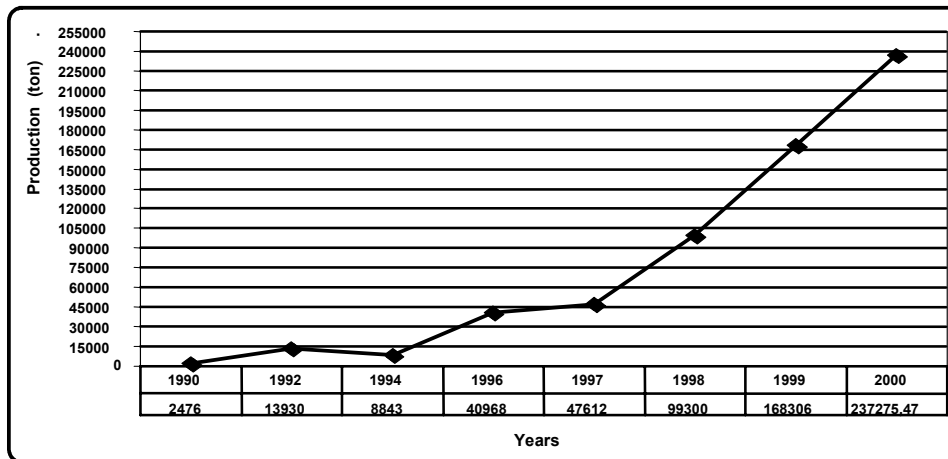


Figure 4. Production (1990-2000)
Source: Akkaya, et al, 2001

The amount of production between 1990 and 2000 is given in Figure 4. While the production of organic products was 2476 tons in 1990, it was 237 275 tons in 2000. Production is distributed in all of the regions, but the important provinces for organic farming are Izmir, Malatya, Sanliurfa, Aydın, Bursa, Hatay, Kütahya, Isparta, Rize and Afyon.

Farmers produce organic products under contracts that are agreed upon by mainly private firms.

The numbers of products that are grown organically are given in Figure 5. As previously mentioned, production started with 8 kinds of products in 1990, and by 2000, 95 kinds of organic products were produced in Turkey.

The agricultural products that are produced organically are provided in table 3.1.

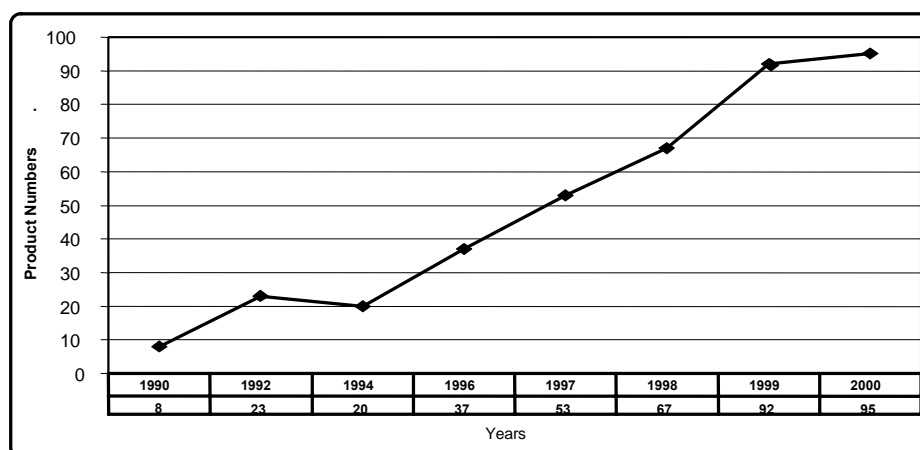


Figure 5. The Numbers of Organic Agricultural Products (1990-2000).

Source: Akkaya, et al, 2001

Table 3.1. Organically Grown Agricultural Products

Vegetal Products	
Edible Nuts	Hazelnuts, Walnuts, Pistachios, Almonds, Peanuts
Dried Fruits	Raisins, Apricots, Wild Apricots, Figs, Prunes, Apples
Dried Vegetables	Tomatoes
Fresh Fruits and Vegetables	Apples, Figs, Strawberries, Plums, Pears, Cherries, Persimmons(Sharon Fruit), Blackberries and Various Berries, Potatoes, Green Peas
Pulses	Lentils, Chickpeas, Dry Beans
Spices and Herbs	Bay Leaves, Oregano, Cumin Seeds, Linden Leaves, Sage Tea, Rosemary
Cereals	Wheat, Rice, Corn
Industrial Crops	Cotton, Poppy Seed, Anise Seed
Others	Capers, Pine nuts, Rosehips, Sesame, Olives
Processed Food	
Frozen Fruits and Vegetables	Apricots, Strawberries, Cherries, Sour Cherries, Berries, Plums, Onions, Squash, Tomatoes, Peppers
Fruit Juice and Concentrate	Apricot Puree, Pear Juice Concentrate, Sour Cherry Juice Concentrate, Apple Juice Concentrate, Rosehip Pulp, Apple Pulp
Others	Olive Oil, Cracked Wheat
Other Agricultural Products	
	Honey, Apricot Kernels, Dried Rose, Rose Oil, Rose Water, Myrtle Water, Thyme Oil, Lavender Oil

Resource: Organic Agricultural Products of Turkey, Export Promotion Centre of Turkey, Ankara.

3.2. Export and Import

The organic product exports in Turkey consist of: stiff shell and dried fruits, frozen fruits and vegetables, fresh fruits and vegetables, spices, legumes, rose oil, olive oil and cotton.

Twenty countries have imported organic products from Turkey in 2000. EU Countries are the most important markets. EU Countries (Germany, The Netherlands, Switzerland, and England), North European Countries, Canada, Australia, the USA and Japan are the potential markets for Turkey (Gündüz, 2001).

The export quantities and values of organic agricultural products in Turkey are provided in Table 3.2.

Table 3.2. Export of Organic Agricultural Products in Turkey

Products	1998		1999		2000	
	Q(Ton)	V(1000\$)	Q(Ton)	V(1000\$)	Q(Ton)	V(1000\$)
Raisin	2 839	3 855	3 289	4 150	4 028	4 610
Dried Apricot	953	2 724	1 045	3 033	1 050	2 344
Dried Fig	1 469	3 580	1 580	3 556	1733	3 308
Dried Plum	20	20	116	175	213	253
Hazelnut	742	3 948	879	4 036	1 039	4 009
Pistachio	19	401	36	696	52	787
Lentil	335	359	616	575	897	788
Chickpea	590	535	934	818	679	598
Apple Juice	-	-	555	761	290	388
Other Apple Juices	-	-	15	52	236	363
Cotton	75	161	169	356	175	299
Pepper	29	54	131	166	145	217
Opium Poppy	213	376	137	172	165	208
Olive oil	21	50	381	872	15	48
Others	724	1 786	1 796	4 144	1 330	2 617
TOTAL	8 029	17 849	11 679	23 562	12 047	20 837

Resource: www.igeme.org.tr

Raisin and hazelnut are the most highly exported products. The total export was 8 029 tons with 17 849 000 \$ in 1998. The value of exports was approximately 20 million dollars and 12 047 tons in 2000.

Turkey is not an importing country of organic products. However, Turkey imports some organic inputs that are used for production, protection and preservation.

4. Marketing

4.1. The Marketing of Organic Agricultural Products

Domestic consumers generally consist of well educated people who earn higher incomes in comparison with average people.

The first marketing method is selling products directly at small traditional market places or selling them at the production fields by the farmers who grow them.

The second marketing method is selling products directly to supermarkets and hypermarkets.

The other marketing method is exporting or submitting products with a forward contract. This method is applied as follows:

1. The project is applied by a firm.
2. The project is applied by a foreign firm and the products are processed by a local firm.
3. The project is applied by a foreign firm and the products are processed by the firms who have a partnership with the foreign institutions in Turkey.

The third marketing method is one which is guaranteed for quality assurance. These products reach the final consumers through the seller or buyer firms who inspect the production for quality and residue analysis (Tozan & Ertem, 1996).

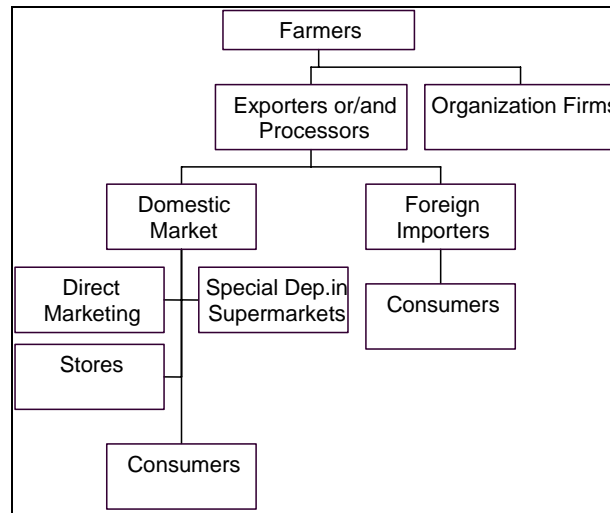


Figure 6. Marketing Channel

The marketing channel of organic agricultural products is given in Figure 6. Organic agricultural products are bought from the farmers by exporter companies or foreign firms. Farmers can also sell their goods also directly to the consumer. Exporter companies export the organic goods to the foreign importer to reach the final consumer. Organic products also reach the domestic market via exporter or/and processing companies.

5. Conclusion and Recommendations

There isn't any support programme for organic farming in Turkey. Moreover, studies contacted in this area are limited. There isn't any strategy about the needs and the approaches to organic farming. There is a potential domestic demand for organic products in Turkey. This production system is likely to spread widely in the future.

It is recommended that there be a creation of a statistical data scheme for planning production and consumption, a constitution of a support programme for organic production, and an increase in research about domestic market and organic farming in Turkey.

References

- [1] AKKAYA, F., ÖZKAN, B., SAYIN, B., TOKGÖZ, H., Production and Marketing of Ecological (Organic) Product in Turkey, 2nd National Symposium on Ecological Farming, p: 409, Antalya, 2001.
- [2] AKSOY, U., ALTINDIŞLI, A., The Production of Ecological Agricultural Products, Exporting and Developing Possibilities in Turkey and in the world, Chamber of Commerce, Publication Number: 1999-70, Istanbul, 1997.
- [3] ALTINDIŞLI, A., Ecological (Organic, Biological) Agriculture, <http://www.tigem.gov.tr>, The Web Site of General Directory of Agricultural Businesses, 2001.
- [4] GÜNDÜZ, M., KOÇ, D., The State of Organic Agricultural Products Market in Turkey and the Markets of Organic Agricultural Products in the world, <http://www.igeme.gov.tr>, The Web Site of Export Promotion Centre of Turkey, 2001.
- [5] TOZAN, M., ERTEM, A., Ecological Agriculture, Organization of Ecological Agriculture (ETO), Bornova, Izmir, 1996.
- [6] OLHAN, E., Environmental Problems Caused Using Input Chemical in Agriculture and Organic Farming- The Sample of Manisa, Doctoral Thesis, the Science Institute of Ankara University, Ankara, 1997.
- [7] <http://www.izmir-tarim.gov.tr>, The Web Site of the Aegean Exporters' Union.
- [8] <http://www.igeme.gov.tr>, The Web Site of Export Promotion Centre of Turkey.