ANALYSIS OF THE DOMESTIC ORGANIC PRODUCT MARKET
IN TURKEY IN COMPARISON WITH THE
EUROPEAN UNION EXPERIENCE
YÜKSEK LİSANS TEZİ

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The founder of Bugday, Victor Ananias for his assistance to me in the determination of the organic firms which were essential for the interviews in order to better examine the domestic organic product market in Turkey;

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My mother for her continuous support and belief in me.
ABSTRACT

It is a fact that conventional agriculture whose distinctive property is the implementation of agricultural chemicals aims to increase economic productivity at the expense of creating serious side effects on health and environment. Therefore, the spread of this system in time, has led not only to the probing of its sustainability by making the side effects visible, but also to the ascent of organic agriculture. As a result, organic agriculture which began to spread worldwide in the 1970s develops rapidly since the 1990s.

The development of organic agriculture in the EU has also been similar. While the public recognition was realised in the 1990s, the official recognition could not come true before the 2000s. Especially the announcement of the EU in 2001 which put the main emphasis of the CAP on quality, rather than quantity reflects the important change in the EU’s point of view towards organic agriculture. Following this change, the member states have begun to support organic agriculture both by setting their known targets and taking the necessary precautions for further developing it.

On the other hand, the organic agriculture in Turkey is far away from receiving the deserved support and this situation leads Turkey to a position where Turkey is unable to use its high potential in organic agriculture. Regarding the fact that Turkey’s ability to use this potential and develop its organic agriculture depends on the development of the domestic organic market, Turkey can only achieve it by the means of state support and the implementation of necessary precautions.
ÖZET


Diğer taraftan Türkiye’deki organik tarım ise, hak ettiği desteği görmekten çok uzaktır ve bu durum Türkiye’nin organik tarımdaki yüksek potansiyelini kullanamaması ile sonuçlanmaktadır. Türkiye’nin bu potansiyeli kullanabilmesinin ve kendi organik tarımı geliştirebilmesinin Türkiye’deki organik tarım ürünleri iç pazaranın gelişmesine bağlı olduğu gerçeği göz önüne alınмагазında, Türkiye bunu ancak devlet desteği ve gerekli önlemlerin uygulanması ile başarabilecektir.
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LIST OF ABBREVIATIONS

BSE  Bovine Spongiform Encephalopathy (mad cow disease)
CAP  Common Agricultural Policy
EFTA  European Free Trade Area
EU  European Union
GMO  Genetically Modified Organism
IFOAM  International Federation of Organic Agriculture Movements
UAA  Utilised Agricultural Area

AT  Austria
BE  Belgium
DK  Denmark
EL  Greece
ES  Spain
FR  France
IE  Ireland
IT  Italy
LU  Luxembourg
NL  The Netherlands
PT  Portugal
UK  United Kingdom
NO  Norway

n.a  Not Available
n.d  No data available
ibid.  ibidem
INTRODUCTION

Being one of the oldest economic activities, agriculture still maintains its importance. However, the agriculture of today comprises a great change in the point of view towards it and this situation has mainly affected the agricultural priorities. As a consequence, the main target of agriculture has changed from feeding an increasing human population with regular food to feeding an increasing human population regularly by paying special attention to the non-creation of harmful side effects on environment, health, etc. and organic agriculture came out.

Organic agriculture is characterized by the non-use of agricultural chemicals & GMOs and the use of local resources with “the producers’ knowledge of the complexities of biological systems to create a harmonious balance with, not dominion over nature”\(^1\). In this regard, it can be stated that organic agriculture is completely sustainable and environment friendly. It is this reason which has caused the rapid expansion of organic agriculture. According to estimations of Organic Monitor, the worldwide market of organic products reached to 27 billion US dollars in 2004 with a growth rate of 8-10\(^%\).\(^2\)

It is at this point that the crucial question appears: “What is the position of Turkey in organic agriculture?” Regarding Turkey’s advantages in terms of climate, soils, utilisable agricultural area and the agricultural production\(^3\) capacity, Turkey has a high potential in organic agriculture. However, Turkey is unable to utilize it at the

\(^{2}\) Hurriyet Gazetesi, October 6, 2005
\(^{3}\) According to a report prepared by the Association of Turkish Agriculturalists, the annual vegetable & fruit production of Turkey is between 43-45 million tonnes. In other words, the annual vegetable production of Turkey corresponds to 20 % of the annual vegetable production of EU 25, while the annual fruit production of Turkey corresponds to 40 % of the annual fruit production of EU 25. For further information, see “Sebze- Meyve Raporu 2006” http://www.tzd.org.tr
moment. Since the precondition for Turkey of a fully developed organic agriculture is the existence of a fully developed domestic organic market, Turkey must take all the necessary measures to develop its domestic organic market which will naturally bring the improvement of organic agriculture in Turkey.

In this regard, the aim of this thesis is to put forward the situation of Turkish domestic organic market along with the development of Turkish organic agriculture and examine the European experience of the domestic organic market developments in order to draw conclusions for Turkey. Therefore, the thesis includes a brief comparison of the development of organic agriculture between the European Union and Turkey.

The thesis is mainly composed of three parts.

The first part gives general information about some definitions and the history of organic agriculture. Moreover, this introductory part explains the worldwide development of organic agriculture by citing examples from the leading countries and continents in organic production.

The second part which is totally about the European Union investigates the development of organic agriculture from the legal and economic perspectives. In addition to summarizing the policy developments and institutional support related to organic agriculture, this part also clarifies the different stages of domestic organic market development in specific EU members.

The final part completely focuses on Turkey by examining the development of organic agriculture in addition to the current situation of domestic organic market. Therefore, this part not only includes detailed information about the initiation of organic agriculture in Turkey, but also points out the development of Turkish domestic organic market by illustrating the production volumes, the institutional support and the findings of a field study which is designed to reveal the organic production and consumption constraints in Turkey.

Since this part comprehends a field study which includes a number of interviews conducted by both the control and certification bodies in Turkey and some of the Turkish organic firms, this part can be considered as a brief examination of the Turkish domestic organic market.
I. ORGANIC FARMING: A TYPE OF SUSTAINABLE FARMING SYSTEM

Organic farming is a health and environment friendly farming system which is mainly based on the non-use of:
- “Chemical fertilizers and pesticides (herbicides, fungicides, insecticides) in crop and fodder production;
- Chemical health care products, growth promoters and hormones in livestock production;
- Synthetic preservatives and irradiation in post-harvest handling;
- GMOs in all stages in the food chain”

The aims of organic farming can be listed as:
- “To produce food of high nutritional quality in sufficient quantity;
- To maintain and increase the long term soil fertility
- To avoid all forms of pollution that may result from agricultural techniques;
- To work with natural systems rather than seeking to dominate them;
- To use as far as possible renewable resources in locally organised agricultural systems;
- To maintain the genetic diversity of the agricultural system and its surroundings; including the protection of plant and wildlife habitats;
- To allow agricultural producers an adequate return and satisfaction from their work including a safe working environment;
- To encourage and enhance biological cycles within the farming systems, involving micro-organisms, soil flora and fauna, plants and animals;
- To consider the wider social and ecological impact of the farming system;

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To give all livestock conditions of life that allow them to perform all aspects of their innate behaviour.⁵

Organic farming should never be thought as a primitive kind of agriculture which uses low or old technology.⁶ Instead, it uses high technology and intensive research together. All types of farmers can apply it in all farm types because it is “a highly adaptive set of principles applied to each situation.”⁷

In organic farming, the emphasis is always on the production stages, but not on the final product. Apart from other food products all organic products are controlled in all stages of production. Besides, all organic products are certified and certification provides a guarantee for the consumers.

Organic farming has a number of advantages. It protects the biodiversity because the application of chemicals is not allowed. All types of organic farming practices such as crop rotations, cover cropping, minimum tillage, polycultures and use of adapted genetic resources are designed to keep and increase the soil’s fertility.⁸ The increased soil activity also reduces the risk of erosion. The surveys showed that organic fields above 15 hectares had flora as six times more than conventional fields, including some endangered species.⁹

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The non-application of pesticides is crucial for human health because pesticides get accumulated in the soil and in the water. “It is estimated that 70-90 per cent of ground applied pesticides and 25-50 per cent of aerially applied pesticides reach their target.” According to different surveys many pesticides lead to reproductive failure, sexual abnormalities and increase in birth defects, accompanied by nasty diseases; cancer, Alzheimer and Parkinson.

The non use of GMOs in organic farming is another advantage. GMOs also accumulate in the soil and water and there is not enough information on their long term effects.

1.1. What is A Sustainable Farming System?

When a farming system is defined as sustainable, there needs to be the accumulation of five different capitals. “These are natural capital, social capital, human capital, physical capital and financial capital.”

Natural capital is the goods that humans receive from the nature such as, wood, soil, wildlife, air, water etc. Social capital is the relationships between humans together with reciprocity. Human capital is people and their accumulation of health, education, nutrition, skills and knowledge. Physical capital is the infrastructure in a region. For

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instance, houses, supplies of energy, different ways of transportation are its examples. Financial capital is credits, grants, subsidies etc.

In this connection, a farming system is sustainable when it especially increases the natural, human and social capitals, rather than consuming them.\textsuperscript{14}

Sustainability is the distinct property between conventional and organic farming. The conventional food production is accepted as efficient and it is able to produce greater quantities of food with cheap prices. However, it has serious costs (externalities). It depletes natural capital by polluting waters and soils, also damaging the wildlife. Moreover, as the natural capital is harmed, the rural communities lose their farming jobs, cannot earn their living and need to migrate to big cities. This situation is known as the destruction of social capital.\textsuperscript{15}

\section*{1.2. The Overview of the Development of Organic Agriculture}

Organic agriculture was born in the 1920s in Germany by an anthropologist Rudolf Steiner. The theory developed by Steiner accepted human beings as part of a system and humans had to learn the ways of living with the environment in harmony.\textsuperscript{16} This theory was applied into agriculture by H.Pfeiffer and “biodynamic agriculture” came out.

In 1930s a politician named H.Muller in Switzerland initiated the organic movement.\textsuperscript{17}

\begin{flushright}
\textsuperscript{14} ibid. \\
\textsuperscript{15} ibid. \\
\end{flushright}
In 1940s in England Sir Albert Howard, also well known as the father of organic agriculture wrote his book, “An Agricultural Testament”. Sir Howard summarised his research on the traditional Indian farming practices in his book.\(^\text{18}\)

Later there were the effects of the Second World War reflected on agriculture. Agriculture became more industrialized and large scale. The “Green Revolution”\(^\text{19}\) was initiated in 1944, in Mexico.

In 1950s organic agriculture was also noticed in France and started to be supported by doctors and consumers.

It was 1970s that organic agriculture started to spread worldwide. IFOAM was established in this period. As the negative effects of conventional agriculture were felt, the slogan became widespread. “Know your food, know your farmer.”\(^\text{20}\)

Both the 1980s and 1990s saw the rapid development of organic farming in line with the establishment of legislation and certification standards. Besides, the existence of genetically modified organisms and certain food scandals like the BSE and foot-and-mouth disease made consumers question the safety of food and initiated the rise of organic farming.

By the end of 2003, more than 26 million hectares of land is under organic management and organic products have a growing market.\(^\text{21}\)


\(^{19}\) The Green Revolution is the introduction of fertilizers, pesticides and heavy mechanization in agriculture.


Looking at the proportion of organic land to total agricultural area, Liechtenstein is the leader of “top ten” with 26.40% and is followed by Austria with 12.90%. The difference between Liechtenstein and Austria is two fold. After Austria comes Switzerland with 10.27%. The country that has the final place in this ranking is Slovenia with 4.60%.

Source: SOEL Survey 2005
In terms of organically managed land area, Australia is clearly ahead of other countries with 11,300,000 hectares. The second country in the ranking is Argentina with 2,800,000 hectares. The difference in hectares of organic land area between Australia and Argentina is worth to notice because it is nearly four fold. However, most of this land in these countries is grazing land. The third place belongs to Italy. Italy is the country that has the greatest amount of organically managed land area in the EU. All the other countries in this ranking are either countries from the America continent, such as Brazil and Chile or other EU members, like Germany and Spain.

Source: SOEL Survey 2005

Figure 1.2. Land Area under Organic Management “Top 10 Countries Worldwide”
(By the End of 2003)
The leading continent under organically managed area is Oceania by 42.9%, followed by Europe 23.8% and then by Latin America, 23.5%. The share of North America is 5.5% while the shares of Asia and Africa are 2.8% and 1.6% respectively. The shares of North America, Asia and Africa are quite small when compared to the shares of the three leading continents.

Source: SOEL Survey 2005

Figure 1.3. Total Area under Organic Management: Share for Each Continent
(By the End of 2003)
Latin America has the highest share for the total number of organic farms in terms of percentage by 34 %. The second continent is Europe by 29,9 %, followed by Africa 21,2 % and Asia 11,8 %. North America has a share of 2,7 % and the share of Oceania is only 0,4 %.

Source: SOEL Survey 2005

Figure 1.4. Total Number of Organic Farms: Share for Each Continent
(By the End 2003)
II. ORGANIC AGRICULTURE IN THE EUROPEAN UNION

It is possible to mention that Europe has always had an important place in the history of organic agriculture. Not only the birth, but also the initiation and development of organic agriculture all came out in various European countries at different times.

However, the real climb of organic agriculture in the EU was in the 1990s. The 1990s was a period of serious food scandals, like the BSE disease, which certainly contributed to the wider recognition and development of organic agriculture in the EU.

In today’s European Union, uniformity in production and consumption rates does not exist. Despite this, Europe is the second continent in percentage of share (according to data by the end of 2003). In addition, Italy, Germany, Spain and UK are four EU members, which are in the ranking of “Top Ten” countries having the greatest land area under organic management. In other words, the EU continues to be an important actor in organic agriculture.

2.1. Policy Developments for Organic Agriculture in the EU

Organic agriculture was defined as a target of the CAP for the first time in 1999. One year later, Agenda 2000 announced a change in the point of view for the future of European Union’s agriculture. The EU agriculture had to be sustainable and competitive at the same time, guaranteeing a stable income for the farmers.
In 2001, during the Goteborg European Council it was decided that the CAP should have focused on “quality, rather than quantity by encouraging organic farming and other environmentally friendly farming methods”.

In the year 2003, there was another reform of the CAP which is known as the Mid-Term Review of CAP. Food quality and safety, animal welfare, the competitiveness of the European Union’s agriculture together with the protection of environment were the main priorities of Mid-Term Review. To achieve the protection of the environment, the European Commission proposed different methods, such as the cross compliance and dynamic modulation.

In the former method, compliance with environmental standards is a must of receiving direct payments or financial aid. By this method, the farms under the direct payments will be penalized if they do not consider environmental standards important.

The dynamic modulation method is the reduction of a certain percentage of direct payments (up to 20%). These revenues can be used for the rural development.

Finally the European Action Plan for Organic Farming was accepted in 2004. In fact, this action plan did neither announce targets, nor new resources’ allocation for organic farming. However, it emphasized the organic farming, health, quality, safety relationships and the public benefits brought by the management of land organically.

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25 ibid.
2.1.1. The European Union Regulations of Organic Agriculture

The basic legal framework in the EU is the Council Regulation No 2092/91 in 1991. This regulation brings the standards of organic production; such as the products which can be used for fertilization and for fighting with diseases. It also introduces a system guaranteeing the organic products imported from third countries are produced and inspected according to the rules which are equivalent to the rules of the EU. In addition, this system also establishes the inspection and supervision systems. The operators producing, preparing or importing organic products must inform the responsible authorities that are chosen by the member states about their activities.\(^{27}\)

However, Council Regulation No 2092/91 included only plant production. Therefore, in 1999 Council Regulation No 1804/99 entered into force. This new regulation brought the standards for the production and labelling of livestock. The use of GMOs and products containing GMOs in organic production was prohibited by Regulation No 1804/99.\(^ {28}\)

These regulations were followed by the introduction of the EU logo in 2000. Nonetheless, the use of this logo is not prevalent because each member state used to apply its own organic standards before EU regulations were introduced. There were variations among national organic standards.

Many member states still prefer to use their private or national logos because of the variations in standards. Besides, it is difficult to market an organic product in a different member state if it only carries the national logo of where it is produced, but not where it will be sold.\(^ {29}\)


\(^ {28}\) ibid

a. Imports of Organic Products into the EU

The imports of organic products from third countries can be realized by three different methods. The first method is the “third country” list which means the countries in this list can export their organic products without any further requirements. This list includes eight countries at the moment and nine more countries have applied to appear on it.

The second method will expire on 31 December 2005. In this method it is the importer who has to supply the necessary documentation showing that the production and certification of these products are consistent with the rules in the EU.

The third method is “certification of import”. This certification must be provided by an inspection body in the exporting country which is approved by the EU.

2.1.2. The Institutional Support for Organic Agriculture

Organic agriculture is emphasized and supported mainly under the rural development. The Council Regulation No 1257/99 in 1999 fulfils support for rural development. This regulation has new measures like agri-environment, food quality, less favoured areas, in addition to measures to modernize agricultural holdings.

Farmers using environmentally-friendly agricultural production methods or methods to protect animal welfare for at least five years are subject to support under agri-environment measures. The aid is calculated by the additional costs of these

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31 Argentina, Australia, Costa Rica, Czech Republic, Hungary, Israel, New Zealand, Switzerland
32 Chile, Dominican Republic, Guatemala, India, Japan, Tunisia, Turkey, the USA
farmers, the income that is lost and the necessary amount to encourage farmers to use environmentally-friendly farming techniques.\textsuperscript{33}

Moreover, farmers who contribute to food quality can also receive financial aid. However, this type of support cannot be more than 3000 Euros per farm annually and cannot be given for more than five years. The support is decided by the amount of fixed costs. The producer groups which have activities and campaigns to promote food quality and inform consumers can also receive support.

Besides, farmers living in environmentally sensitive areas and applying environmentally-friendly farming techniques can be supported up to 250 Euros per hectare of farm.\textsuperscript{34}

All these measures are financed by EAGGF Guarantee or Guidance Section.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
\textbf{Years} & \textbf{(Euro Million-1999 Prices)} & \textbf{CAP Expenditure (excluding rural development and accompanying measures)} & \textbf{Rural Development and Accompanying Measures} \\
\hline
2000 & 40 920 & 36 620 & 4300 \\
2001 & 42 800 & 38 480 & 4320 \\
2002 & 43 900 & 39 570 & 4330 \\
2003 & 43 770 & 39 430 & 4340 \\
2004 & 42 760 & 39 430 & 4350 \\
2005 & 41 930 & 38 410 & 4360 \\
2006 & 41 660 & 37 570 & 4370 \\
\hline
\end{tabular}
\caption{Allocation of Funds between CAP Expenditures and Rural Development Measures For The Period 2000 and 2006}
\end{table}


\textsuperscript{34} ibid.
As table 2.1 shows, the total amount of money that will be spent for rural development and accompanying measures increases from 4300 million Euros to 4370 million Euros between the years 2000 and 2006.

On the other hand, the amount financial aid paid to organic agriculture in the EU differs among the member states and the product groups as illustrated in the following tables.

Table 2.2 reveals the financial support paid per hectare to the organic arable land and grassland in 2001. The table examines the payments in two categories, the payments given for the conversion to and the maintenance of organic agriculture.

<table>
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<tr>
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<th>Arable Farmland</th>
<th>Grassland</th>
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<td>Country</td>
<td>Support for Conversion to Organic Farming in €/ha</td>
<td>Support for Maintenance of Organic Farming in €/ha</td>
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<tr>
<td>EU</td>
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<td></td>
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<tr>
<td>Austria</td>
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<td>Spain</td>
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<td>55^1</td>
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<td>France</td>
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<td>Slovenia</td>
<td>370</td>
<td>370</td>
<td>138</td>
<td>138</td>
</tr>
</tbody>
</table>

1 Without irrigation
2 This is an average of the support paid during the first five years of conversion. After that no support has been paid for maintenance of organic farming.
3 This is paid up to 70 hectares. Over 70 hectares only 150 €/ha are paid
4 This is paid up to 70 hectares. Over 70 hectares only 75 €/ha are paid
5 Additional payments for animals per hectare

Source: The European Market for Organic Food: Revised and Updated Analysis, Omiard Volume 5

According to the table, the difference in the financial support paid to arable farmland and grassland is seen. In general, the payments for the conversion to organic arable land are higher than the ones for the conversion to organic grassland because the conversion to organic arable land is much more difficult.

Comparing the organic cultivation of arable land with that of conventional, more information is needed to improve the soil fertility in organic cultivation of arable land and there is usually a decline around 30% in the total yields on organic arable land.\(^{35}\)

Continuing with the table, most of the European countries paid higher support to the conversion of arable land, with the exception of Denmark and Spain. In both of these countries, the payments for the conversion of grassland were higher.

Being the country with the least payments for the arable farmland conversion, Denmark had a similar situation also in the conversion of grassland. Following Sweden which made the lowest financial contribution to the conversion of grassland, Denmark was the second country in this category.

In this connection, the different Danish organic agricultural policy was the underlying reason of the low support for organic agriculture in Denmark. The organic subsidies were not totally paid only to organic production. Instead, the total amount of

\(^{35}\) Ulrich, Hamm& Friederike, Gronfeld(2004). The European Market for Organic Food: Revised and Updated Analysis, OMIaRD Volume Five. Wales: The University of Wales Aberystwyth, School of Management and Business
subsidies was divided into three parts and each part was paid to the production, advice-research and the marketing areas of organic agriculture.\textsuperscript{36}

In the meantime, there were even countries which did not give any financial support after the first five years. These countries were France and the UK.

With respect to the accession countries, the situation in the Czech Republic was totally different than the situation in Slovenia. While the comparatively low subsidies given both to arable farmland and grassland in the Czech Republic were a result of the willingness to keep the supply and demand of organic products in balance, the comparatively high subsidies given in Slovenia were an outcome of the willingness to increase organic production.\textsuperscript{37}

The following table of 2.3 demonstrates the subsidies which were paid to support the production of organic vegetables and fruit in 2001 in the EU countries.

\textsuperscript{36}Ulrich, Hamm& Friederike, Gronefeld(2004). The European Market for Organic Food: Revised and Updated Analysis, OMiARD Volume Five. Wales: The University of Wales Aberystwyth, School of Management and Business
\textsuperscript{37}ibid.
Table 2.3
The Financial Support Paid to Organic Vegetable and Fruit Production in 2001

<table>
<thead>
<tr>
<th>Crop Area</th>
<th>Vegetable Area</th>
<th>Fruit Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Support for Conversion to Organic Farming in €/ha</td>
<td>Support for Maintenance of Organic Farming in €/ha</td>
</tr>
<tr>
<td><strong>Country</strong></td>
<td><strong>Support for Maintenance of Organic Farming in €/ha</strong></td>
<td><strong>Support for Conversion to Organic Farming in €/ha</strong></td>
</tr>
<tr>
<td>EU</td>
<td>Austria</td>
<td>509</td>
</tr>
<tr>
<td></td>
<td>Belgium</td>
<td>930</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>414</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td>258¹</td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>305⁴</td>
</tr>
<tr>
<td></td>
<td>Greece</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>Ireland</td>
<td>242⁴</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>Luxembourg</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>737</td>
</tr>
<tr>
<td></td>
<td>Portugal</td>
<td>294</td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td>UK</td>
<td>-</td>
</tr>
<tr>
<td>EU</td>
<td>369</td>
<td>265</td>
</tr>
<tr>
<td>Accession Countries</td>
<td>Czech Republic</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Slovenia</td>
<td>515</td>
</tr>
</tbody>
</table>

¹Outdoor vegetables
²Without irrigation
³This is an average of the support paid during the first five years of conversion. After that no support has been paid for maintenance of organic farming
⁴only up to 3 hectares

Source: The European Market for Organic Food: Revised and Updated Analysis, Omiard Volume 5

Regarding the financial support paid for organic vegetable production, it was Belgium that provided the highest support and it was followed by Netherlands, Italy and
Sweden respectively. On the other hand, the least contribution in this category was supplied by Ireland.

It was also interesting to notice that the financial support paid for the production of vegetables was lower than the EU average in Spain, Greece and Portugal although these countries all have favourable climates to grow many products.

Continuing with the financial support given to organic fruit production, the highest level of subsidies was paid by the Netherlands while the lowest level was paid by Spain. Besides, Belgium, Sweden and Italy were the other countries providing the highest support in this category after the Netherlands.

Moreover, the examination of the support given organic vegetable and fruit production together, gives some interesting information. For instance, Denmark, Finland and the UK paid no subsidies for the conversion of neither vegetable nor fruit production. In addition, France was the unique country which did not give any subsidies for the maintenance of organic vegetable and fruit production.

Meanwhile, the table also puts forward the difference in payment rates between the organic cultivations of vegetable-fruit and arable land-grassland. Since the organic production of vegetables and fruit requires more labour and capital than the cultivation of grassland and arable land, more subsidies per hectare were paid for organic vegetable and fruit cultivation in the EU.38

---

2.2. Economic Situation of Organic Agriculture in the EU

Table 2.4
Total Hectares of Organically Managed Land in the European Union 25

<table>
<thead>
<tr>
<th>Year End</th>
<th>EU 15</th>
<th>New Members</th>
<th>EU 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>292.599</td>
<td>19.170</td>
<td>311.769</td>
</tr>
<tr>
<td>1991</td>
<td>412.630</td>
<td>36.520</td>
<td>449.150</td>
</tr>
<tr>
<td>1992</td>
<td>553.473</td>
<td>41.301</td>
<td>594.774</td>
</tr>
<tr>
<td>1993</td>
<td>835.338</td>
<td>43.429</td>
<td>878.767</td>
</tr>
<tr>
<td>1994</td>
<td>1.065.981</td>
<td>47.477</td>
<td>1.113.458</td>
</tr>
<tr>
<td>1995</td>
<td>1.318.476</td>
<td>57.049</td>
<td>1.375.525</td>
</tr>
<tr>
<td>1996</td>
<td>1.593.178</td>
<td>67.601</td>
<td>1.660.779</td>
</tr>
<tr>
<td>1997</td>
<td>2.036.311</td>
<td>81.103</td>
<td>2.117.414</td>
</tr>
<tr>
<td>1998</td>
<td>2.287.639</td>
<td>163.360</td>
<td>2.450.999</td>
</tr>
<tr>
<td>1999</td>
<td>3.302.811</td>
<td>216.927</td>
<td>3.519.738</td>
</tr>
<tr>
<td>2000</td>
<td>3.823.306</td>
<td>320.264</td>
<td>4.143.570</td>
</tr>
<tr>
<td>2001</td>
<td>4.239.318</td>
<td>445.882</td>
<td>4.685.200</td>
</tr>
<tr>
<td>2002</td>
<td>4.886.979</td>
<td>510.034</td>
<td>5.397.013</td>
</tr>
<tr>
<td>2003</td>
<td>5.094.674</td>
<td>608.846</td>
<td>5.703.520</td>
</tr>
</tbody>
</table>

1 The data of EU 15 and EU 25 for the years 1995, 1996, 1997 and 2001 does not include the data of Sweden.
2 The data of new members for 2003 is taken from The World of Organic Agriculture: Statistics and Emerging Trends 2005, IFOAM

Source: Certified and Policy Supported Organic and In-Conversion Land in Europe. http://www.organic.aber.ac.uk/statistics/euroarea03.htm

Examining the total organic land area in the EU 25, the continuous increase is seen. 311.769 hectares of organic land in 1990 has reached 5.703.520 hectares by the end of 2003. Considering this increase, it is possible to divide the EU into two groups of members, the former group of 15, older member states and the latter group of 10, new members.39

39 See Appendix Tables 1.4 and 1.5 for details.
Dealing with the former group, Germany was the leading country in terms of organically managed land between 1990 and 1996. However, by the beginning of 1997 Germany lost its leadership and Italy took over it.

A similar situation occurred in France, too. Having been the second country after Germany during the period of 1990 and 1992, France could not keep this place and had to leave it respectively to Austria and Italy.

On the other hand, countries like Italy, Austria and Spain began to experience a boost in organically managed area. The boost in Austria was in 1993 when the total hectares of organic land increased 55 fold, from 2464 to 135,982 hectares. This boost helped Austria to be the second country with the highest number of organic hectares until 1996. However after this year, Austria slowly started to move towards the lower steps of the ranking.

Meanwhile, the total organic land in Italy also continued to increase although this increase was not as sharp as the one in Austria. The increase in Italy has always been smaller but steady. The total hectares of organic land in Italy increased 2,9 fold in 1993. Since 1997, Italy continues to be the country with the highest number of organically managed land in the EU. However, the total hectares of organic land in Italy have started to decrease after 2001.

Spain was also one of the countries experiencing a boost. The total hectares of organically managed land increased 4,3 fold in 1996 and carried Spain to the fifth place in the ranking. After 1996, Spain continued to go up and became the third country in ranking by 2003.

On the other hand, the UK is a country example of moving up and down in the ranking. The biggest increase in this country occurred in 1999 and it was 5,4 fold. This increase made the UK climb to the second place in the ranking until 2003. However by this year, the UK has returned to the fourth place of the ranking.

Continuing with the latter group of new members of the EU, the competition for leadership was between Slovakia and the Czech Republic.

Having been the leading country with 15,140 hectares of organic land in 1990, Slovakia left its place to the Czech Republic one year later, until 1995. During the
period of 1995-1997, Slovakia was once more the leading country of ten, new members. However, this situation did not continue more and the Czech Republic became the country with the highest number of organic hectares among ten, new members.

The change in this ranking among new members appeared not only in Slovakia and the Czech Republic, but also in Hungary. In 2001, Hungary ascended one step further in ranking and since that year, it has the highest number of organically managed land after the Czech Republic.

In addition to these, each new member of the EU has shown various rates of development at different times. The biggest increase in Estonia which occurred in 1992 was only 4.7 fold while the biggest increase in Slovenia was 6 fold and it occurred in 1999.

By 2003, the leading country among this group is the Czech Republic and Hungary, Slovakia, Poland, Estonia, Latvia, Lithuania and Slovenia respectively follow it.
Table 2.5
The Total Number of Organic Producers in the European Union 15

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>2003</th>
<th>The Rate of Change as Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>38,616</td>
<td>44,039</td>
<td>14</td>
</tr>
<tr>
<td>Austria</td>
<td>20,316</td>
<td>19,056</td>
<td>-6</td>
</tr>
<tr>
<td>Spain</td>
<td>7,392</td>
<td>17,028</td>
<td>131</td>
</tr>
<tr>
<td>Germany</td>
<td>9,194</td>
<td>16,476</td>
<td>79</td>
</tr>
<tr>
<td>France</td>
<td>6,233</td>
<td>12,202</td>
<td>96</td>
</tr>
<tr>
<td>Greece</td>
<td>4,183</td>
<td>5,964</td>
<td>43</td>
</tr>
<tr>
<td>Finland</td>
<td>4,984</td>
<td>5,074</td>
<td>2</td>
</tr>
<tr>
<td>UK</td>
<td>1,462</td>
<td>4,017</td>
<td>175</td>
</tr>
<tr>
<td>Sweden</td>
<td>3,027</td>
<td>3,562</td>
<td>18</td>
</tr>
<tr>
<td>Denmark</td>
<td>2,228</td>
<td>3,510</td>
<td>58</td>
</tr>
<tr>
<td>Netherlands</td>
<td>835</td>
<td>1,448</td>
<td>73</td>
</tr>
<tr>
<td>Ireland</td>
<td>762</td>
<td>889</td>
<td>17</td>
</tr>
<tr>
<td>Portugal</td>
<td>542</td>
<td>1,145</td>
<td>111</td>
</tr>
<tr>
<td>Belgium</td>
<td>480</td>
<td>722</td>
<td>50</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>26</td>
<td>59</td>
<td>127</td>
</tr>
<tr>
<td>SUM</td>
<td>100,280</td>
<td>135,191</td>
<td></td>
</tr>
</tbody>
</table>

The data of 2002
Source: Organic Farming in Europe. Eurostat, Statistics in Focus, 31/2005

Table 2.5 demonstrates the development in the number of organic producers at EU 15 level between 1998 and 2003. With respect to the table, the total number of organic producers has increased from 100,280 in 1998 to 135,191 in 2003. Besides, this increase was not only limited to the EU level, but also occurred at the country level. However, the only exception of this situation was Austria where the number of organic producers has decreased 6%.

According to 2003 data, the country which has the highest number of organic producers is Italy. The share of Italy in the total organic producers of the EU is 33%. Other countries following Italy are Austria, Spain, Germany and France with each country having a share of 14%, 13%, 12% and 9% respectively.

While Italy is on one side of the picture with the highest organic producer number, Luxembourg is on the reverse side with the smallest number of organic producers.
producers. The share of Luxembourg in the total number of organic producers is only 0.04%.

On the other hand, Luxembourg is one of the four countries that have made a boost in the number of organic producers. The leader of this four-country group is the UK with 175% and its followers are Spain with 131%, Luxembourg with 127% and Portugal with 111%.

The country with the lowest increase is Finland with only 2%.

Table 2.6
Total Organic Land as a Percentage of the Total Utilised Agricultural Area in 2003

<table>
<thead>
<tr>
<th>Countries</th>
<th>The Total Organic Land in 2003 (in hectares)</th>
<th>The Total U.A.A in 2003 (in hectares)</th>
<th>The Proportion of Total Organic Land in the Total U.A.A (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria²</td>
<td>326,703</td>
<td>2,888,035</td>
<td>11.31</td>
</tr>
<tr>
<td>Italy</td>
<td>1,052,002</td>
<td>13,115,810</td>
<td>8.02</td>
</tr>
<tr>
<td>Sweden</td>
<td>225,785</td>
<td>3,126,910</td>
<td>7.22</td>
</tr>
<tr>
<td>Finland</td>
<td>159,987</td>
<td>2,244,700</td>
<td>7.13</td>
</tr>
<tr>
<td>Greece²</td>
<td>(244,455)¹</td>
<td>3,583,190</td>
<td>6.82</td>
</tr>
<tr>
<td>Denmark</td>
<td>161,381</td>
<td>2,658,210</td>
<td>6.07</td>
</tr>
<tr>
<td>Germany</td>
<td>(734,027)¹</td>
<td>16,981,750</td>
<td>4.32</td>
</tr>
<tr>
<td>The UK</td>
<td>695,619</td>
<td>16,105,810</td>
<td>4.32</td>
</tr>
<tr>
<td>Portugal²</td>
<td>120,926</td>
<td>3,863,090</td>
<td>3.13</td>
</tr>
<tr>
<td>Spain</td>
<td>725,254</td>
<td>25,175,260</td>
<td>2.88</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>(300)²</td>
<td>128,160</td>
<td>2.34</td>
</tr>
<tr>
<td>Netherlands</td>
<td>41,866</td>
<td>2,007,250</td>
<td>2.09</td>
</tr>
<tr>
<td>France</td>
<td>550,990</td>
<td>27,795,240</td>
<td>1.98</td>
</tr>
<tr>
<td>Belgium</td>
<td>(24,163)¹</td>
<td>1,394,400</td>
<td>1.73</td>
</tr>
<tr>
<td>Ireland</td>
<td>28,514</td>
<td>4,371,710</td>
<td>0.65</td>
</tr>
</tbody>
</table>

¹The Utilised Agricultural Area is the total area taken up by arable land, permanent grassland, permanent crops and kitchen gardens.
²The data of Austria, Greece and Portugal for the total U.A.A belongs to the year 2000.
³Own calculations
⁴Numbers in parentheses are estimations.

Source: Organic Farming in Europe. Eurostat, Statistics in Focus, 31/2005
By bringing the total organic land and the total utilised agricultural area together, Table 2.6 gives information about the development of organic agriculture. The data included in the table belongs to the year 2003, one year before the eastern enlargement of the EU. Therefore, the table only covers the data of EU 15.

According to the table, the two countries with the highest contribution to the total utilised agricultural area are France with 27,795,240 hectares and Spain with 25,175,260 hectares. However, their shares of total organic land in the total U.A.A are small.

On the other hand, the situation in Austria is totally vice versa since Austria is the country having the highest share of 11.31% with a small contribution in the total U.A.A. The country following Austria, whose situation is an exception, is Italy. Italy not only has the highest hectares of organic land in the whole EU, but also is one of the countries with a high contribution to the total U.A.A.

The table also points out to the countries with a small share of the total organic land inside the total U.A.A. The country which has the smallest percentage is Ireland.

* The data for Austria, Belgium, Greece and Luxembourg belong to 2002.
** The sum of percentages does not reach 100 because fodder grass and other irrelevant crops are not shown in the table.
Source: Organic Farming in Europe. Eurostat, Statistics in Focus, 31/2005

Figure 2.1. The Shares of Main Organic Food Crops Other Than Fodder Grass inside the Total Organic Area in 2003
Figure 2.1 summarizes the shares of main organic food crops inside the total organic area in five different categories which are cereals, dry pulses, fresh vegetables, vineyards and olive plantations.

With respect to the table, cereals are the most dominant organic product group which are grown in many of the member states. However, the most productive countries in this category are Belgium, Denmark, Portugal and Italy.

The situation of dry pulses and fresh vegetables categories is also similar. Dry pulses are mainly grown in France, Denmark, Luxembourg and Austria, while the main producer of fresh vegetables is the Netherlands.

Further examining the table, there are the categories of vineyards and olive plantations. The countries having vineyards are Greece, France, Italy and Spain. In the meantime, the same countries, only except for France also have olive groves. However, the leadership of this category belongs to another country. It is Portugal that has the highest number of olive plantations.

Therefore, there are two findings to figure out from the table, the first of which is the difference between the southern and northern members of the EU. While the northern countries are dominated by the growth of cereals, fresh vegetables and pulses, the southern members have the highest number of vineyards and olive plantations.

Besides, the shares of main organic crops inside the total organic area for four member states exceed 30%. These countries are Portugal with main food crops referring to 42% of its organic area, Denmark with 37%, Italy with 33% and Belgium with 33%. 40

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Table 2.7
The Shares of Organic Land inside the Total Land for Selected Crops and Countries in 2003

<table>
<thead>
<tr>
<th>Crop</th>
<th>DK</th>
<th>EL</th>
<th>ES</th>
<th>FR</th>
<th>IT</th>
<th>LU</th>
<th>NL</th>
<th>AT</th>
<th>PT</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cereals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Crop Area (ha)</td>
<td>1.484.585</td>
<td>1.302.560</td>
<td>6.626.875</td>
<td>8.949.510</td>
<td>4.146.964</td>
<td>29.368</td>
<td>225.720</td>
<td>814.098</td>
<td>450.968</td>
<td>3.058.741</td>
</tr>
<tr>
<td>Organic Area (ha)</td>
<td>50.432</td>
<td>4.043</td>
<td>100.860</td>
<td>82.087</td>
<td>209.376</td>
<td>449</td>
<td>3.636</td>
<td>39.590</td>
<td>29.864</td>
<td>42.095</td>
</tr>
<tr>
<td>Share of Organic Area %</td>
<td><strong>3.4</strong></td>
<td><strong>0.3</strong></td>
<td><strong>1.5</strong></td>
<td><strong>0.9</strong></td>
<td><strong>5.0</strong></td>
<td><strong>1.5</strong></td>
<td><strong>1.6</strong></td>
<td><strong>4.9</strong></td>
<td><strong>6.6</strong></td>
<td><strong>1.4</strong></td>
</tr>
<tr>
<td><strong>Dry Pulses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Crop Area (ha)</td>
<td>31.397</td>
<td>25.550</td>
<td>568.404</td>
<td>468.357</td>
<td>70.528</td>
<td>668</td>
<td>5.737</td>
<td>46.087</td>
<td>22.963</td>
<td>235.051</td>
</tr>
<tr>
<td>Organic Area (ha)</td>
<td>7.447</td>
<td>276</td>
<td>-</td>
<td>34.802</td>
<td>11.662</td>
<td>92</td>
<td>43</td>
<td>7.896</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Share of Organic Area %</td>
<td><strong>23.7</strong></td>
<td><strong>1.1</strong></td>
<td>-</td>
<td><strong>7.4</strong></td>
<td><strong>16.5</strong></td>
<td><strong>13.8</strong></td>
<td><strong>0.7</strong></td>
<td><strong>17.1</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Fresh Vegetables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Crop Area (ha)</td>
<td>7.638</td>
<td>129.955</td>
<td>410.904†</td>
<td>285.765</td>
<td>495.102</td>
<td>93</td>
<td>82.027</td>
<td>14.321</td>
<td>45.741</td>
<td>115.595</td>
</tr>
<tr>
<td>Organic Area (ha)</td>
<td>1.059</td>
<td>514</td>
<td>3.802</td>
<td>7.180</td>
<td>11.354</td>
<td>10</td>
<td>3.481</td>
<td>892</td>
<td>469</td>
<td>14.326</td>
</tr>
<tr>
<td>Share of Organic Area %</td>
<td><strong>13.9</strong></td>
<td><strong>0.4</strong></td>
<td><strong>0.9</strong></td>
<td><strong>2.5</strong></td>
<td><strong>2.3</strong></td>
<td><strong>10.8</strong></td>
<td><strong>4.2</strong></td>
<td><strong>6.2</strong></td>
<td><strong>1.0</strong></td>
<td><strong>12.4</strong></td>
</tr>
</tbody>
</table>

Note: AT, EL, LU 2002; †2002; Dry pulses include beans, peas, lentils, vetches and lupines.

Source: Organic Farming in Europe. Eurostat, Statistics in Focus, 31/2005
Table 2.7 demonstrates the shares of organic land for the production of cereals, dry pulses and fresh vegetables inside the total land. Regarding the cereals group, the highest shares are found in Portugal, Italy and Austria with 6.6 %, 5 %, 4.9 % respectively.

Going through the dry pulses, the highest share belongs to Denmark with 23.7% of total crop area dedicated to organic dry pulses. According to available data, Denmark is accompanied by Austria with 17.1 %, Italy with 16.5% and Luxembourg with 13.8 %.

As regards the fresh vegetables, Denmark has once more the highest share with 13.9 % and is closely followed by the UK with 12.4 % and Luxembourg with 10.8%. On the other hand, Greece and Spain have the smallest shares in this category which are all less than 1 %.
Table 2.8
The Volume of Organic Animal Production in the European Union by 2001

<table>
<thead>
<tr>
<th>Country</th>
<th>Milk(^1)</th>
<th>Beef (including veal)(^1)</th>
<th>Sheep and Goat Meat(^1)</th>
<th>Pork(^1)</th>
<th>Poultry(^1)</th>
<th>Eggs(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>417.773</td>
<td>21.753</td>
<td>2.000</td>
<td>2.550</td>
<td>500</td>
<td>48</td>
</tr>
<tr>
<td>Belgium</td>
<td>30.000</td>
<td>3.000</td>
<td>73</td>
<td>1.090</td>
<td>790</td>
<td>17</td>
</tr>
<tr>
<td>Germany</td>
<td>410.000</td>
<td>45.000</td>
<td>3.000</td>
<td>17.000</td>
<td>7.000</td>
<td>230</td>
</tr>
<tr>
<td>Denmark</td>
<td>474.737</td>
<td>7.500</td>
<td>120</td>
<td>4.800</td>
<td>3.382</td>
<td>106</td>
</tr>
<tr>
<td>Spain</td>
<td>3.125</td>
<td>14.000</td>
<td>6.000</td>
<td>n.a.</td>
<td>189</td>
<td>2</td>
</tr>
<tr>
<td>Finland</td>
<td>24.889</td>
<td>714</td>
<td>110</td>
<td>920</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>France</td>
<td>218.000</td>
<td>32.500</td>
<td>1.900</td>
<td>5.300</td>
<td>8.288</td>
<td>354</td>
</tr>
<tr>
<td>Greece</td>
<td>9.300</td>
<td>649</td>
<td>1.352</td>
<td>169</td>
<td>67</td>
<td>1</td>
</tr>
<tr>
<td>Ireland</td>
<td>3.196</td>
<td>5.088</td>
<td>305</td>
<td>18</td>
<td>n.a</td>
<td>2</td>
</tr>
<tr>
<td>Italy</td>
<td>190.000</td>
<td>13.640</td>
<td>0</td>
<td>2.652</td>
<td>895</td>
<td>84</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1.425</td>
<td>71</td>
<td>9</td>
<td>67</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>108.500</td>
<td>975</td>
<td>280</td>
<td>2.125</td>
<td>1.000</td>
<td>40</td>
</tr>
<tr>
<td>Portugal</td>
<td>1.500</td>
<td>300</td>
<td>44</td>
<td>199</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Sweden</td>
<td>130.526</td>
<td>3.912</td>
<td>183</td>
<td>1.646</td>
<td>138</td>
<td>47</td>
</tr>
<tr>
<td>UK</td>
<td>218.000</td>
<td>4.660</td>
<td>2.000</td>
<td>3.500</td>
<td>3.000</td>
<td>150</td>
</tr>
<tr>
<td><strong>Sum EU</strong></td>
<td><strong>2.240.981</strong></td>
<td><strong>153.762</strong></td>
<td><strong>17.376</strong></td>
<td><strong>42.036</strong></td>
<td><strong>25.329</strong></td>
<td><strong>1.107</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accession Countries</th>
<th>Milk(^1)</th>
<th>Beef (including veal)(^1)</th>
<th>Sheep and Goat Meat(^1)</th>
<th>Pork(^1)</th>
<th>Poultry(^1)</th>
<th>Eggs(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>1.296</td>
<td>1.066</td>
<td>20</td>
<td>1.150</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>6.000</td>
<td>1.525</td>
<td>27</td>
<td>22</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

\(^1\) Milk, beef, sheep & goat meat, pork and poultry are in tonnes.  
\(^2\) Eggs are in millions.

Source: The European Market for Organic Food: Revised and Updated Analysis, Omiard Volume 5

Table 2.8 illustrates the volume of organic animal production in the EU in 2001. According to the table, there are six main categories of animal products which are milk, beef, sheep and goat meat, pork, poultry and eggs.

With respect to milk production, Denmark was the leading country and its followers were Austria and Germany. The smallest production of milk in 2001 belonged to the Czech Republic.
Continuing with beef production, Germany produced the highest volume and it was followed by France. The lowest production of beef in 2001 belonged to Luxembourg.

In the meantime, the main producer of sheep and goat meat was Spain.

Evaluating the categories of milk, beef, sheep and goat meat together, there is an important point to notice. The high production volumes of these products are connected to the existence of organic grasslands\(^{41}\). Therefore, the countries which have a higher percentage of organic grassland are usually able to produce higher volumes of these products.

On the other hand, the highest volume of pork was produced by Germany with 17,000 tonnes. The other two countries accompanying Germany in this category were France and Denmark, with a 3.2 fold difference existing between Germany and France.

The final two categories whose dominant producers were France and Germany are poultry and eggs. While these two countries provided the highest volume in both categories, Slovenia provide the lowest production of poultry and the production of eggs did not even exist in Portugal and the Czech Republic.

Table 2.9  
The Overview of Some European Markets for Organic Food and Beverages

<table>
<thead>
<tr>
<th>Markets</th>
<th>Retail Sales 2003 (million Euros)</th>
<th>% of Total Food Sales 2003</th>
<th>Annual Growth % 2003-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>2800-3100</td>
<td>1.7-2.2</td>
<td>5-10</td>
</tr>
<tr>
<td>U.K</td>
<td>1550-1750</td>
<td>1.5-2.0</td>
<td>10-15</td>
</tr>
<tr>
<td>Italy</td>
<td>1250-1400</td>
<td>1.0-1.5</td>
<td>5-15</td>
</tr>
<tr>
<td>France</td>
<td>1200-1300</td>
<td>1.0-1.5</td>
<td>5-10</td>
</tr>
<tr>
<td>Switzerland</td>
<td>725-775</td>
<td>3.2-3.7</td>
<td>5-15</td>
</tr>
<tr>
<td>Netherlands</td>
<td>425-475</td>
<td>1.0-1.5</td>
<td>5-10</td>
</tr>
<tr>
<td>Sweden</td>
<td>350-400</td>
<td>1.5-2.0</td>
<td>10-15</td>
</tr>
<tr>
<td>Denmark</td>
<td>325-375</td>
<td>2.2-2.7</td>
<td>0-5</td>
</tr>
<tr>
<td>Austria</td>
<td>325-375</td>
<td>2.0-2.5</td>
<td>5-10</td>
</tr>
<tr>
<td>Belgium</td>
<td>200-250</td>
<td>1.0-1.5</td>
<td>5-10</td>
</tr>
<tr>
<td>Ireland</td>
<td>40-50</td>
<td>&lt;0.5</td>
<td>10-20</td>
</tr>
<tr>
<td>Other Europe¹</td>
<td>750-800</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Europe</td>
<td>10.000-11.000</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

¹Finland, Greece, Portugal, Spain, Norway, Poland, Hungary, the Czech Republic, Estonia, Latvia, Lithuania

Source: International Trade Centre. Overview World Markets for Organic Food and Beverages

Among the European organic markets Germany has the highest retail sales approximately around three million Euros. In the category of retail sales, only Ireland has the smallest number between 40 and 50 million Euros.

In terms of the share of organic food in total food sales, Switzerland and Denmark are ahead of others, although Switzerland is not in the European Union. Ireland has once again the lowest share in this group.

Looking at the expected annual growth rates between 2003 and 2005, the rates are between 0-20 %. The lowest growth is expected in Denmark, while the highest is expected in Ireland.
Table 2.10
Market Stage Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Emergence</th>
<th>Growth</th>
<th>Maturity</th>
<th>Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Low sales</td>
<td>Rapidly Rising sales</td>
<td>Peak Sales</td>
<td>Declining Sales</td>
</tr>
<tr>
<td>Costs</td>
<td>High Cost per consumer</td>
<td>Average Cost per Consumer</td>
<td>Low cost per Consumer</td>
<td>Low cost per consumer</td>
</tr>
<tr>
<td>Profits</td>
<td>Negative</td>
<td>Rising Profits</td>
<td>High Profits</td>
<td>Declining Profits</td>
</tr>
<tr>
<td>Customers</td>
<td>Innovators$^1$</td>
<td>Early adopters$^2$</td>
<td>Middle Majority</td>
<td>Laggards$^3$</td>
</tr>
<tr>
<td>Competitors</td>
<td>Few</td>
<td>Growing Number</td>
<td>Stable Number beginning to decline</td>
<td>Declining Number</td>
</tr>
</tbody>
</table>

$^1$Innovators are consumers who first adopt a new product.
$^2$Early adopters are consumers who select new products carefully.
$^3$Laggards are consumers who adopt new products after a long time

Source: Marketing Management, Philip Kotler

Also including the organic market, markets generally follow four stages of development. These are emergence, growth, maturity and decline.$^{42}$

The former stage is the emergence where a new product enters the market. The main marketing objective of firms at this stage is to make their products known. Therefore, firms need to heavily advertise their products. The high costs of production are reflected in the high consumer prices. Sales are low and profits are low or negative. There are few competitors in the market.

The second stage is the growth. The sales increase fast at this level and firms can choose to continue the same level of advertising or enhance its level to “educate the market.” The profits start to rise and new competitors enter the market. Prices can stay the same or go down.

The following stage is the maturity where the sales and profits reach their highest levels. The competition between firms is the most and firms spend more on advertising. The number of competitors is small. There are a few grand firms. Prices can remain the same or increase a bit.

The final stage is the decline which is characterized by the decline in sales and profits. The number of competitors also decreases. It is this stage where promotion totally loses its importance and is reduced.

Each market stage has distinct marketing objectives and requires different marketing strategies as summarised in Table 2.11.
**Table 2.11**

<table>
<thead>
<tr>
<th></th>
<th><strong>Emergence</strong></th>
<th><strong>Growth</strong></th>
<th><strong>Maturity</strong></th>
<th><strong>Decline</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marketing Objectives</strong></td>
<td>Create product awareness and trial</td>
<td>Maximize market share</td>
<td>Maximize profit while defending market share</td>
<td>Reduce expenditure</td>
</tr>
<tr>
<td><strong>Strategies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1-Product</strong></td>
<td>Basic</td>
<td>Improved (Product extensions, service etc.)</td>
<td>Diversify brands, items and models</td>
<td>Weak products are eliminated.</td>
</tr>
<tr>
<td><strong>2-Price</strong></td>
<td>High</td>
<td>Lower price</td>
<td>Prices may remain the same or increase if the costs increase, too.</td>
<td>Cut price.</td>
</tr>
<tr>
<td><strong>3-Distribution</strong></td>
<td>Selective Distribution</td>
<td>Intensive Distribution</td>
<td>More intensive distribution</td>
<td>Maintain profitable outlets/ close unprofitable ones$^1$</td>
</tr>
<tr>
<td><strong>4-Advertising</strong></td>
<td>Build product awareness among early adopters and dealers</td>
<td>Build awareness and interest in the mass-market</td>
<td>Stress brand differences and benefits</td>
<td>Reduce to necessary level to keep loyal consumers</td>
</tr>
<tr>
<td><strong>5-Sales Promotion</strong></td>
<td>Heavy sales promotion</td>
<td>Reduce to take advantage of heavy consumer demand</td>
<td>Spend heavily to maintain market share$^1$</td>
<td>Reduce to minimal level</td>
</tr>
</tbody>
</table>

$^1$Taken from Marketing by Steven J. Skinner (Second Edition, 1994)

Source: Marketing Management, Philip Kotler
Concerning the countries in the EU, all countries are at different market stages.

Table 2.12
Some European Countries by Stage of Market Development in 2001

<table>
<thead>
<tr>
<th>Mature Market Countries</th>
<th>Growth Market Countries</th>
<th>Emerging Market Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Belgium</td>
<td>Czech Republic</td>
</tr>
<tr>
<td>Denmark</td>
<td>Finland</td>
<td>Greece</td>
</tr>
<tr>
<td>Germany</td>
<td>France</td>
<td>Ireland</td>
</tr>
<tr>
<td>Sweden</td>
<td>Italy</td>
<td>Norway</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Luxembourg</td>
<td>Portugal</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>Slovenia</td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td>Spain</td>
</tr>
</tbody>
</table>

Source: The European Market for Organic Food: Revised and Updated Analysis, OMIaRD Volume 5

Another useful method of understanding the market stage in a country is by looking at the share of organic products consumption inside total consumption.
Table 2.13
Comparison between the Organic Shares of Total Food Sales for Some European Countries in 2001

<table>
<thead>
<tr>
<th>Countries</th>
<th>Organic Market Share of Total Food Sales (%)</th>
<th>Gross Domestic Product per Inhabitant in PPS¹(US dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>3.7</td>
<td>n.d.</td>
</tr>
<tr>
<td>Denmark</td>
<td>3.5</td>
<td>26.930</td>
</tr>
<tr>
<td>Austria</td>
<td>2.4</td>
<td>26.140</td>
</tr>
<tr>
<td>Germany</td>
<td>2.1</td>
<td>23.460</td>
</tr>
<tr>
<td>Sweden</td>
<td>1.7</td>
<td>24.790</td>
</tr>
<tr>
<td>Holland</td>
<td>1.2</td>
<td>26.460</td>
</tr>
<tr>
<td>Belgium</td>
<td>1.0</td>
<td>24.970</td>
</tr>
<tr>
<td>Finland</td>
<td>1.0</td>
<td>24.320</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1.0</td>
<td>45.330</td>
</tr>
<tr>
<td>The UK</td>
<td>0.9</td>
<td>24.540</td>
</tr>
<tr>
<td>France</td>
<td>0.7</td>
<td>24.460</td>
</tr>
<tr>
<td>Italy</td>
<td>0.7</td>
<td>23.370¹</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.5</td>
<td>27.480</td>
</tr>
<tr>
<td>Norway</td>
<td>0.2</td>
<td>33.700</td>
</tr>
<tr>
<td>Spain</td>
<td>0.2</td>
<td>19.670</td>
</tr>
<tr>
<td>Greece</td>
<td>0.2</td>
<td>15.680¹</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.1</td>
<td>16.480</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.1</td>
<td>14.100</td>
</tr>
<tr>
<td>Slovenia</td>
<td>n.a</td>
<td>15.920</td>
</tr>
<tr>
<td><strong>EU Average</strong></td>
<td>1.0</td>
<td>-</td>
</tr>
</tbody>
</table>

¹Estimations
²PPS are the purchasing power standards. The GDP per inhabitant in PPS are taken from Eurostat Yearbook 2004, Theme 1 General Statistics, European Commission.

Source: The European Market for Organic Food: Revised and Updated Analysis, Omiard Volume 5

The table showing the organic share of total food sales gives information about the volume of organic food consumption. All the countries listed in the table are divided into three categories by the percentage of their organic food purchases. These are:⁴³

✓ The countries whose organic share of total food sales are greater than 1.5%

✓ The countries with an organic share of total food sales equal to 1.5% or between 0.5% and 1.5%

✓ The countries with an organic share of total food sales equal to 0.5% or less than 0.5%

Switzerland, Denmark, Austria, Germany and Sweden form the first group of countries by their organic share of total food sales. These countries are followed by the Netherlands, Belgium, Finland, Luxembourg, the UK, France and Italy, making up “growth market countries” of the EU. The final group of countries consists of Ireland, Norway, Spain, Greece, Portugal, Czech Republic and Slovenia that are “emerging market countries”. 

This table also illustrates the relationship between the gross domestic product per inhabitant and the organic market share of total food sales. The interesting outcome to be concluded from the table is that the consumption of organic products is not solely connected to the level of income. If it were so, Luxembourg would have a percentage higher than “one” with the highest level of income in the EU. In addition to this fact, Denmark is the country having the highest percentage in the EU with a level of income smaller than that of Luxembourg.

In the meantime, the condition of Norway, which is a member of EFTA, is similar to that of Luxembourg. Although the level of income in Norway is greater than the level in most of the EU members, the organic share of total food sales is equal to the shares of Spain and Greece, which are two of the countries at the emerging stage of organic market development.
Examining the expected growth rates between 2002 and 2007 for organic product groups in selected European countries, these outcomes can be figured out:

The growth rate of organic market varies between 1,5% to 11%. The lowest growth is expected in Denmark because the organic market in Denmark is at the maturity stage. The highest growth rate is expected in the UK.

Secondly, different growth rates exist for different product groups among the mentioned countries. For instance, the highest growth rate in Denmark is expected in organic fruit and vegetables group with 4% and the lowest in dairy products with 1%. However in the UK, the range of the growth of organic product groups is totally diverse. It will be the meat products group that will have the fastest growth rate and it will be...
followed by convenience and dairy product groups, fruit and vegetables group respectively.

Finally, the growth rates among product groups vary. The cereals group is expected to have the lowest growth rate inside all groups. Meanwhile, convenience products and meat products are thought to have higher growth rates.

Table 2.15
The Share of Total Organic food Sales by Sales Channels in 2001

<table>
<thead>
<tr>
<th>Country</th>
<th>General Food Shops ¹</th>
<th>Bakers /Butchers</th>
<th>Organic Food Shops</th>
<th>Whole Food Shops</th>
<th>Direct Sales of Farmers ²</th>
<th>Restaurants /canteens</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>63</td>
<td>3</td>
<td>13</td>
<td>1</td>
<td>13</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Belgium</td>
<td>50</td>
<td>-</td>
<td>30</td>
<td>10</td>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Germany</td>
<td>35</td>
<td>7</td>
<td>27</td>
<td>9</td>
<td>17</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Denmark</td>
<td>80</td>
<td>1</td>
<td>5</td>
<td>-</td>
<td>8</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>10</td>
<td>1</td>
<td>19</td>
<td>61</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Finland</td>
<td>80</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>55</td>
<td>2</td>
<td>30</td>
<td>-</td>
<td>10</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>17</td>
<td>1</td>
<td>70</td>
<td>-</td>
<td>10</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Ireland</td>
<td>60</td>
<td>16</td>
<td>14</td>
<td>-</td>
<td>8</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Italy</td>
<td>55</td>
<td>2</td>
<td>31</td>
<td>-</td>
<td>9</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Luxembourg</td>
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<td>40</td>
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</tr>
<tr>
<td>Holland</td>
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<td>10</td>
<td>41</td>
<td>-</td>
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<tr>
<td>Portugal</td>
<td>20</td>
<td>-</td>
<td>30</td>
<td>20</td>
<td>30</td>
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<tr>
<td>Sweden</td>
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<td>-</td>
<td>1</td>
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</tr>
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<td>UK</td>
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<td>Accession Countries</td>
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<td>Slovenia</td>
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<td>-</td>
<td>5</td>
<td>-</td>
<td>90</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

¹ Small retailer shops (under 400 m²), supermarkets (400-800 m²), hypermarkets (over 800 m²) and discounters
² Including weekly markets and delivery services of farmers
³ Consumer associations and cooperatives

Source: The European Market for Organic Food: Revised and Updated Analysis, Omiard Volume 5
The convenient sales channel is surely an important determinant that affects the development of organic market. From the consumer’s point of view, the availability of certain types of organic products in a single location and the “easy-reach” of organic food shops are effective on buying motives.

The table showing the share of total organic food sales by sales channels confirms this effect of convenient sales place. The table has seven categories of sales channels; including general food shops, bakers & butchers, organic food shops, whole food shops, direct sales, restaurants & canteens and others.

Among all these sales channels in the EU, it is the general food shops 44 that have the highest share in organic food sales. The share of this sales channel which is at least 50 % in most of the EU countries is at its highest levels in Denmark, Finland, Sweden and UK.

On the other hand, there are also countries which are exceptions of this situation. Spain, Greece, Portugal and Slovenia are the four countries where different sales channels are more important than the general food shops in organic food sales.

In Greece, the highest share belongs to the organic food shops. In Slovenia, direct sales of farmers have 90% of all organic food sales.

In Spain, whole food shops have the percentage of 61, followed by organic food shops with 19%. The case of Portugal is a little bit different because organic food shops and direct sales of farmers share the same percentage of 30%. To sum up, it could be mentioned that all these four countries are in the “emerging market” category.

Moreover, there are other sales channels such as, restaurants & canteens 45, bakers & butchers and others whose shares are of minor importance. For instance, the shares of restaurants & canteens are the highest with 7% in Austria, 6% in Denmark and 5% in Finland.

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44 General food shops are shops which have a small variety of organic products in addition to the sales of conventional products. This definition is taken from Omiard Volume 5: The European Market for Organic Food: Revised and Updated Analysis

45 The canteens refer to the canteens of schools, hospitals and universities
Table 2.16  
Rating of Buying Motives for Organic Products in 2001  
(1=Low Importance, 7=High Importance)

<table>
<thead>
<tr>
<th>Country</th>
<th>Nature Conservation And Environment Protection</th>
<th>Food Safety and Health</th>
<th>Animal Welfare</th>
<th>Taste</th>
<th>Regional Origin</th>
<th>Non GMO</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>Beauty and Wellness</td>
</tr>
<tr>
<td>Belgium</td>
<td>6</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>Fair Trade</td>
</tr>
<tr>
<td>Germany</td>
<td>3</td>
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<td>5</td>
<td>4</td>
<td>2</td>
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</tr>
<tr>
<td>Denmark</td>
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<td>4</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>Cautiousness</td>
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<tr>
<td>Spain</td>
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<td>5</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>Positive Image</td>
</tr>
<tr>
<td>Finland</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>7</td>
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<tr>
<td>France</td>
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<td>7</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>Curiosity</td>
</tr>
<tr>
<td>Ireland</td>
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<td>5</td>
<td>4</td>
<td>4</td>
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<td></td>
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<td>1</td>
<td>5</td>
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<td>4</td>
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<tr>
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<td>4</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>Prestige</td>
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<td>-</td>
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<tr>
<td>Portugal</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>4</td>
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<td>Fair Trade</td>
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<td>3</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>EU Average</td>
<td>4.9</td>
<td>6.2</td>
<td>3.4</td>
<td>4.3</td>
<td>2.5</td>
<td>2.8</td>
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<tr>
<td>Accession</td>
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<tr>
<td>Countries</td>
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<tr>
<td>Czech Republic</td>
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<td>2</td>
<td>1</td>
<td></td>
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<tr>
<td>Slovenia</td>
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<td>5</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Source: The European Market for Organic Food: Revised and Updated Analysis, Omiard Volume 5

Consumers’ reasons to prefer organic products are also crucial in the development of organic market. The most dominant purchasing motives are always good indicators expressing which characteristics of organic products must be stressed.
If the main purchasing reason of consumers is “health”, these consumers will not be interested in the “protection of animal welfare”. Therefore, the development of organic market also depends on the correct promotions targeted at the correct purchasing reasons of organic products.\textsuperscript{46}

The illustration in the table shows the main buying reasons for organic products. There are seven buying motives. The numbers from one to seven are used to indicate the degree of importance given to these purchasing reasons.

The basic purchasing reason in the EU is the food safety and health. This buying motive was rated the highest in Belgium, Germany, Finland, France, Greece, Luxembourg, Holland and the Czech Republic. However, this reason was less important in Spain, Ireland and Slovenia.

The second purchasing motive is “nature conservation and environment protection”. This motive was rated the lowest in Germany, Italy and Slovenia.

“Taste” is the third buying motive, followed respectively by “animal welfare”, “non GMO” and “regional origin”. Among these buying motives, “non GMO” was rated the most important only in Finland.

The participating countries also mentioned “other purchasing reasons”, such as the prestige, beauty& wellness and curiosity. The “beauty& wellness” was stated by Austria, pointing the “feel good factor”\textsuperscript{47} attached to organic products. The “curiosity” factor was expressed by Greece and the “prestige” factor was defined by Luxembourg. In Luxembourg, organic products are preferred by rich consumers because they want to feel themselves “exclusive” by choosing organic products.\textsuperscript{48}


\textsuperscript{47} ibid.

\textsuperscript{48} ibid.
III. ORGANIC AGRICULTURE IN TURKEY

The initiation of organic agriculture in Turkey goes back to 1980s. Turkey started to produce organic products for the first time as a result of demand coming from the European importers. The first organic products Turkey exported were traditional Turkish products, which were dried figs and raisins.\(^{49}\)

In time, Turkish organic agriculture started to display a fast development. It was especially the 1990s when both the numbers of producers and products increased. However, this development was export-based and it caused the variety and volume of organic agricultural production to be determined by foreign demand. In other words, it contributed to the development of organic exports rather than the development of a domestic organic market in Turkey.

For this purpose, the real development in Turkish domestic organic market could not occur until the 2000s and since that time, the domestic organic market in Turkey continues to develop gradually.

On the other hand, it is a fact that the export-based organic agricultural production in Turkey is a serious obstacle which prevents the further development of the domestic organic market. Therefore, Turkey must overcome this constraint if it aims at fully developing its domestic organic market and without doubt, the further development will require a long time.

3.1. Turkish Organic Agriculture from the Legal Perspective

Before the existence of Council Regulation 2092/91, Turkey had to export organic products in accordance with the regulation of the importer country. Following this regulation, the Turkish Ministry of Agriculture published the first regulation concerning the organic production of plant and animal products in 1994. This regulation, which came into force in 1994, drew the basic framework for Turkish organic farming.

This regulation also established two committees; the Committee of Organic Agriculture and the National Orientation Committee of Organic Agriculture.

The Committee of Organic Agriculture is responsible for the activities to develop organic agriculture and the controlling of certification and control bodies, entrepreneurs, etc.\(^{50}\)

The National Orientation Committee of Organic Agriculture determines the necessary strategies for the trade, recognition and research of organic products.

According to this regulation, all private and corporate bodies that will produce, process, market, export or import all types of organic products must make a contract with one of the control and certification bodies which is accredited by the Turkish Ministry of Agriculture and Rural Affairs.

The products which are produced by unregistered entrepreneurs or by entrepreneurs not having a contract with a control and certification body can never be sold and certificated as organic products. Moreover, they cannot carry the national organic logo.\(^{51}\)

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The colours of the national organic logo can be green, blue, white or black. The national organic logo has a map of Turkey with six daphne leaves on it.\textsuperscript{52}

The Turkish organic law came into force on the December 3\textsuperscript{rd}, 2004. The law regulates the activities of the Committee of Organic Agriculture, the National Orientation Committee of Organic Agriculture, the control and certification bodies, the entrepreneurs, the export of organic products and inputs, the import of organic products and inputs, the advertisements of organic products and inputs, the supervision of responsible authorities (enterprises, control bodies, entrepreneurs, etc.) and the penalties.\textsuperscript{53}

3.1.1. The Export of Turkish Organic Products

The next table illustrates both the quantity and value of Turkish organic product exports. Examining table 3.1, the share of total organic exports inside total agricultural exports is a good indicator showing the development of Turkish organic exports. Until 2004, the obviously small share of 0.8\% in 1998 was accompanied by a continuous climb and it has reached 1.8\%. However, the decline in both the quantity and amount, which appeared in 2004, decreased this share to 1.3\%.

\textsuperscript{52} Namık, Kirazlar.(2001) Ekolojik Tarım Mevzuatı. Turkiye Ikinci Ekolojik Tarım Sempozyumu. July 5,2004
Table 3.1
The Quantity and Value of Turkish Organic Products’ Export

<table>
<thead>
<tr>
<th>Years</th>
<th>The Quantity of Organic Exports (kilograms)</th>
<th>The Value of Organic Exports (US Dollars)¹</th>
<th>The Value of Total Agricultural Exports of Turkey ² (US Dollars)</th>
<th>Ratio of the Value of Total Organic Exports to the Value of Total Agricultural Exports ³ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>8,616,687</td>
<td>19,371,000</td>
<td>2,350,866,000</td>
<td>0,8</td>
</tr>
<tr>
<td>1999</td>
<td>12,049,949</td>
<td>24,564,000</td>
<td>2,049,297,000</td>
<td>1,2</td>
</tr>
<tr>
<td>2000</td>
<td>13,128,934</td>
<td>22,756,000</td>
<td>1,651,912,000</td>
<td>1,4</td>
</tr>
<tr>
<td>2001</td>
<td>17,556,280</td>
<td>27,242,000</td>
<td>1,967,606,000</td>
<td>1,4</td>
</tr>
<tr>
<td>2002</td>
<td>19,182,859</td>
<td>30,877,000</td>
<td>1,743,890,000</td>
<td>1,8</td>
</tr>
<tr>
<td>2003</td>
<td>21,083,351</td>
<td>36,933,000</td>
<td>2,104,662,000</td>
<td>1,8</td>
</tr>
<tr>
<td>2004</td>
<td>16,093,189</td>
<td>33,086,000</td>
<td>2,525,828,000</td>
<td>1,3</td>
</tr>
</tbody>
</table>

¹ The numbers showing the value of organic exports (in US dollars) are rounded for calculation.
² The data are taken from DIE Haber Bulteni 157(2005, September 30).
³ Own calculation

Source: Turkish Ministry of Agriculture and Rural Affairs
Table 3.2
The Products Subject to Turkish Organic Exports between 1998 and 2004

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried Figs</td>
<td>1,569.535</td>
<td>3,717.798</td>
<td>19.2</td>
<td>1,697.568</td>
<td>3,787.806</td>
<td>15.4</td>
</tr>
<tr>
<td>Dried Apricots</td>
<td>1,124.698</td>
<td>3,149.963</td>
<td>16.3</td>
<td>1,493.566</td>
<td>4,257.725</td>
<td>17.3</td>
</tr>
<tr>
<td>Hazelnut Kernels</td>
<td>825.993</td>
<td>4,341.085</td>
<td>22.4</td>
<td>870.459</td>
<td>3,983.546</td>
<td>16.2</td>
</tr>
<tr>
<td>Lentils</td>
<td>506.029</td>
<td>466.840</td>
<td>2.4</td>
<td>666.286</td>
<td>622.684</td>
<td>2.5</td>
</tr>
<tr>
<td>Chick Peas</td>
<td>567.553</td>
<td>501.513</td>
<td>2.6</td>
<td>943.505</td>
<td>827.096</td>
<td>3.4</td>
</tr>
<tr>
<td>Frozen fruit</td>
<td>143.532</td>
<td>282.075</td>
<td>1.5</td>
<td>461.960</td>
<td>679.465</td>
<td>2.8</td>
</tr>
<tr>
<td>Others⁴</td>
<td>1,040.729</td>
<td>3,056.044</td>
<td>15.8</td>
<td>2,649.013</td>
<td>6,288.853</td>
<td>25.6</td>
</tr>
</tbody>
</table>

Source: Ege İhracatçı Birlikleri
Table 3.2 Continues

<table>
<thead>
<tr>
<th>Products</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantity (kg)</td>
<td>Value ($)</td>
</tr>
<tr>
<td>Raisins</td>
<td>4,252.116</td>
<td>4,836.163</td>
</tr>
<tr>
<td>Dried Figs</td>
<td>2,193.471</td>
<td>4,074.085</td>
</tr>
<tr>
<td>Dried Apricots</td>
<td>1,268.022</td>
<td>2,740.698</td>
</tr>
<tr>
<td>Hazelnut Kernels</td>
<td>1,102.173</td>
<td>4,197.767</td>
</tr>
<tr>
<td>Lentils</td>
<td>979.194</td>
<td>806.893</td>
</tr>
<tr>
<td>Chick Peas</td>
<td>707.376</td>
<td>636.108</td>
</tr>
<tr>
<td>Frozen fruit</td>
<td>184.970</td>
<td>251.785</td>
</tr>
<tr>
<td>Others(^2)</td>
<td>2,441.613</td>
<td>5,212.799</td>
</tr>
</tbody>
</table>

\(^1\)Own calculations. All calculations are based on the values of exports in US dollars.

\(^2\)Other organic products which are subject to exports are frozen vegetables, fruit juices, olive oil, pistachio, etc.
Table 3.2 Continues

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried Figs</td>
<td>2.227.858</td>
<td>5.537.144</td>
<td>17.9</td>
<td>2.026.502</td>
<td>5.166.126</td>
<td>14.0</td>
<td>1.862.568</td>
<td>4.396.377</td>
<td>13.3</td>
</tr>
<tr>
<td>Dried Apricots</td>
<td>1.834.965</td>
<td>4.044.063</td>
<td>13.2</td>
<td>1.687.710</td>
<td>4.734.221</td>
<td>12.8</td>
<td>1.646.004</td>
<td>5.380.864</td>
<td>16.3</td>
</tr>
<tr>
<td>Lentils</td>
<td>961.655</td>
<td>655.361</td>
<td>2.1</td>
<td>1.446.926</td>
<td>1.024.975</td>
<td>2.8</td>
<td>1.508.053</td>
<td>1.365.867</td>
<td>4.1</td>
</tr>
<tr>
<td>Chick Peas</td>
<td>1.413.147</td>
<td>1.112.729</td>
<td>3.6</td>
<td>1.166.903</td>
<td>829.597</td>
<td>2.2</td>
<td>871.407</td>
<td>673.134</td>
<td>2.0</td>
</tr>
<tr>
<td>Frozen fruit</td>
<td>891.779</td>
<td>1.105.784</td>
<td>3.6</td>
<td>1.211.510</td>
<td>1.982.685</td>
<td>5.4</td>
<td>930.398</td>
<td>1.381.830</td>
<td>4.2</td>
</tr>
<tr>
<td>Others(^2)</td>
<td>4.405.002</td>
<td>8.713.101</td>
<td>28.2</td>
<td>6.620.058</td>
<td>11.631.317</td>
<td>31.5</td>
<td>5.188.012</td>
<td>10.229.227</td>
<td>30.9</td>
</tr>
</tbody>
</table>
Table 3.2 illustrates the organic product groups that Turkey has been exporting. Turkey’s organic product exports consist of raisins, dried figs, dried apricots, hazelnut kernels, lentils, chick peas, frozen fruits and other products. Other products include frozen vegetables, fruit juices, olive oil, pistachio, etc. Organic raisins, dried figs, dried apricots and hazelnut kernels are the traditional export products of Turkey.

Making a detailed examination of the table, the ratio of each organic product export to total exports gives a clarifying idea about the mostly exported organic products. When the averages of these ratios are calculated, it is seen that raisins, dried figs, hazelnut kernels and dried apricots are the first four products. From this fact it can also be concluded that the mostly exported organic products are the traditional Turkish products. Then the ranking continues with frozen fruits, lentils and chick peas respectively.

Another point to notice is the variety in Turkish organic product exports. Turkey now exports many organic products such as dried vegetables and herbs, and more importantly, other products which require a longer and differentiated treatment like olive oil, fruit juices, canned and frozen foods.
Table 3.3
The Countries Subject to Turkish Organic Product Exports between 1998 and 2004

<table>
<thead>
<tr>
<th>Years</th>
<th>Germany</th>
<th>Switzerland</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantity (kg)</td>
<td>Value ($)</td>
<td>The Ratio of Turkish Organic Exports to Germany to Total Turkish Organic Exports (%)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>1998</td>
<td>3,610.124</td>
<td>9,312.662</td>
<td>48,1</td>
</tr>
<tr>
<td>1999</td>
<td>3,841.307</td>
<td>7,684.824</td>
<td>31,3</td>
</tr>
<tr>
<td>2000</td>
<td>4,022.428</td>
<td>6,402.920</td>
<td>28,1</td>
</tr>
<tr>
<td>2001</td>
<td>6,212.651</td>
<td>8,345.807</td>
<td>30,6</td>
</tr>
<tr>
<td>2002</td>
<td>7,629.086</td>
<td>11,438.851</td>
<td>37,0</td>
</tr>
<tr>
<td>2003</td>
<td>7,530.773</td>
<td>14,259.671</td>
<td>38,6</td>
</tr>
<tr>
<td>2004</td>
<td>5,238.061</td>
<td>12,348.226</td>
<td>37,3</td>
</tr>
</tbody>
</table>

Source: Ege İhracatçı Birlikleri
Table 3.3 Continues

| Years | The Netherlands | | | Italy | | |
|-------|-----------------|-----------------|--------------------------|-----------------|--------------------------|
|       | Quantity (kg)   | Value ($)       | The Ratio of Turkish Organic Exports To the Netherlands to Total Turkish Organic Exports (%) | Quantity (kg)   | Value ($)       | The Ratio of Turkish Organic Exports To Italy to Total Turkish Organic Exports (%) |
| 1998  | 1.221.594       | 2.026.191       | 10,5                     | 28.505          | 77.446       | 0,4                      |
| 1999  | 1.958.963       | 2.676.340       | 10,9                     | 182.610         | 231.087      | 0,9                      |
| 2000  | 1.811.179       | 2.222.274       | 9,8                      | 399.486         | 574.074      | 2,5                      |
| 2001  | 1.669.606       | 1.640.017       | 6                        | 904.705         | 979.841      | 3,6                      |
| 2002  | 1.516.712       | 1.471.676       | 4,8                      | 940.735         | 1.251.174    | 4,1                      |
| 2003  | 3.598.333       | 4.538.611       | 12,3                     | 1.710.054       | 2.613.554    | 7,1                      |
| 2004  | 1.668.824       | 2.555.794       | 7,7                      | 1.386.055       | 1.798.780    | 5,4                      |
Table 3.3 Continues

| Years | France | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |...
Table 3.3 Continues

<table>
<thead>
<tr>
<th></th>
<th>The Average of Ratios for Each Country Between 1998-2004 (%)(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>35,9</td>
</tr>
<tr>
<td>Switzerland</td>
<td>10,9</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>8,9</td>
</tr>
<tr>
<td>The UK</td>
<td>7,9</td>
</tr>
<tr>
<td>France</td>
<td>6,1</td>
</tr>
<tr>
<td>Italy</td>
<td>3,4</td>
</tr>
<tr>
<td>Other Countries</td>
<td>26,9</td>
</tr>
</tbody>
</table>

\(^1\)Own Calculations

The calculation of the average of ratios for the 1998-2004 period with respect to each country, expresses the weight of each country in the organic product exports of Turkey. As the table above shows, Germany is the leader country with an average of 35,9 %. Switzerland, the Netherlands, the UK, France and Italy follow Germany.

In addition, the average of 26,9 % belonging to other countries is also to be taken into consideration. Actually, the “other countries” define a large group of countries, including not only the USA, Australia, Canada, New Zealand, Japan, but also other European countries, such as Denmark, Norway, Spain, Sweden.

3.1.2. The Certification Firms in Turkey

The total number of control and certification bodies in Turkey is nine. There are three interesting points to notice about these firms. Firstly, as it is the prevalent case in all countries at the emerging stage of market development, nearly all of them, except for EKOTAR, ETKO and OR-SER, are branches of foreign, international control and certification bodies in Turkey.
Secondly, nearly all of these control and certification bodies in Turkey have to send the samples abroad for analysis, which is an additional factor doubling the costs of control and certification.

Finally, seven of these firms are located in Izmir because most of the organic products are exported from the port of Izmir. From this point of view, the collection of nearly all control and certification bodies in a specific place can be a disadvantage for farmers by increasing the costs of control and certification.  

<table>
<thead>
<tr>
<th>Name of Control and Certification Firm</th>
<th>Origin Of Firm</th>
<th>Location of Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMO GmbH</td>
<td>Switzerland</td>
<td>Izmir</td>
</tr>
<tr>
<td>EOCERT</td>
<td>France</td>
<td>Izmir</td>
</tr>
<tr>
<td>ETKO&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Turkey</td>
<td>Izmir</td>
</tr>
<tr>
<td>SKAL</td>
<td>Holland</td>
<td>Izmir</td>
</tr>
<tr>
<td>BCS</td>
<td>Germany</td>
<td>Izmir</td>
</tr>
<tr>
<td>EKOTAR&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Turkey</td>
<td>Mersin</td>
</tr>
<tr>
<td>ICEA</td>
<td>Italy</td>
<td>Izmir</td>
</tr>
<tr>
<td>CERES GmbH</td>
<td>Germany</td>
<td>Izmir</td>
</tr>
<tr>
<td>OR-SER</td>
<td>Turkey</td>
<td>Ankara</td>
</tr>
</tbody>
</table>

<sup>1</sup>ETKO works together with a German partner, Lacon.
<sup>2</sup>EKOTAR works together with their Italian partner, Bioagricert.

Source: The Turkish Ministry of Agriculture and Rural Affairs

54 The costs of certification depend on a number of factors. These are the width of land, the number of farmers in a project, the distance between the location of land and the city of control and certification body, the controls of office and enterprise, the accommodation expenses of controller and the costs of analysis.

<sup>3</sup>For instance, if the project is in Bursa and location of the control and certification body is Izmir, the calculations are as follows:

Going to Bursa and returning from there, lasts eight hours. The interviews with farmers last two hours and the control of office and whole enterprise lasts four hours. The sum is fourteen hours. This number must be multiplied at least by two because in general, there are two controls. Altogether, there are twenty eight hours. Twenty eight is divided into eight because a working day is eight hours long. The result, three and a half days are multiplied by the daily cost of controls.

If the controller stays in Bursa, the accommodation expenses must be added to the final result. In addition, the costs of analysis are added also added to the result.” This definition is taken from Husamettin Isikli who is a controller in SKAL, a Dutch control and certification body in Izmir.
3.1.3. The Institutional Support in Turkey

The only institutional support that exists in Turkey is the discount on loans that will be used by the organic producers. This practice came into force in 2004. According to this support, all the entrepreneurs doing the production of organic agricultural products and inputs, collecting them, packaging them, making their trade or who will do these activities can use enterprise and investment loans with a 60% discount from the Turkish Agricultural Bank.\(^{55}\)

The basic principle to benefit from this support is to be registered by a control and certification body in Turkey.

3.1.4. The Data Collection in Turkey

Without doubt, the data collection for organic agriculture is crucial and necessary, especially to follow the development of organic market and make the right policies to solve the problems of the organic sector.

In Turkey, the producer and processor level data are collected by the control and certification bodies. The producer level data mainly consists of the number of producers, the type of crops which are grown, the area, the quantities and the geographical distribution of producers and products.\(^{56}\)

The processor level data includes the types and quantities of processed organic foods, like frozen, canned, concentrated, etc.

Besides, there is the data of organic trade. The data belonging to the exports of organic products is kept by the Aegean Exporters’ Union.


However, the data of consumers and retailers, which is a good indicator of the domestic market development, are not collected.

Therefore, there are efforts to establish a database and the data of consumers and retailers will be collected by organic agriculture units, which will be established in the provincial agriculture directorates of the Turkish Ministry of Agriculture and Rural Affairs.\textsuperscript{57}

\textsuperscript{57} ibid.
3.2. Turkish Organic Agriculture from the Economic Perspective

Table 3.5
The Development of Organic Agriculture in Turkey

<table>
<thead>
<tr>
<th>Year</th>
<th>The Total Organic Land Area (in hectares)</th>
<th>The Number of Organic Producers</th>
<th>Number of Organic Product Varieties(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1037</td>
<td>313</td>
<td>8</td>
</tr>
<tr>
<td>1991</td>
<td>3000(^2)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1992</td>
<td>6077</td>
<td>1780</td>
<td>23</td>
</tr>
<tr>
<td>1993</td>
<td>5216(^2)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1994</td>
<td>5196</td>
<td>1600</td>
<td>20</td>
</tr>
<tr>
<td>1996</td>
<td>15.250</td>
<td>4035</td>
<td>37</td>
</tr>
<tr>
<td>1997</td>
<td>15.906</td>
<td>7417</td>
<td>53</td>
</tr>
<tr>
<td>1998</td>
<td>24.042</td>
<td>8199</td>
<td>67</td>
</tr>
<tr>
<td>1999</td>
<td>46.523</td>
<td>12.275</td>
<td>92</td>
</tr>
<tr>
<td>2000</td>
<td>59.649</td>
<td>13.187</td>
<td>95</td>
</tr>
<tr>
<td>2001</td>
<td>111.324</td>
<td>15.795</td>
<td>124</td>
</tr>
<tr>
<td>2002</td>
<td>89.827</td>
<td>12.428(^4)</td>
<td>n.d</td>
</tr>
<tr>
<td>2003</td>
<td>103.190</td>
<td>13.044(^4)</td>
<td>n.d</td>
</tr>
<tr>
<td>2004</td>
<td>162.193</td>
<td>9314(^1)</td>
<td>n.d</td>
</tr>
</tbody>
</table>

\(^1\)The number of organic producers in 2002, 2003 and 2004 does not include organic livestock farmers.
\(^2\)These numbers are taken from www.organic.aber.ac.uk/statistics/euroarea03.htm
\(^3\)The numbers are taken from www.organic-europe.net, Turkey Country Report

Source: The data for 1990-2000 is taken from the Second Symposium on Organic Agriculture in Turkey (14-16 November, 2001) and the data between 2000-2004 is taken from the Turkish Ministry of Agriculture and Rural Affairs

Examing the table, the real boost in total organic land appeared after 1994. 1037 hectares of organic land in 1990 has reached 15.250 hectares in 1996. From this perspective, 1994 was a prominent year because the first regulation of organic farming was adopted this year by the Turkish Ministry of Agriculture and Rural Affairs.

Besides, the effects of this adoption were not only limited to total organic land. The numbers of both organic producers and product varieties started to increase. The period of 1990-2004 has been a period of growth in the variety of Turkish organic

Continuing with the number of Turkish organic farmers and comparing 13,044 organic farmers of Turkey with the number of organic farmers of EU 15 for 1998 and 2003 period, Turkey’s place would be between Germany with 16,476 organic farmers and France with 12,202 organic farmers. In other words, Turkey would be the fifth country among the EU 15 countries.

In addition, Turkey shows a similar increase in the number of organic producers between 1998 and 2003. Turkey’s 59% increase places Turkey inside the group of France, Germany, the Netherlands, Denmark and Belgium whose rates of increase are between 50 and 100%.

On the other hand, the time period of 1990 and 2003, was also a period of increase in the total land area dedicated to organic farming in the European Union.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Organic Land in 2003</th>
<th>The Total Utilisable Agricultural Area in 2003</th>
<th>The Proportion of Total Organic Land in the Total Utilisable Agricultural Area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>103,190</td>
<td>26,027,240</td>
<td>0,4</td>
</tr>
</tbody>
</table>

The Total Utilisable Agricultural Area defines the sum of cultivated field area, vegetable gardens, area of fruit and olive trees, vineyards and area reserved for tea plantation.

Source: The Total utilisable agriculture area is taken from the Statistical Yearbook of Turkey 2004, while the total organic land is taken from the Turkish Ministry of Agriculture and Rural Affairs.

Evaluating the total organic land with the total utilisable agricultural area together, the proportion of organic land inside the total utilisable agricultural area is a good indicator pointing out to the development of organic agriculture.
According to 2003 data, Turkey does organic production only on 0.4% of its total utilisable agricultural area. In comparison with the EU 15, this proportion is really small. Although Turkey’s 26,027,240 hectares of total utilisable agricultural area places Turkey to a place between France and Spain, which are the two EU 15 countries with the highest contribution to the total utilisable agricultural area, Turkey’s 0.4% share is even smaller than the 0.65% share of Ireland, the country having the smallest share of the EU 15 in 2003.

Table 3.7
The Allocation of Organic Land and Organic Producers among the Geographical Regions of Turkey in 2004

<table>
<thead>
<tr>
<th>Geographical Regions</th>
<th>Organic Land (in hectares)</th>
<th>Organic Producers</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Aegean</td>
<td>45,509</td>
<td>3849</td>
</tr>
<tr>
<td>The Black Sea</td>
<td>8294</td>
<td>1925</td>
</tr>
<tr>
<td>The Eastern Anatolia</td>
<td>5249</td>
<td>908</td>
</tr>
<tr>
<td>The Central Anatolia</td>
<td>5908</td>
<td>1501</td>
</tr>
<tr>
<td>The Marmara</td>
<td>2265</td>
<td>619</td>
</tr>
<tr>
<td>The Mediterranean</td>
<td>75,139</td>
<td>320</td>
</tr>
<tr>
<td>The South eastern Anatolia</td>
<td>19,830</td>
<td>192</td>
</tr>
</tbody>
</table>

*The ranking is made according to the alphabetical order.

Source: The Turkish Ministry of Agriculture and Rural Affairs

Going a little bit into the details of total organic land area and the organic producers, Table 3.7 displays their allocations among the seven geographical regions of Turkey in 2004.

Referring to the allocation of total organic land area, the Mediterranean region is the leader and it is followed by the Aegean. The smallest area of land dedicated to organic agriculture is in the Marmara region.

On the other hand, the allocation of Turkish organic producers is totally different. The Aegean is the region that has the highest number of organic producers.
The second place in this ranking belongs to the Black Sea region. It is the Eastern Anatolia that has the smallest number of organic producers in this group.

### Table 3.8
The Organic Production of Animal Products in Turkey between 2002 and 2004

<table>
<thead>
<tr>
<th>Products</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow Milk*</td>
<td>40</td>
<td>48</td>
<td>137.5</td>
</tr>
<tr>
<td>Veal*</td>
<td>8</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>Sheep Meat*</td>
<td>5</td>
<td>4</td>
<td>300</td>
</tr>
<tr>
<td>Goat Meat*</td>
<td>0</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Poultry Meat*</td>
<td>0</td>
<td>0.52</td>
<td>-</td>
</tr>
<tr>
<td>Eggs**</td>
<td>25,000</td>
<td>34,500</td>
<td>92,500</td>
</tr>
</tbody>
</table>

*Milk, veal, sheep, goat and poultry meat are all expressed in tonnes.

**Eggs are expressed in numbers.

Source: Turkish Ministry of Agriculture and Rural Affairs

Table 3.8 displays the volume of organic animal products in Turkey for the time period of 2002-2004.

As illustrated in the table, the production of organic animal products is examined in six categories which are cow milk, veal, sheep meat, goat meat, poultry meat and eggs. Beginning with the primary category, the increase in the production of organic milk is clearly seen. 40 tonnes of organic milk production in 2002 has reached 137.5 tonnes in 2004.

The situation for organic veal production in Turkey is not different. There was also a change in the volume of organic veal production which resulted in the increase of 8 tonnes in 2002 to 100 tonnes of organic veal in 2004.

In the meantime, the sheep meat, goat meat and eggs were other categories where increases were observed. Zero tonnes of organic meat production in 2002 have reached fifty tonnes in 2004, while 25,000 organic eggs in 2002 have become 92,500 eggs in 2004. In addition, the amount of organic sheep meat production also increased...
from 5 tonnes in 2002 to 300 tonnes in 2004 despite a small decrease which occurred in 2003.

The only decrease among all these categories appeared in poultry meat. 0.52 tonnes of organic poultry meat production in 2003 returned back to the non-production level in 2004.

To sum up, it can be stated that Turkey has been experiencing increasing production volumes of organic animal products since 2002. However, the volume of organic animal products in Turkey is still low in comparison with that of the EU.

3.2.1. The Characteristics of the Organic Market and the Main Obstacles to Consumption

One of the characteristics of organic markets is the types of consumers. It is possible to divide these consumers into two groups; “regular organic consumers” and “the occasional organic consumers”\(^{58}\).

“Regular organic consumers” buy organic products and do not care about the prices of organic products. There can be two reasons for this kind of purchasing behaviour. These consumers either are strongly committed to organic food and ideals of organic agriculture, or have high incomes that the high organic product prices do not have an effect on their buying attitude.\(^{59}\) Human health, environment and the use of pesticides in conventional agriculture are important topics of attention for the strongly committed organic consumers inside this group.

“Occasional organic consumers” do not have enough information about what organic production is. Therefore, they buy an organic product rarely or buy only a

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specific product or accidentally buy an organic product. In general, this group of consumers is not informed about the difference between “organic” and “natural”.

The organic markets are also characterised by the demand for organic products. The demand for organic products (organic food) can be expressed by the “law of demand.”

\[ Q_D = f(P, M, P_R, T) \]  

\( Q_D \) = the quantity demanded of organic food (kg)  
\( P \) = Price of organic food (unit of currency/ kg)  
\( M \) = Per Capita income (unit of currency/ year)  
\( P_R \) = Price of Related Goods (unit of currency/ kg)  
\( T \) = Tastes and Preferences of Consumers

This basic equation of demand summarizes that the quantity demanded of organic food is related to the price of organic food, per capita income, the price of related goods and tastes and preferences of consumers.

a) Price of Organic Food

According to law of demand, any increase in price will be reflected in the decreases of the quantity demanded, which is also the case for organic food.

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Price of Organic Food (unit of currency/ kg)

\[ Q_d = f(P) \]

\( Q_d \) = Organic Food Purchases (kg)

Source: Andrew, Barkley (2002). Organic Food Growth: Producer Profits and Corporate Farming

Figure 3.1. The Price and Demand Relationship for Organic Food

From this point of view it can be concluded that the retail price of organic food affects the amount of organic food sold. In other words, if the production, marketing or certification costs of organic food can be lowered, the retail prices of organic food will also go down. More consumers will be able to buy organic products at affordable prices.

b) Income

Another determinant of the quantity demanded of organic food is the income.

Food (kg)

\[ Q_d = f(M) \]

Annual income (unit of currency/ year)

Source: Andrew, Barkley (2002). Organic Food Growth: Producer Profits and Corporate Farming

Figure 3.2. The Income and Food Demand Relationship
Considering the demand for food, the increases in annual income will bring food purchases to the peak level. After this level, food purchases will go down as the annual income continues to rise.

However, the situation for organic food is totally different than conventional food. Since organic food is a “speciality food”\textsuperscript{62}, the increase in income makes consumers change their purchasing attitudes by spending more on organic food.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure3_3.png}
\caption{The Income and Demand Relationship for Organic Food}
\end{figure}

\textbf{c) Price of Related Goods}

The related goods are goods which can be used as substitutes of each other. In case of organic products, conventional products can be seen as substitutes, since they meet the same necessity.

\textsuperscript{62} “Speciality food is defined as a product differentiated from industrial or mass produced products by one or more of the following factors: raw material, process, know-how, availability and consumer perception.”


http://journalsonline.tandf.co.uk
Therefore, as long as the prices of organic products are higher than the prices of conventional ones, some consumers will not choose to buy organic products.

d) Tastes and Preferences of Consumers

The tastes and preferences differ among consumers. Consumers of organic products prefer them for a number of reasons, such as the non-application of pesticides, human health and positive effects on environment.

Therefore, the benefits of organic agriculture must be stressed to promote it and increase the sales of these products.

3.2.2. The Producer Types and Their Constraints

Before examining the constraints of organic producers, it is possible to divide farmers into specific groups. In a survey realized with the participation of sixty five farmers, five different farmer types were identified. These farmer types are “committed conventional”, “pragmatic conventional”, “environment-conscious but not organic”, “pragmatic organic” and “committed organic”.

The “committed conventional” farmers have never thought about the application of organic agriculture. This group of farmers does not believe in the health and environmental benefits of organic agriculture.

The “pragmatic conventional” group has a different point of view than the “committed conventional” farmers. These farmers think that the conversion to organic agriculture is possible, but also risky in terms of price and market development uncertainties and production constraints. Meanwhile, this group of farmers can convert to organic agriculture as soon as these problems are solved.

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http://www.springerlink.com
The “environment conscious but not organic” group apply “environmentally friendly” farming techniques but they are not organic producers.

The “pragmatic organic” farmers prefer organic agriculture with the motivation of “income security”. Health or environment issues are not the primary reasons for converting to organic agriculture. However, these farmers do not have the goal of “income maximisation” as the conventional farmers.

The final group “committed organic farmers” are deeply involved in organic agriculture. Organic agriculture is beyond a set of principles; but is a life style for this group of farmers.

This type of classification for organic farmers is crucial to be better able to understand their constraints and choose the necessary policy types which must be oriented towards each group.

Organic producers face a lot of difficulties worldwide. These difficulties range from economic and political constraints to social constraints.

a) Economic constraints

Economic constraints include marketing problems and several costs related to organic agriculture. Lack of organic markets is one of the major constraints of economic nature. When organic production is small and the consumers are not well informed about organic production, the organic producers have to market their organic products as conventional products.64

Another factor affecting organic producers’ decisions is the net farm returns. The net farm returns are calculated by subtracting the input costs from the gross returns. The retail prices of organic and conventional products, the total production and the economic support given by the government altogether are determinants of the gross returns.65

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Many consumers base their purchasing decisions on the comparison between the retail prices of conventional and organic products. The conventional agricultural production has negative effects on human health; environment, etc. which are not reflected in the prices of conventional products, making them sold for cheaper prices.

However, the organic production can be costly because organic farmers are not allowed to use agricultural chemicals. Therefore, the total yield can decrease. Moreover, the other costs of organic agriculture like transportation, distribution and storage increase the retail prices of organic products.

The lack of economic support for organic farmers is another problem. The organic producers must be supported especially during the conversion period by subsidies when the decline in quantity of yield and income is visible.

The ownership of the organic land can also pose problems in developing countries. If the organic farmer does not have a land but has rented it, the owner of the land may not allow the farmer to do organic agriculture. There is also a second possibility that the land owner withdraws the organic land from the farmer after years of serious improvement in the soil.

b) Political Constraints

The main political constraint is the agricultural policies of governments. If the agricultural policy only subsidizes conventional agriculture, conventional products will become cheaper leading to a greater price difference between organic and conventional products. Therefore, organic producers will be negatively affected.

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67 ibid.
70 ibid.
The lack of information sources is also a political problem. Since the level of research and advice on organic agriculture is generally insufficient, farmers have to educate themselves by communicating with other organic farmers and using their personal experiences, reading books and magazines or trying their own experiments.71

The bureaucracy and paperwork necessary to apply for certification or grants, also slows down the development and dissemination of organic agriculture.72

c) Social Constraints

The main social problem is the opinions of society about organic agriculture. When there is lack of support from the society, difficulties start to appear. In cases where most of the farmers deal with conventional agriculture and they are not informed about the benefits of organic agriculture and its methods, there can be serious opposition against organic farmers. The following are the statements of three different organic farmers:73

“Most of dad’s problems with organic agriculture is that if he admits it is good, he admits that what he has been doing is detrimental to someone’s health. Me and my dad have arguments all the time.”

“My cousin (who farms with me) didn’t want to do organic. I had to convince him.”

“It’s a small business. You have to wear a multitude of hats. Sometimes you are a marketer, sometimes a salesman, a weed puller, a producer, a bookkeeper.”


3.2.3. The Necessity of Research and Advice

Organic agriculture is a type of agriculture where research is the most crucial issue. As long as the basic principle is the non application of agricultural chemicals, the emphasis is always on the use of local resources which are resistant to pests, climate and soil conditions. Therefore, “direct technology transfer”\footnote{Els, Wynen & David, Vanzetti(2000). Research in Organic Agriculture: Assessment and Future Directions. December 22, 2004 http://www.elspl.com.au/Abstracts/abstract-g4.htm} can be impossible for organic agriculture.
Table 3.9
Research Areas to Enhance the Development of Organic Agriculture

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Research Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improve organic prices relative to conventional</strong></td>
<td><strong>Agronomic and Economic Research</strong></td>
</tr>
<tr>
<td>✓ Increase organic on-farm productivity</td>
<td>✓ Technical on-farm research</td>
</tr>
<tr>
<td>✓ Subsidise organic farming</td>
<td>✓ Effects on farm production, consumer prices and demand for product</td>
</tr>
<tr>
<td>✓ Increase environmental charges, payable mainly by conventional farming</td>
<td>✓ Quantify environmental costs and impacts of environmental charges on conventional prices</td>
</tr>
<tr>
<td>✓ Improve value of higher quality organic produce</td>
<td>✓ Market research and quality control</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Improve Marketing</th>
<th>Responsiveness of demand and supply of main products to price changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Quality control</td>
<td>✓ Improve marketing infrastructure and market productivity, especially product segregation, handling and distribution. This is largely a function of throughput.</td>
</tr>
<tr>
<td>✓ Transport</td>
<td></td>
</tr>
<tr>
<td>✓ Processing</td>
<td></td>
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<tr>
<td>✓ Insurance</td>
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<td>✓ Distribution</td>
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<table>
<thead>
<tr>
<th>Increase demand</th>
<th>Promotion and Demand Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Stimulate interest of consumers with information campaigns</td>
<td>✓ Effectiveness of promotion</td>
</tr>
<tr>
<td>✓ Government procurement</td>
<td>✓ Costs and Benefits to local, regional and national governments</td>
</tr>
<tr>
<td>✓ Encourage corporate purchases</td>
<td>✓ Costs and benefits to corporate bodies</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Policy Analysis</th>
<th>Economic, social, environmental and political impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Demonstrate need for change in policy</td>
<td></td>
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Source: Els Wynen & David Vanzetti, Research in Organic Agriculture: Assessment and Future Directions

Examining the table, the improvement of organic product prices relative to the prices of conventional products, the improvement in the marketing of organic products, the increase in demand and policy analysis are the objectives. Agronomic and economic research, responsiveness of demand and supply of products to price changes,
promotion and demand analysis and the impacts of an organic agriculture policy are the main research areas corresponding to these goals.

The improvement of organic product prices relative to the prices of conventional products is directly oriented towards the consumers of organic products. In most cases, organic products are sold for higher prices. This situation has a number of reasons.\footnote{Els, Wynen & David, Vanzetti(2000). Research in Organic Agriculture: Assessment and Future Directions. December 22, 2004 http://www.elspl.com.au/Abstracts/abstract-g4.htm}

Firstly, organic production is generally more costly especially when a conventional producer has been heavily applying agricultural chemicals but later decides to become an organic farmer. In this situation, the decrease in the total farm productivity is obvious during the conversion period. Secondly, the low amounts of organic production will result in higher costs of transport, insurance and distribution, not benefiting from the economies of scale. For these reasons, the impacts of organic agriculture subsidies and the effects of an environmental tax on conventional agriculture can be worked on to decrease the retail price difference between organic and conventional products.

Moreover, more research on the profitability of organic agriculture and the possible, profitable crop rotations is necessary to increase the total farm productivity.

The improvement of the marketing infrastructure of organic products is one of the research areas. Methods to decrease the costs of transport, processing, distribution and insurance must be examined under this heading.

The analysis of demand and promotion is another research area for increasing the demand of organic products. Promotion and information campaigns are vital to create awareness for organic products and to well inform the potential organic consumers.

The certain impacts of a policy for organic agriculture are also topics of research. Organic agriculture must have its own policy to stimulate it. This policy must be well informing the potential organic farmers along with other farmers who have not
thought about organic agriculture. In addition, this policy must always promote research for the technical side of organic agriculture.\textsuperscript{76}

Besides the position of research, advice is also of key importance in organic agriculture. Organic agriculture is always subject to “applied research” where the scientists, extension agents and farmers work together and apply new techniques. Even if the results from this kind of an application are technically or economically negative as it is sometimes possible, these results are published in books, journals, expressed in meetings and are communicated by the extension agents to organic farmers.\textsuperscript{77}

3.2.4. The Overview of Turkish Domestic Market of Organic Products

a. Methodology

Having summarised a general panorama of organic agriculture, all the theoretical explanations were supported and the situation of Turkish domestic organic market was examined by the use of qualitative research.

The qualitative research which is based on small, non-representative samples and non-statistical data analysis is an unstructured, exploratory research methodology to provide a further understanding of the underlying reasons of a situation.\textsuperscript{78}

Although the type of data collection in qualitative research is unstructured where the respondents are let to talk freely on a specific subject, this approach was quitted in

http://www.springerlink.com


this study. Instead, the respondents were implemented questionnaires to receive clear answers and to prevent the loss of time.

In addition, all the respondents were informed about the purpose of this study. A face to face interview which was formed by the probing of a single respondent was conducted with all the participants. Therefore, the depth interview type of direct approach was implemented in this study.

Moreover, the analysis of all the interviews, which gave illustrating information, was made by the use of a qualitative data analysis programme, namely Ethnograph Version 5.

b. Main Findings from the Situation of Turkish Domestic Organic Market

On the basis of information described above, two groups, one group which consists of the control and certification bodies in Turkey and another group which is composed of a small number of Turkish organic firms were selected as samples.

The research with control and certification bodies was conducted with seven firms, whose total number in Turkey is nine. The control and certification bodies were asked a total of nine questions, which were mainly designed to reveal the current situation in this sector.

Beginning with the first question, nearly all interviewed control and certification bodies mentioned that they were opened in the 1990s and especially by the 2000s. This is an interesting finding because this fact can be interpreted as an indicator expressing the stage of development of the Turkish domestic market.

The second question was about the origin of these firms. All the interviewed control and certification bodies, except for two of them, stated that they were the Turkish branches of foreign bodies as this is the general case for most of the countries
being at the emerging stage of organic market development. Even these two Turkish control and certification bodies are working with foreign partners.\textsuperscript{79}

The next question was asked to find out the regulations which are subject to controls. The controls are made according to the Turkish and EC regulations in the first place. Afterwards, there are controls made according to the USA and Japanese regulations. In the third place come the Canada regulations and they are followed by the Swiss and IFOAM regulations. This information is surely crucial because it gives an idea about the ranking of countries to which Turkey has been exporting its organic products.

The following question was about the costs of control and certification. The responses given to this question were different because the cost of a project depends on the size and inclusion of that project. However in general, the daily costs of controls are between 250 and 500 Euro. Besides, firms may also have a total, annual price between 1000 and 15000 Euro. In addition, there is also the cost of analysis which starts from 100 Euro.

When the control and certification bodies were asked the number of controls, they responded that there is at least one control. But in general, the number of controls varies between two to four and these are informed visits. However, in case of a suspicious situation, there are also on site visits without warnings.

The control and certification bodies were also asked if they could give advisory services to farmers. The responses to this question were “no” because it is strictly forbidden by law. The control and certification bodies can guide farmers with small problems, only when there is a necessity.

The next question was orientated to identify the level of information of Turkish organic farmers. Five of the control and certification defined their level as insufficient. Only one firm committed their level of information as “medium” and another firm expressed that farmers are more informed at the moment.

\textsuperscript{79} These Turkish control and certification bodies are ETKO and EKOTAR. ETKO has a German partner, while EKOTAR works with an Italian partner.
The complementary question following these answers was about the methods to increase the level of information of Turkish organic farmers. The necessity of education was the most stressed response. Moreover, the broadcastings on television and the distribution of small, illustrated brochures with simple explanations to organic farmers were proposed as two methods of education.

The final questions were about the problems met during the production and processing stages. The heavily mentioned producer problem is the contamination in an organic field. Contamination can be caused by the application of agricultural chemicals either in a neighbouring field, or in another part of the organic field by the farmer himself. Other production problems are the lack of support during the conversion period and the heavy regulation. The Turkish regulation was defined as “heavy” because the necessary conditions to start organic farming require a lot of bureaucracy.

From the perspective of processing problems, the lack of organic additives was emphasised the most because these additives must be imported and it has a serious effect on increasing the total costs. A secondary possible problem is the necessity of separate processing of organic and conventional products. Finally, the packaging of organic products can also make up a problem if the information over the package is incomplete.

The interviews with organic firms were conducted with a small group of eight firms. The interviewed firms were mainly chosen from the participant firms of the organic fair in Istanbul in March 2005. The majority of these firms were from Istanbul since Istanbul continues to be an important market of organic products. However, there were also firms from other regions of Turkey, with two firms from Izmir and one firm from Samsun.

The firms were required to answer a total of eighteen questions which were designed to put forward the development of the domestic organic market.

The first two questions were about the number and types of organic products which are produced and sold. The responses showed that the number of organic products marketed by most of these firms varies between twenty five and fifty, with this number rarely reaching to one thousand.
On the other hand, the responses to organic product types illustrated that the mostly produced Turkish organic products are dried fruits, snacks with pulses following them. However, the variety of Turkish organic production is not limited to the products mentioned above. These firms also produce dried vegetables, honey, organic tea and secondary organic products, such as pastries, olive oil, grape molasses, pasta, fruit concentrates, cheese and canned food like the tomato puree.

The following question went into the details of organic products by asking the processing of secondary products. Three firms mentioned that they did not produce and process secondary products, but buy them from other firms, while only two firms expressed that the secondary products were produced and processed by themselves. Besides, there were three firms which both produced and processed secondary products and also bought other secondary products from other firms.

Then firms were asked about their type of production and all of them stated that they had production with contract.

The following questions were about the trade of organic products. Firms were asked if they exported and imported them and also the product groups subject to export and import. Only four of eight firms responded that they exported. Two of them stated that they only exported, while the other two also imported. As stated by these firms, the organic export products of Turkey consist of dried fruits (figs, raisins, apricots), snacks, pistachio, walnut and olive oil.

Three of the remaining four firms which did not export, had no imports either. There was only one firm inside this group that did not export, but only imported organic products.

To sum up, it can be said that only a small number of interviewed organic firms prefers to import organic products and the main reasons of import are not only to introduce unknown organic products into the domestic market, but also to provide a variety of organic products. Therefore, it is possible to conclude that imported organic products are not produced in Turkey. Organic chocolate, fruit bars, fruit compote, dried pineapple, rice milk and soymilk are all examples of them.
The next question was asked to find out the mostly preferred control and certification bodies in Turkey. Four organic firms committed that their control and certification was made by IMO. The replies of the remaining three firms were no different. The control and certification of one of them is made by ECOCERT, the other by SKAL with the third firm having certified by IMO and ECOCERT together. Only one firm stated that their certification was done by ETKO.

These replies were not so interesting since foreign control and certification bodies make their choice towards the opening of new branches in countries at the emerging stage of organic market development.

Starting from the eighth question, the inclusion changes and the questions focus on the consumers, the main problems during production, sales and the opinions of organic firms.

The eighth question was about the characteristics of organic consumers and their main buying motives. Beginning the first part of this question, education was the mostly emphasised property. In general, the consumers of these products were defined as people who are university graduates or who are open to learning. Besides this characteristic, people whose ages are 40 or over and families with children or women with children were also among the organic consumers. In addition, having a certain level of income is also a property of organic consumers. However, the level of income was the least emphasised property.

Continuing with the second part of this question, the main buying motives of Turkish organic consumers were listed as health & food safety, taste, children and the non-inclusion of genetically modified organisms. Among all these buying motives health & food safety was the heavily mentioned reasons of organic product purchases.

The ninth question continues with Turkish organic consumers and examines their level of recognition of organic products. Three firms responded that there was an improvement in the level of recognition of organic products since 2004. However, the majority of Turkish organic firms, also including these three clarified that the level of recognition was still insufficient and it had to be increased.
Following these replies, firms were expected to propose methods for increasing this recognition. Broadcastings were mentioned the most. Five of eight firms mentioned them as a method. In particular, the broadcastings on television were expressed as a more effective method than the broadcastings on radio and in newspapers. A secondary proposed method was promotion campaigns and it was followed by teaching organic agriculture in schools. Giving lectures open to the public in a manner that the listeners can understand easily, promoting organic products at sale points and organizing organic fairs where the producers and consumers meet were all among proposed methods.

The following question tried to figure out the number of competitors of each firm. Five firms responded to this question by stating that their number of competitors varied between one and six. On the other hand, the replies of two firms were totally different as they both explained that other organic firms could only be their partners, but not their competitors.

It was interesting to hear this result because it brought a new point of view. As figured out by these firms, the problems could be solved easily with co-operation and all firms working in the organic sector would certainly benefit from a developed organic market.

The replies to this question were important since the number of competitors of a firm gives an idea about the stage of organic market development. Therefore, the small number of competitors of Turkish organic firms also indicates that the Turkish organic market is at emerging stage of market development.

The eleventh question was about the sales channels of organic products in Turkey. The most prevalent sales channel is conventional market chains and then own stores of interviewed firms. Besides, these products are also sold in organic food stores, in charcuteries and more importantly, through the internet.
The preference of market chains is an important choice because the easy-reach of organic products is a must of developing organic demand. What’s more, the use of internet as a sales channel can also contribute to the development of organic demand.

The twelfth and thirteenth questions were prepared to reveal the problems which occur during the production and sales of organic products.

Beginning the production problems, the most common problem is the lack of financial support in Turkey for the producers and exporters because the costs of organic production are high. Decreases in productivity when beginning organic agriculture, other problems that appear as an outcome of the non-use of pesticides, the lack of necessary inputs to be used against pests, the current law and regulation of organic agriculture and the small number of organic producers are all mentioned by the interviewed firms.

The current regulation and the law of organic agriculture establish the basic principles of the enforcement of organic agricultural activities and they draw the legal framework.

The law of organic agriculture in Turkey came into force on December 3rd, 2004. After this date, the regulation of organic agriculture had to be revised and the final regulation came into force on June 10th, 2005. The regulation of organic agriculture is certainly important because all organic agriculture activities are organized according to it. However, the current regulation also sustains too much bureaucracy inside, such as the necessity to indicate the documents showing the ownership or the right of use of the land and the necessity to present the title deed or the area plot if there is not a cadastral process in that area.

In addition to the regulation, the law of organic agriculture is also a source of constraint. The law which is designed especially for the control and certification bodies

in Turkey holds them responsible for the application of organic agriculture. In other words, the control and certification bodies will be penalized in case of a problem.  

In fact, this point of view is not correct because the responsibility of organic agriculture applications always belongs to the entrepreneurs. In this case, any entrepreneur with ulterior motives may cause the control and certification body to be penalized easily and such a situation may lead to a decrease in the quality of inspections.

Moreover, the small number of organic producers is another serious constraint. When organic production is small, collection costs are high and they are reflected as “high prices” to organic products. Furthermore, market chains tend to buy greater quantities and therefore, small amount of organic production can prevent the development of domestic organic market.

In connection with the production problems, the biggest sale problems are the insufficient recognition of organic products and their high prices. As mentioned by one of the organic firms, most of the Turkish organic consumers do no know what organic products are. As a result, they think that natural products are always superior to organic products and they tend to prefer natural products. Besides, many Turkish consumers have a “complexity of concept” between the term organic and ecological. They unfortunately think that organic and ecological terms refer to two separate concepts.

In addition to all these, the uninformed sales people are another problem in Turkey.

The following question of number 14 was prepared to reveal the consumer price premiums in Turkey. The definition consumer price premiums refer to the “additional cost of the organic prices as a percentage of the conventional price.”

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82 Personal communication with Aynisa Yorgancı from Taris  
From this point of view, the Turkish consumer price premiums vary between 10 to 100%. However, it is possible to mention the existence of two sub-groups of price intervals. These are 15-25% and 40-70%.

The consumer price premiums in organic products are certainly important since they affect the purchasing decisions of consumers. Consumers seriously lacking recognition of the term “organic” can easily prefer conventional products because these products are seen as “substitutes” which are sold for lower prices.

For this reason, the consumer price premiums of organic products should always be between 10-25% since the consumer price premiums exceeding 25% can easily lead to a passage to conventional products.\(^8^5\)

Continuing with question 15, firms stated their opinions about the state support for organic agriculture. All the interviewed firms admitted that the financial support in Turkey was insufficient. They expressed that the organic producers must be supported especially during the conversion period when there are yield decreases and the state can financially support organic producers by giving certification and advisory credits.

In addition to the organic producers, the Turkish organic exporters also need to be financially supported because the costs of planning a project, control and certification and sending final products by cargo are all the burdens carried by Turkish exporting firms.

Furthermore, the promotion of organic products and the development of their sales channels are also a necessity that entails the financial support of state.

The aims of questions 16 and 17 are to discover if Turkish organic firms are members of any producer, processor or trade unions and they are officially represented at the state level.

The responses put forward the fact that only the exporting organic firms inside the interviewed firms are registered in the Aegean Exporters’ Union. In addition, one firm is a member of ETO and two firms are members of ORGUDER.

ETO is the abbreviation of the Association of Organic Agriculture Organisation. Having been established in 1992, ETO is an umbrella organisation whose members are the producers, consumers, exporters, traders, researchers and the technical staff working in organic agriculture. The promotion of organic agriculture, giving assistance to the vocational development of people and firms working in the organic sector and helping to solve the problems that occur during the production, processing and marketing stages of organic agriculture are all among the main targets of this association.86

As it is clear, ETO is a comprehensive association aiming to fulfil the responsibility of developing organic agriculture in Turkey with members who come from various sections of the society. Besides, ETO is represented at the state level.

On the other hand, there is another single association which represents the organic producers and industrialists in Turkey. The name of this association is ORGUDER, the Association of Organic Product Producers and Industrialists. The main targets of ORGUDER can be summarised as: determining the sectoral problems and working to get them solved, collecting economical, technical and statistical information to form an organic information data bank, determining the necessary precautions for the development of organic product industry and following their applications, representing Turkey in the international organic agriculture unions and contributing to the promotion of organic agriculture in Turkey.87

However, ORGUDER was established in March 2004 and they only have a limited number of members.

Therefore, none of the interviewed firms, except for three, are represented at the state level.

The final question focused on the ideas of organic firms about the future of domestic organic market in Turkey. Seven of the interviewed firms explained they were expecting a more developed domestic market which includes a greater variety of organic products at affordable prices with consumers who are really conscious of

86 Ekolojik Tarım Organizasyonu Derneği. December 22, 2005
http://www.eto.org.tr
87 Organik Urun Ureticileri ve Sanayicileri Derneği. December 22, 2005
http://www.orguder.org.tr
organic products. There was only one firm which expressed negative ideas on the development of domestic market because of the constraints in the current regulation and law of organic agriculture.

In the meantime, the participant firms contributed to this question by also specifying a time period for the development of domestic organic market. According to many of them, such a development in Turkey may take at least five and at most ten years to occur.
IV. CONCLUSION and SUGGESTIONS

CONCLUSION

Despite the fact that Turkey has a high potential in organic agriculture in terms of high agricultural production capacity, great utilisable agricultural area, its favourable climate which facilitates the cultivation of a variety of crops and the soils which are not polluted by the use of agricultural chemicals, Turkey is unable to benefit from this potential. The total organic agricultural production of Turkey is low and the Turkish domestic organic market is at the emerging stage of market development.

On the other hand, the situation in the EU is completely diverse. Although the level of progress in both organic agriculture and the domestic organic market varies among the member states, it can be stated that many of the EU member states have a further developed organic agriculture and domestic organic market. However, this situation is not a coincidence, but rather an accumulated result of the official interest shown to organic agriculture.

From this perspective, it will not be wrong to mention that Turkey has serious lessons to take from the EU. First of all, Turkey must eliminate the problem of export-based organic agricultural production. Due to the fact that foreign demand always initiates organic agriculture in developing countries and Turkey is one of them, the organic agricultural production in Turkey began with the only aim of exports. However, this type of organic agricultural production is based on the shaping of all organic products and their quantities totally according to foreign demand. Therefore,

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this type of organic production is not only unsustainable, but also seriously prevents the development of domestic organic market. For this purpose, Turkey should convert the type of organic agricultural production from export based to domestic market based.

Moreover, the Turkish state should fulfil the responsibility of intensively supporting organic agriculture, having regard to the emerging stage of domestic organic market in Turkey. However, this support should cover not only the financial side, but also the advice, research and knowledge side. In addition, the state must take all the necessary measures to stimulate both the supply and demand sides of Turkish organic agriculture at the same time.

SUGGESTIONS

Products

Regarding the fact that the preferences of consumers are effective on the further development of a domestic organic market, it will be correct to take the purchasing habits of Turkish consumers into account when planning the domestic organic production.

Since the majority of ordinary Turkish consumers prefer to buy fresh vegetables and fruit, the priority of domestic organic production in Turkey should be given to fresh vegetables and fruit.


Prices

Price is another determinant which seriously affects the sales of organic products. For this purpose, the price differences between the conventional and organic products should not be high.

However in Turkey, most of the organic products are sold with high retail prices due to a number of reasons such as, the expensive costs of controls & certification, the low volume of organic production and the lack of necessary organic inputs and additives.

With respect to the first reason, the necessity of sending the samples of analysis abroad and the uneven geographical distribution of the control and certification bodies are the two important factors which increase the costs of controls and certification. Dealing with the former factor, TURKAK must sign the “Mutual Recognition Agreement”\(^90\) and remove this necessity since the responsibility of the accreditation of the organic laboratories in Turkey belongs to it. After this, the samples will be analysed in Turkey and a decrease in the costs of controls will be possible.

Continuing with the latter factor, Turkey should provide a balanced geographical distribution of the control & certification bodies, having regard to the fact that the location of a control and certification body is effective on increasing the total costs of controls and seven of the nine control & certification bodies in Turkey are all gathered in the same region. Therefore, the Turkish state should either permit the opening of new control and certification bodies only in regions without such bodies or encourage the existing control and certification bodies to open branches in regions where such bodies do not exist.

Furthermore, Turkey should increase the total amount of its organic production because any increase in the volume of organic production will contribute to the development of domestic organic market by bringing down the costs of transportation,

\(^{90}\) Personal Communication with Nurper Mortaş from OR-SER
processing & distribution, decreasing the high consumer price premiums in Turkey and supplying market chains with regular and large quantities of organic products.

Finally, Turkey must also find a solution to organic inputs and additives whose imports increase the costs of production and processing to a great extent.

**Distribution**

The sales channels play an important role in the development of a domestic organic market because they can directly affect the demand for organic products. From this point of view, the prevalence of available sales channels is another determinant of increasing the sales of organic products.

Regarding Turkey, organic products are generally marketed through the conventional market chains and the own stores of the organic producer firms. However, both of these sales channels are limited in number and this situation prevents many Turkish consumers from reaching organic products. For this purpose, the sales channels of organic products in Turkey must be further developed.

In this respect, alternative sales channels, such as the organic producer cooperatives and the organic farming networks \(^{91}\) should be established in Turkey. While the former will provide organic farmers with the opportunity of marketing all their production directly to a wide range of consumers, the latter will also provide the research and exchange of information among the member organic farmers.

Furthermore, the weekly markets can also be evaluated as another sales channel in Turkey since most of the Turkish consumers have the habit of food shopping from the weekly markets. \(^{92}\)

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Promotion

It is fact that promotion is a leading factor in the creation of demand towards organic products and therefore, must be utilised intensively, especially in countries where the domestic organic markets are at the emerging or growth stages.

Having regard to Turkey, the domestic organic market is yet at the emerging stage and the recognition of organic products is still insufficient. There are many Turkish consumers who tend to prefer natural products instead of organic just because they are uninformed about the characteristics of organic products. In this respect, there is certainly need to create awareness for organic products in Turkey and the best method of achieving it, is the launch of a nation-wide campaign especially through the media. However, such a campaign must be initiated by the Turkish state and must also include schools.

Moreover, the Turkish associations of organic agriculture should also participate in the promotion of organic products. For instance, these associations can set up special units to inform the potential consumers about organic agriculture through the telephone and internet, by answering all their questions. On the other hand, it should always be remembered to clearly underline the differences between the terms “organic” and “natural” in all types of promotions, whether done by the state or by the associations.

In the meantime, the target mass of such a promotion and their purchasing reasons should also be taken into account. Respecting the fact that the Turkish consumers of organic products are the middle-aged people and the families with small children whose main purchasing motives are health & food safety, taste and children, these people must be at the centre of all promotions and the increase in the sales of organic products must be realized by the emphasis of these motives.

The Agricultural Policy

The agricultural policy is always a good indicator pointing out the level of official recognition for organic agriculture by a state.
In this respect, the Turkish agricultural policy is unfavourable to fully develop organic agriculture. The financial aid paid for organic agriculture which is a crucial component of the agricultural policy is totally insufficient in Turkey since the only financial support is the 60% discount on loans and only the registered organic farmers can benefit from it.

Considering the fact that the financial aid given to organic agriculture is a serious factor affecting the number of farms which convert to organic agriculture or continue to farm organically, the Turkish state must financially support the organic farmers. In this connection, the Turkish state can provide the converting and certified organic farms with financial support, give financial support for the advice in organic agriculture and levy high taxes\(^{93}\) on the use of synthetic pesticides & fertilizers in conventional agriculture and use this revenue to further develop and disseminate the organic agriculture in Turkey.

Moreover, the Turkish state should deal with organic agriculture under a special heading in the agricultural policy, as well as defining a national target like “X % of total utilisable agricultural area to be organic by the year Y”. In addition, the Turkish state should also decrease the heavy bureaucracy included in the Turkish regulation of organic agriculture.

**Data Collection**

The collection of statistics is crucial in the preparation of the right agricultural policy to support organic agriculture.

Despite this fact, the only statistics collected in Turkey by the state are limited to organic production, processing and exports and do not cover the data of consumers and retailers. As a result, it becomes really difficult to observe the development of the domestic organic market and bring a solution to the existing problems of this sector.

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For this purpose, the Turkish state must also collect and publish the official statistics of organic consumption & prices and establish a databank where all the necessary data to prepare the favourable organic agricultural policy will be kept, in the shortest time.

**Research and Advice**

Considering the fact that organic agriculture is an applied branch of science and is based on intensive research, the necessity of research and advice is better understood.

From the perspective of Turkey, the research is totally inadequate. There is certainly the need for more research on the profitability and accordance of organic agriculture in Turkey, along with a special budget and research programme totally reserved for it.

Besides, the establishment of research institutes where organic agriculture is the unique research area is another necessity of Turkey. Turkish organic agriculture must be taught and examined in these institutes, rather than being examined under the different divisions of universities’ agricultural faculties.

Today the agricultural faculties of some Turkish universities\(^94\) give organic agriculture lessons and there is only one school\(^95\) where university students can study organic agriculture as a profession. However, this school is a profession high school and therefore, not only the training period lasts for two years, but also the students are trained for other professions as well. As a consequence, the effect of this school remains limited. In this respect, the establishment of a “university of agricultural sciences”\(^96\) which will produce projects to examine organic agriculture along with other agricultural topics will be appropriate for Turkey, as in the Swedish example.

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\(^{94}\)Izmir, Ege Universitesi; Bursa, Uludag Universitesi; Ankara, Ankara Universitesi; Adana, Cukurova Universitesi; Samsun, Ondokuz Mayis Universitesi; Van, Yuzuncu Yil Universitesi, Edirne, Trakya Universitesi; Isparta, Suleyman Demirel Universitesi

\(^{95}\)Erzurum Ataturk Universitesi, Kelkit Aydin Dogan Meslek Yuksek Okulu

http://www.atauni.edu.tr/myo.htm

\(^{96}\)Inger, Kallender (2002). Sweden Country Report

http://www.organic-europe.net/country_reports/sweden/default.asp
On the other hand, the advice in organic agriculture is another lacking issue in Turkey. Although the advice is vital especially during the conversion period, the Turkish organic farmers cannot make use of it because there are not any state advisors to guide them. The Turkish organic farmers can only be helped by the provincial agricultural head offices in case of a necessity.97

In addition, the private agricultural advisors in Turkey share a similar situation. They probably exist but even the Turkish Ministry of Agriculture and Rural Affairs is uninformed about them.

Moreover, there are the control and certification bodies but they are all prohibited to give advice by the law. Due to all these reasons, only the Turkish organic farmers working with contract can receive advice because most of the organic producer firms in Turkey hire their own advisors.

As a result, the Turkish organic farmers who just begin farming organically but do not have a contract, are unfamiliar to organic production techniques and the lack of advice to guide these farmers brings out frequently met problems in Turkey. For instance, a Turkish organic producer who organically grows figs or apricots thinks that he will sell only these products as organic and can easily apply synthetic pesticides to other products which he grows in the same plot with the organic products.98

Therefore, the elimination of these problems will be possible when the Turkish state establishes a national advisory system for organic agriculture.

**Farmer Education**

Due to the fact that organic production is more costly and requires intensive knowledge about the production techniques, any kind of misapplications in organic agriculture cause organic products to be removed from the organic category and result in their sales as conventional products. In this regard, the education of organic farmers forms the basis of organic agriculture.

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97 Personal Communication with Nurper Mortaş from OR-SER
However, the level of knowledge of Turkish organic farmers is totally insufficient and must certainly be improved by the use of various educational methods. The preparation of special programmes and their broadcastings on television, the supply of organic farmers with different organic information resources, such as agricultural journals, books and magazines which give information about the results of organic agricultural practices, and the preparation of special courses by the Turkish associations of organic agriculture or the agricultural faculties of Turkish universities are all effective ways of educating Turkish organic farmers.

Furthermore, the establishment of organic demonstration farms and gardens where different organic agricultural practices are applied can be another useful method to educate Turkish organic farmers. For instance, the “Bahce Project” executed by Bugday in Istanbul serves as a good example. Being initiated in 2005, this project not only provides its participants with regular, fresh organic food, but also exemplifies the successful implementation of an organic demonstration garden where anyone interested in organic agriculture can visit and be informed about it.

Finally, Turkish organic farmers can also be educated by benefiting from the agricultural advisors or the experiences of other organic farmers. In this connection, a project such as “1000 Agricultural Engineers to 1000 Villages” can be implemented also for the Turkish organic agriculture.

Official Representation of the Organic Market Actors

The organic market actors who consist of consumers, producers, retailers, exporters, researches and the technical staff all have an important role in defining the

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100 The Association for Supporting Ecological Living
101 For further information, see “Bahce Project” http://www.bugday.org
102 This project was initiated in 2003. According to it, 1000 young agricultural engineers were employed by the state and sent to 1000 villages to give agricultural advice there.
problems of the organic sector and forcing the state to solve them. In this respect, the official representation of these actors is essential.

However in Turkey, the official representation of most of these actors is either at a low level or does not even exist, leading to a situation where many problems remain unsolved. Therefore, the Turkish organic market actors must increasingly and officially come together to form pressure groups and insist on the elimination of their constraints.
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INFORMANTS

Aslı Batı Cevik, CERES GmbH
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Nurper Mortas, OR-SER
Okkes Sen, ETKO
Ozenc Anar, IMO GmbH
Ozlem Bagırgan, SKAL International
Ozlem Demirici, ECOLIFE
Sabri Mengen, ECOCERT
Sevil Atlı, ORGUDER
Sevilay Isık, ISIK TARIM
Victor Ananias, BUGDAY; Association for Supporting Ecological Living
Yavuz Balmuk, EKOSAM
Questionnaire for the Turkish Organic Firms

1- Which organic product groups do you produce?
2- How many products do you have? How many organic products are there inside them?
3- What is your way of organic production? (Signing contracts with organic producers or selling organic products that have been produced for you by other organic firms?)
4- Are there processed and secondary products inside organic products? (For example, tomato paste is a secondary product, while a packaged product is a processed product) If the answer is yes, who makes the packaging of organic products? Who prepares the secondary products?
5- Do you export organic products? Which organic products do you export?
6- Do you import organic products? If the answer is yes, what are the reasons for importing them? Which products or product groups do you import?
7- Who does the certification of your products?
8- Can you give information about your consumer profile? What can be the reasons for these people to prefer organic products?
9- Do you think that the recognition of organic products by Turkish consumers is enough? If it is insufficient, what are the ways of increasing this recognition?
10- How many competitors do you have in the organic market?
11- Where are these organic products sold?
12- Do you have any problems during the production of organic products? If the answer is positive, what are these?
13- Are there any problems during the sales of these products?
14- How much are the consumer price premiums between your organic products and conventional ones?
15- Is the level of support for organic farming in Turkey is sufficient? If not, how can the government help organic producers and firms?
16- Are you a member of a producer, processor or organic farming trade group as an organic firm from the sector?
17-Are the producers, processors and traders in this sector represented in the government? (Can you express the problems that you have and have solutions found to your problems easily?)

18- In your point of view, how will be the future of domestic organic market in Turkey?

Questionnaire for the Control & Certification Bodies

1- When did your control and certification body start its activities in Turkey?

2- What is the origin of your control and certification body?

3- Which regulations are subject to your inspections?

4- What are the costs of analysis and inspections?

5- How many controls are there during a year?

6- Do you think that the level of information of Turkish organic farmers is sufficient? If the answer is no, how can this level be increased?

7- Do you give advisory services to Turkish organic farmers?

8- Are there any problems during the production of organic products? If there are, what are they?

9- Do you control the processing of organic products? Do you meet any problems during the processing stage?
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Table 1.2
Land Area under Organic Management in Per cent of Total Agricultural Area (By the End of 2003)

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Source: SOEL Survey 2005
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| Cameroon               | 0,09                   | Indonesia              | 0,09                   |
| Pakistan               | 0,08                   | Vietnam                | 0,08                   |
| Thailand               | 0,07                   | Zambia                 | 0,06                   |
| Honduras               | 0,06                   | China                  | 0,06                   |
| India                  | 0,05                   | South Africa           | 0,05                   |
| Fiji                   | 0,04                   | Guyana                 | 0,01                   |
| Philippines            | 0,03                   | Bulgaria               | 0,01                   |
| Malawi                 | 0,01                   |                       |                        |
### Table 1.3
The Distribution of Organic Farms Worldwide (By the End of 2003)

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| SUM                  | 558.449               |               |

Table 1.3 Continues
Table 1.4
The Allocation of Total Hectares of Organic Land among the EU 15 Countries during 1990-2003

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<th>Denmark</th>
<th>Finland</th>
<th>France</th>
<th>Germany</th>
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<th>Ireland</th>
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<td>(734,027)</td>
<td>(244,455)</td>
<td>28,514</td>
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</table>

Note: Numbers in bold show data supplied direct or published up to 1/7/2004 and numbers in parentheses are estimations.
*The data for the years 1998, 1999, 2000, 2002 and 2003 are taken from Eurostat, Statistics in Focus 31/2005
Source: Certified and Policy Supported Organic and In-Conversion Land in Europe
http://www. organic.aber.ac.uk/statistics/euroarea03.htm
Table 1.4 Continues

<table>
<thead>
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<th>Year</th>
<th>Italy</th>
<th>Luxembourg</th>
<th>Netherlands</th>
<th>Portugal</th>
<th>Spain</th>
<th>UK</th>
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Note: Numbers in bold show data supplied direct or published up to 1/7/2004 and numbers in parentheses are estimations.
*The data for the years 1998, 1999, 2000, 2002 and 2003 are taken from Eurostat, Statistics in Focus 31/2005
Table 1.5
The Allocation of Total Hectares of Organic Land among the New Members of EU during 1990-2003

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<th>Estonia</th>
<th>Hungary</th>
<th>Latvia</th>
<th>Lithuania</th>
<th>Malta</th>
<th>Poland</th>
<th>Slovakia</th>
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Note: Numbers in bold show data supplied direct or published up to 1/7/2004 while numbers in italics show estimations.

Source: Certified and Policy Supported Organic and In-Conversion Land in Europe
http://www.organic.aber.ac.uk/statistics/euroarea03.htm