

# **ORGANIC FARMING AND MARKETING IN GREECE**

## **1. Agriculture in Greece**

- In 1995, there were 774,000 farms in Greece.
- In 1997 the total agricultural area was 5,148,000 hectares.
- The average farm size is about 6.6 hectares.
- Crop and animal production in Greece are traditionally separate from each other. Animals, mostly sheep and goats, graze on harvested fields and public land, including woodland, grassland and barren land. In the winter, grazing is supplemented by animal feed produced by the same farmer or purchased in the region around the farm. There are, however, big animal farms similar to those in western and central Europe producing eggs, milk and meat for the centres of consumption exclusively from purchased animal feed.

## **2. History and Development of Organic Agriculture in Greece**

Organic agriculture in Greece has its roots in the ecological movement at the beginning of the 1980s. The first organic farmers were mostly amateurs who experimented with different organic cultivation methods, e.g. according to Steiner, Fukuoka and others.

The first organic production in Greece began in 1982 in Aigialeia when a small group of local farmers began the production of organic Corinthian grapes with the intent to export them to Holland. A consultant for organic agriculture working in cooperation with the Dutch certification organisation Skal laid the basis for the conversion of some farms in Aegio, a region between Patras and Korinth. The organic farming project of the EAS Aigialeias is still active today, with over 500 producers involved in the farming of grapes, olives, and citrus fruits.

From 1986 onward, a German firm supported the production of organic olives and olive oil for export.

The first organic olive production began in Mani in the mid-1990s.

During the 1980s, foreign regulatory bodies, (Skal, Soil Association and Naturland), controlled Greek organic farms, as such infrastructure did not yet exist in Greece. During that time, the Greek market was focused on olive oil, olives, citrus, wine, and grain.

There is no official data on organic agriculture for the period from 1982 to 1992. According to estimates, there were about 150 producers cultivating a total area of 200 hectares. By 1992 there were around 150 organic farms on 2,000 hectares of land.

In the 1990s the industry was boosted by the passage of several European Community Regulations which called for regulatory bodies for organic production and provided subsidies to organic farms.

However, the major change was brought about with the application of EU-Regulation 2092/91, in 1993 in the country, while a second expansion took place after the adoption of EU-Regulation 2078/92 in 1996 in the country. Among other things, the Regulation calls for giving subsidies in order to support organic agriculture. This incentive is credited with nearly doubling the organically cultivated land in less than a year. Afterwards the number of organic farmers and the corresponding cultivated areas continually increased.

Organic agriculture has rapidly expanded since its official establishment, with annual growth rates of between 50 percent and 120 percent; slowing down to 20-30% in 1999-2000. In 1999, both the share of organically utilised area as well as the number of organic farmers reached 0.6 percent of the overall country total.

Organic farms go through several phases before their produce can be considered truly organic. In 2004, 54.4 percent of organic farms in Greece were considered to be in the fully organic phase, up from 35.7 percent in 2003.

In 2004, olive trees represented 47.5 percent of all organically cultivated products in Greece, followed by grain at 23.1 percent and grapes at 6.1 percent.

In Table 1 represented the development of Organic Farming in Greece since 1993 to 1999.

**Table 1:** Development of Organic Farming in Greece per 31.12.1999

Year	1993	1994	1995	1996	1997	1998	1999
Hectares	600*	1,188	2,400	5,269	10,422	15,848	21,451
% of cultivated area	0.01	0.03	0.07	0.15	0.31	0.47	0.64
Growth rate in %	-	98	101	119	98	51	35
Number of organic farms	250*	477	700*	1,065	2,263	4,231	5,042
% of all farms	0.03	0.06	0.08	0.12	0.25	0.48	0,58
Growth rate in %	-	91	46	52	112	86	19

**Sources:** Ministry of Agriculture, certification and inspection bodies for organic products: Dio, Fysiologiki and Soge for December 31st of each year \* Estimation by Dio, Certifying and inspection body for organic products.

There are many reasons to consider investing in organic agriculture in Greece. The primary advantages Greece has over other European countries include the low cost of labour, the presence of large areas of land that have not been used in many years, meaning that they are suitable for immediate use for organic farms, the composition of the soil, the continued use of traditional methods of cultivation, and the temperate climate.

### 3. Organic Agriculture Organisations

#### 3.1. Certification and Inspection Bodies

- Dio — founded in 1993.
- "Soge" is part of "Soge - Syllogos Oikologikis Georgias Elladas" ("Association for Organic Agriculture in Greece"); the association was founded in 1985 and the inspection body with the same name was founded in 1993.
- "Fysiologiki" was founded in 1994.

- AGROCERT—organization for certification and inspection of agricultural products (Ministry of Agriculture).

### **3.2. Farmers', Consumers' and Scientific Organisations**

- The "EUBE – Enosi Epangelmaton Biokalliergiton Elladas" ("Union of Organic Farmers of Greece") represents Greek organic farmers at large exhibitions, fairs and at the Ministry of Agriculture. Its main activities during the last years have been the lobbying for registration of biological inputs at the agricultural Ministry in Greece (e.g. traps, biological pesticides) and the organisation of weekly markets for fresh organic products in Athens.
- "Rea" (English: Rhea), the "Scientific Society for Organic Agriculture" connects ecologically interested agricultural scientists in order to support and inform them about organic agriculture.
- "Ergastiri Oikologikis Praktikis" ("Workshop for Ecological Practice") has organised lectures and fairs about ecology and organic farming in Thessalonica. In recent years, it joined the "Network for the Preservation and Exchange of Local Varieties and Native Animal Breeds". Their activities concentrate on disseminating information and organising seed exchanges on an amateur level.
- "Union of Consumers of Organic Agricultural Products", the "Network of Actions against Pesticides and for Organic Agriculture" as well as some other organisations deal particularly with consumer information.
- IFOAM—the head office of the national IFOAM group is located at the Mediterranean Agronomic Institute of Chania (MAICh). The Greek representative in the IFOAM EU group is in charge of collecting and passing on information from the European Union group to the members of the national group and vice versa.

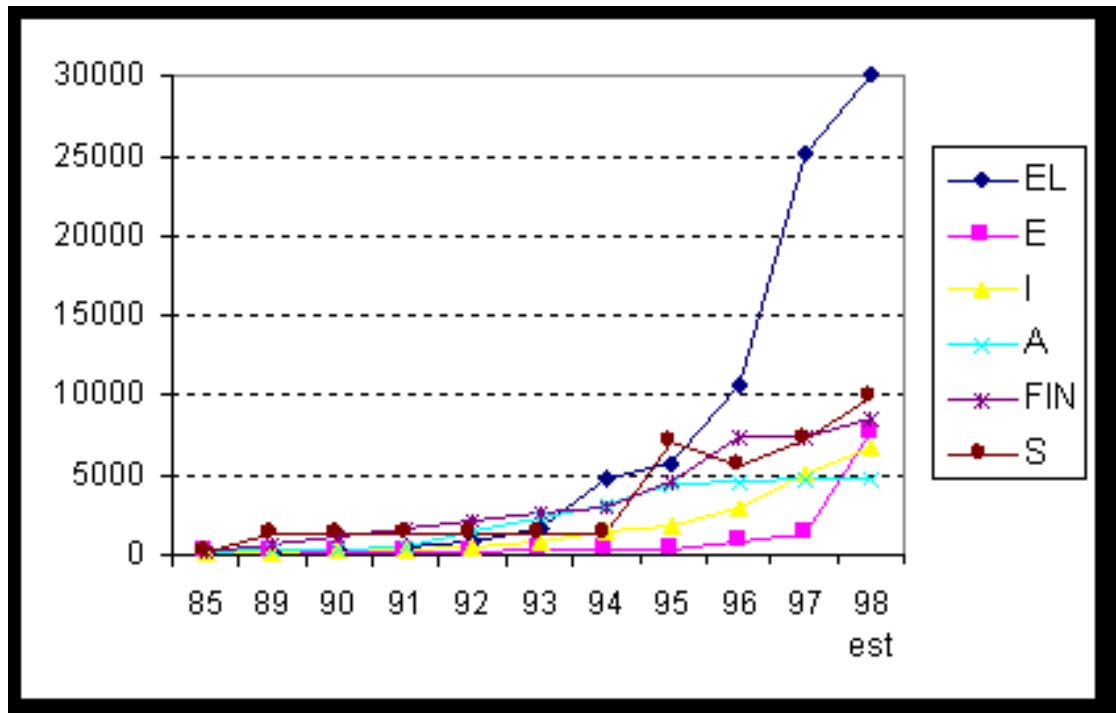
## **4. Distribution of Organic Farms**

### **4.1. Greek Organic Farms in EU distribution**

Greece belongs to the first group of Member States, - Greece (EL), Spain (E), Italy (I), Austria (A), Finland (F) and Sweden(S) (Figure 1) - where the average annual growth rate has been 50% or more over the last ten years. These six countries represent nearly 70% of all organic farms in the European Community, although they account for only two thirds of all agricultural holdings. In these

countries, most of the increase has been since 1993. For Greece the 1992 CAP reform may have been an important influence.

**Figure 1:** Number of organic farms in 1998 and increases in the number of organic farms between 1985 and 1998 (front runners).



In Greece, the rate of increase in the number of organic farms, excluding livestock, has been impressive. Even so, at 30 000 in 1998, Greece represents only 2% of organic farms in the EU, although it has 11% of all EU agricultural holdings. Organic livestock products are not certified in Greece but, in general, holdings with livestock (specialised or mixed) represent only 25% of total holdings.

#### 4.2. Distribution of Organic Farms in Greece

Most Greek organic farms are situated in southern and central Greece due to the main Greek organic product, the olive.

The Peloponnese leads Greece with the most organic farms. It has 110,800.26 hectares of organically cultivated land, which represents 41.5 percent of the nation's total.

Western Greece follows with 12.3 percent, or 32,921.64 hectares, and the Ionian Islands.

The distribution of organic farms in Greece is shown in table 2.

**Table 2:** Distribution of Organic Farms in 2005 (source: Ministry of Agriculture, 2005)

**Distribution of Greek Organic Farms in 2005**

Prefecture	Cultivated land (ha)	Number of producers
AGION OROS	242	5
AITOLOAKARNANIA	48238	2116
ARGOLIDA	6716	460
ARKADIA	4022	162
ARTA	2932	167
ATTICA	1092	191
AHAUAS	3065	385
VIOTIA	2868	170
GREVENA	4195	137
DRAMAS	14432	147
DODEKANISOU	116	20
EBROS	8295	273
EVIA	6820	209
EVRYTANIA	1225	23
ZAKYNTHOS	370	35
ILIA	2224	193
IMATHIA	919	234
HERAKLION	4723	421
THESSALONICA	10026	285
THESPROTIA	4521	75
IOANINA	6717	50
KAVALA	1081	149
KARDITSA	2197	133
KASTORIA	217	21
CORFU	60	17
CEPHALONIA	15542	195
KILKIS	3754	181
KOZANI	3104	384
KORINTHIA	2298	426
CYCLADES	831	41
LAKONIA	10291	924
LARISSA	18397	1017
LASITHI	859	115
LESVOS	12275	1460
LEFKADA	1454	73
MAGNESIA	17425	559
MESSINIA	7223	683
XANTHI	1370	40
PIRAEUS	465	87
PELLA	444	144
PIERIA	563	94
PREVEZA	2250	115
RETHIMNO	5346	286
RODOPI	359	44
SAMOS	284	81
SERRES	6001	209
TRIKALAS	2701	138

<b>FTHIOTIDA</b>	<b>4722</b>	<b>408</b>
<b>FLORINA</b>	<b>1527</b>	<b>96</b>
<b>FOKIDA</b>	<b>5758</b>	<b>70</b>
<b>CHALKIDIKI</b>	<b>14800</b>	<b>434</b>
<b>CHANIAS</b>	<b>5962</b>	<b>239</b>
<b>CHIOS</b>	<b>5172</b>	<b>71</b>
<b>General sum</b>	<b>288487</b>	<b>14614</b>

## **5. Major Organic Crops**

The range of the crops cultivated in Greece is considered to be small. The main reason for that is the fact that most farmers are used to produce some particular products and that growers are oriented towards perennial crops rather than annual ones.

The main organic products of Greece are olive oil and olives, followed by vine, other tree crops (especially citrus) and arable crops (see table 4). The main share of the industrial crops referred to is cotton.

Pastures and meadows account for more than 62 % in Greece.

Fresh vegetables are also produced for export and for the domestic market. The organic area of fresh vegetables has a share of less than 1 %.

Presently, the production of organic apples, pears and cherries is of negligible importance, but farmers show increasing interest in developing these crops.

Other organic arable crops (e.g. sunflowers, sugar beets, industrial tomatoes, pulses, sesame, herbs) are mainly hindered by the lack of processing possibilities, the low level of know-how and low prices for these products on the conventional market.

**Table 4:** Greek Organic Products According to Ministry of Agriculture in 2004**Organic and in – conversion crop production in 2004**

<b>Organic Products</b>	<b>In conversion (ha)</b>	<b>Organic (ha)</b>	<b>TOTAL (ha)</b>
<b>TOTAL</b>	49.280	217.879	267.159
<b>Grains</b>	7.046	5.536	12.582
<b>Legumes</b>	73	119	192
<b>Potatoes</b>	17	12	29
<b>Sugar beets</b>	5	0	5
<b>Forage</b>	1.176	1.813	2.989
<b>Industrial crops</b>	1.464	1.465	2.929
Tobacco	0	24	24
Hop	0	0	0
Cotton	92	919	1.011
Sunflower	1.238	78	1.316
Soya	0	212	212
Herbs	90	47	137
<b>Other Industrial crops</b>	44	112	156
<b>Fresh vegetables (total)</b>	149	112	261
<b>Flowers and Ornamental plants</b>	0	0	0
<b>Fodder crops (total)</b>	3	34	37
<b>Arable</b>	499	496	995
<b>Fallow</b>	573	730	1.303
<b>Grassland (total)</b>	22.987	173.247	196.234
<b>Horticulture (total)</b>	682	1.076	1.758
<b>Citrus</b>	542	1.626	2.168
<b>Olive trees (total)</b>	11.337	14.474	25.811
<b>Vine/currant (total)</b>	1.244	2.059	3.303

**6. Animal Husbandry**

Organic animal products have also made their appearance in the domestic market since the last months of 2000, as the EU-Regulation for biological animal breeding has been adopted in the country.

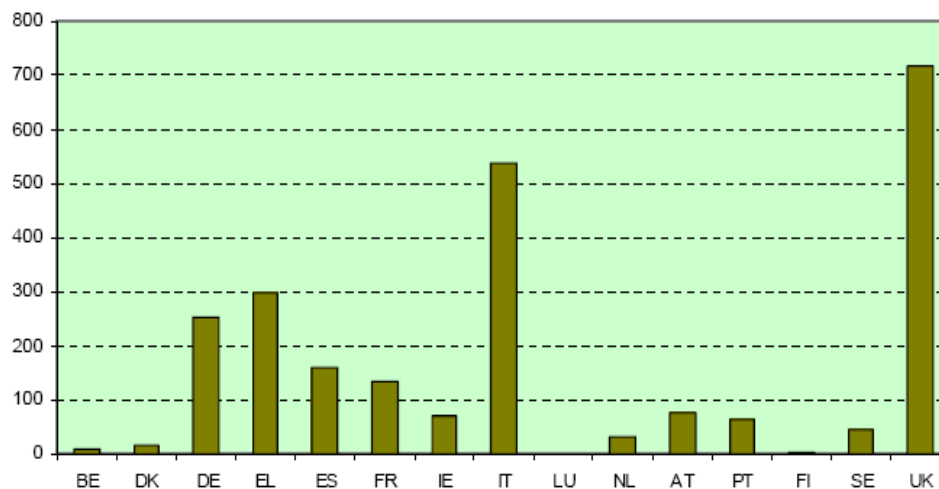
Organic livestock production in Greece is shown in Table 5.

**Table 5: Greek Organic Animal Production in 2004 (source: Agriculture Ministry).**

Animal species	TOTAL (heads)
<b>Bovine (total)</b>	<b>14.671</b>
Dairy cattle	375
Suckler cows	9.308
Bull	5
Other cattle	1.004
<b>Sheep (total)</b>	<b>94.362</b>
<b>Goats (total)</b>	<b>215.291</b>
<b>Pigs (total)</b>	<b>4.469</b>
<b>Poultry (total)</b>	<b>68.386</b>
<b>Rabbits</b>	<b>0</b>
<b>Bees (number of steam beds)</b>	<b>3.719</b>
<b>Other animal species</b>	<b>58</b>

EU-15 certified **sheep & goats** amounted to 2.4 million heads or 2.4% of total sheep & goats herd. Of the 380 000 certified goats, 40% are located in Greece (see figure 3).

**Figure 3: Number of certified sheep & goats in EU-15, 2003 (000)**



Note: Luxembourg and Austria 2002 data, Spain 2004 data, Ireland 2000 data, Germany, France and Spain national data.

The market offer includes eggs, feta cheese and meat of sheep and goats, dairy products (e.g. yogurt) and small quantities of pork and veal.

The demand for food for organic animal production already raised the area cultivated with arable crops and especially fodder crops.

## **7. Standards and Certification, State Regulation**

The only standards for certification are Council Regulations (EEC) 2092/91 and (EC) 1804/99.

The **Minister of Rural Growth and Foods** has promoted the Decision (KYA) 245090/2006 of OFFICIAL JOURNAL OF THE HELLENIC REPUBLIC 157B/10.02.2006 where is determined the additional measurements for the application of the control system of organic products production in Greece.

## **8. Implementation of Council Regulation (EEC) No. 2092/91**

The Bureau of Organic Products, Department of the Ministry of Agriculture, is responsible for everything in terms of organic agriculture concerning EEC Regulations, including supervising the implementation of EU regulations, participating in meetings and discussions at the EU level, transferring the regulations into Greek law and supervising the certification and inspection process.

A new body, partly independent of the Ministry of Agriculture, was established to deal with the certification of a series of quality labels (regional, integrated pest management, etc.) under the name of "Agrocert". Considering organic production, this body takes over some tasks of the Bureau of Organic Products.

Three certification and inspection bodies, Soge, Dio and Fysiologiki, were recognised in 1993 and 1994, and each has its own label.

The Ministry of Agriculture supervises the inspection and certification process by collecting figures from the certification bodies and checking archives and data. Since the implementation of the EU Regulation 2078/92, district departments of the Ministry of Agriculture have started to make random checks on organic farms.

## **9. State Support, Policy Initiatives**

Organic Agriculture was never supported by the Greek government apart from the implementation of EEC programmes.

The EU Regulation 2078/92 first made it possible for organic farmers to receive subsidies for organic farming. The regulation was transferred into a national regulation in 1996. Organic farmers could apply for financial support from spring 1996 until spring 1997.

Afterwards, the regulation was changed. A new application period started in autumn 1998 and is still going on. It aims for a more even distribution of organic farms all over the country, concentrating around ecologically important areas as well as in certain regions

in order to create "organic farming communities". Each of the 56 districts had to declare regions and products to be subsidized. For many farms, that means that only part of their crops will be supported financially, depending on the district subsidy plan. The government budget was calculated to cover 1,000 hectares in 1998, 8,000 hectares in 1999 and 5,000 hectares in 2000 in addition to 7,200 hectares which were subsidized until 1997 (the overall area to be subsidized until 2000: 21,200 hectares).

## **10. Implementation of Agenda 2000**

The new rural development regulation under AGENDA 2000 caused major changes concerning organic as well as conventional agriculture.

The 1257/99 referring to organic agriculture is implemented since February 2001 onwards. Each farmer has to pay for his own agronomist-consultant who will be responsible for annual cultivation programmes and reports as well as for a detailed Environment Treatment Plan. In order to make it worthwhile applying for the programme, the annual subsidy must be higher than the payment for the agronomist. This is the case for farms bigger than 6-10 ha vine or 15-20 ha arable crops or olives. The average organic farm size, however, is 4.3 ha. Therefore, this condition excludes small organic farmers from funding.

Other problems of the programme are the small subsidy for arable crops and especially horticulture, the limitation of the programme to a 5 year conversion period and the high demand for documents and data from the farmer. The 1257/99 programme is believed to be one of the most difficult EEC programmes to apply for - especially if one takes into account the small amount of money, which a small organic farmer will be paid.

The main problem, however, is not so much the constant changes in legislation and the general shortage of funds, but the poor level of information, the negative attitude towards organic agriculture and the difference in the interpretation of the national regulation by most of the local departments of the Ministry of Agriculture. These are some of the reasons why in 1996 only a little bit more of 2/3 of organic farmers was supported by the 2078/92 programme. This percentage will deteriorate as the 2078 is running out and the 1257 is gradually taking over.

In some regions of Greece, certain investments and activities of organic farmers were subsidized through the EEC Regional Programmes. As Agenda 2000 brought about

an overall orientation towards the production of quality products, organic production gives advantages to applicants in all investment programmes (Leader, Youth start, Processing of agricultural products etc.). In some cases (wine making, processing of olive oil), the existence of organic raw material is the only possibility to get subsidies out of EEC programmes.

Agenda 2000 demands crop rotation programmes as well as nature protection and reduction of fertilizers even from conventional farmers. These obligatory means of "good agricultural practice" pushes conventional farmers towards more friendly methods of land cultivation. It is not sure, whether this will help them in order to convert easier to organic agriculture.

## 11. Marketing of Organic Products

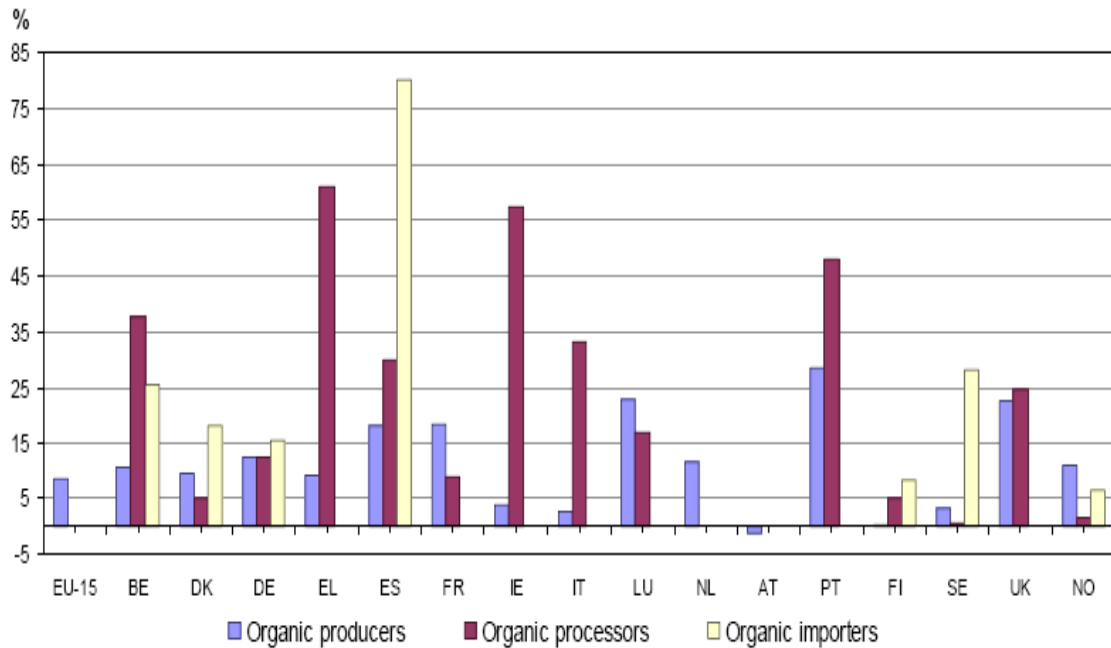
Business working in the organic farming sector can be separated into three categories: producers, processors, and importers. According to the Ministry of Agriculture, the number of businesses working in the organic farming sector in Greece reached 9,002 in 2004, up from 6,642 in 2003.

**Table 6:** Number of registered organic operators in Greece

Organic producers			Organic processors			Organic importers		
1998	2003	2004	1998	2003	2004	1998	2003	2004
4183	6028	8269	71	451	570	0	4	4

A general increase in the number of organic processors have been observed in Greece (average annual growth rate of 61 %), (see Figure 4).

**Figure 4:** Average annual growth rate of the number of organic producers, processors and importers (%), from 1998 to 2003



Note: BE, EL: 2002

Interest in the processing of organic products in Greece has been expressed by foreign investors especially in the production and processing of organic animal products (organic poultry). And demand for organic meat and cheese is on the rise.

### A. Domestic Market

Organised marketing of organic products is just starting with marketing organisations coming up and expanding within the last years.

The number of stores selling organic products has increased dramatically over the last few years. The first stores opened in 1993.

Organic products in Greece are available mainly through:

- The organic producers themselves, who sell their products at local weekly open markets or directly at the farm gate.
- Organic food shops found in the last few years in many large cities of Greece, such as Athens, Thessalonica, Heraklion, etc. Imported organic products may also exist in cases where domestic organic products are not enough to satisfy consumers' needs.

- Health and natural food shops depending on the interest of the shop owner and the ability of several organic farmers to launch their products as products of higher quality (e.g. wine, fruit, vegetables).
- A small number of specialised stores buy and sell organic products on a wholesale basis, too.
- However, one chain of supermarkets started some time ago to sell organic products in a special "organic" section and presents organic products in the company's advertisement journal. Other chains have subsequently joined in this effort.
- There is a weekly market in a different location in Athens every day at which only organic products are sold. Weekly organic markets there are also in Thessalonica, Bolos and Larissa. Many farmers, however, sell their products among conventional farmers at the local weekly markets in their districts or directly from the farm.

As far as the prices are concerned, the prices of organic products in Greece are higher than those of conventional ones, since they are products of top quality and the cultivation/production cost is higher.

Most products are exported, especially fresh fruit, olives, olive oil and wine.

## **B. Exports**

### Olive oil

Most organic olive oil produced in Greece is exported (71-73 percent of the total yearly production). This is a rapidly growing market. In 1999, 765 tons of oil was exported, compared with 1,900 tons in 2004.

### Wine

Approximately 16 percent of organically produced Greek wine is exported. Organic know-how in vine cultivation has reached a high level. The increase in organic viticulture is also a consequence of the high hectare subsidy and restrictions on conventional wine production.

### Grain

64 percent of organic grain produced in Greece is exported.

## **12. Training and Research**

Up to now, there has been very little official training in organic agriculture.

- In 1998, a postgraduate programme for agronomists that specialised in organic agriculture was set up in Iraklion, Crete, including two months of lectures, two months of practical training and two months of study on a topic concerning organic agriculture.
- A four-year study programme started in 1999 in Argostoli on the island of Kefallinia, finishing with an agronomist's diploma specifying organic agriculture. The body responsible for this programme is the college TEI Epirus.
- Many seminars on organic agriculture subsidised by the EU are held all over the country and are targeted at unemployed people.
- Already, many colleges and even Universities have included optional lectures on organic agriculture and animal production into their study programmes.
- Part of the research under EU-regulation 2078//92 is carried out by the National Institute for Agricultural Research (N.AG.RE.F - Ethniko Instituto gia Agrotiki Erevna). The programme deals with the description and providing of statistical data on organic farms in Greece. Soil analyses have been carried out concerning soil parameters as organic matter, pH, carbon content, soil nutrients as well as pesticide residues. A small number of researchers are employed by Branches of the Institute in Southern Greece. Their research topics are directly connected with organic agriculture (soil improvement, fertilizing and plant protection in different crops).
- Universities and governmental institutions usually deal with research topics concerning the reduction of chemicals in agriculture and the development of environmentally friendly techniques of agricultural production.
- The main research topics are: the fight against the Dacus fly in olive production; organic fertilising and green manure; alternatives in coping with fungal diseases in olives and wine; integrated pest management; chemical residues in the environment; and consumer behaviour.